

FINAL ENVIRONMENTAL ASSESSMENT REPORT (FEAR)

for

TRANSMISSION NETWORK

In

Gomati & South Tripura Districts Under “North Eastern Region Power System Improvement Project (NERPSIP) Tranche-1”, Tripura



GCI/V/PGCIL/TRIPURA/R3/FEAR/03

Prepared By



GREEN CIRCLE, INC.,

Integrated HSEQR Consulting Engineers, Scientists & Trainers

ISO 9001, 14001 & OHSAS 18001 Certified Organization

(Ministry of Environment & Forests, India Approved Environmental Laboratory)

For

TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL)

(A Government of Tripura Enterprise)

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FEAR III - Revision 3 – October 1, 2021

Prepared by	Mr. Bhupendra Singh Rajpurohit	Ms. Pooja Sharma
Signature		
Reviewed by	Mr. Pradeep Joshi, Group President & CEO	
Signature		
Approved by	Mr. Pradeep Joshi, Group President & CEO	
Signature		
Released by	Mr. Nachiket Joshi-Group CFO	
Signature		

DETAILS OF PROJECT TEAM

Sr. No.	Name	Description	Qualification	Relevant Experience
1.	Mr. Ram Raghav	Environment Expert	M. Sc. (Environment Science)	11+
2.	Mr. Anil Kumar Lakdawala	T&D Expert	B. Tech (Electrical Engineering)	50+
3.	Mr. Pradeep Joshi	Chief Field Officer	M. Sc. (Environment Science)	35+
4.	Mr. Mohit Sharma	Field Officer	M. Sc. (Environment Science)	2+
5.	Mr. Vishnu Vyshak	Field Officer	M. Sc. (Environment Science)	2+
6.	Mr. Umesh Kumar	Field Officer	M. Sc. (Environment Science)	6+

ABBREVIATIONS

ADC	Autonomous District Council
PAPs	Project Affected Persons
AP	Angle Point
ASI	Archaeological Survey of India
CBIS	Capacity Building & Institutional Strengthening
CEA	Central Electricity Authority
CPTD	Compensation Plan for Temporary Damages
CPIU	Central Project Implementation Unit
dB	Decibel
DC	District Collector
E&S	Environmental and Social
EHS	Environment, Health & Safety
EHV	Extra High Voltage
EMF	Electro Magnetic Field
ESMC	Environment & Social Management Cell
ESPPF	Environment and Social Policy & Procedures Framework
EMP	Environmental Management Plan
FCA,1980	Forest (Conservation) Act, 1980
FEAR	Final Environment Assessment Report
GCC	General Conditions of Contract
GCI	Green Circle Inc
GIS	Geographic Information System
GPS	Global Positioning System
GOI	Government of India
GoT	Government of Tripura
GRM	Grievances Redressal Mechanism
GRC	Grievance Redressal Committee
HFL	Highest Flood Level
IA	Implementing Agency
IBA	Important Bird Areas
IEAR	Initial Environmental Assessment Report
IP	Indigenous People
IUCN	International Union for Conservation of Nature
MoEF&CC	Ministry of Environment, Forest and Climate Change
NEEPCO	North Eastern Electric Power Corporation Limited
LOA	Letter of Award
NOC	No Objection Certificate
NER	North Eastern Region
NERPSIP	North Eastern Region Power System Improvement Project
NHPC	National Hydroelectric Power Corporation
O & M	Operation & Maintenance
OPs	Operational Policies
PCB	Poly Chlorinated Biphenyl
PCR	Physical Cultural Resources
PIU	Project Implementation Unit
POWERGRID	Power Grid Corporation of India Ltd.
PPEs	Personal Protective Equipment
PMU	Project Management Unit
PTCC	Power Telecom Co-ordination Committee

RoW	Right of Way
R & R	Rehabilitation and Resettlement
RRM	Random Rubble Masonry
SMF	Social Management Framework
S/S	Substation
SPCU	State Project Coordination Unit
T & D	Transmission & Distribution (T&D)
TL	Transmission Line
TSECL	Tripura State Electricity Corporation Limited
TT	Transmission Tower
WB	World Bank

WEIGHTS & MEASURES

GW	Giga Watt
Km	Kilometer
kV	Kilo Volt
kW	kiloWatt
MVA	Megavolt Ampere
MW	Megawatt
Sq.mm.	Square millimeter

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EXECUTIVE SUMMARY

North Eastern Region (NER) Power Supply Improvement Project (NERPSIP) is a World Bank (WB) funded project aimed at improving the impoverished power transmission and distribution (T&D) system in the North Eastern states (NES) of India, which is being implemented by Power Grid Corporation of India Ltd. (POWERGRID), the single transmission utility of the country as the implementing agency (IA). Although the present T&D system covers many areas of the State, it is inadequate in its reach and due to non-availability of redundant T&D system, breakdown of any transmission system element results in long term power shortages making the system highly unreliable.

The present Final Environment Assessment Report (FEAR) III is for the part of priority works of strengthening of T&D System under Tranche-1 of NERSIP in Gomati & South Tripura districts of Tripura State. FEAR III is associated with the construction of 5 nos. 132/33kV Transmission Lines (TLs), 4 nos. 132/33 kV transmission substations (S/S). FEAR is undertaken to verify the actual location details of the project elements, identify possible environmental and social issues, to report any effects on the biodiversity of the region / protected area (PA), identification of the project affected people (PAP) and to assess the compliance of the Initial Environmental Assessment Report (IEAR) / Environment Management Plan (EMP) prepared and submitted by the IA. The elements / scope of the FEAR II include:

Transmission Lines (TLs)

- | | |
|--|-------------|
| ➤ Udaipur – Bagafa 132 kV D/C line | - 32.56 km |
| ➤ Bagafa-Belonia 132 kV D/C line | - 12.911 km |
| ➤ Belonia-Sabroom 132 kV D/C line | - 38.815 km |
| ➤ Bagafa-Satchand 132 kV S/C on D/C line | - 29.636 km |
| ➤ Udaipur – Amarpur 132 kV D/C line | - 15.619 km |

Tripura, is located in the north eastern part of the country and shares international border with Bangladesh from three sides. The area of the State is 10,491 Sq.km which forms 0.32% of country's geographical area. The State lies between latitude 22°57' N and 24°33' N and longitude 91°10' and 92°20' E in NER physiographic zone. The recorded forest area of the State is 6,294 sq. km which constitutes 60% of its geographical area. Reserved forests (RF) constitute 66.33%, protected forests (PF) constitute 2% and unclassified forests (UCF) constitute 33.64%. The biological diversity of any geographical region is estimated at the level of ecosystem diversity, species diversity and genetic diversity. Tripura being a part of NER, belongs to one of the two “Hot Spot” of India amongst 18 identified in the World.

The terrain by and large consists of parallel hills and ridges running from the northwest to the southeast direction, with alternating narrow valleys. The range of hills rises from the plains of Sylhet in Bangladesh at the north and proceeds southwards until they join the hills of the Chittagong hill tracts in Bangladesh. The elevation of hills gradually increases in the east. The eastern range of the Jampui is situated at an elevation of 914 meters above MSL and the western range of the Baramura, Deotamura with its elevation of 244 meters above MSL is the lowest. Sedimentary rocks which range in age from Miocene to loosely consolidated sediments of recent age represent the geology of the state. The rocks are sandstone, siltstone and shale grading into clay. These rock types are repeated as layers, one above the other.

The terrain of the project districts is 40% to 60% hilly and sloppy through which the TLs are crossing. All the S/S are planned on plain land parcels. In case tower locations are on undulating terrain or on hill top and positioning of tower on is not possible, leg extension is being utilized so as to minimize/ avoid benching/ revetment and to provide great stability.

The proposed project activities include the detailed survey for finalizing the route alignment, and installation of TLs and construction of S/S (civil and electrical installation). Lattice poles are then being erected on designated places using normal excavation and foundations thereafter conductors are strung across these using manual/stringing machines. The construction of S/S is regular civil works for small buildings. The electrical installations consist of the transformers, breakers, capacitors etc. and other protection/controlling devices to ensure required power flow.

The land use along the RoW (27 m for 132 kV) of TLs comprises of agricultural land, private plantation and government land. The total length of the final TLs of the FEAR III is 129.541 km and total number of 530 towers are being/to be erected for all proposed 5 TLs. The length of TLs earlier in IEAR was 139.3 km. However, as a result the length is decreased, the environmental and social footprints have been reduced as envisaged in IEAR by avoiding the environmental sensitive areas like habitation, PA and Forest area.

According to legal status, the project districts is having 1200.38 ha forests having various types of flora and fauna. The final layout of TLs has been carefully selected from three given options. Final routes of TLs and sites for construction of new S/S don't involve any monuments of historical or cultural significance. The proposed final TLs and S/S are not passing through / planned in Protected Areas (PA) like National Parks (NP), Wildlife Sanctuaries (WLS), designated wildlife/elephant passage and biosphere reserves etc., as all such areas have been completely avoided through meticulous route selection. In spite of taking due care during route selection, involvement of some forest area could not be avoided completely. Thus, provisions of the Forest (Conservation) Act (FCA), 1980 are applicable. However, careful route selection has resulted into the great reduction in Forest Area earlier reported in IEAR i.e., from 145.88 Ha to 86 Ha. The proposed FEAR III, all the TLs involved Reserve Forest (RF)/Unclassed State Forest (UCF) as summarized below;

TL Name	Forest in Ha	MoEFCC Clearance Status
Udaipur - Bagafa 132 kV D/C line	26.77 RF	Stage-I & Stage-II (final) approval obtained on 09.04.18 & 06.06.19 respectively.
Bagafa – Belonia 132 kV D/C line	2.5118 UCF	Stage-I & Stage-II (final) approval obtained on 30.10.18. & 07.06.19 respectively.
Belonia –Sabroom 132 kV D/C line	25.5204 RF	Stage-I & Stage-II approval obtained on 28.06.18 & 05.08.20 respectively
Bagafa – Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line)	9.1503 RF	Stage-I & Stage-II (final) approval obtained on 12.10.18. and 24.08.20.
Udaipur - Amarapur 132 kV D/C line	22.0482 RF	Stage-I & Stage-II approval obtained on 10.04.18 & 29.08.19 respectively.

The area of land required for S/S is ranges from 1.64 to 3.7 Acres. In the instant case land required for S/S are already in possession with Tripura State Electricity Corporation Limited (TSECL) and hence no fresh land is needed to be acquired. Since no involuntary acquisition is

involved, issue related to acquisition of land including possible R&R is not envisaged. The infrastructure facilities required for the construction and maintenance of S/S like access road, water, transport facility is well available. Hence no new infrastructure demand is envisaged. The present project requires very less vehicular movement and that too restricted to construction period only. During site survey, it is observed that project execution is not resulted into large traffic volume in the area.

During the survey and site selection for TLs, it has been ensured that these are kept away from oil/gas pipelines and other sites with potential for creating explosions or fires. The equipment installed on TLs and S/S are static in nature and do not generate any fumes or waste materials. Apart from this, state of art safety instruments, fire safety equipment and firefighting design have been included in the design in the S/S on both the ends, so that, the line gets tripped within milliseconds in case of any fault. The lines proposed under this scheme don't involve any tower to be placed in river bed which could interfere with existing drainage patterns.

All the TLs are planned at suitable elevation to avoid any chances of impacts due to flood like situation. All the S/S subproject areas are located at such places where least chances of flooding are observed. However, adequate measures are taken into consideration from design stage to implement the flood, erosion protection measures like construction of retaining wall, boundary wall along with sewerage system. The S/S are designed and being constructed at suitable elevation from the ground / flood levels and proper storm water drainage system is being implemented. In S/S, all drainage channels along or inside S/S are being trained and connected to main or existing drainage to avoid any erosion due to uncontrolled flow of water. This helps to dispose of the storm water collected in the S/S premises, further creating recharge or percolation pits which helps to recharge the ground water table. Almost all S/S are provided with rain water recharge pits. All these mandatory requirements with detailed specifications with respect to equipment design and S/S drainage and sewage design has been included in tender document to avoid any incidence of land and water contamination.

While construction, utmost care was taken to prevent tree felling, mostly, trees were trimmed to carry out work as far as possible. However, in unavoidable situation, in case of trees cutting in forest area, compensatory afforestation on two times the area of degraded forest land is undertaken by State Forest department subsequently as per stipulated conditions recommended in Forest clearances obtained under FCA 1980. Tree cutting in non-forest areas are executed strictly under the provisions Electricity Act, 2003/ Indian Telegraph Act, 1885. TSECL pays compensation to affected land owners towards damages and/or utilization of their land for tower footing if any during implementation of transmission project as well as during operation and maintenance phase under this act. For the true value assessment of timber yielding trees, due consent of forest officials is taken and for fruit bearing trees help of Horticulture department is taken. As per existing law, land for tower & ROW is not acquired and ownership of land remains with the owner and agricultural activities are allowed to continue after construction is over.

The project has obtained required clearances from Railway Department, NHIDC, Tripura Industrial development corporation, Land Owner for Tower Footing.

During visit to site, it has been observed that excavated pits and all accident-prone areas are appropriately barricaded for safety. All safety measures are in place to avoid fire / explosion hazards. Excavated material from S/S sites are well stored on site and reutilized for levelling and backfilling following C&D Rules 2016 of GoI. Construction management practice has

helped in to reduce the soil erosion. No surplus excavated material dumping from S/S site to outside premises is envisaged. Tower footings involve very small-scale excavation which is reutilized for backfilling. Impact envisaged during the construction is limited to the boundaries of proposed S/S only. Construction and operation of S/S may raise ground Noise levels. However, measures like providing sound and vibration dampers and rectification of equipment are undertaken. Environmental quality for Noise and Water is being regularly monitored at S/S locations by construction contractor. Noise levels are observed well below the maximum allowable limit which is 90db for 8 hours in the working area. Also, the water quality is observed to be suitable for drinking purpose.

Necessary care is taken by the contractor for workers health and safety and issues relating to operational health and safety have also been adequately addressed. The labours are provided with PPE kits, safety gear and provisions for first-aid and arrangement for shifting of affected persons to nearby hospitals are also in place. Compensation for injury and death has been ensured through provisions in Safety Plan & Contract condition. Proper sanitation facilities and safe drinking water are being provided in the project locations. The site managers have been advised to ensure that there are no instances of open defecation.

The monitoring committee i.e., IA of this project is very vigilant. During the implementation phase, especially during construction phase, IA is regularly monitoring the implementation of EMP and OHS compliance with reference to the IEAR. The Capacity building and Institutional Strengthening program of the IA is held intermittently to enhance the skills of the project officials. Further, meetings between IA and TSECL are held on a regular basis to assess the work progress and difficulties encountered in respect of land / tree / crop compensation if any. It has been observed that concerns of public are addressed/informed regularly about project through public consultation process which started from project planning, continued in the construction period and will be continued in operation and maintenance also. As per record available, no written complaint or court case is registered against any of the sub projects. It has been observed from surveys, public meetings and discussion with PAP, that they are appreciating the efforts taken by both the government and funding agencies to improve power network of that area. Local people believe that this project will enhance their quality of life, as well as this project, will help them to get new income sources in near future like the engagement of skilled and semiskilled people in the T&D subprojects from the local areas.

Overall, the planning and layout of the project elements have been undertaken in a judicious manner so as to ensure minimum environmental impact. However, following suggestions may be considered to further improvement in the safeguard measures;

- ✓ E & S capacity development programs for officials of IA & Utility need to be organized more frequently for better understanding of project safeguards requirements during construction and O & M phase;
- ✓ IA needs to ensure strict compliance of the contract provisions/EMP by Contractor especially in respect of workers health and safety during the construction phase.
- ✓ Delay in payment of tree, crop & land compensation to affected persons have been observed in few cases. Further streamlining of compensation process and responsibility allocation need to be undertaken by IA/Utility to avoid delay in future cases.

Construction on sites of subprojects is under progress. Our observations from site inspections are concluded that the EMP is being implemented in true spirit in all active sites. Regular monitoring of work progress is being carried out. The FEAR provides insight on possible environmental & social issues and also describes management measures to minimize/mitigate it based on TSECL's Environmental and Social Policy & Procedures Framework (ESPPF). The present report describes the environmental issues/effects that have been encountered or may arise due to setting up this project in the state of Tripura and various mitigation measures are being taken care of by POWERGRID during construction and maintenance stages. However regular monitoring and compliance report are recommended to compare the EMP implementation progress periodically and shortcomings if any. This can be a part of the monthly progress report.

1. PROJECT DESCRIPTION

1.1 Background

India's North East Region (NER) stretches across the eastern foothills of the Himalayan Mountain range and is comprised of seven states including Assam, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, and Tripura. NER in India is endowed with rich energy resources but faces significant bottlenecks in electricity access and availability levels. The per capita power consumption in NER is one-third of the national average. No significant generation capacity has been added between 2004 and 2011 as a result of which inadequate power supply remains a critical constraint to sustainable and inclusive growth, and to scaling up private investment and economic competitiveness in the NER.

The power-starved NER, comprising Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura, is blessed with a huge hydro potential. The region also has abundant resource of coal, oil and gas for thermal power generation. According to the estimates of the North Eastern Electric Power Corporation (NEEPCO), the NER has the potential of about 58971 MW hydro power i.e., almost 40% of the country's total hydro potential; but out of this only less than 2% (1095MW) has so far been harnessed. As per the report status of hydroelectric power potential listed by Central Electricity Authority (CEA) out of the total capacity of 58971MW, only 4029 MW has been tapped, which amounts to less than 7%. The region has a reserve of 151.68 billion cubic feet natural gas, which is capable of generating 7500 MW for 10 years. The region is also blessed with 864.78 million tons of coal against 186 billion tons of reserves in the country. With this reserve in the NE Region, approximately 240 MW/day can be generated for a period of 100 years.

But, in spite of such huge potential, the region ranks lowest in the country in terms of power generation and per capita energy consumption mainly due to lack of proper planning, inhospitable climatic conditions, remote location and inaccessibility. However, with continual improvement of infrastructure and communication facilities, the NE stands to become the power house of India by utilizing its surplus power potential, especially in hydel sector. The region offers a large potential in renewable energy, which is also yet to be exploited. There is also an imbalance between hydel and thermal power, both in terms of generation and availability. The T&D sector are the weakest link of the electricity industry in the NE region. Huge T&D losses, estimated to be at over 40 %, lower tariffs as compared to costs of generation and transmission and mounting losses of the state electricity boards, are crippling the electricity sector of the region.

The road-map for development of power sector specifying the need for strengthening of overall Transmission, Sub-transmission system of NER and Sikkim was brought out in the "Pasighat Proclamation on Power" released during the first Sectoral Summit of North Eastern Council (NEC) at Pasighat in Arunachal Pradesh in January 2007. Pursuant to recommendations of Pasighat summit, a Sub-Group was constituted under the Chairmanship of Member (Power System), CEA on Transmission, Sub-transmission related issues in NER.

Recognizing that intrastate T&D systems in the NER states have remained very weak and that there is a critical need to improve the performance of these networks, the CEA developed a comprehensive scheme in December 2007 for the NER in consultation with POWERGRID and the concerned state governments. This scheme is intended to (a) augment the existing T&D infrastructure to improve the reliability of service delivery across all the NER states and (b)

build institutional capacity of the power utilities and departments in the NER. This scheme is part of the Government of India's (GoI) wider efforts to develop energy resources in the NER for electricity supply within the region, to strengthen transmission networks, expand and strengthen sub-transmission systems, and extend last mile electricity connectivity to household.

GoI with the financial assistance of the World Bank (WB) has planned a composite scheme viz. NERPSIP to create/augment proper intrastate infrastructure/network of T&D in the region. The scheme covers six NER States (Assam, Meghalaya, Manipur, Tripura, Nagaland & Mizoram) to create a robust power network by improving the intra-state T&D (33kV and above) network with required capacity building initiatives for effective utilization of assets. In 2016, the WB has approved a loan (IBRD 470 USD Million) to the GoI for NERPSIP on 50:50 (WB loan: GoI) basis except the component of capacity building for Rs. 89 crore, which GoI will bear entirely. The scheme is to be taken up under a new Central Sector Plan Scheme of Ministry of Power (MoP).

MoP, GoI has appointed POWERGRID as Implementing Agency (IA) to six NER States for the said project under Tranche-1 in close coordination with the respective State Governments / Utilities. However, the ownership of the assets is with the respective State Utilities/State Government which upon progressive commissioning are handed over to them for taking care of Operation and Maintenance (O&M) of assets. POWERGRID is also facilitating in building the institutional capacity of the state departments and utilities to continue managing the rehabilitated networks in an efficient manner. The state wise scope of works proposed under Tranche-1 is given below in **Table 1-1**.

Table 1-1: State Wise Scope of Work Proposed Under Tranche-1

State	Transmission/ Sub-station (132kV & above)			Distribution (33kV)		
	Line (km)	New S/s (No.)	Total MVA (New & Aug.)	Line (km)	New S/s (No.)	Total MVA (New & Aug.)
Assam	233	11	1644	479	16	240
Manipur	254	2	160	131	13	229.4
Meghalaya	225	4	940	263	11	135
Mizoram	143	3	125	5	1	6.3
Nagaland	193	5	245	60	10	200
Tripura	261	9	1306.5	1096	34	450.5
Total	1309	34	4420.5	2034	85	1261.2

The project has two components namely Component A: Priority Investments for Strengthening Intrastate Transmission, Sub-transmission, and Distribution Systems, and Component B: Technical Assistance for Capacity Building and Institutional Strengthening (CBIS) of Power Utilities and Departments of Participating States. The total project cost is **Rs. 5111.33 Crore** with financing from both GoI and WB on 50:50 basis. WB is providing financial support to the tune of US\$ 470 million (**Rs. 2511.165 Crore**) under the Loan No.-8631-IN which was signed on 28th November, 2016 and became effective from 20th February, 2017. The loan closing date is 31st March, 2023. The remaining financing including capacity building will be met through Govt. of India funding. Details of State wise funding is placed below in **Table 1.2**.

Table 1-2: State Wise Funding from World Bank Under Tranche-1

State	World Bank	Government of India		Total (Rs. in Cr.)
	Project Cost (Rs. in Cr.)	Project Cost (Rs. in Cr.)	Capacity Building (Rs. in Cr.)	
Assam	729.485	729.485	14.83	1473.803
Manipur	213.690	213.690	14.83	442.213
Meghalaya	381.050	381.050	14.83	776.933
Mizoram	150.965	150.965	14.83	316.763
Nagaland	357.290	357.290	14.83	729.413
Tripura	678.685	678.685	14.83	1372.203
Total	2511.165	2511.165	89.00	5111.33

1.2 Project Justification

The State of Tripura is spread over an area of about 10,492¹ km² with a population of more than 37 Lakhs. The State of Tripura is endowed with rich energy resources but faces significant bottlenecks in electricity access and availability levels. The present per capita energy consumption is of the order of 335 units (kWh) against the regional per capita consumption of about 258 units and national per capita consumption of about 779 units. The State meets its power requirement through about 164.5 MW of self- generation and about 105 MW of power allocation from various central sector generation projects of NHPC and NEEPCO. The present average peak demand is of the order of 250 MW. As most of the generation projects in the NER are hydro in nature, the State faces shortage of power during low-hydro generation condition.

Summary of subprojects to be implemented in the State in Tranche-1 under NERPSIP along with capacity addition is described below.

Presently, the State draws its share of power from central sector generating stations through following inter-state transmission system (ISTS):

- Agartala GPP – Agartala (Tripura) 132kV D/C
- Agartala GPP – Kumarghat (POWERGRID) 132 S/C
- Kumarghat (POWERGRID) – Aizwal (POWERGRID) 132kV S/C
- Kumarghat (POWERGRID) – Badarpur (POWERGRID) 132kV S/C
- Dharamanagar(Tripura) – Dullavcherra (Assam) 132kV S/C
- Pallatana (OTPC) – Silchar (POWERGRID) 400kV D/C
- Pallatana (OTPC) – Surjamaninagar (Tripura) 400kV D/C (initially operated at 132kV)

As per the 18th Electric Power Survey of CEA, the future demand of the State is expected to grow to about 340 MW by year 2016-17 and 472 MW by year 2021-22. This shall be met through various hydro and thermal projects coming up in the NER in near future, which are as follows:

- Pallatana GBPP : 726 MW
- Bongaigaon TPS : 750 MW
- Kameng HEP : 600 MW
- Lower Subansiri HEP : 2000 MW

The State has a share of about 316 MW from these future generation schemes. With this, the total share of the State from central sector generating stations shall be about 421 MW.

¹ tripura.gov.in

Following lines have been planned to transfer power from these future generation schemes to the state of Tripura:

- Surjamaninagar (Tripura) - Purba Kanchanbari (Tripura) 400kV D/C (to be initially operated at 132kV)
- Purba Kanchanbari (Tripura) – Silchar (POWERGRID) 400kV D/C (to be initially operated at 132kV)

The present intra-state transmission system of the State is quite old & weak and is unable to cater to the growing power requirements of the State. Although the present T&D system covers many areas of the State, it is inadequate in its reach and appropriate T&D system. Breakdown of any transmission system element results in long term power shortages making the system highly unreliable. Besides, some of the network elements have undergone long term outage due to break-down. Therefore, it has become essential to address the above situation through remedial measures in the T&D system. Accordingly, phase-wise strengthening of T&D system has been proposed.

The transmission schemes proposed under this report are priority schemes under Tranche-1 and are essential for improving the power supply situation in the State. Implementation of these schemes will improve quality, reliability, security and enhancement of the power supply in the State.

1.3 Benefit of the Project

The proposed T&D schemes not only improve overall power supply situation but also improve reliability, quality, security and enhancement of power supply in the State.

1.4 Project Highlights

Table 1-3: Details of project

Sr. No.	Particulars	Details
1	Project Name	NERSPIP – Tranche- I, Tripura
2	Location	Different parts of Tripura State
3	Beneficiary States	Tripura
4	Project Cost	Rs.1372 Cr.
5	Commissioning Schedule	2019

1.5 Project Scope and Present Study

In line with Environment and Social Policy & Procedures Framework (ESPPF) of TSECL, POWERGRID carried out comprehensive environment and social assessment of each subproject and prepared Initial Environmental Assessment Report (IEAR). These reports were subsequently disclosed for public information both on the State Utility, POWERGRID and WB website after obtaining approval on the reports from the WB.

As mandated in the ESPPF, a Final Environment Assessment Report (FEAR) for each subproject need to be prepared with an objective to assess the compliance of mitigation measures identified in IEAR including implementation of EMP provisions by IA/ Contractor. However, as per Project Agreement signed between POWERGRID and WB such study is required to be undertaken by Independent Agencies as per Term of Reference (ToR) agreed with WB. As a part of this development, POWERGRID appointed GREEN CIRCLE, INC as independent

consultant vide LOA Ref No.: NEGW/C&M/NERPSIP/18-19/700-14/LOA-51/468 dated 31st December 2018 to carry out FEAR study.

1.5.1 Project Scope Components

FEAR is undertaken to verify the actual location details of the project elements like 132/33 kV TLs and associated S/S in Gomati and South Tripura Districts of Tripura State covered under NERPSIP. The scope covered is identification and examination of deviation of environmental and social issues as addressed in IEAR, reporting of effects on the biodiversity of the region / protected area (PA), identification of the project affected people (PAP) and assessment of onsite compliance of the IEAR / Environment Management Plan (EMP) prepared and submitted by the IA. The study is carried out adhering to ESPPF of TSECL, Operation Policies of WB designated for Electric Power T&D projects. Refer **Table No. 1.4** for the project scope components.

Table 1-4: Project Scope Components

Sr. No.	Transmission Line	Substation
1	Udaipur - Bagafa 132 kV D/C line (32.56 Km)	Establishment 2 x 50 MVA, 132/33 kV new substation at Bagafa.
2	Bagafa - Belonia 132 kV D/C line (12.911Km)	Establishment 2 x 50 MVA, 132/33 kV new substation at Belonia.
3	Belonia -Sabroom 132 kV D/C line (38.815 Km)	Establishment of 2x31.5 MVA, 132/33 kV new substation at Sabroom.
4	Bagafa - Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line) (29.636 Km)	Establishment of 2x31.5 MVA, 132/33 kV new substation at Satchand.
5	Udaipur - Amarpur 132 kV D/C line (15.619 Km)	

The project activities include the survey for finalizing the route alignment and installation of TL and construction of S/S (civil and electrical installation). Lattice towers are then erected on designated places using normal excavation and foundations thereafter conductors are strung across these using manual/stringing machines. The construction of S/S is regular civil works for small buildings. The electrical installations consist of the transformers, breakers, capacitors etc. and other protection/controlling devices to ensure required power flow.

A power map showing the transmission grid of Tripura highlighting the above TLs and other new projects placed as **Figure 1-1 and Annexure 1**. Schematic map showing the various projects covered under the subject FEAR is placed in **Figure 1-2 and Annexure 2**.

POWER MAP OF TRIPURA

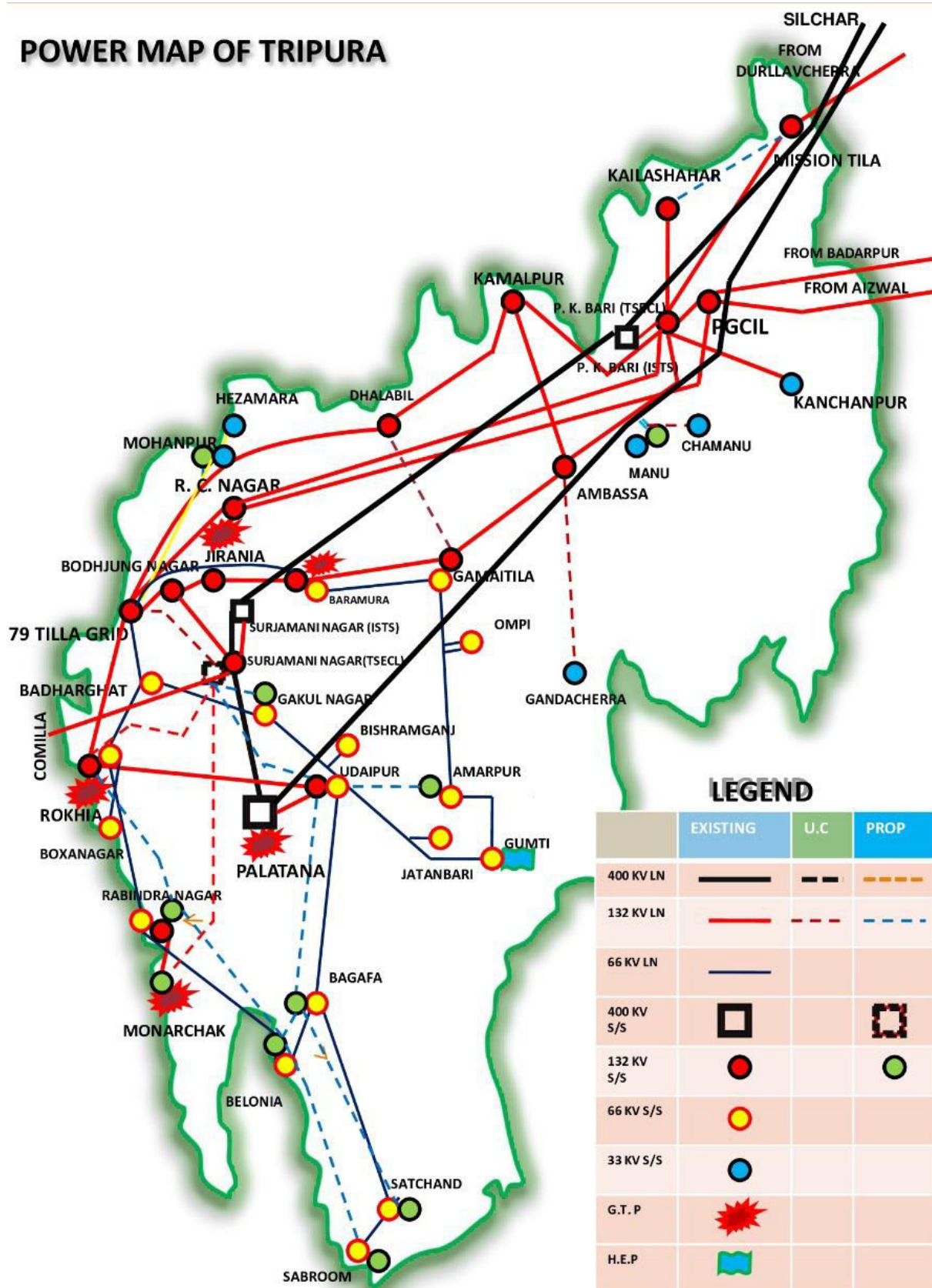


Figure 1-1: Power Map of Tripura

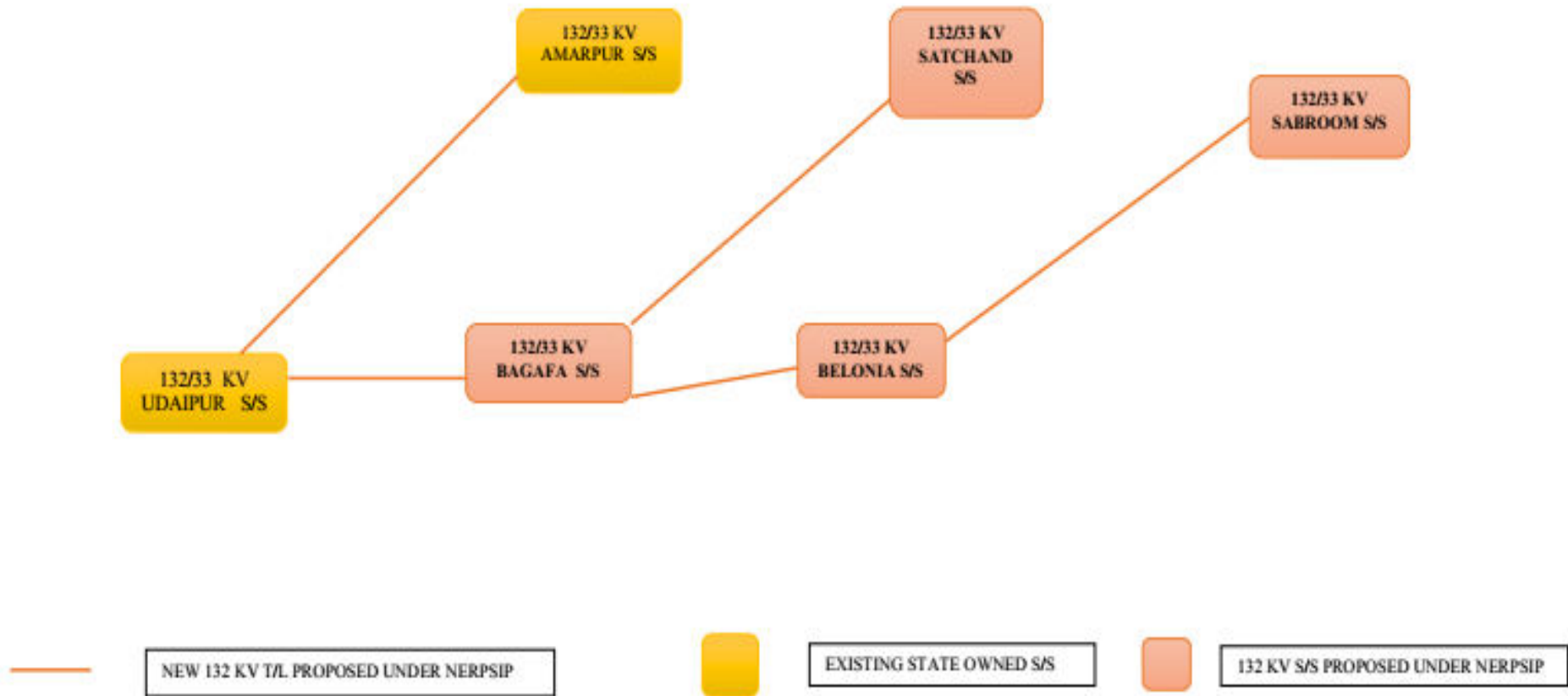


Figure 1-2: Schematic Map Showing Proposed T&D network in Gomati and South Tripura Districts under NERPSIP

1.6 Overall Project Progress

A brief status on project implementation progress of various T&D components till May 2021 is presented below;

Table 1-5: Status of the Project as on Date (May 2021)

Sr. No.	Name of the T&D Component
A. TRANSMISSION SCHEME: AGENCY - EMC / TEEMS	
1	Udaipur - Bagafa 132 kV D/C line
TL length: 32.56 Km. <ul style="list-style-type: none"> Forest proposal status: Stage-I & Stage-II (final) approval obtained on 9th April 2018 and 6th June 2019 respectively Total number of Tower foundation: 137 amongst which 99 are completed. Tower Erection: 16 are completed Stringing of Conductor, Stringing of OPGW: Yet to Commence Expected Completion Date: December 2021 	
2	Bagafa - Belonia 132 kV D/C line
TL length: 12.911 Km. <ul style="list-style-type: none"> Forest proposal status: Stage-I & Stage-II (final) approval obtained on 30th October 2018 and 7th June 2019 respectively Total number of Tower foundation: 50 amongst which 41 are completed. Tower Erection: 9 are completed Stringing of Conductor, Stringing of OPGW: Yet to Commence Expected Completion Date: December 2021 	
3	Belonia -Sabroom 132 kV D/C line
TL length: 38.815 Km. <ul style="list-style-type: none"> Forest proposal status: Stage-I approval obtained on 28th June 2018. Stage-II obtained on 5th August 2020 Total number of Tower foundation: 155 amongst which 24 are completed. Tower Erection: Yet to Commence Stringing of Conductor, Stringing of OPGW: Yet to Commence Expected Completion Date: December 2021 	
4	Bagafa-Satchand 132 kV S/C on D/C line (utilizing corridor of existing Bagafa-Satchand 66kV line)
TL length: 29.636 Km. <ul style="list-style-type: none"> Forest proposal status: Stage-I approval obtained on 12th October 2018. Stage-II obtained on 24th August 2020 Total number of Tower foundation: 119 amongst which 19 are completed. Tower Erection: Yet to Commence Stringing of Conductor, Stringing of OPGW: Yet to Commence Expected Completion Date: December 2021 	
5	Udaipur - Amarapur 132 kV D/C line
TL length: 15.619 Km. Forest Clearance: Stage-I & Stage-II approval obtained on 10 th April 2018 & 29 th August 2019 respectively. Line completed in March 2021	
B. SUBSTATIONS: AGENCY - M/s SPML Infra Limited	
1	Establishment 2 x 50 MVA, 132/33 kV new S/S at Bagafa.
<ul style="list-style-type: none"> Site levelling works completed 100% 102.5 RM boundary wall amongst 402 RM is completed. CRB construction is under progress. 94% completed. Transformer foundation work for 2 nos.: Work in progress Transformer erection: Not started yet Equipment foundation: 175 out of 175 is completed. Total 121 Equipment erection: 18 completed Tower / LM foundation: Total 32 out of 32 is completed Tower Structure Erection: 20 Nos. completed 	

Sr. No.	Name of the T&D Component
	<ul style="list-style-type: none"> 185 RM road construction WIP is yet to start and Drain Construction of 408 mt WIP. Cable trench of total 400 RM: 380 completed Testing and commissioning: Not started yet. Expected Completion of work on site: December 2021
2	Establishment of 2 x 50 MVA, 132/33 kV new S/S at Belonia
	<ul style="list-style-type: none"> Site levelling works completed 91% 101 /42.7 RM boundary wall / retaining wall: WIP CRB construction is under progress. 91% completed. Transformer foundation work for 2 nos.: Work in progress Transformer erection: Not started yet Equipment foundation: 125 out of 198 is completed. Total 137 Equipment erection: Yet to start Tower / LM foundation: Total 24 out of 32 is completed Tower Structure Erection: 4 Nos. completed 245 RM road construction WIP is yet to start and Drain Construction of 346 mt yet to start. Cable trench of total 390 RM: WIP Testing and commissioning: Not started yet. Expected Completion of work on site: December 2021
3	Establishment of 2x31.5 MVA, 132/33 kV new S/S at Sabroom
	<ul style="list-style-type: none"> Site levelling works completed 70% 45 /232 RM boundary wall / retaining wall: WIP CRB construction is under progress. 80% completed. Transformer foundation work for 2 Completed Transformer erection: 2 nos completed Equipment foundation: 129 out of 129 is completed. Total 123 Equipment erection: 68 completed Tower / LM foundation: Total 25/02 amongst which 18/01 completed Tower Structure Erection: 18 Nos. completed 132.350 RM road construction and Drain Construction of 378 mt yet to start. Cable trench of total 90/188 RM: WIP Testing and commissioning: Not started yet. Expected Completion of work on site: December 2021
4	Establishment of 2x31.5 MVA, 132/33 kV new substation at Satchand
	<ul style="list-style-type: none"> Site levelling works completed 100% 380 RM boundary wall / retaining wall: 305 completed CRB construction is under progress. 92% completed. Transformer foundation work for 4 Completed Transformer erection: Completed Equipment foundation: 106 out of 106 is completed. Total 106 Equipment erection: 77 completed Tower / LM foundation: Total 25/02 amongst which 24/02 completed Tower Structure Erection: 24/2 out of which 23/2 completed 104.5 RM road construction and Drain Construction of 380 mt yet to start. Cable trench of total 90/188 RM: WIP Testing and commissioning: Not started yet. Expected Completion of work on site: December 2021

1.7 Objective and Study Methodology adopted for FEAR study

The main objectives of the FEAR study are to assess the mitigative measures as suggested in IEAR and/or EMP are effectively implemented/ addressed at the ground during pre-construction & construction stages of project cycles. The study also helps in establishing the status of compliance of various mitigation/management measures provided in the IEAR/EMP and suggests gaps or weaknesses, if any.

To achieve this, GCI undertook a comprehensive biophysical, environmental, socioeconomic data gathering exercise along the TL routes and S/S location to assess / verify the actual site-specific measures implemented / being implemented by IA / Contractor in respect of measure/ actions listed in IEAR/EMP. The project methodology flow chart is given below:

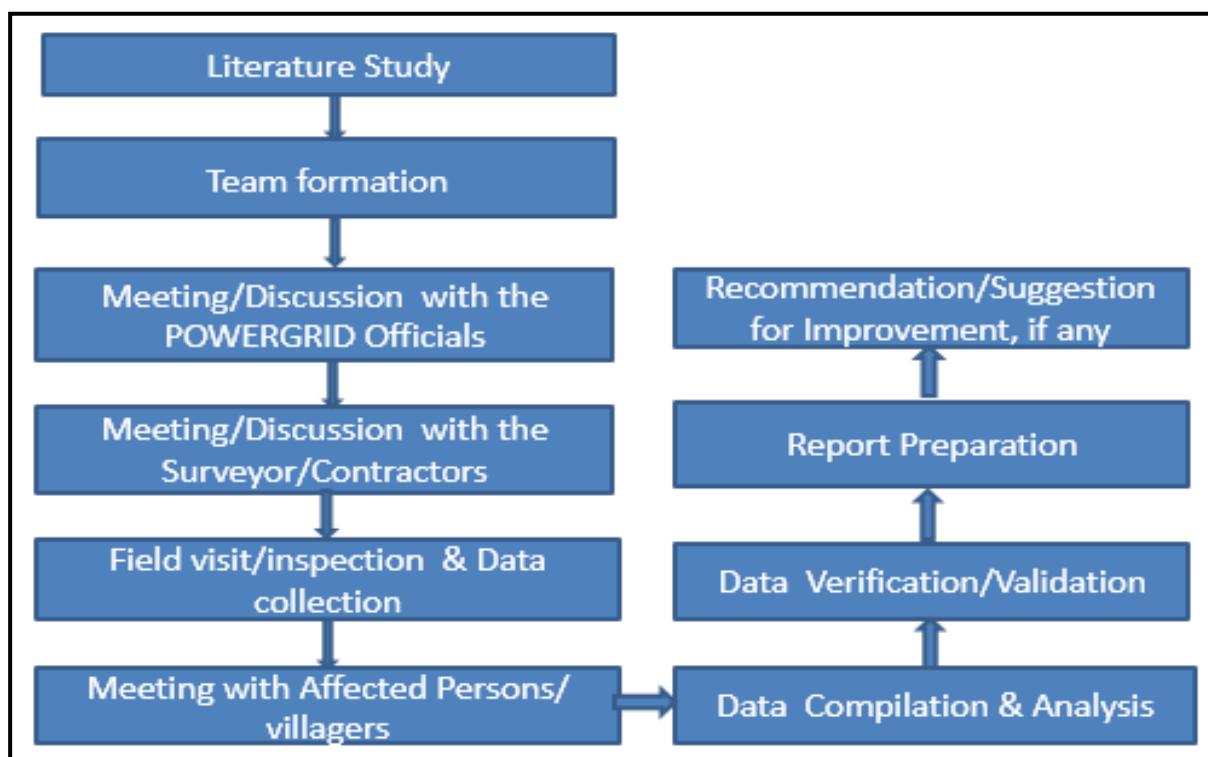


Figure 1-3: Study Methodology for Preparation of FEAR

The methodology for the proposed study is inclusive of but not limited to following steps:

- 1. Review of existing reports:** Review of existing reports and data prepared and generated by POWERGRID such as IEAR, ESPPF, Compensatory Plan for Temporary Damage (CPTD) etc. was undertaken and suitably incorporated in the present report.
- 2. Literature review / Analysis of Secondary Data:** Review of existing literature are undertaken for collection of secondary baseline data related to physiography, climatic conditions, demography, natural resources including forest/wildlife and socio-economic features of the study area. Sources and data so collected have been mentioned below:
 - Literature from various research papers was reviewed for study biodiversity of the project site
 - A Revised Survey of the Forest Types of India' by Champion and Seth (1968) was used for forest type classification of forests in the study area.
 - Data collected from published literature of Zoological Survey of India (ZSI), Forest Survey of India (FSI), Botanical Survey of India (BSI) and other research and government publications for floral and faunal diversity of the study area.
 - Soil map of the study area was prepared using 'Soils of Tripura for Optimizing Land Use, NBSS Publ.67b, 2000' published by National Bureau of Soil Survey & Land Use Planning (NBSS & LUP), Nagpur.
 - Conservation status of flora and fauna of the study area as per Indian Wildlife (Protection) Act (1972), threatened status according to IUCN Red List 2020.1, Red Data Book of Indian Plants by Botanical Survey of India, Kolkata.
 - Census of India 2011 for demography of the study area.

3. **Collection & collation of primary data:** The data was collected by extensive field visits and interaction with various stakeholders such as POWERGRID, Contractor, forest officials, Project Affected People (PAPs) and public at large. The environmental primary data other than vegetation profile is verified and ascertained through the discussion with local people and stakeholders, Site visits and IEAR carried out for the proposed T&D alignment and S/S and final alignment schedule. In order to, collect data with respect to final route alignment with important feature & maps, forest involvement/forest clearances, other applicable statutory clearances/consent/ exact number of trees to be filled / damaged both in forest as well as non-forest area, number and profile of PAP along with details of compensation provided to PAPs. This includes collection of any other primary data, which, in the opinion of agency, is required for ascertaining the compliance of the mitigating measures as enlisted in IEAR/EMP. Besides, photographs of important events such as interaction with various stakeholders, safe working practices, borrow area management, top soil management and construction during lean period etc. was taken as evidence.
4. **Collection of primary data and Physical verification of construction elements:** To gather primary data/ physical verification, a field visit/ survey of the project area along with IA and Contractor staff was made from February 2019 to May 2021. The data which has been collected from field visit are implementation status of proposed environmental management plan and mitigation measures as suggested in IEAR. Also, the environmental monitoring for ambient Noise levels and water quality is regularly carried out at S/S locations as part of EMP monitoring by construction Contractors. **Environmental baseline reports at various subproject sites are presented at Appendix-A.**

Ground truthing/physical verification was made with photographic evidence and verification of record maintained by IA and Contracts for various activities for monitoring the compliance of mitigation measures like Health and Safety measures, Solid waste and sanitation, construction of protection wall/ retaining walls, status of labour camps location of proposed S/S, towers, and T&D Lines alignments. Findings of field survey were consolidated along with secondary data for interpretation and finding the gaps for immediate necessary action.

5. **Ascertaining the compliance:** Analysis and interpretation of secondary and primary data to ascertain the compliance of the measures as discussed in EMP.
6. **Survey of flora and fauna:** Phyto-sociological survey is necessary as this is a TL project. Being a TL project, surveys for assessment of vegetation structure/ profile in the proximity of the proposed TL, corridors of TL routes, S/S, etc. were conducted wherein line transect methodology has been followed. Faunal surveys were also conducted along the same transects. As the topography along the routes varied from undulating / plain to top of hill. It was therefore, not feasible to chart the entire routes of proposed TL as large part of the routes has steep slopes and due to issues of accessibility at present. However, during the field surveys it was tried to survey minimum 10% of the route for flora data collection, which in some cases constituted a continuous stretch and, in some cases, could be covered in parts. The parts of the stretches to be surveyed were selected considering the diversity of flora. At some places along the alignment, forest plantation of only rubber trees is recorded which is homogenous. At some stretches, the diversity of flora is recorded. The details are reported in **chapter 2 section 2.4.4**. As regards substation, the whole substation area was covered for flora study/biodiversity. The fauna elements were not found during field surveys in the project areas except some bird and common fauna. Hence the data was collected through consultations with local public, Forest department officials and POWERGRID officials working in the project area.

The results of the primary field surveys were supplemented with secondary data to fill the gaps and further with the information generated through PRA. In addition, at all the sites bird walks

were also undertaken, particularly areas under private plantations nearby the routes to locate nesting sites and for bird sightings.

7. **Consultation:** During assessment consultation was done with stakeholders like various field officers of consulting team such as Central Project Implementation Unit (CPIU)/ State Project Coordination Unit (SPCU) POWERGRID officials, Contractor, migratory labors, local labors, Gram Burrah (village head) and public representatives to collect data with respect to compliance of suggested Environmental Management Plan (EMP) and implementation of mitigation measures. **The details of exercise are presented at Appendix-B.**
8. **Development of Maps:** Geo-referenced and Google maps with superimposed coordinates of project elements were generated to verify locational details and details of physical features of terrain of the project locations (**Please refer to the Annexure A and B**).

1.8 FEAR Structure

Chapter I: Project Description:

Brief description of the background, objective of the project, resultant benefit and scope of the work.

Chapter 2: Baseline Data:

Description of the relevant physical, physiographical, and socioeconomic condition of the project area including description of natural resources base like forest resources or any other environment sensitive areas like National Park sanctuary etc. along with description of climatic condition, population and other demographic features of the project area.

Chapter 3: Policy, Legal and Regulatory Framework:

Description of the policy, Legal and Regulatory framework applicable to transmission project and the environmental requirement under which environment assessment has been carried out.

Chapter 4: Major Features of Final Route & Environment Impact:

Brief description of the environmental criteria for selection of route and major features of final route alignment, details of forest involvement including number of trees and species of the trees likely to be affected. The details of forest clearance and environmental impact matrix describing in brief the extent of impact of TL.

Chapter 5: Potential Environmental Impact, Evaluation and its Management:

Description of the measures adopted and under implementation for identified impact due to project location, design, construction, O&M details of public consultation and its documentation, details of contractual conditions regarding safeguard issues under scope of contract for compliance and conclusion listing the category of the project based on the impact and analysis.

Chapter 6: Monitoring and Organization Support Structure:

Description of the monitoring plan, reporting pattern/frequency, external monitoring requirement/timing for potential environment & social issues with compliance status of Environment Management Plan (EMP) and organization support structure.

2. BASELINE DATA

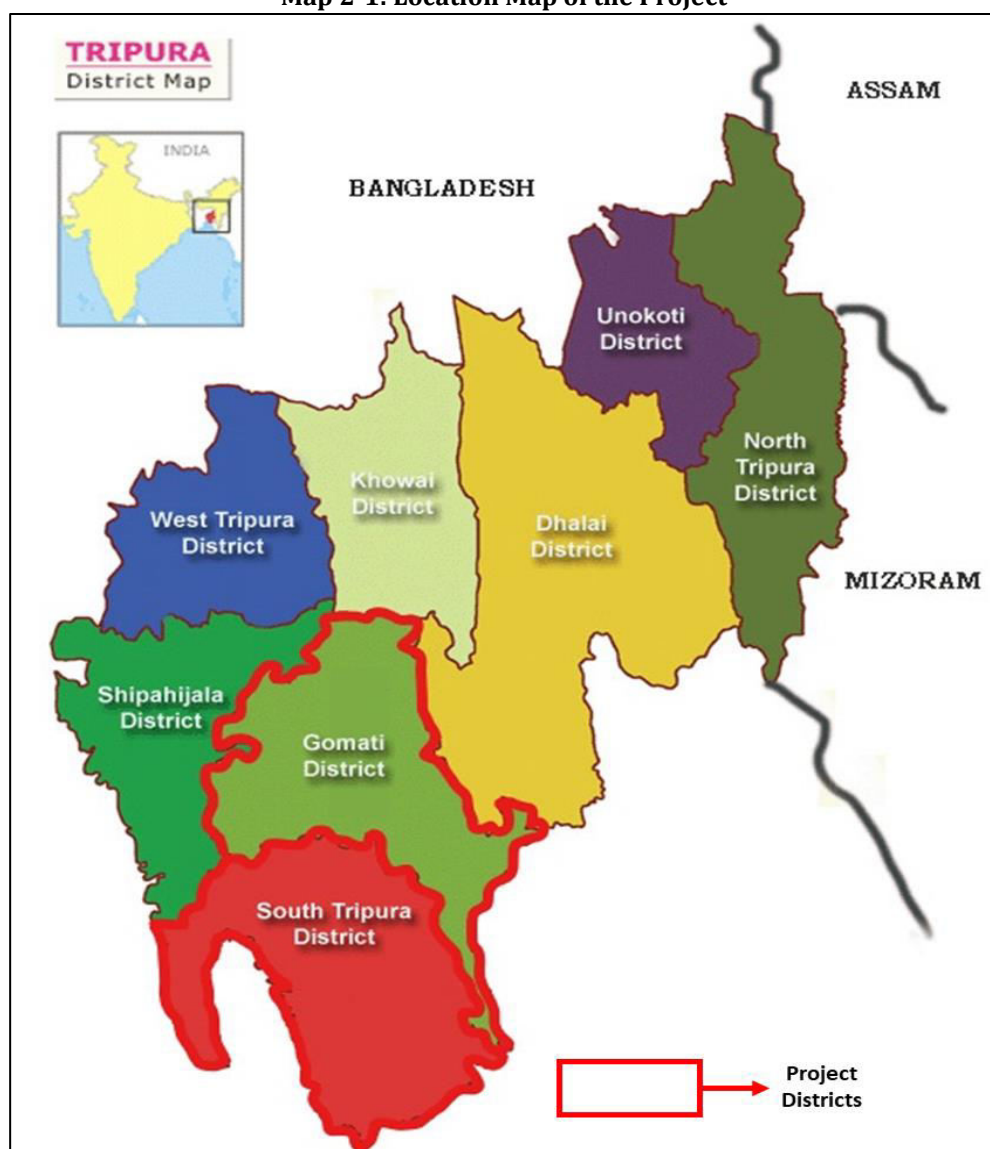
2.1 Introduction

Impact Assessment defines and assesses the potential physical, biological, and socio-economic impacts of a project and helps in formulating management and mitigation measures to minimize the impacts to a great extent. This chapter deals with the baseline status of physical, biological, socio-economic environment in the project districts as well as study area.

2.2 Project Location

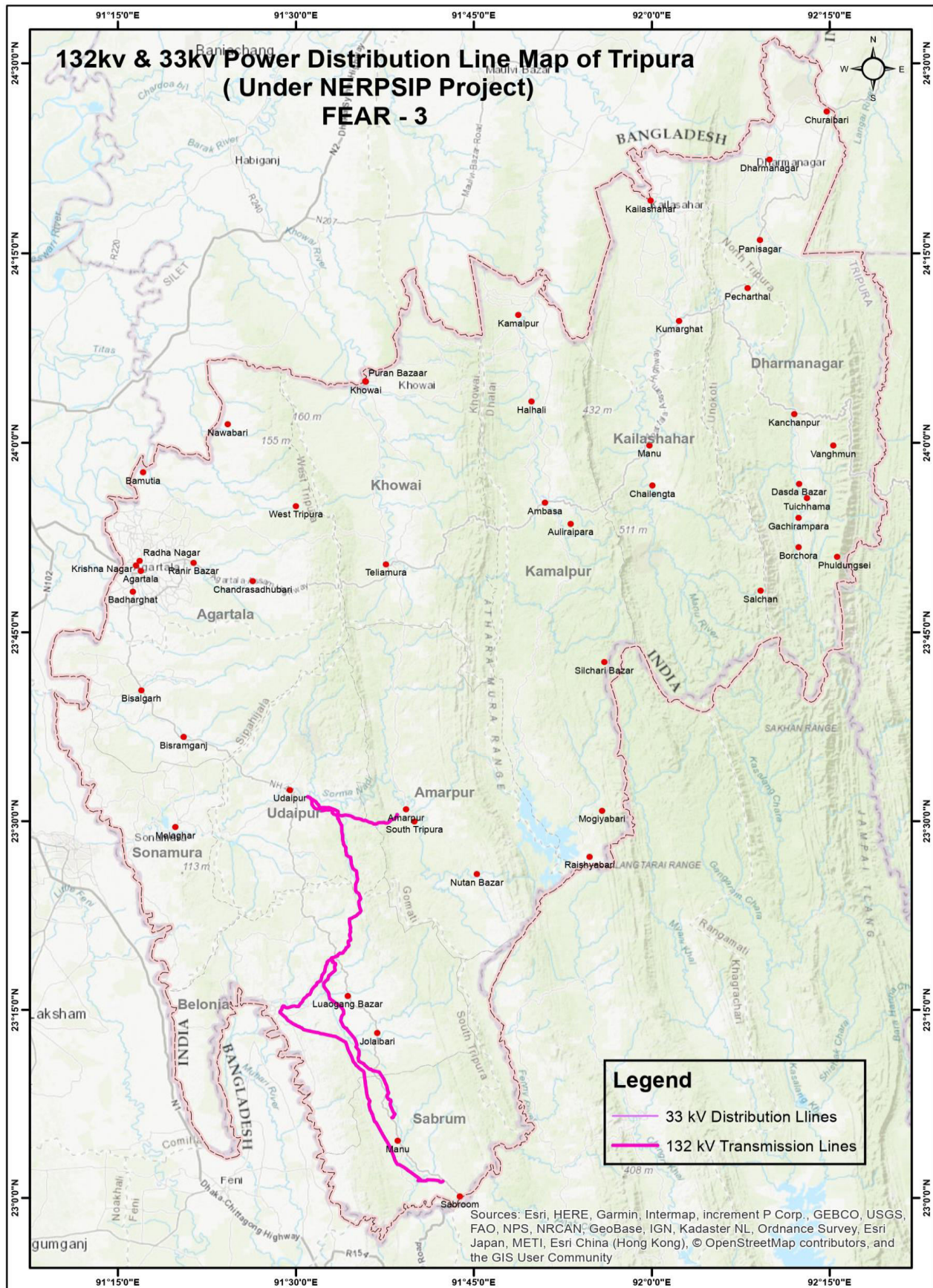
The project is an intra-state power sector project located in the State of Tripura and pass through the districts of Gomati (Gumti) and South Tripura. Earlier Gomati District was part of undivided South Tripura District before 2012. **Please refer Map 2-1.** The map showing location of various subprojects is presented in **Map - 2.2 & Map - 2.3.**

Map 2-1: Location Map of the Project²

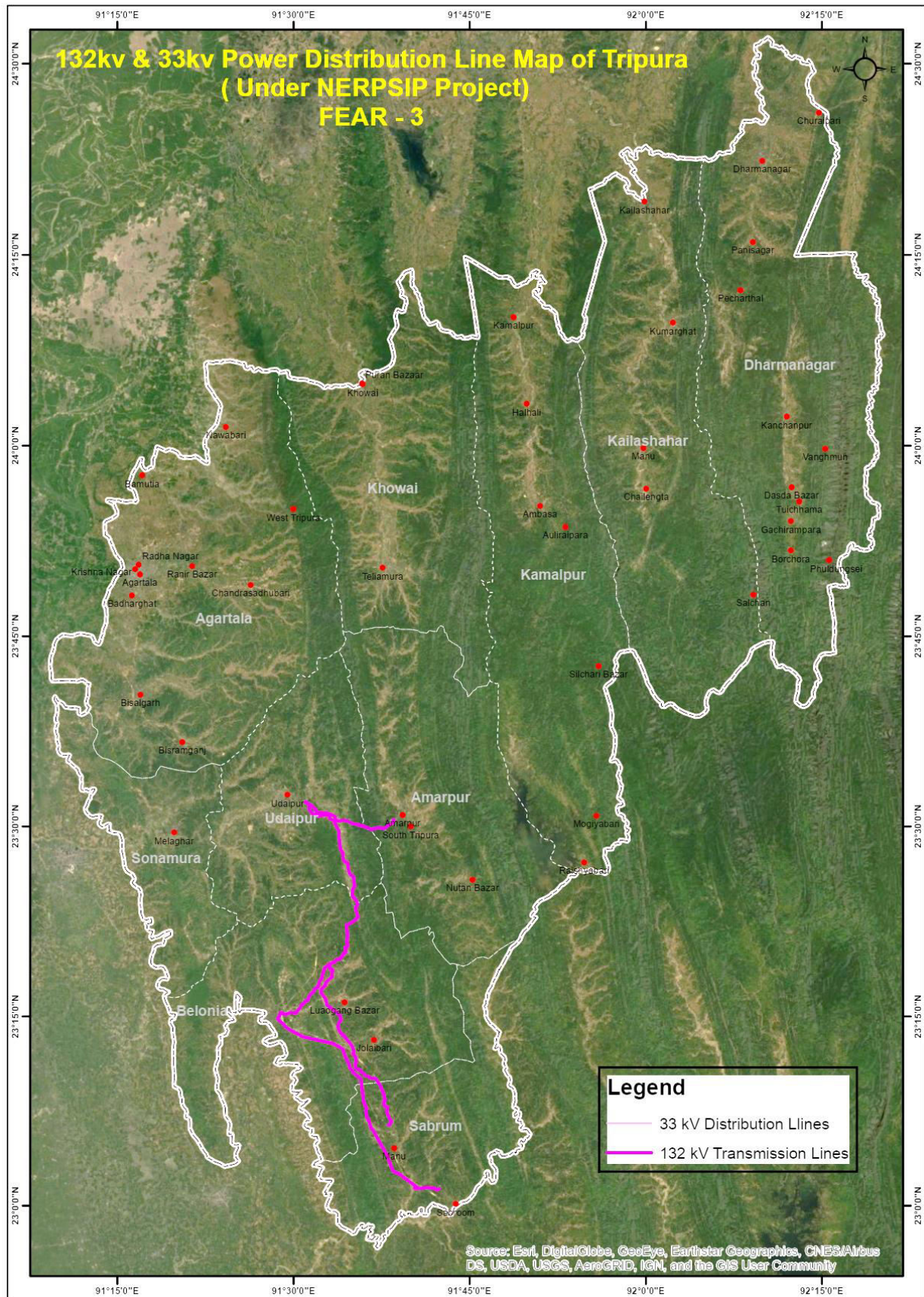


² Tripura Space Application Centre, Vigyan Bhawan, Tripura

Map 2-2: Topo Map Showing Subprojects Locations



Map 2-3: Google Map Showing Subprojects Locations



2.2.1 Tripura State³

Tripura state is situated in the north eastern part of the country and shares international border with Bangladesh from three sides. The area of the State is 10,491 Sq. Km which forms 0.32% of country's geographical area. The State lies between latitude 22°57' N and 24°33' N and longitude 91°10' and 92°20' E in NER physiographic zone. Tripura is a land locked state and its geographical limits touch both national and international boundaries. Its length of international boundary line with Bangladesh measures 839 km. Its national boundaries with Assam and Mizoram measure 53 km and 109 km respectively. The basic environmental settings of the State and subject project area are discussed in the upcoming sections.

2.2.2 Study Area Districts⁴

2.2.2.1 South Tripura district:

South Tripura district is situated between North Latitudes 22°58' and 23°45' and East Longitude 91°15' and 91°58'. It is bounded by Bangladesh on south, east and west sides, by west Tripura district on north and northwestern sides and by Dhalai district on northeast side. The total geographical area of the district is 1585.67 Sq. Km.

2.2.2.2 Gomti district:

Gomati district of Tripura state was created in January 2012 when four new districts were created in Tripura, taking the number of districts in the state from four to eight. Udaipur is its headquarters.

Gomati District is situated approximately between East longitude 91°18' and 91°59' and North latitude 22°56' and 23°45'. The Gomati District is bounded on the North by Dhalai district and West Tripura District, while on the other sides by international border with Bangladesh. The total geographical area of Gomati District is 1489.39 Sq.km.

2.3 Physical Environment

2.3.1 Climatic Conditions – Tripura State

The State has a tropical savanna type climate, designated under the Kappen climate classification. The undulating topography leads to local variations, particularly in the hill ranges. The four main seasons are winter from December to February, pre-monsoon or summer from March to April, monsoon from May to September and post-monsoon from October to November. During the monsoon season the south west monsoon brings heavy rains, which cause frequent floods. The climate conditions of projects districts are described in the sections below;

³ <http://trpervis.nic.in/>

⁴ District Survey Report, 2018, GoT

2.3.2 Climatic Conditions – Project Districts

2.3.2.1 South Tripura District:

The climate in the district is characterized by moderate temperature and is highly humid in nature. There are three prominent seasons summer, rainy and winter. The summer season spans from March to May and is followed by SW monsoon lasting till September. Average annual rainfall in the district is about 2000 mm. Winter season starts from November and lasts till the end of February. The temperature in the area varies from 5.1⁰C to 35.6⁰C. The humidity is generally high throughout the year. In summer season the relative humidity varies between 50 to 90 % and in rainy season, the relative humidity is over 85 % in morning and in evening it varies between 70 to 80 %. The co-efficient of variation of rainfall in the area ranges from 6 – 32% suggested a low variability of annual rainfall. Humidity is generally high throughout the year.

2.3.2.2 Gomati District:

The climate of the district is mostly warm and is characterized by a humid summer and a dry cool winter with plenty of rains during July to October. Rainfall is received from the South - West Monsoon, which normally breaks in the month of May. Hailstorm generally occurs during the month of April & May, occasionally causing damage to the field crops. Autumn and Spring are of very short duration. Average annual rainfall in the district is about 2000 mm and the temperature varies between a maximum of 35.23⁰C and a minimum of 7.43⁰C. The variation in temperature is much lower during the rains than during any other season.

2.3.3 Topography – Tripura State^{5,6}

The State has three distinct physiographic zones i) hill ranges ii) undulating plateau land and iii) low-lying alluvial land. Five major hill ranges traverse the State in roughly north-south direction and continue southward into Chittagong Hill Tract. Narrow valleys separate these ranges generally 20 km wide. The easternmost range is Jampui, being successively followed to the West by Unokoti-Sakhantlang, Longthorai, Atharamura-Kalajhari and Baramura-Deotamura. The highest peak lies at Bethliang Sib (Thaidawar, Shib-rangkhung), 979 mts above the sea level.

Sedimentary rocks which range in age from Miocene to loosely consolidated sediments of recent age represent the geology of the state. The rocks are sandstone, siltstone and shale grading into clay. These rock types are repeated as layers, one above the other. Depending on their character and the presence of fossils, these sedimentary rock sequences are divided into Surma group, Tipam group and the Dupitila group. From the nature of the grains and the texture imprinted on these rocks, it is inferred that originally the sediments were deposited in the sea and later converted into rocks. The recent fluvial deposits occupy quite a large part of south Tripura district. The sedimentary rocks are deformed and folded.

⁵ ENVIS Tripura Report

⁶ GoT, District Survey Report, 2018

2.3.4 Topography – Project Districts

2.3.4.1 South Tripura District:

Geography of South Tripura District comprises three principal hill ranges. South Baramura and Deotamura hill ranges are completely in South Tripura District while apart of Atharamura hill also comes in the district. Deotamura is the principal hill range of South Tripura District having a length of 85 kms and forms the boundry between Amarapur and Udaipur Sub Division. Major rivers flowing through South Tripura District are Gomti River, Muhuri and Feni. As per Agroclimatic zones the district is in Mild Tropical Plain Zone. The major soil recorded as per agroclimatic zones are Inceptisols, Ultisols, Entisol⁷.

Physiographically, the area can be divided into two parts, Anticlinal Hill Ranges and Synclinal flatbottomed valleys. The major hill ranges are Baramura and a hill range at west boundary. The trend of the hill ranges is almost N – S. The height of the hill ranges increases from west to east. A broad synclinal valley is located along Manu-bazar, Jolaibari, Laogang Bazar. The valleys are gently undulating with intermittent flood plains of rivers and streams. The undulations formed by 10 to 30 m high mounds with gullies in between them, locally called “loonga.”

2.3.4.2 Gomati District:

Gomati district is a predominantly hilly area. About 60% of its land is hilly, while the remaining 40% is plane land, even the plane land is not a dad level land rather it is broken by many low hills and tillas of 30-60 m in elevation, covered with trees and shrubs. The topography is immature. In the district the topographic highs & lows are in accordance with the normal first order structural elements. The ground rises from West- East. The general elevation varies between 600m in the north eastern part to 15 m in the west. As per Agroclimatic zones the district is in Mild Tropical Plain Zone. The major soil recorded as per agroclimatic zones are Inceptisols, Ultisols, Entisol⁷.

There are four physiographic units in the district:

- I. Steep slopping & slightly dissected, high relief structural hills & ridges exemplified by areas like Taidu, Amarapur, Tirthamukh.
- II. Moderately slopping with moderately dissected, low relief structural hills and ridges found in parts of Udaipur, Amarapur, Tirthamukh.
- III. Moderate to gently sloping with moderately dissected, flat topped denuded hills found in southern part of Udaipur & Amarapur And
- IV. Undulating plane with low mounds and gently sloping valley situated mostly in the southern part of Udaipur.

2.3.5 Land use Pattern – Tripura State⁸

For Land use details of Tripura State and Project Districts, Land use statistics of Ministry of Agriculture, GOI, 2018-2019 and North Eastern Development Finance Corporation Ltd (NEDFI), 2018 are referred. Majority of the Tripura State area is 60% is covered by forest land followed by 24% agricultural land. The general land use area of the Tripura State is given in

⁷ State Level Perspective Plan for Watershed Development of Tripura

⁸ Land use statistics, Ministry of Agriculture, GOI, 2018-2019 and NEDFI, Land Use Details, 2018

Table 2.1, Land Use Distribution in **Figure 2.1**. The Map is referred from NBSS LUP publication 2018 is depicted in **Map 2.4**.

Table 2-1: Land use pattern of State Tripura (2018)

Sr. No.	Land Use Classes		Area in Ha	%
1	Geographical area		1049169	100
2	Forest Area		629426	60
3	Land Not Available for Agricultural Use		148304	14.1
4	Land under Misc. tree Crops & groves not including in net Area sown		10125	-
5	Permanent pasture & other grazing land		944	-
6	Culturable Waste land		2578	-
7	Total Other Uncultivated Land Excluding Fallow Land (4+5+6)		13647	1.3
8	Fallow Land	Current Fallow	1055	-
9		Fallow Land Other than Current fallow	1189	-
10	Total (8+9)		2244	0.2
11	Net Cropped area		255548	24.4
12	Gross cropped Area		488500	-
13	Area sown more than once		232952	-
14	Cropping Intensity (%)		191	-
15	Cultivable land		271439	-

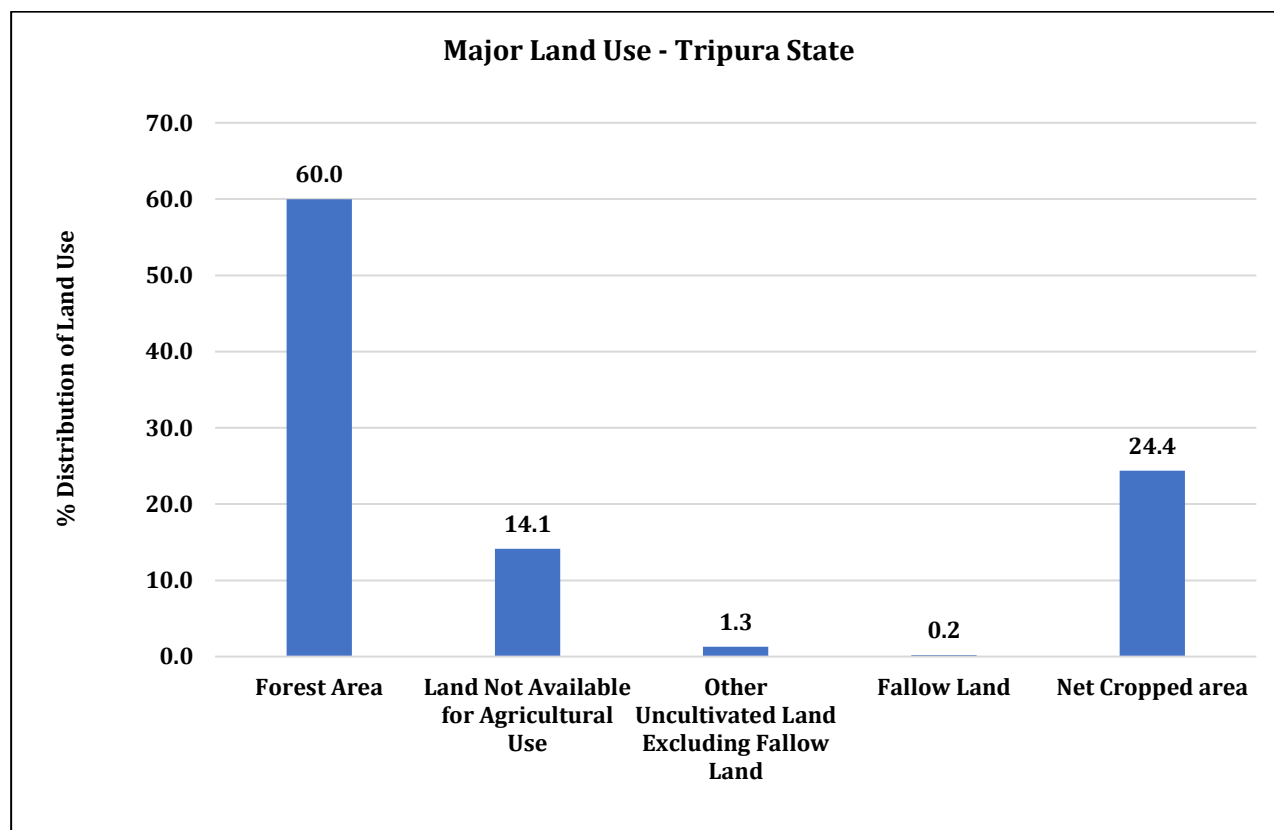
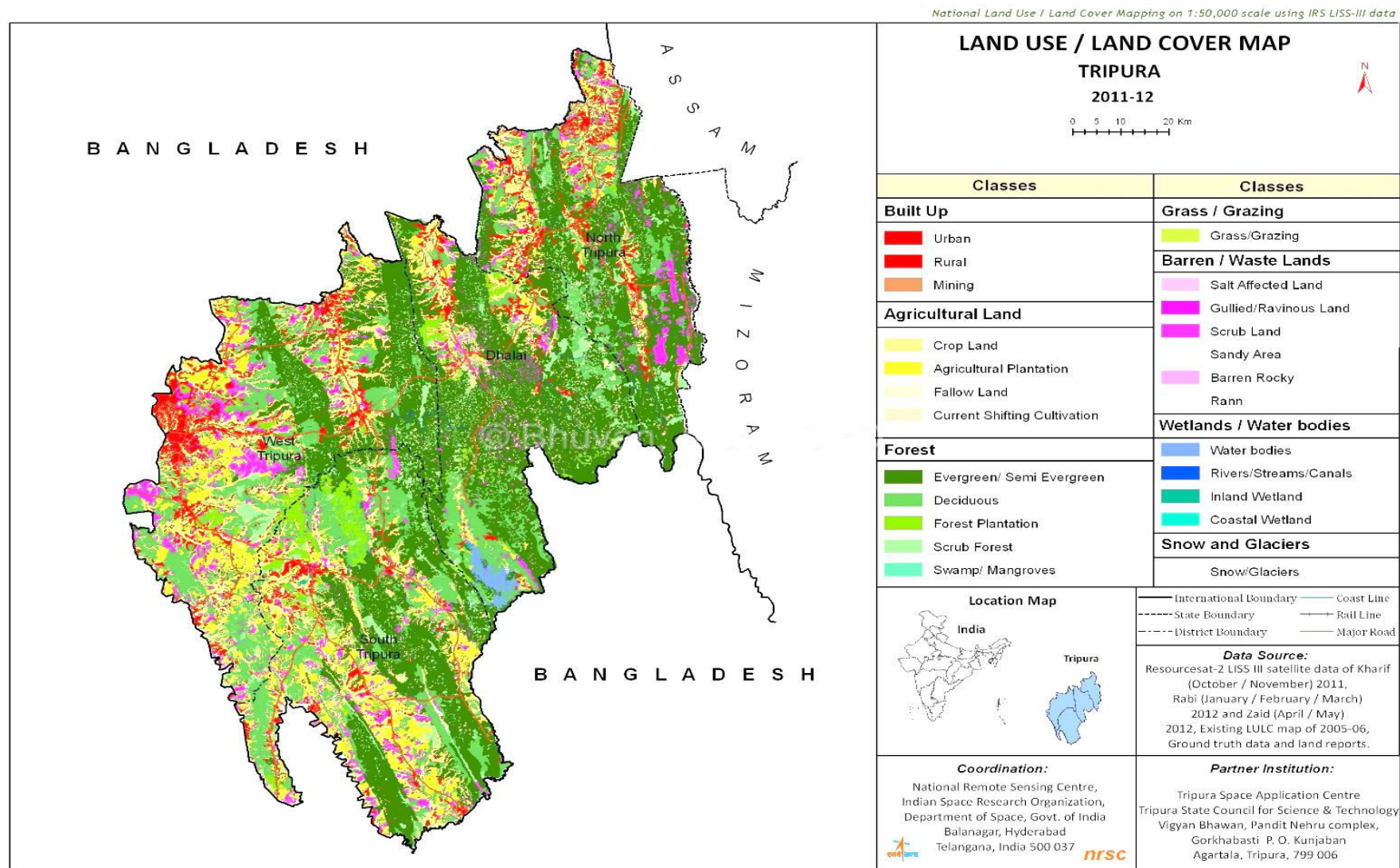


Figure 2-1: Land use pattern of State Tripura

Map 2-4: Land use Map of State Tripura



2.3.6 Landuse Pattern – Project Districts⁹

2.3.6.1 South Tripura District:

Majority of the South Tripura project district area i.e. 5.8% is built up land, 27% covered by agricultural land and 67 % is covered by Forest land. The general land use pattern of the project district is given in **Table 2.2**.

Table 2-2: Landuse Pattern of Project District – South Tripura (2018)

Sr. No.	Land Use Classes		Area in Ha	%
1	Geographical area		158567	100
2	Forest Area		105871	66.8
3	Land Not Available for Agricultural Use		9133	5.8
4	Land under Misc. tree Crops & groves not including in net Area sown		287	-
5	Permanent pasture & other grazing land		20	-
6	Culturable Waste land		13	-
7	Total Other Uncultivated Land Excluding Fallow Land (4+5+6)		320	0.2
8	Fallow Land	Current Fallow	18	-
9		Fallow Land Other than Current fallow	43	-
10	Total (8+9)		61	0.04
11	Net Cropped area		43182	27.2
12	Gross cropped Area		83837	-
13	Area sown more than once		40655	-

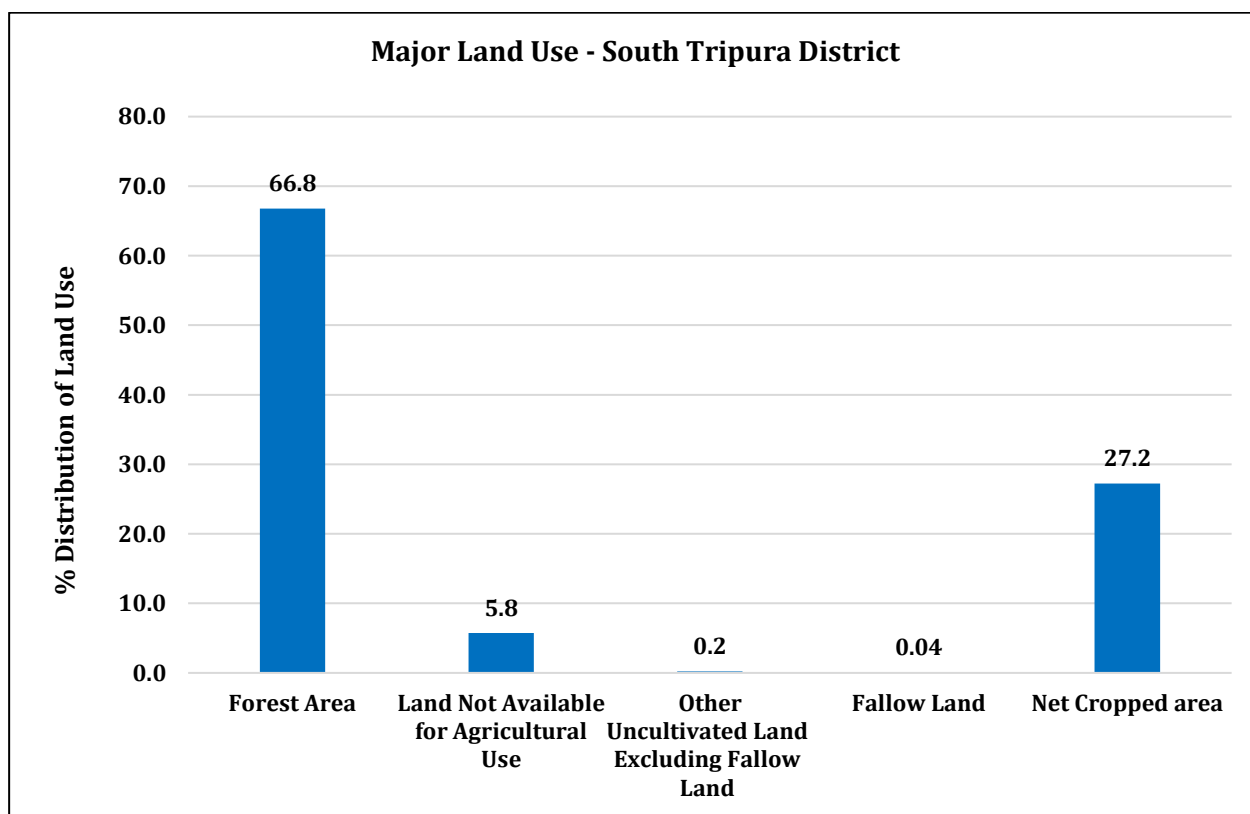
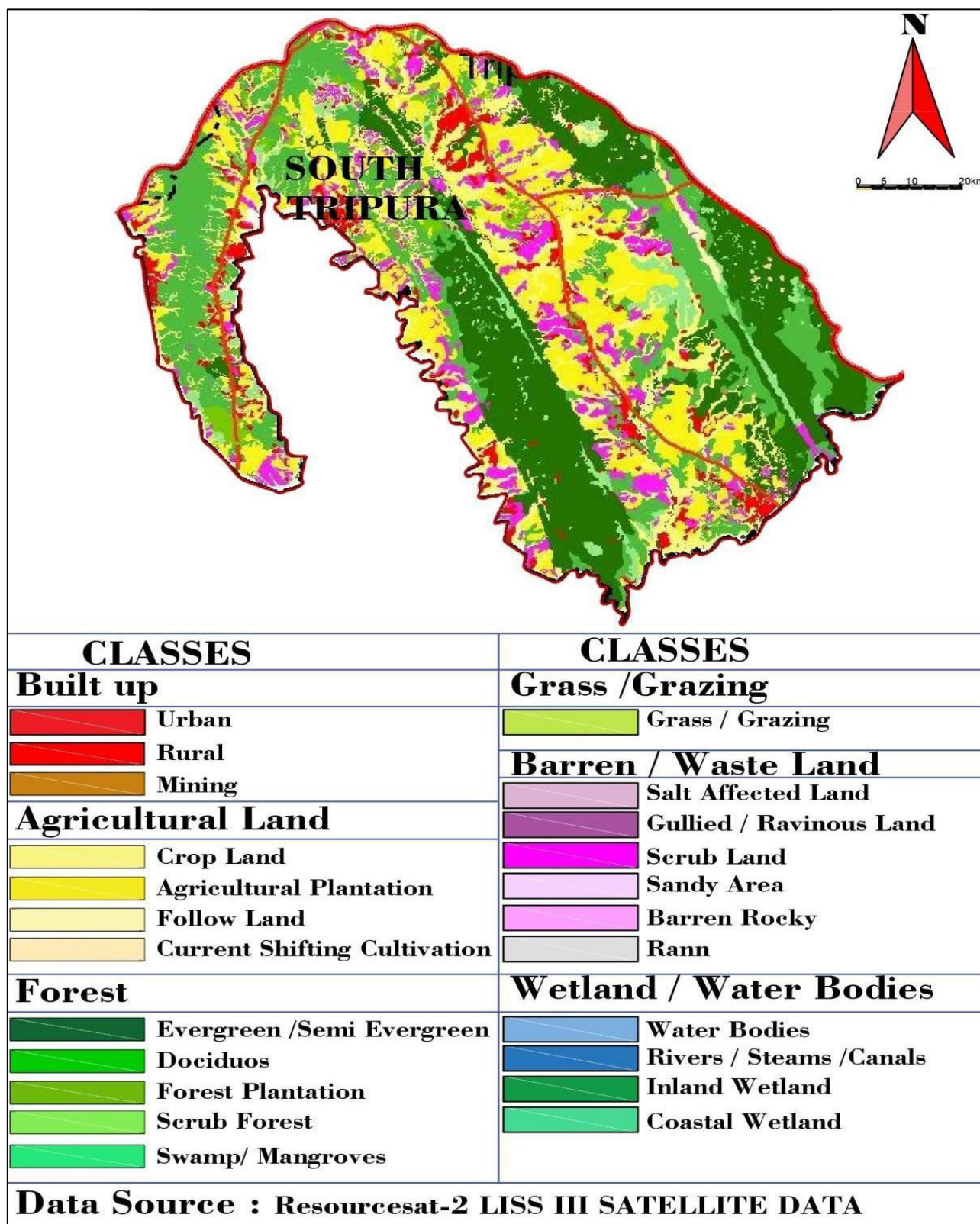


Figure 2-2: Land use pattern of Project District – South Tripura

⁹ Land Use Statistics, Ministry of Agriculture & Farmers Welfare, GoT, 2018-19 and NEDFI, Land Use Details, 2018

Map 2-5: Land use Map of Project District – South Tripura District¹⁰



¹⁰ District profile of South Tripura, GoT, 2018 - 2019

2.3.6.2 Gomati District:

Majority of the Gomati project district area i.e. 5.2% is built up land, 27% covered by agricultural land and 67 % is covered by Forest land. The general land use pattern of the project district is given in **Table 2.2**.

Table 2-3: Landuse Pattern of Project District – Gomati (2018)

Sr. No.	Land Use Classes		Area in Ha	%
1	Geographical area		148939	100
2	Forest Area		100704	66.8
3	Land Not Available for Agricultural Use		7704	5.2
4	Land under Misc. tree Crops & groves not including in net Area sown		105	-
5	Permanent pasture & other grazing land		44	-
6	Culturable Waste land		7	-
7	Total Other Uncultivated Land Excluding Fallow Land (4+5+6)		156	0.1
8	Fallow Land	Current Fallow	20	-
9		Fallow Land Other than Current fallow	43	-
10	Total (8+9)		84	0.06
11	Net Cropped area		40291	27.05
12	Gross cropped Area		78937	-
13	Area sown more than once		38646	-

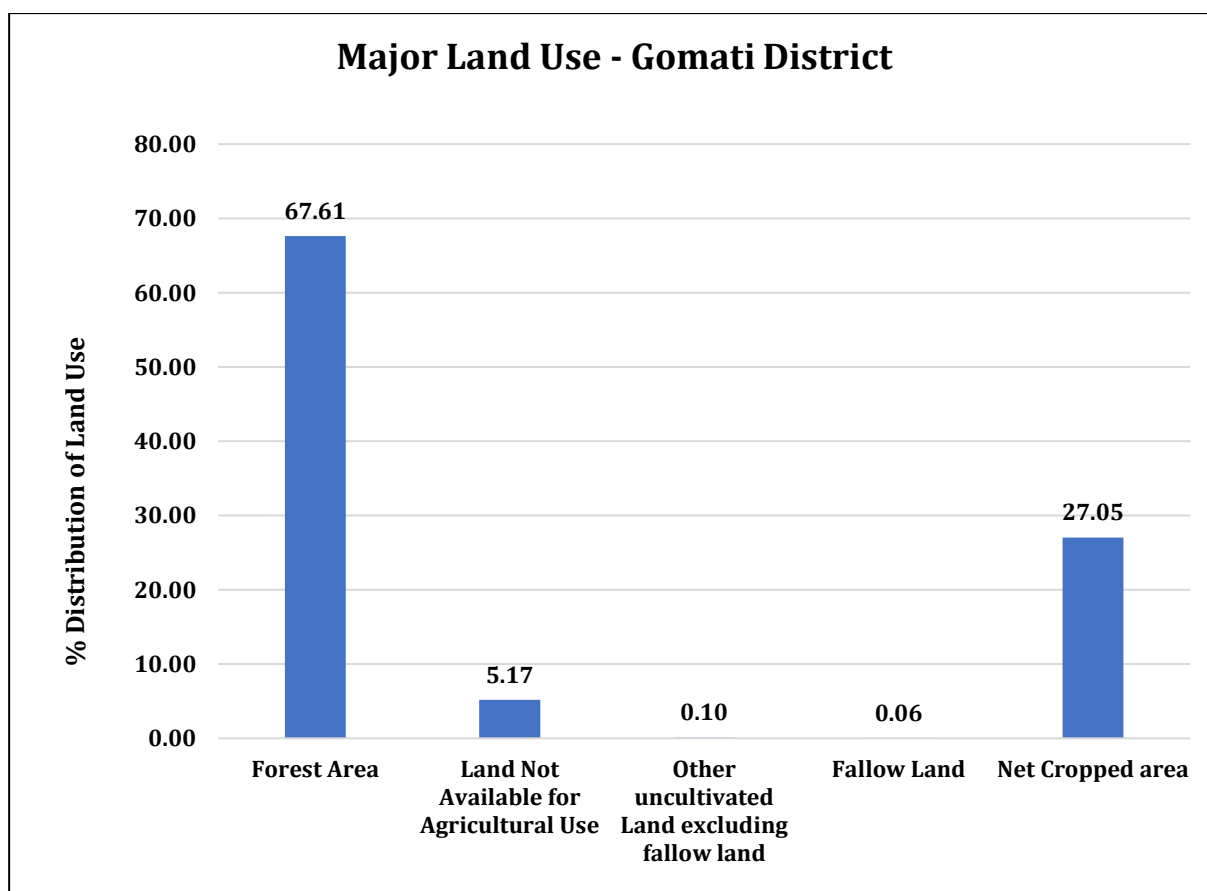
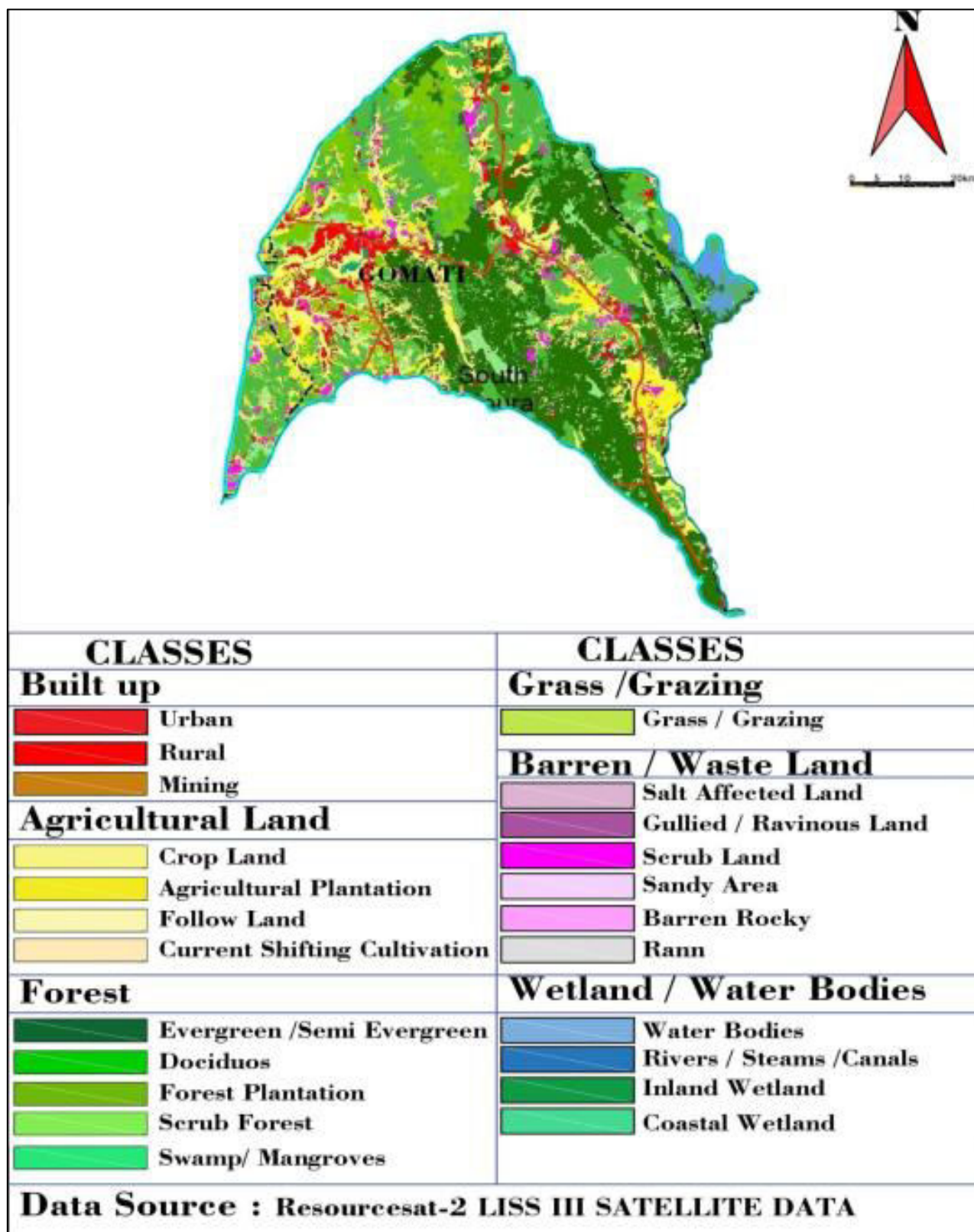


Figure 2-3: Land use pattern of Project District – South Tripura

Map 2-6: Land use Map of Project District – South Tripura District¹¹

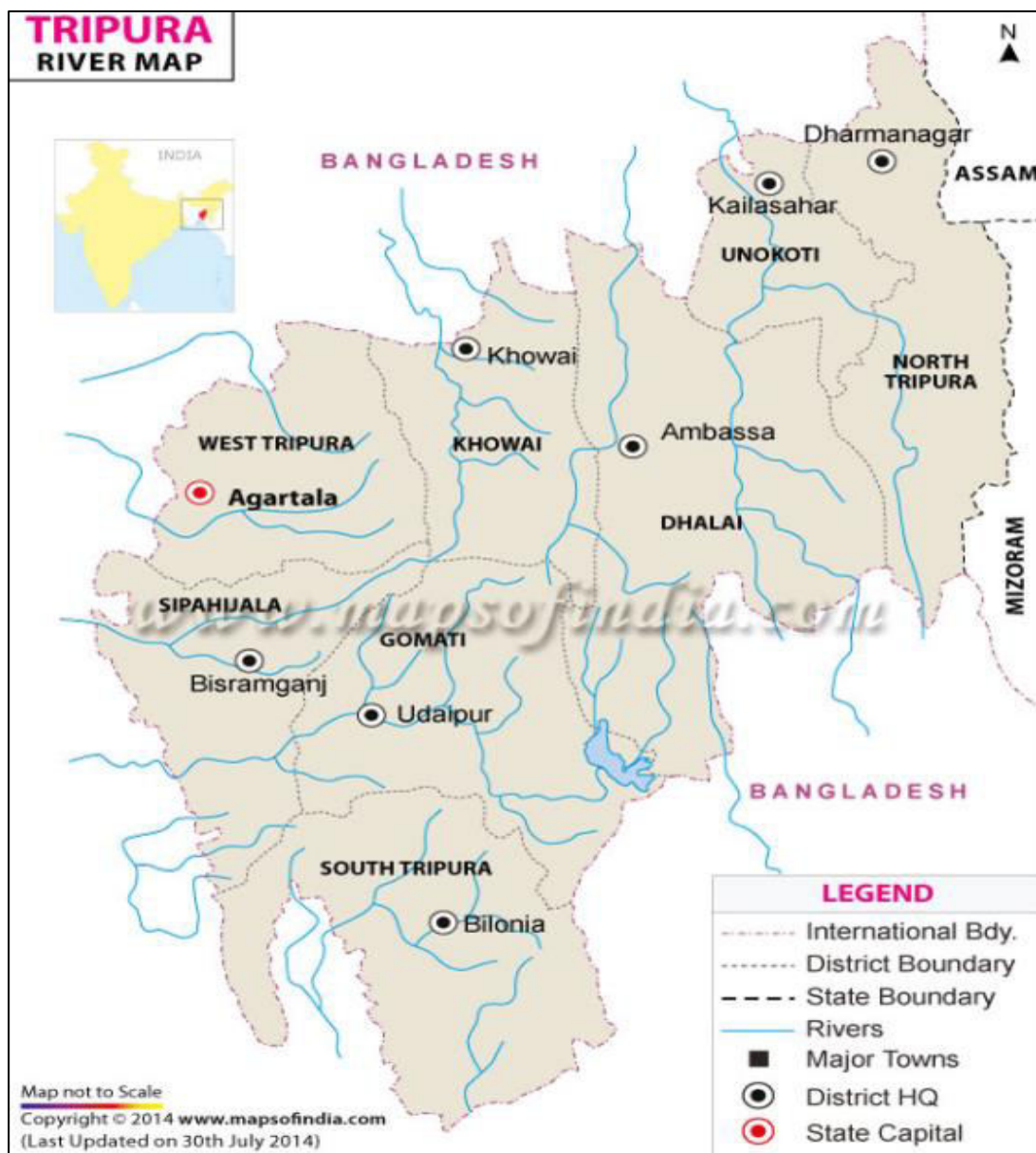


¹¹ District profile of South Tripura, GoT, 2018 - 2019

2.3.7 Major Rivers – Tripura State¹²

The State of Tripura has rich water resources with the presence of as many as ten major rivers, including Gomati, Manu-Deo and Khowai. All rivers are rain-fed and ephemeral in nature. All major rivers originate from hill ranges and show a typical drainage pattern called trellis, except a few instances of dendrite pattern. A study of basin characteristics by CSME (1989) indicate that eight of the ten basins are within the territorial limit of Tripura while basin areas of river Fenni and Longai are shared by two Indian States viz. Tripura and Mizoram and Bangladesh. Collectively basin area of ten major rivers and other minor streams covers nearly 10,500 sq. km. In terms of percentage of the basin of individual rivers vis-a-vis, total basin Gomati (22.66%), is followed by Manu-Deo (18.36%) and Khowai.

Map 2-7: River Map of Tripura State with Project Districts



¹² Water Resource Department (WRS), GoT, 2019

Table 2-4: Major Rivers of Tripura State

Sr. No.	Name of River	Tributaries	Length in Tripura	Origin and Flow
1.	Longai	It is tributary of Barak River	98 km	Originates at Jampui Hill Northerly flow
2.	Juri	Deo chhera, Kakri chhera, Lal chhera, Bali chhera, Hakai N, Lchailal chhera	79 km	Originates at Jampui Hill, Northerly flow through Dharmangar valley
3.	Deo	It is a tributary of Manu River	132 km	Originates at Jampui Hill, Northerly flow through Kanchanpur valley, meets Manu river.
4.	Manu	Deo R, Chamanu chhera, Chailengtha chhera, Kanan chhera, Lakhmi chhera, Madhal chhera	167 km	Originates ate Sakhan range & Northerly flow via Kailasahar to Bangladesh
5.	Dhalai	Bahuri chhera, Chandrai chhera, Sofema chhera, Tamthung chhera, Surma chhera, Kulai chhera, Dalu chhera, Nali chhera	117 km	Originates at Longtharai range, Northerly flow via Kamalpur to Bangladesh
6.	Bijoy / Buriganga	Rangpani chhera	54	Originates from Baramura hill range and flows westward through Agartala valley and near Boxanagar it enters Bangladesh
7.	Khowai	Balu chhera, Jeel chhera, Chamal chhera, Ahiadia chhera, Bhaskar chhera, Maharani chhera, Trirupa chhera, Samru chhera, Lal chhera	166 km	Originates in the eastern part of the Atharamura Hills flow to Bangladesh
8.	Haora	Donaigaon, Ghoramora, Dehtagang, Champanadi, Debatila chhera	53 km	Originates at Baramura range, Westward flow via Agartala to Bangladesh
9.	Sumli	Tributary of Hawra River	50.2 km	Originates from the Damra Hills of Boromura hill range tributary of Choka River
10.	Sonai	Tributary of Barak River	145.13 km	Major Southbank tributary of the Barak River originates from Lushai Hills of Mizoram state and falls in the Barak River at Sonaimukh.
11.	Gomati	Sarma chhera, Malik chhera, Maharani chhera, San gang, Ganga chhera	133 km	Originates at Longtharai and Atharamura flows to via Sonamura town Bangladesh

Sr. No.	Name of River	Tributaries	Length in Tripura	Origin and Flow
12.	Muhuri	Tributary of Fenni River	64 km	Originates at Deotamura range, Westward flow via Belonia to Bangladesh
13.	Fenni	Muhuri River	116 km	Originate at the border by confluence of three streams, of which Asalong is the main channel

2.3.8 Major Rivers – Project Districts

Table 2-5: Major Rivers Flowing Through Project Districts

Sr. No.	Name of District	Name of River
1	Gomati	Gomati and tributaries
2	South Tripura	Fenni, Muhuri, Manu and Longai and tributaries

The River Maps of Project Districts are depicted in **Maps 2.8 and 2.9**.

The subproject activity / route alignment which are planned near water body or crossing water body are assessed and discussed in the Chapter 4 and 5 with EMP.

2.3.9 Wetlands – Tripura State¹³

In Tripura, 432 wetlands have been mapped and 2983 small wetlands (< 2.25 ha) identified. Total wetland area estimated is 17542 ha. Inland natural wetlands dominated in the state with 63% share. The major natural wetland types are; river/stream (42.30%) and waterlogged (16.79%). There are 60 lake/pond with about 1.7% area. Under man-made wetlands, reservoir/barrage is the major wetland type with 18.93% share. The details of type-wise aerial extents of wetland are given in the **Table 2-6**. Tripura has seven wetlands important in the context of state. These are Rudra Sagar, Gomti Reservoir (Dumbur Lake), Sipahijala Reservoir, Trishna, Sattar Mia's Hoar, Batapura Lake and College Tilla Lake. Amongst there Rudra Sagar Lake and Gomati Reservoir are identified wetlands under National Wetlands Conservation Programme. The Rudrasagar lake of State is also covered under International Convention on wet land (Ramsar Convention).

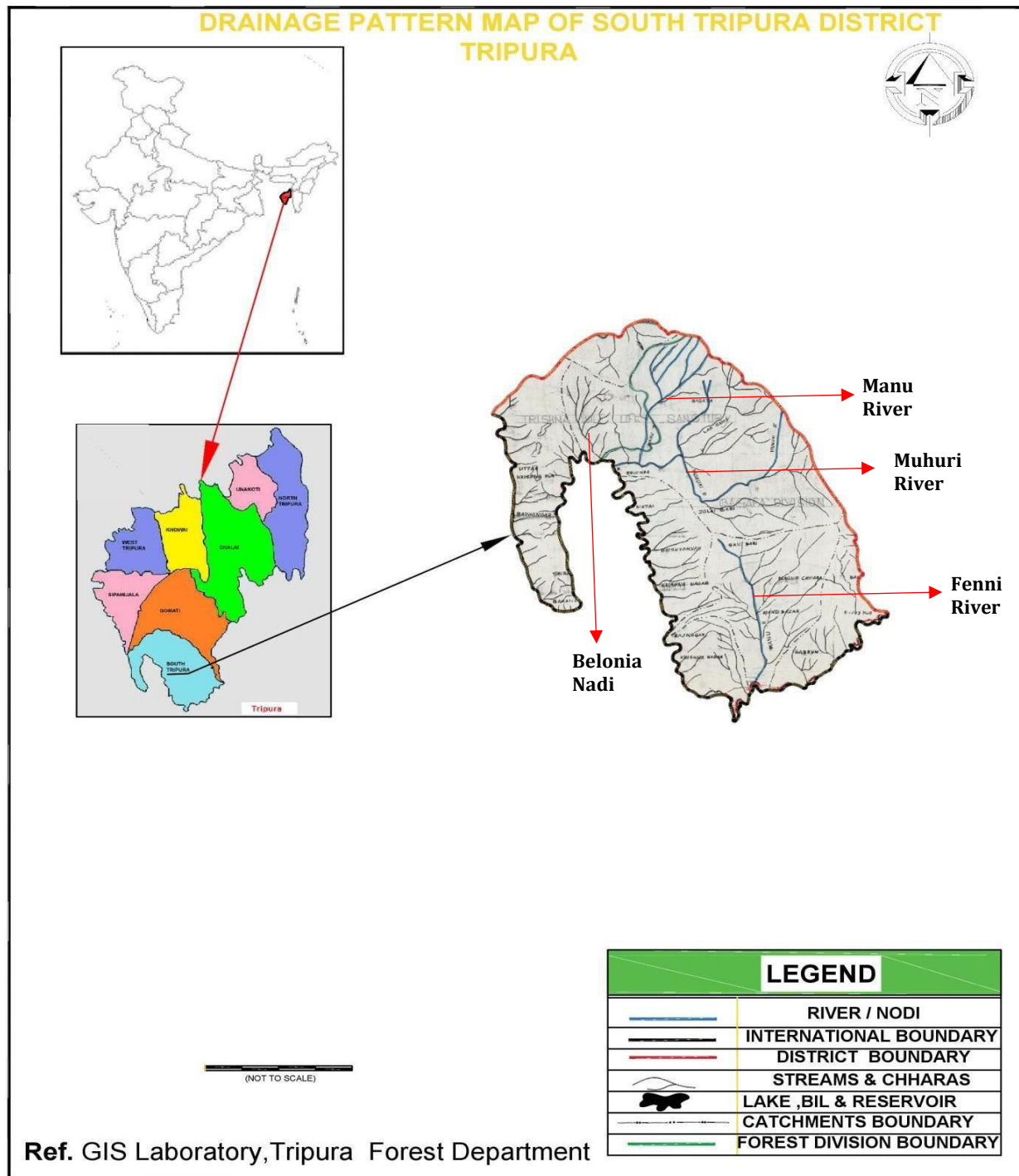
2.3.10 Wetlands – Project Districts

2.3.10.1 South Tripura and undivided Gomati District:

South Tripura district including undivided Gomati District has total 116 wetlands have been delineated in addition to the 824 small wetlands (< 2.25 ha) identified. The inland-Natural wetlands comprise about 65 %. The major natural wetlands are River/stream (41.74 %), followed Waterlogged (19.09 %) and Ox-bow Lakes (2.93 %). Reservoir/Barrage is the major man-made wetlands. Total 4 such wetland types mapped with 625 ha area occupying 13.66 % of wetlands. Detailed statistics of wetlands of South Tripura district is given in **Table 2.7**. The open water spread area is more in post-monsoon (2474 ha) than in Pre-monsoon (1799 ha). The reduction in open water spread area in Pre-monsoon is more significant in case of Reservoir/Barrages and Waterlogged types.

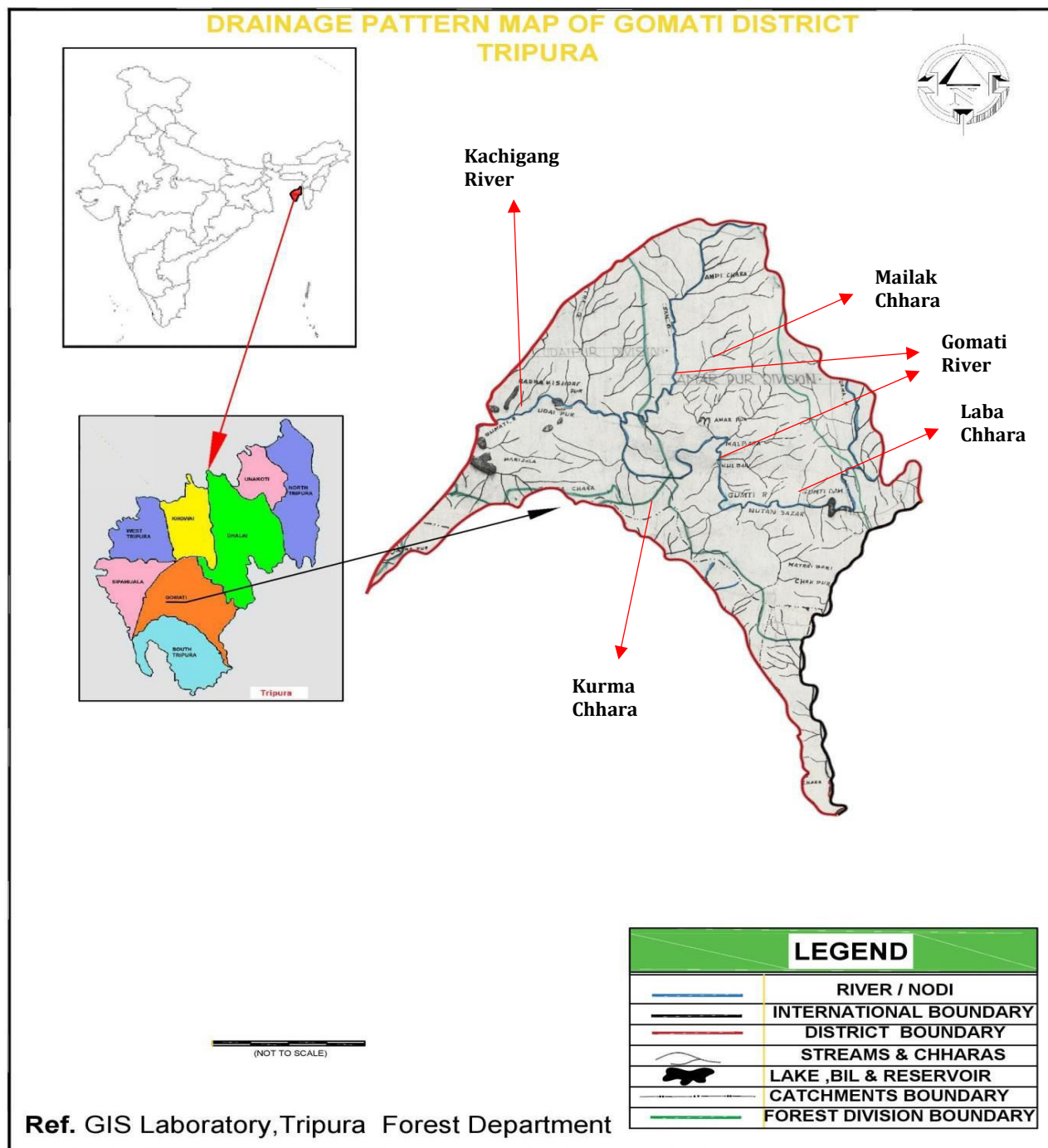
¹³ Ministry of Environment, Forests & Climate Change, National Wetland Atlas: Tripura, Govt of India, 2021

Map 2-8: Drainage Pattern of South Tripura District¹⁴



¹⁴ District profile of West Tripura, GoT, 2018 - 2019

Map 2-9: Drainage Pattern of South Tripura District¹⁵



¹⁵ District profile of West Tripura, GoT, 2018 - 2019

Table 2-6: Wetland Details – Tripura State

Area in ha

Sr. No.	Wett code	Wetland Category	Number of Wetlands	Total Wetland area	% of wetland area	Open Water	
						Post monsoon area	Pre monsoon area
	1100	Inland Wetlands - Natural					
1	1101	Lakes/Ponds	60	300	1.71	180	153
2	1102	Ox-bow lakes/ Cut-off meanders	78	387	2.21	229	170
3	1105	Waterlogged	244	2946	16.79	1872	647
4	1106	River/Stream	17	7420	42.30	4488	5115
	1200	Inland Wetlands -Man-made					
5	1201	Reservoirs/Barrages	12	3320	18.93	2936	796
6	1202	Tanks/Ponds	21	186	1.06	142	142
Sub-Total			432	14559	83.00	9847	7023
Wetlands (<2.25 ha), mainly Tanks			2983	2983	17.00	-	-
Total			3415	17542	100.00	9847	7023

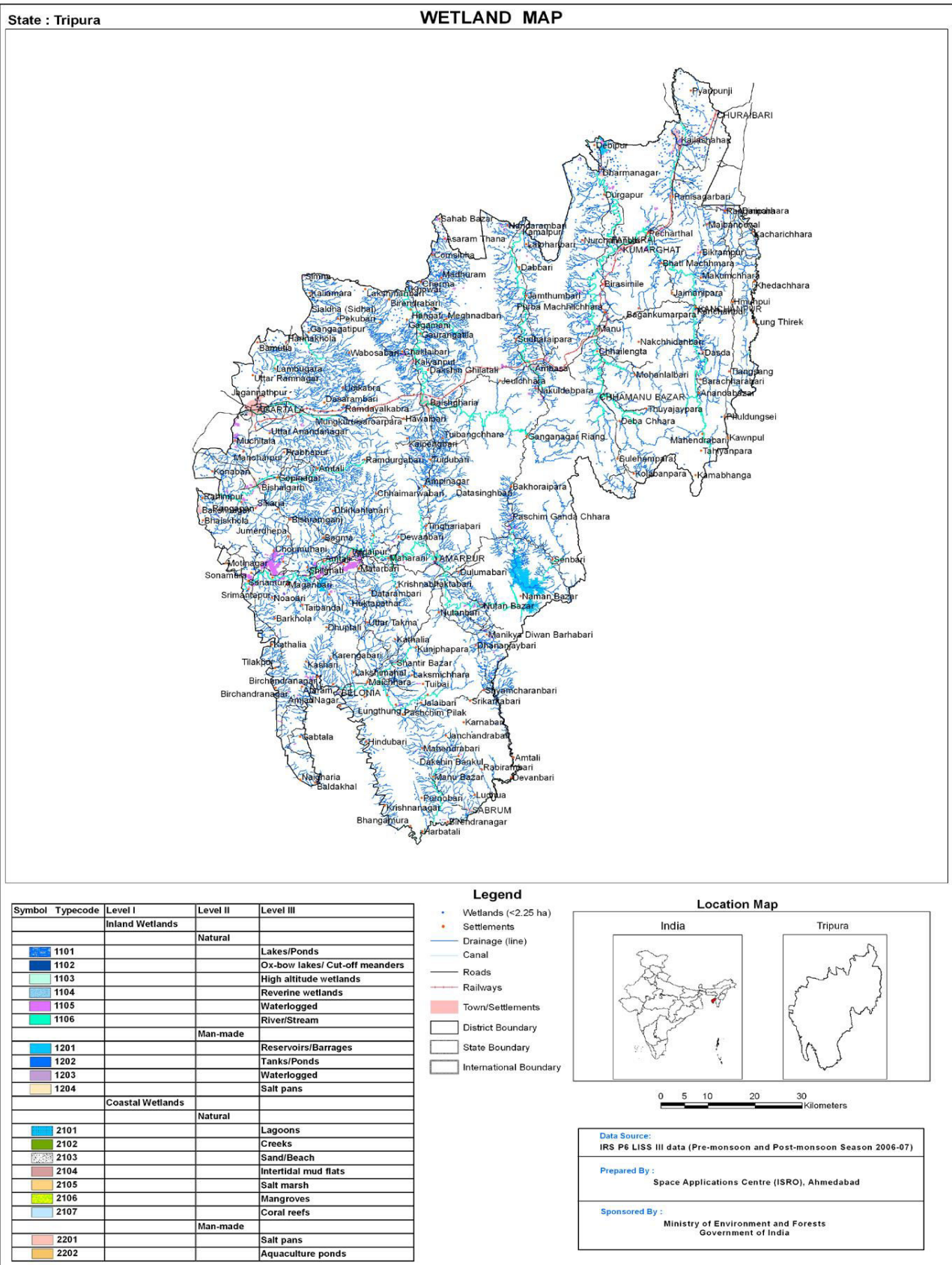
Table 2-7: Wetland Details – South Tripura (including undivided Gomati) District

Area in ha

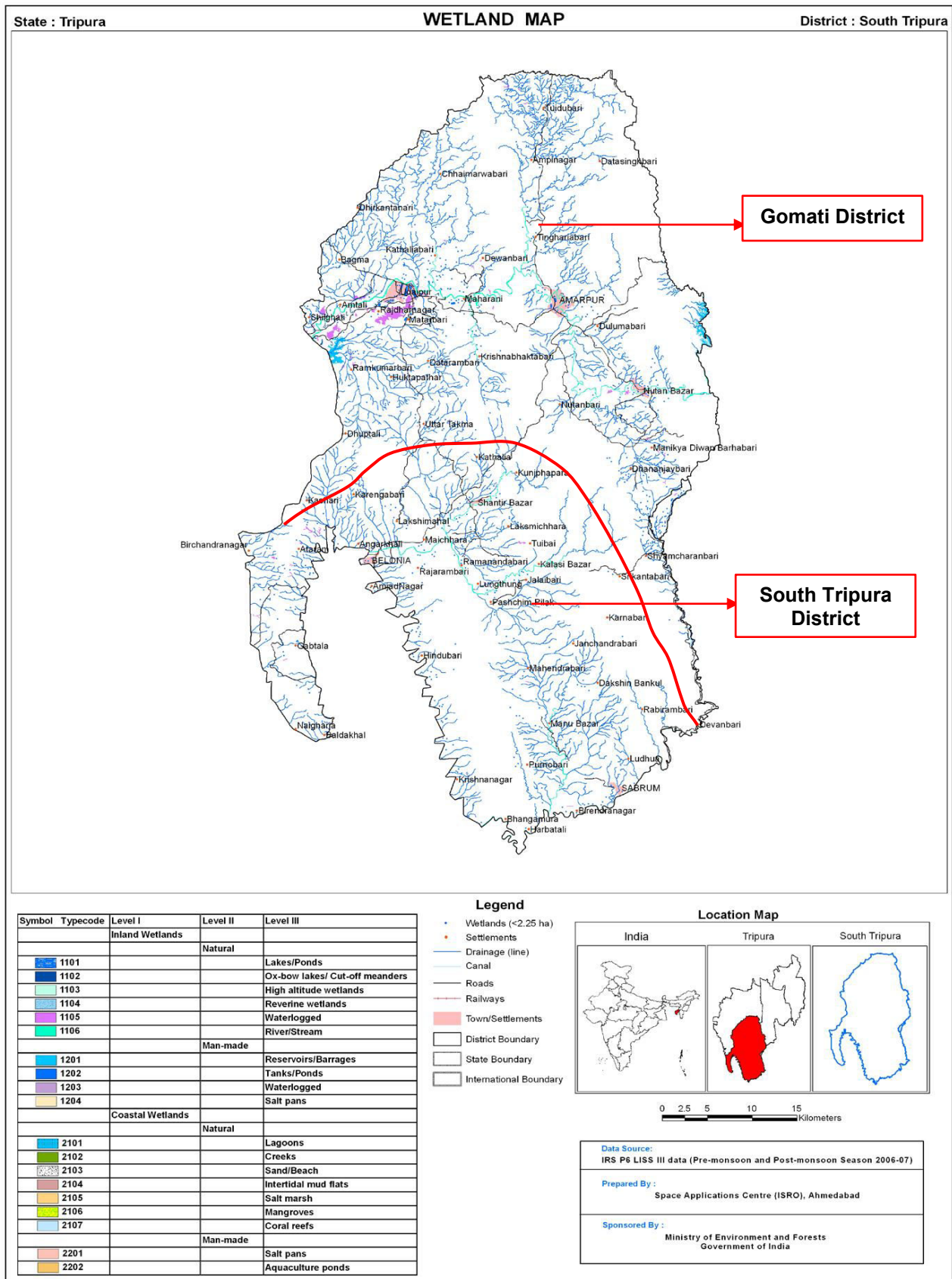
Sr. No.	Wett code	Wetland Category	Number of Wetlands	Total Wetland area	% of wetland area	Open Water	
						Post monsoon area	Pre monsoon area
	1100	Inland Wetlands - Natural					
1	1101	Lakes/Ponds	9	41	0.90	25	20
2	1102	Ox-bow lakes/ Cut-off meanders	29	134	2.93	85	68
3	1105	Waterlogged	55	873	19.09	598	122
4	1106	River/Stream	4	1909	41.74	1159	1370
	1200	Inland Wetlands -Man-made					
5	1201	Reservoirs/Barrages	3	625	13.66	482	94
6	1202	Tanks/Ponds	16	168	3.67	125	125
Sub-Total			116	3750	81.99	2474	1799
Wetlands (<2.25 ha), mainly Tanks			824	824	18.01	-	-
Total			940	4574	100.00	2474	179

Of the total Wetlands, 7 Wetlands are important from the point of view of biodiversity conservation and as centers of socio-economic values and potential sources for eco-tourism in the State. As mentioned above, the Rudrasagar lake of State is also covered under International Convention (Ramsar Convention on wet land) by MoEF&CC. However, none of these wetlands are getting involved/impacted in routing/RoW of proposed lines and locating S/S.

Map 2-10: Wetland Map of Tripura State



Map 2-11: Wetland Map of South Tripura District



2.3.11 Soils

The factors influencing the prevalence of different types of soil in Tripura include topographical changes, climate changes, prevalent rock materials and the vegetation. Soil erosion caused by chemical weathering of the soil in the State of Tripura has led to the bed rock of the region being revealed.

2.3.11.1 Soil Categories:

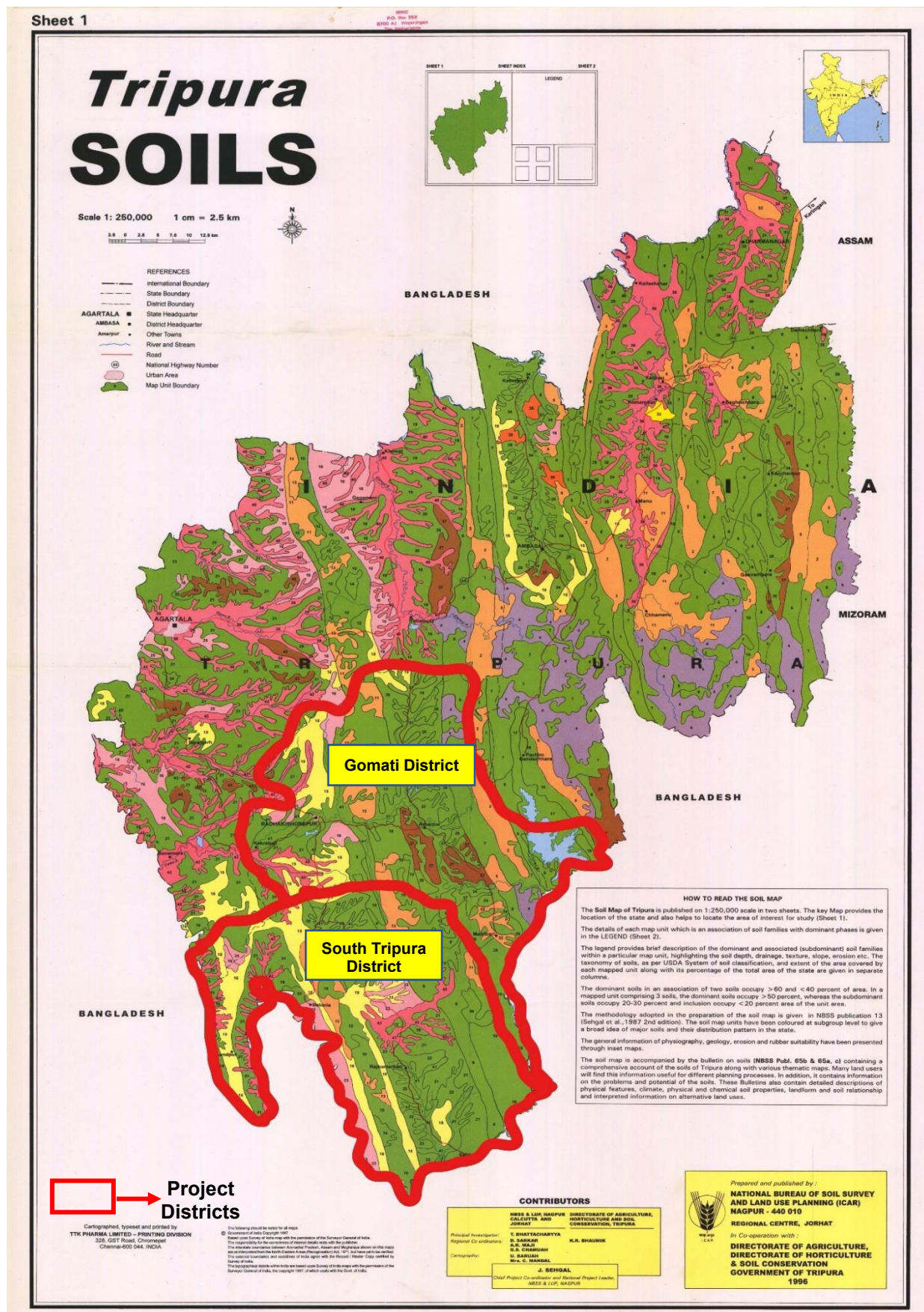
The soil covers a total area of 4,514 Sq. Km. The soil in Tripura can be classified into five distinct categories. 43.07 % of the total land area of the state is occupied by the red loamy soil and the sandy soil. The reddish yellow brown sandy soil of the region covers a total area of 3,468 square kilometers in the state of Tripura. The soil type is the second most dominant type in the region covering 33.06 % of the land area. The three other types of soil that prevail in the region are the lateritic soil, younger alluvial soil and the older alluvial soil.

2.3.11.2 Soil Taxonomy:

The soil taxonomic (family) classification map of project districts was prepared as per the data by National Bureau of Soil Survey & Land Use Planning (NBSS&LUP). Soil map is given in **Map 2-12**. The details of Soil Taxonomic Classification are given in **Appendix A under heading C**.

According to **soil taxonomic classification** Soil Unit 21 is the most dominant Group (12.4%) which is characterized by deep, moderately well drained, fine loamy soils on gently sloping undulating plains with low mounds having loamy surface with moderate erosion hazard. Rest all the soil units covers less than 10% of the project districts. The major taxonomic categories are *Typic Dystrochrepts*, *Typic Haplumbrepts*, *Typic Epiaquepts*, *Typic Hapludults*, *Typic Udorthents*.

Map 2-12: Soil Map of Tripura State with Project Districts



2.3.12 Minerals

Of the total geographical area of Tripura, 76% can be marked as of “Tertiary” origin and 24% belong to Quaternary period; none of these contain any major mineral resource. In Tripura, the mineral resources are mainly glass sands, limestone, plastic clay and hard rock; all of these materials are being used to a variable degree. However, the single most important resource in the state is oil and natural gas. Oil and Natural Gas Commission (ONGC) has initiated massive exploration programme in the State. Mineral Map of Tripura is depicted in **Figure 2-6**.

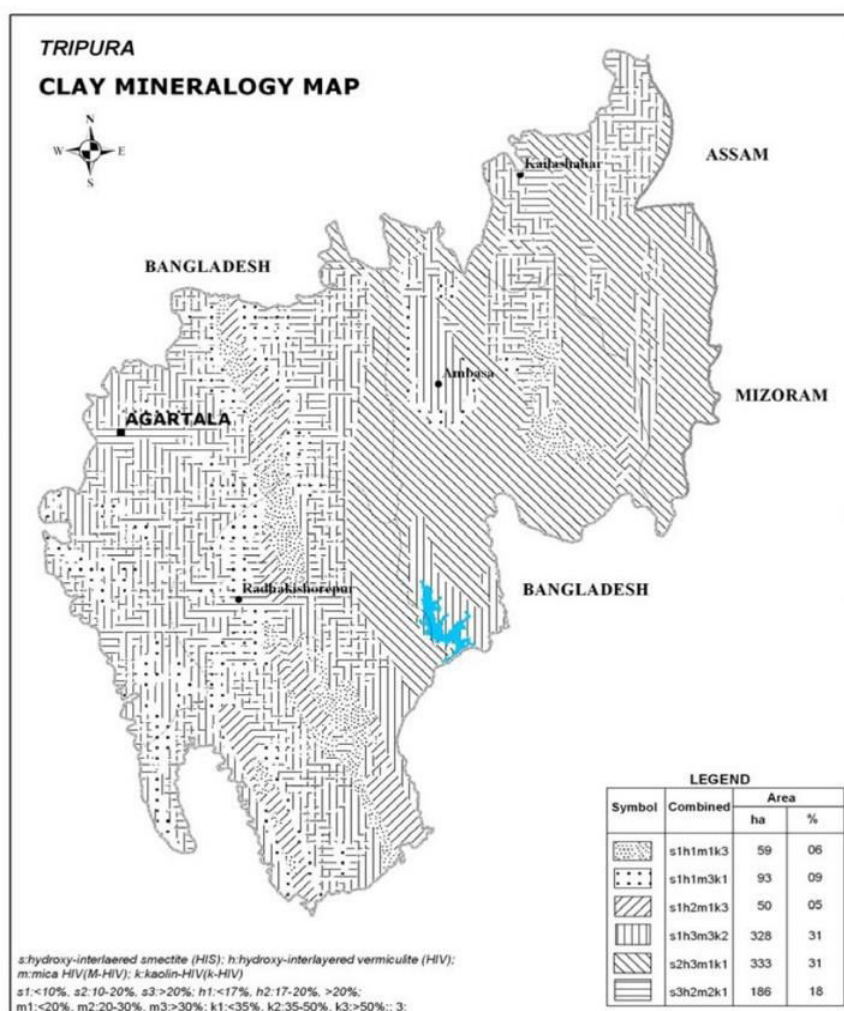


Figure 2-4: Mineral Map of Tripura

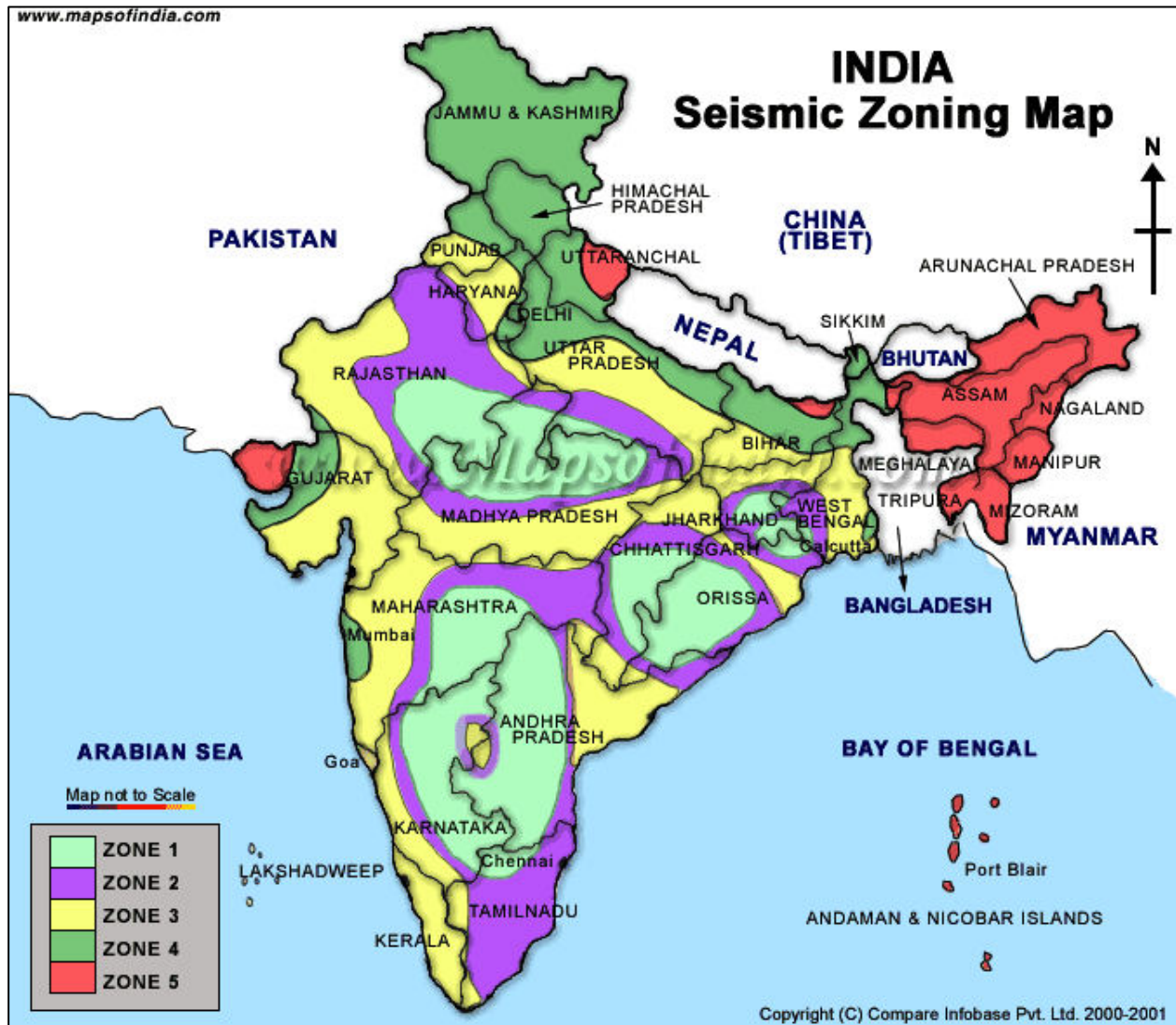
2.3.13 Vulnerability

2.3.13.1 Earthquake Vulnerability¹⁶:

Tripura and the rest of the NER lie in the Zone-V of the seismological map of India, which is regarded as a high-risk zone with respect to earthquakes. Associated vulnerability is studied in detailed for each alignment of the project TL and DL and same are discussed in the **Section 4.3**.

¹⁶ ENVIS Tripura

Map 2-13: Seismic Map of India



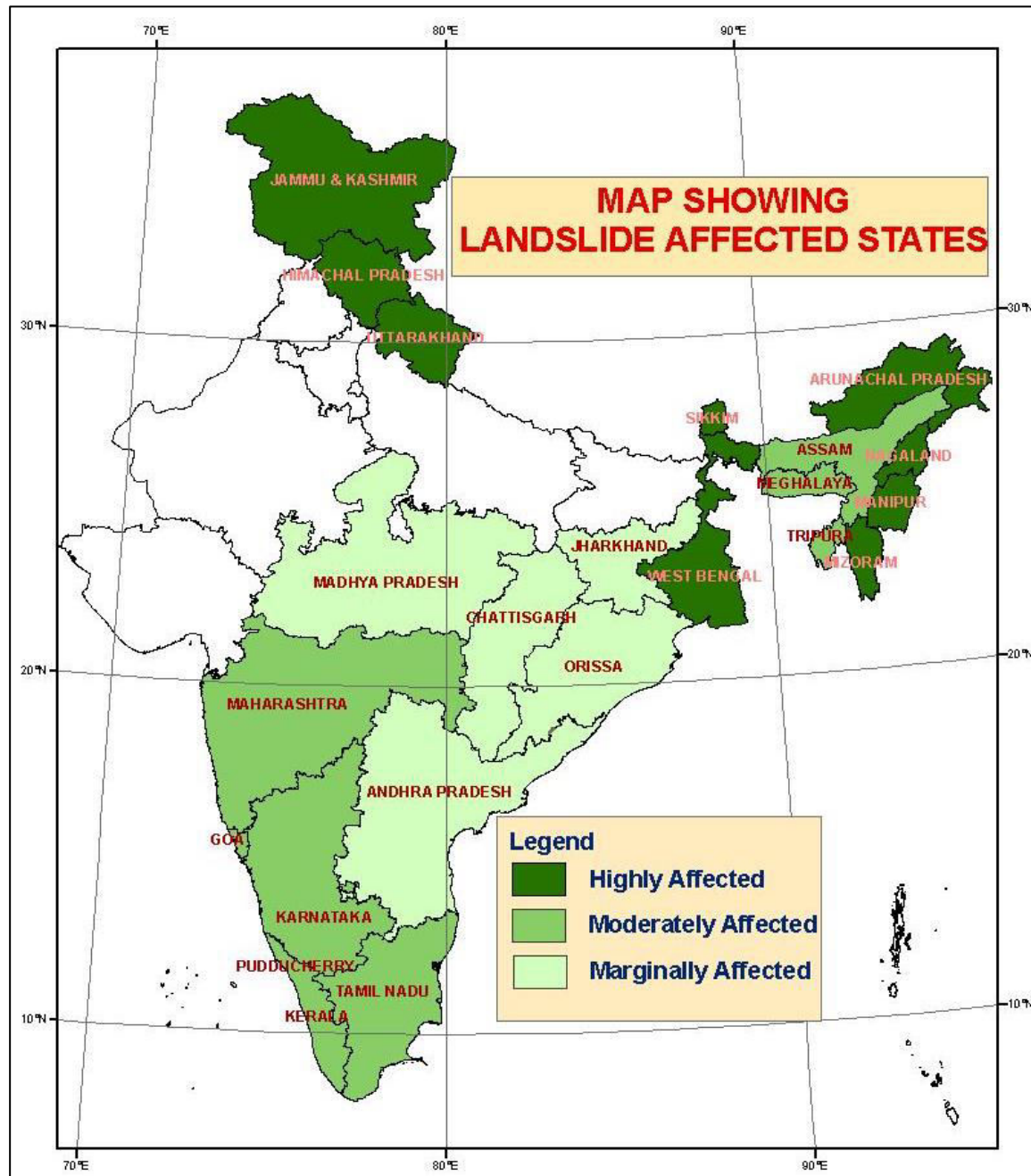
2.3.13.2 Landslide Vulnerability:

Landslide hazard stands as the second geological hazard following earthquake (Li, et. al., 1999; the U.S. Geological Survey, 2000). The Food and Agriculture Organization of the United Nations (FAO) states that steep terrain, vulnerable soil, heavy rainfall and earthquake activities make large parts of Asia highly susceptible to landslides. An area of about 0.49 million sq km out of the total area of India is vulnerable to landslide and about 0.098 sq km of an area in NER of India is vulnerable to landslide. Tripura State comes under moderately affected landslide hazard class (**Map 2.14**)¹⁷.

Landslide, a common phenomenon in hilly region is one of the most important factors of soil erosion. Topsoil and vegetative covers on large scale are considerably lost every year during the monsoon season. Landslides are mainly found below settlement areas, terrace fields, rolling Jhum land and road construction. The possible factors responsible for landslide occurrence may be singular or a combination of several factors. Some of the factors responsible for landslide in Tripura are:

¹⁷ <http://appscmaterial.blogspot.in/2012/02/disaster-managementlandslides.html>

Map 2-14: Landslide Map of India



Soil formations: Clayey and shales have low hydraulic conductivity and can be difficult to drain. On the other hand, when the dip angle of the shale is along the slope, the soils over the shale are more susceptible to landslide. Most of the slides in the area are caused due to this reason. It is also observed that during rainy season the shallow soils lying above shale bed are prone to landslide. Please refer **Soil Section 2.3.11**.

Increase in the Runoff Volume: It affects the regimes of the natural downhill drains and toe cutting has been observed in many cases. Such toe cutting leads to slope failure near these natural drains. Slope failure occurring near these drains adversely affects the stability of the slope in general and leads to repeated slope failure in that area. Such toe failure also leads to blockage of drains promoting infiltration of water into the ground causing saturation of the soil, which adversely affects the stability. During the summer season, more specifically from June to

October, the rainfall is heavy and almost continuous. So, permeable materials get saturated due to long continued heavy rains that, instead of the pelting rain driving individual particles in the form of 'rill' or 'rain-wash' down the slope, the whole of the surficial materials becomes a mass of mud and debris.

Faulty Road Construction: Another important factor causing landslides, it has aggravated the intensity of landslide. One of the main reasons for this is the slope cutting process while constructing the road as it disturbed the slope stability. Most of these slide areas remain weak with mud flow and sinking of highways occur every monsoon season due to the composition of loose sand and dark brown clays where water seepage is quite high.

Urbanization: Due to increasing urbanization and demand for land in the city area, and lack of enforcement of development controls, people have started construction even on the valley lines, completely blocking the drainage path in some cases. These drains need to cross the road system in several stages through culverts. Eroded soils and garbage carried down by water during torrential rainy season block many a time cross drains and lead to overflowing of water onto the road. Increasing urbanization has also increased the surface runoff because extension in the pucca ground cover or black topping through the construction of building, courtyards, roads, pavements, etc., reduces infiltration of rainwater significantly and increases surface runoff, thereby increasing the volume and discharge in the area and drain which in turn remove the top soil rapidly and also cause landslide in the areas. In the instant scheme, during construction limited quantity of excavated material is generated from tower foundations and S/S foundation. However, adequate mitigation measures have been given in the EMP and same are being undertaken to avoid any chances of landslide. In addition, excavation is avoided in rainy days. So far there are no instances of landslide due to any of the construction activity. Landslide due to operation and maintenance is not at all expected. The details are discussed in Chapter 4 for each project line.

2.3.13.3 Erosion Vulnerability¹⁸:

Unscientific land utilization incompatible with its carrying capacity leads to land degradation which has both environmental and economic consequences. The information on land degradation is needed for a variety of purposes like planning reclamation programs, rational land use planning, for bringing additional areas into cultivation, to improve productivity levels in degraded lands etc. As per the land degradation mapping undertaken by Department of Space, GoI along with partner institutions under National Natural Resources Census (NRC), water and wind are the most important land degradation process that occurs on the surface of the earth. Rainfall, soil, physical properties, terrain slope, land cover and management practices play a significant role in soil erosion. Some of the factors responsible for soil erosion in Tripura are:

Sheet Erosion: It is a common problem resulting from loss of topsoil. The soil particles are removed from the whole soil surface on a uniform basis in the form of thin layers. The severity of the problem is often difficult to visualize with naked eyes in the field.

Rill Erosion: When sheet erosion is severe and the surface runoff goes in the form of a concentric flow, tiny water channels are formed in the field called rills. Rills are generally

¹⁸ State Level perspective plan for watershed development in Tripura and NBSS & LUP, Nagpur

associated with the cultivated lands and are visible in the ploughed soil after first heavy showers.

Gully Erosion: Gullies are formed as a result of localized surface run-off affecting the unconsolidated material resulting in the formation of perceptible channels causing undulating terrain. They are commonly found in sloping lands, developed as a result of concentrated run-off over fairly long time. They are mostly associated with stream courses, sloping grounds with good rainfall regions and foothill regions.

Landslide/ Landslip Erosion: The region is quite prone to landslides/ landslips that take a heavy toll on valuable lands, property and life besides aggravating the problem of soil erosion. Factor responsible for landslide have already been explained in earlier section.

Faulty Road Construction: As explained in earlier section.

Unscientific Disposal of Debris Generated by Road Construction: Roads are the only means of communication and form an important development activity in the region. Road construction in the mountainous terrain requires a lot of blasting and construction in a zigzag fashion. The debris thus produced is not properly disposed at dumping sites and is just pushed onto the river side slopes. This results in heavy erosion during the rainy season.

Urbanization: As explained in earlier section.

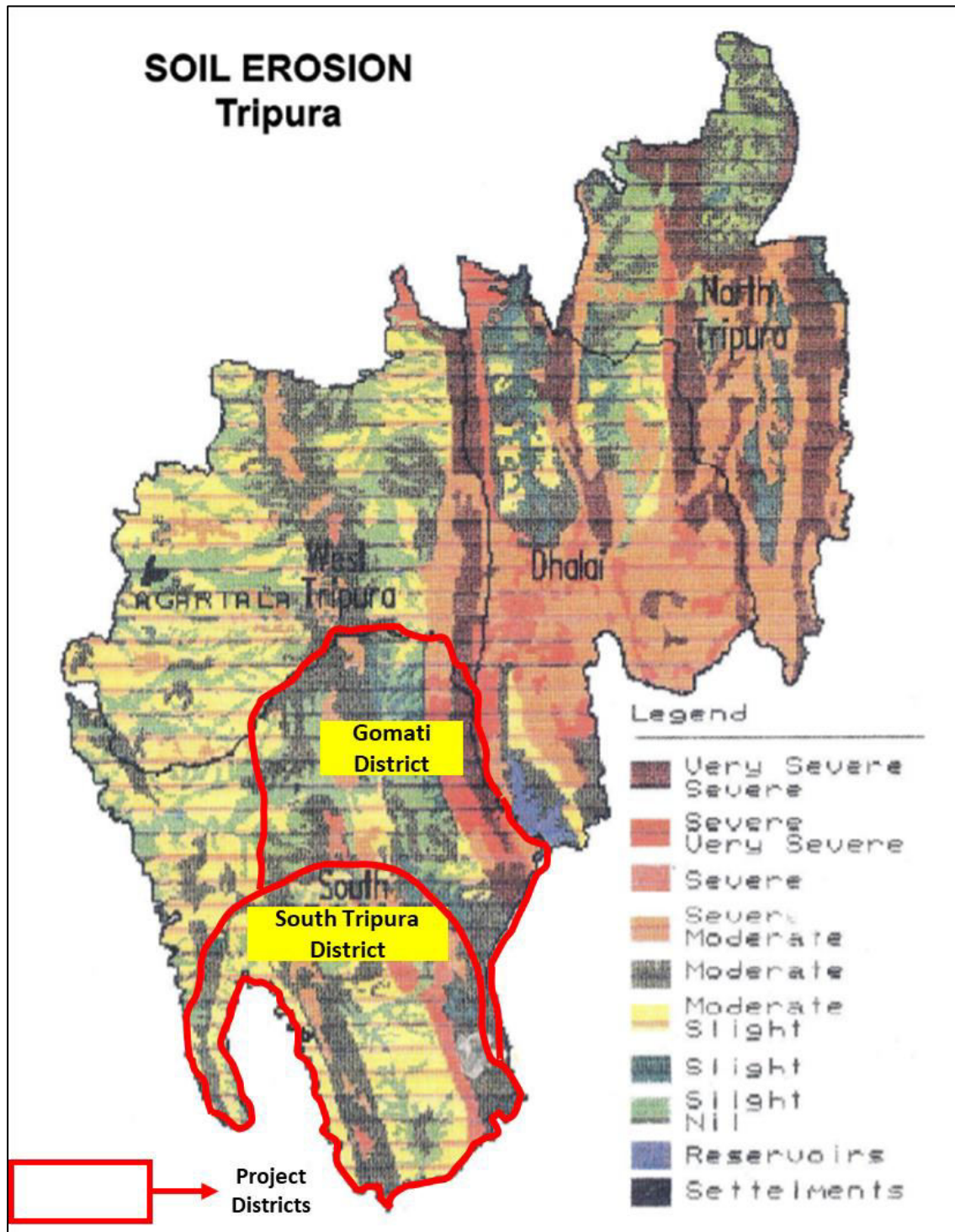
For the assessment of soil erosion vulnerability hazard, NBSS&LUP report on soil erosion (2011) and State Level respective plan of watershed development in Tripura (2012) are referred. All project districts are falling in nil to moderate soil erosion zones. Please Refer **Map 2-15**. Landslide and erosion vulnerability is studied in detailed for each alignment of the project TL and same are discussed in the **Section 4.3**. Adequate mitigation measures have been given in the EMP and same shall be followed to avoid any chances of getting affected by soil erosion vulnerable areas. In addition, any work shall be avoided in rainy days.

2.3.13.4 Flood Vulnerability¹⁹:

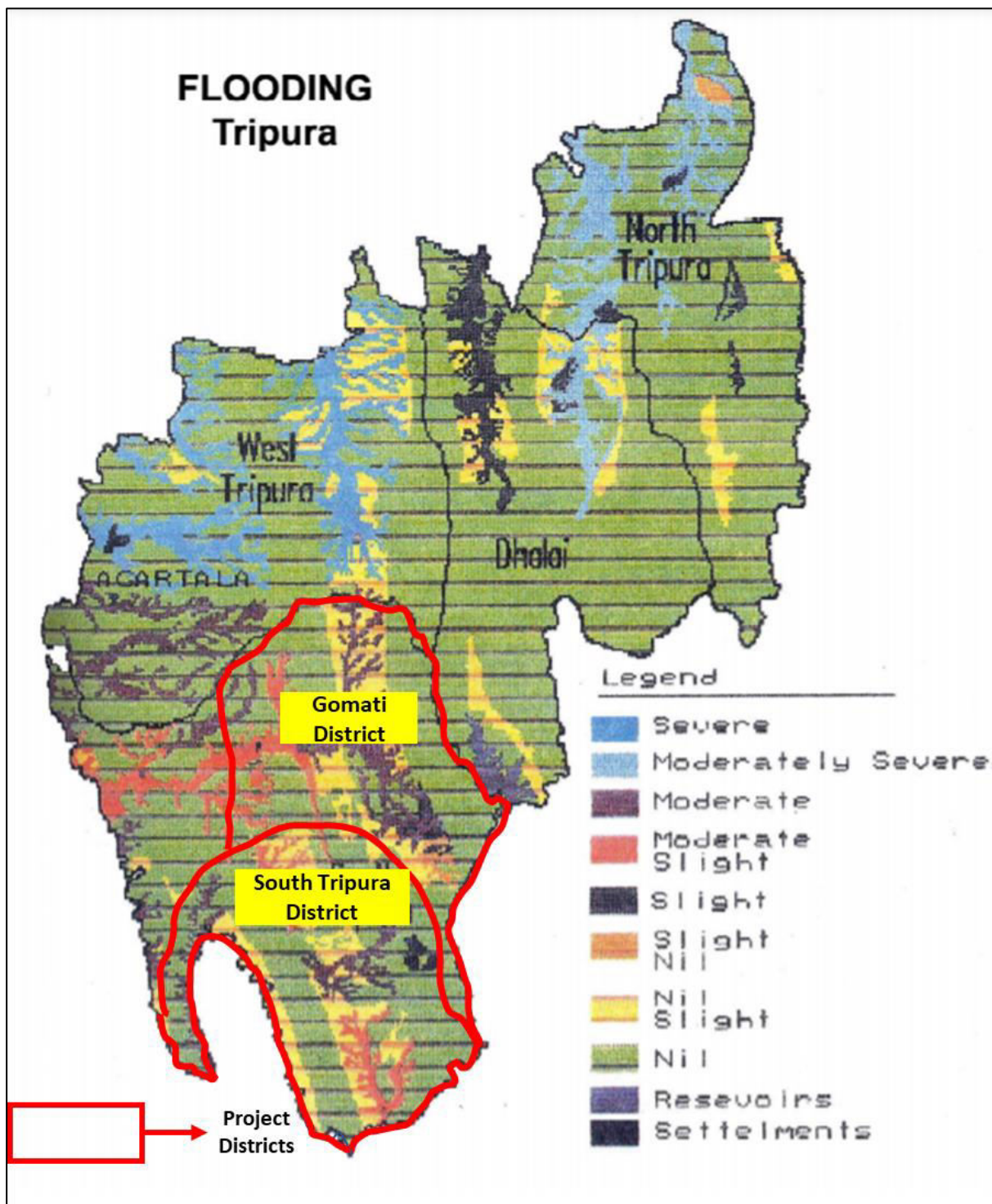
750 km² of land area of the State is considered to be flood prone. Nearly all the rivers are rain-fed and are prone to flood. Drying up of perennial drainage courses and Transportation and deposition of sand, silt in the venerable pockets are the main reasons causing flood and inundation hazards. With reference to the State Level perspective plan for watershed development in Tripura and NBSS & LUP, Nagpur and Disaster Management Cell of GoT, it can be inferred that the project districts Gomati and South Tripura are very low to slightly moderate flood prone area in Tripura State. **Please refer Map 2-16**. Flood vulnerability is studied in detailed for each alignment of the project TL and same are discussed in the **Section 4.3**. Adequate mitigation measures have been given in the EMP and same are followed to avoid any chances of getting affected by flood vulnerable areas. In addition, any work is avoided in rainy days.

¹⁹ Disaster Management Cell of Tripura, GoT and NBSS&LUP, 2011, Nagpur

Map 2-15: Soil Erosion Map of Tripura



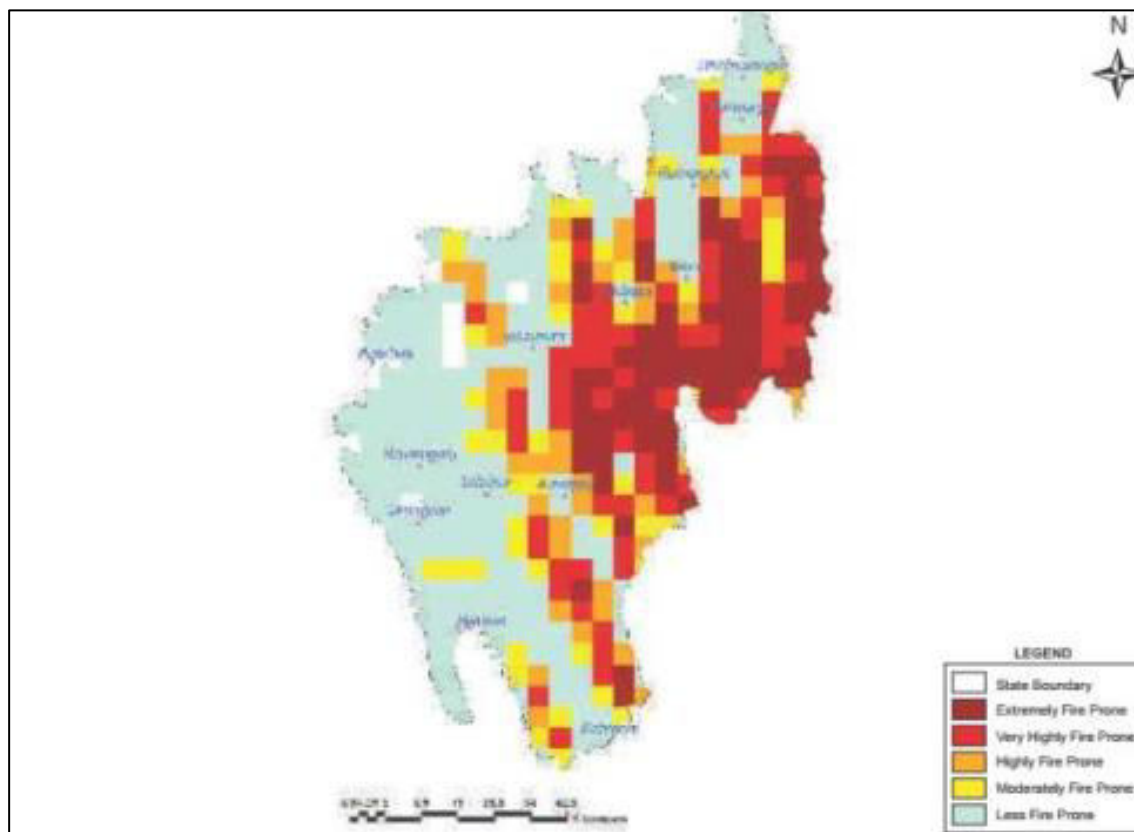
Map 2-16: Flood Map of Tripura



2.3.13.5 Fire Vulnerability¹⁹:

Geographical area under different classes of forest fire proneness is given in the **Map 2.17**. It can be inferred that forest areas of eastern part of Gomati and Southern Eastern part south Tripura District are extremely prone to fire.

Map 2-17: Fire Prone Forest Areas Map of Tripura



2.4 Biological Environment

It is pertinent to mention that, in the present project, forest area/land covered under Forest (Conservation) Act, 1980 has been tried to avoided with careful selection of route alignment. All line routes and S/S locations have been selected in such a way that it successfully avoids any kind of PA and RF through meticulous site selection exercise. However, 100% avoidance of RF could not be attempted in TLs. It is to submit that detailed site surveys, alignment studies and meticulous exercise has resulted in a great reduction of forest area involved in the FEAR III subprojects. Earlier there was 145.88 Ha of the forest was involved as per the IEAR study. However, now it is reduced to 86ha. The details are discussed in the subsequent chapters.

In order to analyse the impacts and plan mitigation measures, it is imperative to study baseline information for TL and surrounding or proximity area as well (study area), which includes forest areas under the control of individual / community / village councils. The same has been described in ensuing paragraphs.

2.4.1 Floristics – Tripura State²⁰

The recorded forest area of the State is 6,294 sq. km based on the India State of Forest Report (ISFR), 2019, which constitutes 60% of its geographical area. RF constitute 66.33%, PF 2% and UCF constitute 33.64%. The biological diversity of any geographical region is estimated at the level of ecosystem diversity, species diversity and genetic diversity. Tripura being a part of NER of India, belongs to one of the two “Hot Spot” of India amongst 18 identified in the World.

²⁰ Tripura Envis

At the ecosystem level, the State exhibits a part of Mountain ecosystem with moderate hill ranges and forest ecosystem. In between these two dominant ecosystems lies the freshwater ecosystem comprising 10 major rivers, numerous wetlands. Undulating high lands of narrow and broken plates cover extensive areas (Deb, 1975).

Forests in Tripura State are largely under the community and private forests. The Forest Department owns only certain areas classified as RF, PF, WLS, NP, Nurseries & Botanical Gardens, therefore the department has purchased land from private owners for Biodiversity Conservation and taking up plantations under JICA Project²¹. The State has started 'Joint Forest Management'²² program to elicit active participation of villagers in creation, management and protection of plantations. Intensification of Forest Management was carried out in the State by creating adequate infrastructure and controlling the incidences of forest fire.

In Tripura state, during the period January 2015 to February 2017, forest cover was decreased by 164 sq. km is observed as per ISFR 2019. This can be attributed to shifting cultivation, harvesting of mature rubber plantations and other development activities for non-forestry purposes under the Forest Conservation Act, 1980 (MoEF&CC, 2019). In some cases, it can be attributed to change due to extension of area under rubber plantation²³.

2.4.1.1 Forest Cover ²¹:

In terms of geographical area Tripura state has total 60% of Forest Area. The details are depicted in **Table 2.8**. As per the ISFR, 2019 by Forest Survey of India, the Forest cover is 6294 sq. km and forest canopy cover including include the private forest and community forest as well in the State is 7,726 sq. km. which is 73.68 % of the State's geographical area. In terms of forest canopy density classes, the State has 654 sq. km. under Very Dense Forest (VDF), 5,236 sq. km. under Moderately Dense Forest (MDF) and 1,836 sq. km. under Open Forest (OF). Please Refer **Table 2.9** and **Figure 2.5**. Forest Map of the Tripura State is given as **Map 2-18**.

Table 2-8: Forest Area Classification – Tripura State

Geographical Area (GA) Sq. Km.	Recorded Forest Area (RFA) Sq. Km.						Total RFA Sq. Km. in 2019	% of GA
	RF	% RF	PF	% PF	UCF	% UCF		
10,486	4,175	66.33	2	0.03	2,117	33.64	6,294	60

RF: Reserved Forest (RF), Protected Forest (PF), Unclassed Forests (UCF)

Table 2-9: Forest Canopy Cover – Tripura State

Geographical Area (GA) Sq. Km	Forest Cover in Sq. Km. 2019						Total Area Sq. Km 2019	% of GA
	VDF	%VDF	MDF	%MDF	OF	%OF		
10,486	654	6.24	5236	49.93	1836	17.51	7,726	73.68

²¹ Biodiversity Conservation Component, Tripura Biodiversity Board

²² Joint Forest Management Committees, GoT, Tripura Forest Department

²³ India State of Forest Report (ISFR), 2019

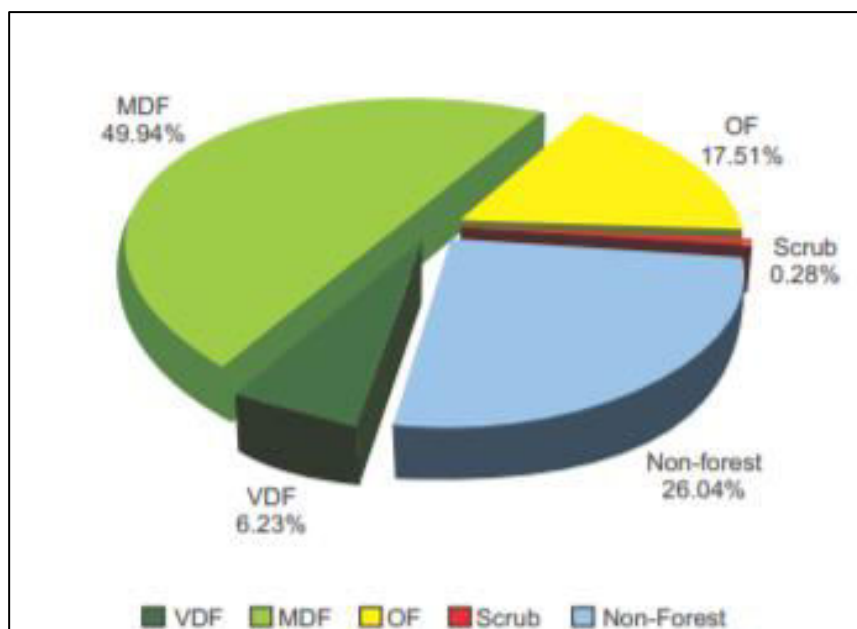


Figure 2-5: Forest Cover of Tripura State

2.4.1.2 Forest Cover inside and outside Recorded Forest Area (Green Wash) ²⁴

The State has reported extent of recorded forest area (RFA) 6,294 sq. km. which is 60% of its geographical area. The RF and UCF are 66.33% and 33.64% of the recorded forest area in the State, respectively. **Please Refer Table 2.8.** Due to non-availability of digitized boundary of recorded forest areas from the State, the updated Green Wash from Survey of India (Sol) toposheets which is 7,726 sq km has been used as proxy to the RFA boundary and the analysis of forest cover inside and outside this area is given below in **Table 2.10.**

Table 2-10: Forest Area Classification – Tripura State

	Forest Cover inside the Recorded Forest Area (or Green Wash)				Forest Cover inside the Recorded Forest Area (or Green Wash)			
	VDF	MDF	OF	Total	VDF	MDF	OF	Total
Area Sq. Km.	410	3,903	1,138	5,451	244	1,333	698	2,275
Area (%)	7.52	71.60	20.88	100.00	10.73	58.59	30.68	100.00

²⁴ Indian State Forest Report, 2019

Map 2-18: Forest Map of Tripura State²⁵

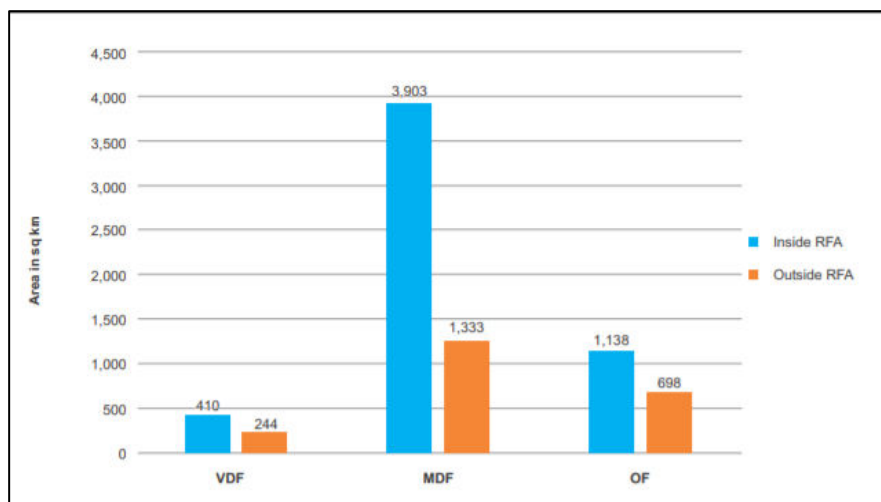
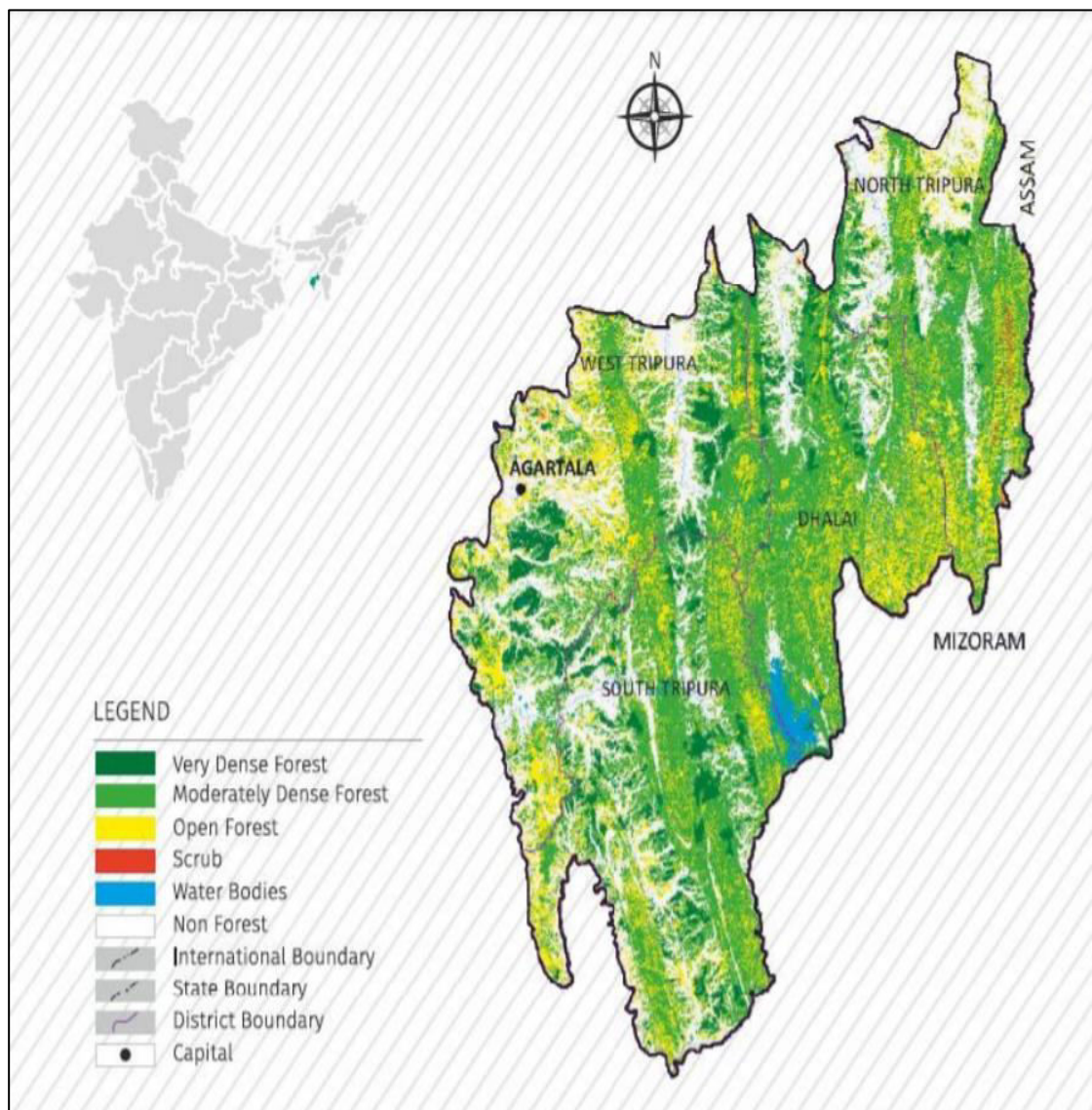


Figure 2-6: Forest Cover Inside and Outside RFA

²⁵ Indian State Forest Report, 2019

2.4.1.3 Forest Types ²⁶:

Tripura state has been endowed with a wide variety of forest types on account of its unique geographic location and wide range of physiographic terrain. Tripura has 6 forest types as per the Champion & Seth classification (1968). Latest details of Forest Survey of India (FSI), 2019 are presented in the following **Table 2.11**.

Table 2-11: Details of forests in Tripura

Sr. No.	Types of forest	% of Forest Cover
1	2B/C2 Cachar Semi Evergreen Forest	27.47
2	2B/2S1 Pioneer Euphorbiaceous Scrub	0.01
3	2/2S1 Secondary Moist Bamboo Brakes	7.55
4	3C/C1b(ii) East Himalayan Lower Bhabar Sal	2.57
5	3C/C3b East Himalayan Moist Mixed Deciduous Forest	39.89
6	Plantation / TOF	22.51

2.4.2 Biodiversity – Tripura State

Tripura is very rich in biodiversity. Major type of forest in Tripura is tropical type, which is grouped as:

- Evergreen forest
- Moist deciduous
- Seral Type
- Subsidiary edaphic type

2.4.2.1 Biodiversity Index:

The State belongs to two forest type groups, viz. Tropical Semi Evergreen and Tropical Moist Deciduous Forests. As per the rapid assessment of Biodiversity carried out by Forest Survey of India (FSI) at the national level for natural forests during September 2018 to May 2019 as part of the forest type mapping exercise in respect of Tripura, total number of species reported in the state are 148, out of which 89 are tree species, 37 are shrub species and 22 are herb species. The Shannon-Wiener Index of Tree, Shrub and Herb species in different Type Groups of the state are given below in **Table 2.12**.

Table 2-12: Shannon-Wiener Index of Tree, Shrub and Herb species in different Type Groups of Tripura

Sr. No.	Forest Type Group	Shannon – Wiener Index		
		Tree	Shrub	Herb
1	Group 2 - Tropical Semi Evergreen and	2.77	1.69	3.47
2	Group 3 - Tropical Moist Deciduous Forests	3.14	2.95	2.97

2.4.2.2 Flora of Tripura State²⁷:

Tripura is a landlocked small hilly state of NER of India and part of richest reservoir of biodiversity. Aggressive civilization, rapid growth of industrialization and pollution results loss of different species from the earth causes danger to biodiversity. Different tribes of Tripura still

²⁶ Champion & Seth Classification system (1968), GoT, Tripura Forest Department

²⁷ biodiversity.tripura.gov.in

live on and near forest and depend on local flora and fauna for the food, shelter, medication and ritual ceremonies. Environmental hazards and destruction of forest resulted permanent loss of different flora and fauna for the earth. This also causes great changes in the lives of tribal people of the state. Now this is appropriate time of demand to ensure the biodiversity and conserve it to protect the traditional life of tribal people and the world environment.

It is aimed at commissioning studies and sponsoring investigations and research for inventorization of the biodiversity in the state including dissemination of information and data across. It is also engaged in awareness creation through mass media regarding conservation of biological bio-diversity, sustainable use of its components and fair and equitable sharing of benefits arising out of the use of biological resource and knowledge. Taking steps to build up database and to create information and documentation system for biological resources and associated traditional knowledge through bio-diversity registers and electronics data bases, to ensure effective management, promotion and sustainable uses. The details of flora of Tripura are as follows:

Table 2-13: Highlights of flora of Tripura²⁸

No.	Group of Plant	Families	Genera
1.	Angiosperms	168	816
2.	Gymnosperms	6	8
3.	Pteridophytes	18	38
4.	Total	192	862

Various extension programmes towards biodiversity conservation education by involving schools and colleges; about 900 Eco-clubs across the state; setting up 'Biodiversity Libraries' in village schools; dissemination of posters, booklets, information bulletins etc.; setting up (proposed) exhibits in the Tripura State Museum and Science Academy for display of Biodiversity; observance of International Biodiversity Day, Wildlife Week, Environment Day, conducting and participating at National and State level seminars and workshops in collaboration with organizations/bodies like ONGC, Tripura University (Dept of Botany, Dept. of Forestry & Biodiversity), Trishna WLS (Tripura), Eco Clubs in schools, PA and BMCs across the State.

a. Some rare and endangered flora of Tripura:

Table 2-14: Rare and endangered flora

Sr. No.	Name of the Species	Family	Distribution
1.	<i>Begonia surculigera</i>	Begoniaceae	Unokoti
2.	<i>Colona flagrocarpa</i>	Tiliaceae	Sakhan, Tlangsang
3.	<i>Ophiorrhiza villosa</i>	Rubiaceae	Kumarghat, sipaijala
4.	<i>Torenia mucronulata</i>	Scrophulariaceae	Ghorakappa
5.	<i>Tournefortia roxburghii</i>	Scrophulariaceae	Sabroom
6.	<i>Jasminum listeri</i>	Oleaceae	Jampui ranges
7.	<i>Wallichia caryotoides</i>	Arecaceae	Baramura and Atharamura ranges
8.	<i>Cycas pectinata</i>	Cycadaceae	Baramura range
9.	<i>Podocarpus neriifolius</i>	Podocarpaceae	Lalijuri
10.	<i>Gnetum montanum</i>	Gnetaceae	Teliamura

²⁸ Deb, 1981 & 1985

Sr. No.	Name of the Species	Family	Distribution
11.	<i>Gnetum oblongum</i>	Gnetaceae	Silachari
12.	<i>Mangifera sylvatica</i>	Anacardiaceae	Telimura and Ambasha
13.	<i>Dischidia benghalensis</i>	Asclepiadaceae	Tripura
14.	<i>Dischidia nummularia</i>	Asclepiadaceae	Tripura
15.	<i>Dischidia major</i>	Asclepiadaceae	Tripura

b. Some plants of economical use in Tripura:

Table 2-15: Economically important plants

Sr. No.	Scientific Name	Common Name
1.	<i>Albizzia lucida</i>	Silkoroi
2.	<i>Albizzia procera</i>	Safed Siris
3.	<i>Artocarpus chaplasi</i>	Sam
4.	<i>Carrya arborea</i>	Kumbhi
5.	<i>Chukmsia velutina</i>	Bogapoma
6.	<i>Cinnamomum bejolghata</i>	Tejpata
7.	<i>Dillenia indica</i>	Chalita
8.	<i>Dillenia pentagyna</i>	Akshi
9.	<i>Dipterocarpus turbinatus</i>	Kherjong
10.	<i>Duanbanga gradiflora</i>	Kokam
11.	<i>Gmelina arborea</i>	Gomari
12.	<i>Lagerstroemia parsiiflora</i>	Sida
13.	<i>Lagerstroemia speciosa</i>	Ajur
14.	<i>Magnolia pterocarpa</i>	Thouthua
15.	<i>Mesua ferrea</i>	Nahor
16.	<i>Michelia champaca</i>	Titasopa
17.	<i>Palaquium polyantha</i>	-
18.	<i>Shorea robusta</i>	Sal
19.	<i>Sterospermum personatum</i>	Parolli
20.	<i>Syzygium cuminis</i>	Zamun
21.	<i>Terminalia alata</i> var. <i>tomentosa</i>	Asan
22.	<i>Terminalia bellirica</i>	Bairah
23.	<i>Terminalia myriocarpa</i>	Hollock
24.	<i>Toona ciliata</i>	-

Table 2-16: Economically important plants – Bamboo and Cane Species

Sr. No.	Scientific Name	Local Name
A.	Bamboo Species	
1.	<i>Bambusa affinis</i>	Kanak-Kai
2.	<i>Bambusa nutans</i>	Kali bans
3.	<i>Bambusa palida</i>	Makal
4.	<i>Bambusa polymorpha</i>	Bari
5.	<i>Bambusa teris</i>	Purua
6.	<i>Bambusa</i> spp.	Jai/ Purua/ Bombans
7.	<i>Dendrocalamus hamiltoni</i>	Ponch bans
8.	<i>Oxylanthum albouliata</i>	Kalai
9.	<i>Nedhoozca dulloa</i>	Dolu
10.	<i>Melocana bambusoides</i>	Mul
B.	Cane Species	

Sr. No.	Scientific Name	Local Name
1.	<i>Calamus ereetus</i>	NA
2.	<i>Calamus floribundus</i>	NA
3.	<i>Calamus garbna</i>	Sundibet
4.	<i>Calamus teotopathoides</i>	NA
5.	<i>Calamus viminalis</i>	Pannabet
6.	<i>Calamus tenuis</i>	Chachibet

c. Important medicinal plants of Tripura:

Table 2-17: Medicinal plants

Sr. No.	Scientific Name	Family
1.	<i>Andrographis paniculata</i>	Acanthaceae
2.	<i>Aquillaria malaccensis</i>	Thymelaeaceae
3.	<i>Asparagus reticulatus</i>	Liliaceae
4.	<i>Baeopa moniari</i>	Scrophulariaceae
5.	<i>Centella asiatica</i>	Umbelliferae
6.	<i>Hemidesmus indicus</i>	Apocynaceae
7.	<i>Holorrhea pubescens</i>	Apocynaceae
8.	<i>Hydrocarpus kurzi</i>	Labiatae
9.	<i>Justica adhatida</i>	Acanthaceae
10.	<i>Marsilea minuta</i>	Acanthaceae
11.	<i>Ocimum tenuiflorum</i>	Labiatae
12.	<i>Phlogacanthus thyrsoiflorus</i>	Acanthaceae
13.	<i>Rawlfia serpentina</i>	Apocynaceae
14.	<i>Saraca asoca</i>	Fabaceae
15.	<i>Terminalia belerica</i>	Combretaceae
16.	<i>Terminalia chebula</i>	Combretaceae
17.	<i>Vitex negabdo</i>	Verbenaceae
18.	<i>Vitex peduncularis</i>	Verbenaceae

d. Most common Families of Agri-horticultural Species:

Table 2-18: Agri-Horticultural Plants

Sr. No.	Name of the Family	No. of Genera	No. of Species
1.	Papilionaceae	44	96 + var.
2.	Gramineae	49	79 + 1 var.
3.	Compositae	39	54
4.	Solanaceae	11	26 + 1 var.
5.	Cucurbitaceae	16	26 + 1 var.
6.	Malvaceae	10	25 + 1 var.
7.	Araceae	15	25 + 1 var.

Two-thirds of the state is forested where different species of trees, orchids, birds and wildlife are found. There are four sanctuaries in the state namely, Rowa WLS, Sepahijala WLS, Trishna WLS and Gomati WLS.

The Sepahijala WLS in Tripura has 456 plant species of monocotyledon and dicotyledonous plants. Trees of Sal, Chamal, Garjan and Kanak exist predominantly. The secondary species

consist of Pichla, Kurcha, Awla, Bahera, Hargaja, Amlaki, Bamboos and grasses. There are 5 species of primates in this sanctuary. The crab eating Mongoose, which was last, sighted before 72 years ago in India has been discovered again in this sanctuary. There are about 150 species of birds in this sanctuary. During winter a large number of migratory birds visit the sanctuary. There are more than 150 species of residential birds and migratory birds are found here. This sanctuary is also a beautiful picnic spot.

2.4.2.3 Invasive Species of Tripura State²⁹:

An invasive plant is a non-native plant that is able to persist and proliferate outside of cultivation, resulting in ecological and/or economic harm. Once established in these areas, invasive plants often continue to spread to adjacent habitats. All invasive plant species are aggressive competitors with the ability to significantly reduce diversity of native plant and also disturb & alter wildlife habitat. As per ISFR, 2019, there are five invasive species in Tripura, *Chromolaena odorata*, *Mikania micrantha*, *Imperata cylindrica*, *Saccharum spontaneum* and *Lantana camara*.

As per literature review, it is observed that invasive plants spread by a variety of mechanisms, including birds, wind, and water. Human activities are also a major factor in the spread of these plants, from gardening, medicinal uses, edible properties and transport of nursery stock to erosion control and wildlife plantings.

Table 2-19: Invasive species recorded from Project Area and uses

Species Name	Common Name	Medicinal Uses
Chromolaena odorata	Siam weed / Bagh	Used wound skin, skin infections, inflammation, a therapeutic agent for a variety of diseases, such as wound healing, anti- inflammatory, analgesic, antipyretic, diuretic, and antimicrobial, anti-mycobacterial
Mikania micrantha	RAVANLATA / bitter vine	A poultice made from the leaves of M. micrantha is used to treat venomous biting of insects and the leaf juice is used to reduce skin rashes and itches. furthermore, it is used to mitigate stomach ache, jaundice, fever, rheumatism, cold, and respiratory diseases
Imperata cylindrica	Darbha / cogongrass	They are decocted and used to treat urinary tract infections, fevers, thirst etc. The root is astringent, antifebrile, antivenoms, diuretic, emollient, hemostatic, restorative and tonic. It is used in the treatment of nose bleeds, hematuria, hematemesis, oedema and jaundice
Saccharum spontaneum	wild sugarcane/ Kans grass	According to Ayurveda, roots are sweet, astringent, emollient, refrigerant, diuretic, lithotriptic, purgative, tonic, aphrodisiac and useful in treatment of dyspepsia, burning sensation, piles, sexual weakness, gynecological troubles, respiratory troubles
Lantana camara	Raimuniya / Wild sage	The plant extracts have been used in folk medicine for the treatment of cancers, chicken pox, measles, asthma, ulcers, swellings, eczema, tumors, high blood pressure, bilious fevers, catarrhal infections, tetanus, rheumatism and malaria

2.4.2.4 Faunal Diversity of Tripura:

Mammalian Fauna:

The faunal diversity of the State can be viewed from Aquatic and Terrestrial ecosystems. In the aquatic system, at least 129 species of fishes are recorded belonging to 32 families, and 11 order, the largest number of species being from the family Cyprinidae (49 species, including

²⁹ ISFR, 2019

Rohu, Katla, Kalbasu, Puthi, Mahasheer, Chela, etc.). The invertebrate fauna includes 27 species of Protzoans, 30 species of Crustaceans, 10 species of Rotifers, two species of annelids, 14 species of insects (water beetles, bugs, Odonates, mosquitoes, etc.) and six species of Mollusca.

Mammalian fauna was reported to be composed 54 species. These represent more than 33% of the total mammalian fauna known from India. Of the 15 primate species known from India 7 species have been recorded from Tripura of which Phayre's Leaf Monkey (locally known as "Chashma Banar") is the most dominant species. Endangered species of primates, besides Leaf Monkey include Slow Loris, Stumped-tail Macaque, Pigtail Macaque and the only tail less ape, Hollock Gibbon. Some of the mammalian species like common Tree Shrew, Indian Bison, Chinese Pangolin is reported to be very rare, while the population of Hoolock Gibbon, Indian Elephant and Jackal are reported to be declining.

Avian Fauna:

The avian fauna is composed of 341 species belonging to 51 families of which 77 species are winter visitors. It may be noted that Tripura with only 0.4 percent of the total geographical area of India exhibits more than 25% of the avian species diversity of the country. Of the avian species 4 species belong to Schedule I and 271 species belong to Schedule IV of the Indian Wildlife (Protection) Act, 1972, Amended till date.

Reptilian Fauna:

The reptilian fauna of Tripura is composed of 32 species under 28 genera and 11 families. These include 3 species of turtles and tortoise, 13 species of lizards, and 15 species of snakes.

Table 2-20: Rare and Threatened Fauna of Tripura

Sr. No.	Common Name	Scientific Name	Schedule-I WL (P) Act	Appendix-I CITES
A.	Mammal			
1.	Slow Loris	<i>Nycticebus coucang</i>	+	-
2.	Phayre's Leaf Monkey	<i>Presbytis phayrei</i>	+	-
3.	Capped Langur	<i>Presbytis pileatus</i>	+	+
4.	Hoolock Gibbon	<i>Hylobates hoolock</i>	+	+
5.	Leopard	<i>Panthera pardus</i>	+	+
6.	Marbled Cat	<i>Felis marmorata</i>	+	+
7.	Leopard Cat	<i>Felis bengalensis</i>	+	+
8.	Golden Cat	<i>Felis temmincki</i>	+	+
9.	Common Otter	<i>Lutra lutra</i>	-	+
10.	Indian Elephant	<i>Elephas maximus</i>	+	+
11.	Indian Bison	<i>Bos gaurus</i>	-	+
12.	Chinese Pangolin	<i>Manis pentadactyla</i>	+	-

Problems relating to Biodiversity Conservation

- **Habitat Destruction:** Change of land use due to conversion of forest for non-forestry purposes specially to meet the demand of plantation crops and development activities cause serious concern for and degradation of wildlife habitat. No quantified data is available on annual or decadal basis for such conversion activities.

- **Grazing:** There is no pasture land in the state for livestock grazing. It is estimated that 60% of the livestock graze in the forest land. This far exceeds the carrying capacity of the forests and causes destruction of young growth of the forest and destruction of habitat for the wild animals.
- **Forest Fires:** Forest fires are common and frequent in the state. It is now estimated that forest fire is common in 20 percent of the total forest area of Tripura. The major causes may be intentional burning of ground cover for grazing or for jhum cultivation. This led to complete wiping out the forest regeneration in some areas, (natural as well as artificial) and wildlife is severely damaged.
- **Shifting Cultivation:** The slash and burn cultivation in the hill tribal areas has direct impact on biodiversity viz. destruction of wildlife and natural habitat, loss of natural forest and loss of ecological balance including destruction of feeding, breeding and roosting grounds.
- **Introduction of Exotic Species:** Due to change in agricultural practices and emphasis in food security a number of plant species have been introduced in Tripura. It is estimated that 280 species of plant have been introduced in the state during the past period. The impact of such introduction has never been assessed but it may be assumed that in number of local indigenous varieties have become rare or have disappeared due to introduction of exotics.
- **Illegal Hunting:** The conservation of biodiversity depends on strict protective measures in the field condition besides, appropriate legal instrument. Due to disturbed geopolitical condition, it is apprehended that illegal hunting pressure has increased in many remote and isolated dense forest areas. In absence of lack of appropriate monitoring and surveillance mechanism, the human pressure on wildlife may continue to increase.

2.4.3 Floristics – Project Districts

2.4.3.1 Forest Cover:

Total forest cover in the project districts i.e., South Tripura and Gomati, is 1200.38 sq km, which is 39 % of the project district's geographical area. Please refer **Table 2.21**. In terms of forest canopy density classes, the project districts have 241 sq km under VDF, 1583 sq km under MDF and 453 sq km under OF. The details of forest cover of subproject districts are given below in **Table 2.22** and **Map 2-19 for South Tripura and 2-20 for Gomati District**.

Table 2-21: Forest Area Classification – Project Districts³⁰

District	Geographical area of Project District Sq. Km	Forest area Sq. Km				% Total of District GA
		RF	PRF	UCF	Total	
South Tripura including Gomati	3074.78	614.41	270.67	315.3	1200.38	39.04

³⁰ (Source: <http://trpervis.nic.in/test/forest.html>)

Table 2-22: Forest Canopy Cover – Project Districts³¹

District	2019 Assessment Forest area Sq. Km					
	Geographical area of Project District Sq. Km	VDF	MDF	OF	Total	% Total of District GA
South Tripura including Gomati	3074.78	241	1583	453	2277	74.05

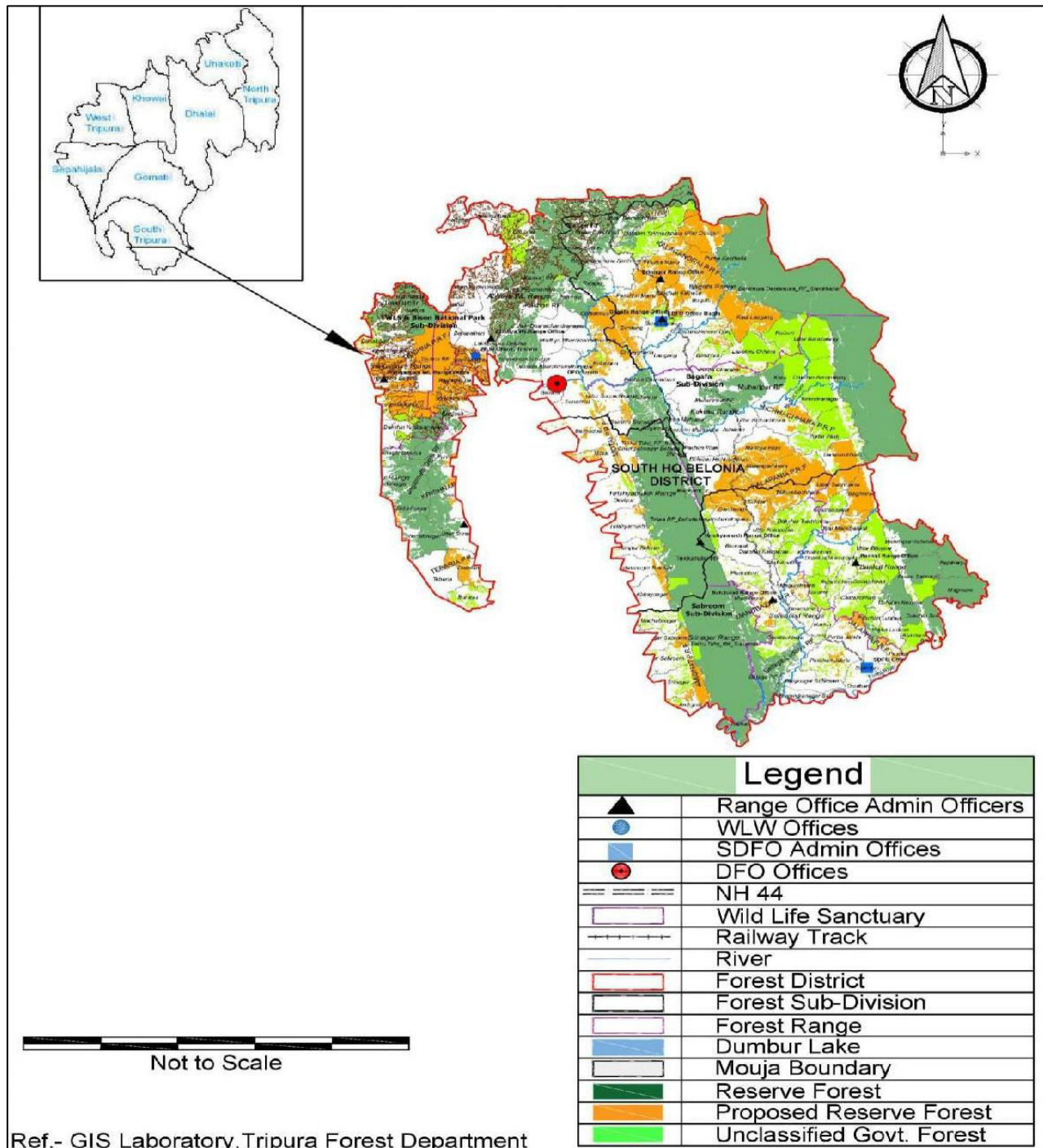
Details of forest involvement in different lines are presented in **Table 2.23**. The careful route selection has resulted into the great reduction in Forest Area earlier reported in IEAR i.e., from 145.88 Ha to 86 Ha. The proposed FEAR III, all the TLs are involved RF as summarized below;

Table 2-23: Forest Area involvement in Project Lines

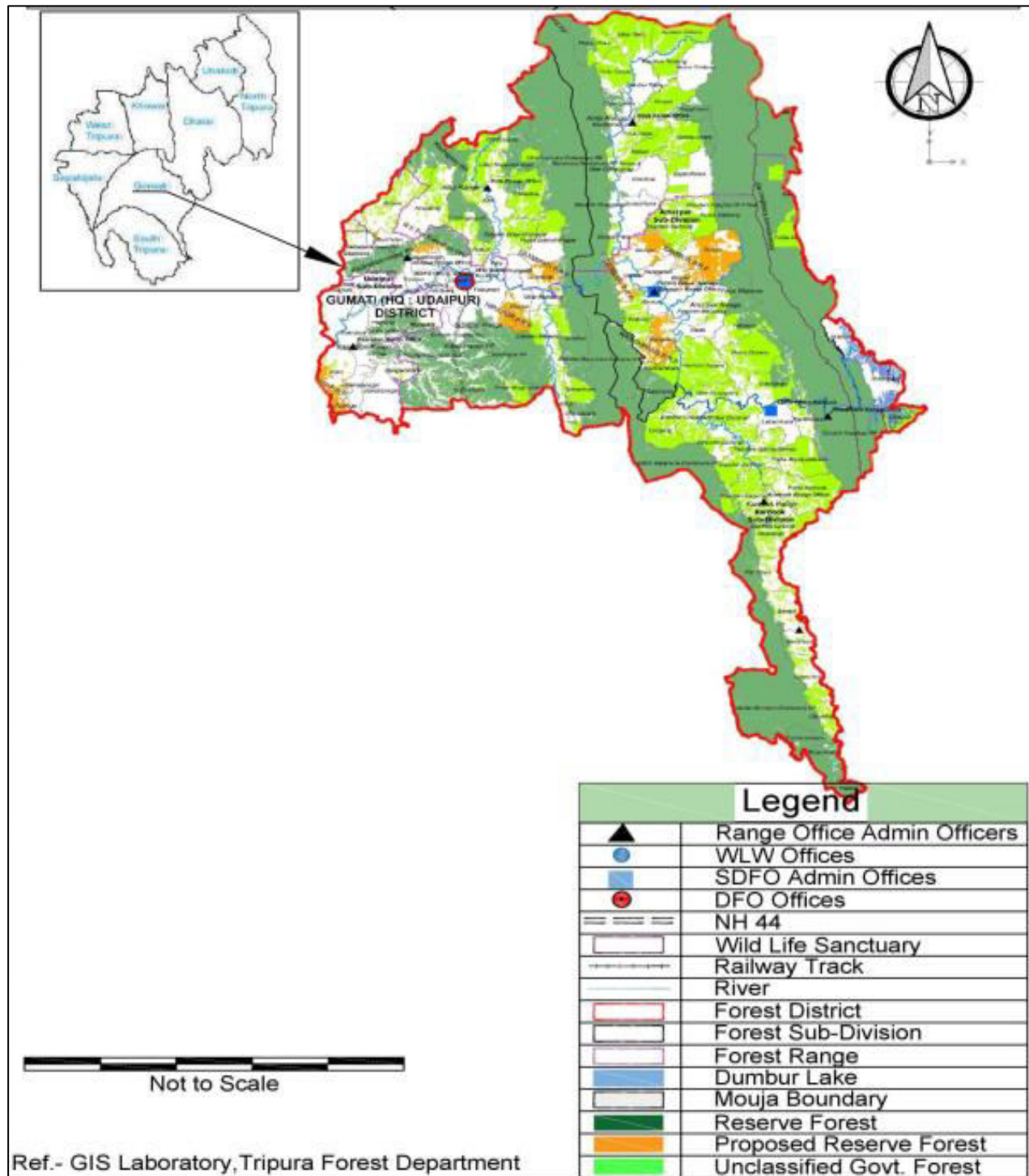
Sr. No.	Name of Transmission Line	Forest Involvement (In ha.)
1	Udaipur - Bagafa 132 kV D/C line	26.77
2	Bagafa – Belonia 132 kV D/C line	2.5118
3	Belonia –Sabroom 132 kV D/C line	25.5204
4	Bagafa – Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line)	9.1503
5	Udaipur - Amarpur 132 kV D/C line	22.0482
Total		86

³¹ India State of Forest Report (ISFR), 2019

Map 2-19: Forest Classification Map, South Tripura District



Map 2-20: Forest Classification Map, Gomati District



2.4.4 Study Area Baseline Data Collection

The study area for the floristic surveys has already been defined in the Chapter 1 which is defined as area in the proximity of the proposed TLs on both left and right sides, corridors of TL routes and S/S. The description of the vegetation is based upon these observations and data collected around each site collected through transects as already mentioned above.

In general, the vegetation in and areas around sampling sites is comprised of tropical wet evergreen and moist deciduous floral elements. Therefore, field surveys for the assessment and composition of vegetation were conducted to assess the floral wealth in the proximity to the towers, S/S and along the routes of TL.

A series of transects were identified along the routes of TL covering the corridors between the ROW of TL and S/S. The basis of data collection is along the route of the TL considering a RoW of 27 mts for 132 kV line. For homogenous stretches / sections of the route like along paddy field, along tea garden etc. data collection is carried out section wise. During the surveys, 20 to 59 % of total route length was covered to collect baseline data, because entire route is not accessible at present. As regard substation, the whole S/S area was covered. Details of transects locations selected for phytosociological survey are as given in **Table 2.24**.

Table 2-24: Transmission Lines and Transects Locations for Vegetation Sampling

Sr. No.	Name of Line and Locations of samplings	Stretch Covered and No. of Towers	Section Length	% Covered for Line Survey
1	Udaipur - Bagafa 132 kV D/C line (32.56 Km)	AP1 to AP5 AP6/0 to AP10/0 AP 12/0 to AP 20/0 AP 26/0 to AP 30/1 AP 45/0 to AP 51/0 AP 71/0 to AP 80/0	0.726 km 2.689 km 2.123 km 3.315 km 2.062 km 2.717 km	13.632 km is surveyed i.e., 42.7 % of total length
2	Bagafa – Belonia 132 kV D/C line (12.911 Km)	AP1/0 to AP 8/0 AP 10/0 to AP 18/0 AP 28/0 to AP29 B/1	2.746 km 3.467 km 1.443 km	7.656 km is surveyed i.e., 59% of total length
3	Belonia –Sabroom 132 kV D/C line (38.815 Km)	AP 1/0 to AP 4/3 AP 5/B to AP 8/4 AP 8/E to AP 10/4 AP 13/0 to AP 15/1 AP 17A/0 to AP 17C/3 AP 25/0 to 25/4	2.375 km 2.703 km 1.981 km 2.706 km 2.039 km 1.147 km	13 km is surveyed i.e., 33.53 % of total length
4	Bagafa – Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line) (29.636 Km)	AP 1/0 to AP10/0 AP 18/0 to AP20/1 AP 26/0 to AP 26/3 AP 45/1 to AP 47/0 AP 64A/0 to AP 72/0	1.084 km 3.253 km 1.020 km 1.218 km 2.278 km	8.9 km is surveyed i.e., 30% of total length
5	Udaipur - Amarapur 132 kV D/C line (15.619 Km)	AP 1/0 to AP 8/0 AP 16/2 to AP 19 AP 37 to AP 45 AP 51 to AP 55	0.327 km 1.181 km 0.6393 km 0.999 km	3.15 km is surveyed i.e., 21 % of total length

2.4.4.1 Taxonomic Diversity:

Based upon the data collected during field surveys and data / information collected from secondary sources inventory of 109 plant species found in the area surveyed was prepared. Conservation status of plant species found in the study area was assessed using IUCN Red list of Threatened Species Version 2020.1 (accessed in 2021) as well as Red Data Book of Indian Plants by BSI. The list is well given in **Appendix A under Heading D with IUCN Status**. Dominant species recorded in the project area are *Hevea brasiliensis*, *Schima Wallichii* Chois, *Gmelin Arborea*, *Shorea robusta*, *Pterospermum acerifolium*, *Acacia auriculiformis*, *Sweetinia Mahagony*, *Albizia Procera*, *Shorea Robusta*, *Zizyphus Jujuba*, *Mangifera indica*, *Pterocarpus marsupium*, *Terminalia bellarica*, *Techona grandis*, *Syzygium cumini*, *Aegle marmelos*, *Carica papaya*, *Azadirachta indica*, *Moringa oleifera*, *Bombax ceiba*, *Artocarpus heterophyllus*, and

Cinnamomum glanduliferum. Amongst these *Pterocarpus marsupium* is vulnerable species and *Aegle marmelos* and *Sweetinia Mahagony* is near threatened species as per Conservation Status IUCN (2020.1). *Lantana Camera* is invasive species recorded during filed survey.

2.4.4.2 Invasive Species and Their Control:

During field survey *Lantana camara* invasive species is recorded in the study area i.e., transects studied along the different TLs, their routes and S/S. Considered as one of the most invasive weeds. *L. camara* is distributed as an ornamental plant throughout the world since the 17th century, the *lantana* is one of 100 species of the most invasive of the IUCN list. The presence of invasive plant species is indicative of degradation of vegetation.

The newly disturbed ground is prime habitat for more invasive species to colonize. A protective approach is required for eliminating or control the spread and establishment of invasive plants species, for which there are two key elements. First, project authorities would ensure to uproot all existing alien/invasive species from the labor colony and other working areas. Secondly, project workers are discouraged to plant any alien and/or invasive species in the camp and colony areas, which may spread in the forest areas.

2.4.4.3 Vegetation Profile of the Sampling Area:

Site 1: Udaipur - Bagafa 132 kV D/C TL (32.56 Km)

For vegetation profile study approximately 13.6 km of stretch i.e., 42.7% of total TL length is covered. The vegetation, in general, in area around **Udaipur - Bagafa 132 kV D/C TL** is comprised of dominant vegetation with trees like *Tectona grandis*, *Ficus religiosa*, *Phoenix dactylifera*, *Syzygium cumini*, *Pterocarpus marsupium*, *Bombax ceiba*, *Artocarpus heterophyllus*, *Albizia lebbek*, *Areca Catechu*, *Terminalia chebula*, *Streblus asper*, *Gmelina arborea*, *Hevea Brasiliensis*, *Bambusa vulgaris*, *Musa paradisiaca*, *Schleichera oleosa*, *Moringa oleifera*, *Mangifera indica*, *Vaccinium spp.*, *Psidium guajava*, *Cocos nucifera*, *Ficus racemose*, *Manilkara zapota*, *Couroupita guianensis*, *Azadiracta indica*, *Pongamia pinnata*, *Ficus benghalensis*, *Tamarindus indica*, *Litchi chinensis*, *Citrus indica*, *Bambusa pallida*, *Limonia acidissima*, *Delonix regia*, *Aegle marmelos*, *Acacia auriculiformis*. **Detailed List is depicted in Appendix A under Heading D.**

The area along the RoW of **Bagafa - Belonia 132 kV D/C TL** is mainly under agricultural land and RF comprising of Open Hill Forest. The major plantation observed is of Teak and Rubber tree. In agriculture area majorly paddy fields are observed. Vegetation also comprised of fruit bearing trees like *Mangifera indica*, *Phoenix dactylifera*, *Musa paradisiaca*, *Citrus indica*, *Artocarpus heterophyllus*, *Manilkara zapota*, *Phoenix dactylifera*, *Syzygium cumini*, *Psidium guajava*, *Litchi chinensis*, *Tamarindus indica* along with *Lantana*, *Jasminum*, etc. Amongst economically important trees *Areca catechu*, *Artocarpus heterophyllus*, *Bombax ceiba*, *Tectona grandis*, *Ficus religiosa*, *Delonix regia*, *Bambusa vulgaris*, *Bambusa pallida*, *Hevea Brasiliensis*, *Acacia auriculiformis*, *Cocos nucifera* are recorded. Teak plantation and Rubber plantation recorded along the TL route is mainly under forest department.

Site 2: Bagafa - Belonia 132 kV D/C TL (12.911 Km)

For vegetation profile study approximately 7.66 km of stretch i.e., 59% of total TL length is covered. The vegetation, in general, in area around **Bagafa - Belonia 132 kV D/C TL** is

comprised of dominant vegetation with trees like *Tectona grandis*, *Alstonia scholaris*, *Albizia lebbek*, *Pterocarpus marsupium*, *Dillenia indica*, *Streblus asper*, *Tamarindus indica*, *Pogostemon cablin*, *Ficus religiosa*, *Ficus racemose*, *Musa paradisica*, *Senna occidentalis*, *Lagerstroemia speciosa*, *Phoenix dactylifera*, *Psidium guajava*, *Artocarpus heterophyllus*, *Syzygium cumini*, *Areca catechu*, *Cocos nucifera*, *Psidium guajava*, *Citrus indica*, *Mangifera indica*, *Azadiracta indica*, *Hevea Brasiliensis*, *Bambusa pallida*, *Bambusa vulgaris*, *Gmelina arborea*, *Acacia auriculiformis*, *Bombax ceiba*. **Detailed List is depicted in Appendix A under Heading D.**

The area along the RoW of **Bagafa – Belonia 132 kV D/C TL** is mainly under agricultural land and UCF comprising of Open Hill Forest. The major plantation observed is of Teak and Rubber tree. In agriculture area majorly paddy fields are observed. Vegetation also comprised of fruit bearing trees like *Mangifera indica*, *Musa paradisica*, *Cocos nucifera*, *Phoenix dactylifera*, *Psidium guajava*, *Artocarpus heterophyllus*, *Prunus domestica*, *Manilkara zapota*, *Litchi chinensis*, *Tamarindus indica* along with *Lantana*, *Jasminum*, *Senna occidentalis*, *Schleichera oleosa* etc.

Amongst economically important trees *Areca catechu*, *Artocarpus heterophyllus*, *Alstonia scholaris*, *Albizia lebbek*, *Bombax ceiba*, *Tectona grandis*, *Ficus racemose*, *Aegle marmelos*, *Ficus religiosa*, *Delonix regia*, *Bambusa vulgaris*, *Hevea Brasiliensis*, *Acacia auriculiformis*, *Cocos nucifera* are recorded. Teak plantation and Rubber plantation recorded along the TL route is mainly under forest department.

Site 3: Belonia –Sabroom 132 kV D/C TL (38.815 Km)

For vegetation profile study approximately 13 km of stretch i.e., 33.53% of total TL length is covered. The vegetation, in general, in area around **Belonia –Sabroom 132 kV D/C TL** is comprised of dominant vegetation with trees like *Areca Catechu*, *Hevea brasiliensis*, *Shorea robusta*, *Pterospermum acerifolium*, *Acacia auriculiformis*, *Mangifera indica*, *Mangifera sylvatica*, *Borassus flabellifer*, *Bambusa vulgaris*, *Cassia fistula*, *Areca catechu*, *Melia azedarach*, *Terminalia bellirica*, *Diospyros melanoxylon*, *Tectona grandis*, *Abrus Precatorius*, *Vitex penduncularis*, *Mesua ferrea*, *Tamarindus indica*, *Elaeocarpus serratus*, *Pistacia integerrima*, *Couroupita guianensis*, *Cedrus deodara*, *Citrus indica*, *Artocarpus heterophyllus*, *Albizia lebbek*, *Pterocarpus marsupium*, *Holoptelea integrifolia*, *Ficus racemosa*, *Psidium guajava*, *Aegle marmelos*, *Carica papaya*, *Azadirachta indica*, *Dillenia indica*, *Anacardium occidentale*, *Delonix regia*, *Neolamarckia cadamba*, *Moringa oleifera*, *Lagerstroemia speciosa*, *Michelia champaca*, *Aquilaria malacensis*, *Syzygium cumini*, *Pongamia pinnata*, *Gmelina arborea*, *Albizia chiensis*, *Mallotus philippensis*, *Phyllanthus emblica*, *Dalbergia stipulacea*, *Saraca asoca*, *Gnetum oblongum*, *Phoenix dactylifera*, *Terminalia chebula*. **Detailed List is depicted in Appendix A under Heading D.**

The area along the RoW of **Belonia –Sabroom 132 kV D/C TL** is mainly under agricultural land and RF comprising of Open Hill Forest. The major plantation observed is of Teak and Rubber tree. In agriculture area majorly paddy fields are observed. Vegetation also comprised of fruit bearing trees like *Mangifera indica*, *Musa paradisica*, *Cocos nucifera*, *Phoenix dactylifera*, *Carica papaya*, *Syzygium cumini*, *Psidium guajava*, *Phyllanthus emblica*, *Moringa oleifera*, *Artocarpus heterophyllus*, *Citrus indica*, *Prunus domestica*, *Manilkara zapota*, *Phoenix dactylifera*, *Litchi chinensis*, *Tamarindus indica* along with *Lantana*, *Jasminum*, *Senna occidentalis*, *Schleichera oleosa* etc.

Amongst economically important trees *Areca catechu*, *Hevea brasiliensis*, *Shorea robusta*, *Pterospermum acerifolium*, *Acacia auriculiformis*, *Borassus flabellifer*, *Bambusa vulgaris*, *Cassia fistula*, *Areca catechu*, *Melia azedarach*, *Terminalia bellirica*, *Diospyros melanoxylon*, *Tectona grandis*, *Abrus Precatorius*, *Tamarindus indica*, *Elaeocarpus serratus*, *Pistacia integerrima*, *Couroupita guianensis*, *Cedrus deodara*, *Citrus indica*, *Artocarpus heterophyllus*, *Albizia lebbeck*, *Pterocarpus marsupium*, *Holoptelea integrifolia*, *Ficus racemosa*, *Aegle marmelos*, *Azadirachta indica*, *Dillenia indica*, *Anacardium occidentale*, *Delonix regia*, *Neolamarckia cadamba*, *Lagerstroemia speciosa*, *Pongamia pinnata*, *Dalbergia stipulacea*, *Saraca asoca*, *Terminalia chebula*, *Cocos nucifera* are recorded. Teak plantation and Rubber plantation recorded along the TL route is mainly under forest department.

Site 4: Bagafa – Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line) (29.636 Km)

For vegetation profile study approximately 8.9 km of stretch i.e., 30% of total TL length is covered. The vegetation, in general, in area around **Belonia –Satchand 132 kV D/C TL** is comprised of dominant vegetation with trees like *Tectona grandis*, *Alstonia scholaris*, *Albizia lebbeck*, *Pterocarpus marsupium*, *Dillenia indica*, *Schleichera oleosa*, *Aegle marmelos*, *Tamarindus indica*, *Ficus religiosa*, *Ficus racemose*, *Terminalia chebula*, *Musa paradisica*, *Senna occidentalis*, *Lagerstroemia speciosa*, *Phoenix dactylifera*, *Psidium guajava*, *Artocarpus heterophyllus*, *Syzygium cumini*, *Areca catechu*, *Cocos nucifera*, *Psidium guajava*, *Citrus indica*, *Terminalia bellerica*, *Mangifera indica*, *Azadiracta indica*, *Acacia nilotica*, *Hevea Brasiliensis*, *Bambusa pallida*, *Bambusa vulgaris*, *Gmelina arborea*, *Acacia auriculiformis*, *Bombax ceiba*. **Detailed List is depicted in Appendix A under Heading D.**

The area along the RoW of **Belonia – Satchand 132 kV D/C TL** is mainly under agricultural land and RF comprising of Open Hill Forest. The major plantation observed is of Teak and Rubber tree. In agriculture area majorly paddy fields are observed. Vegetation also comprised of fruit bearing trees like *Mangifera indica*, *Musa paradisica*, *Cocos nucifera*, *Phoenix dactylifera*, *Psidium guajava*, *Artocarpus heterophyllus*, *Citrus indica*, *Prunus domestica*, *Manilkara zapota*, *Litchi chinensis*, *Tamarindus indica* along with *Lantana*, *Jasminum*, etc.

Amongst economically important trees *Areca catechu*, *Artocarpus heterophyllus*, *Alstonia scholaris*, *Albizia lebbeck*, *Bombax ceiba*, *Terminalia bellerica*, *Tectona grandis*, *Ficus racemose*, *Aegle marmelos*, *Ficus religiosa*, *Delonix regia*, *Bambusa vulgaris*, *Hevea Brasiliensis*, *Acacia auriculiformis*, *Cocos nucifera* are recorded. Teak plantation and Rubber plantation recorded along the TL route is mainly under forest department.

Site 5: Udaipur - Amarpur 132 kV D/C line (15.619 Km)

For vegetation profile study approximately 3.15 km of stretch i.e., 21% of total TL length is covered. The vegetation, in general, in area around **Udaipur – Amarpur 132 kV D/C TL** is comprised of dominant vegetation with trees like *Tectona grandis*, *Alstonia scholaris*, *Albizia lebbeck*, *Pterocarpus marsupium*, *Dillenia indica*, *Streblus asper*, *Tamarindus indica*, *Pogostemon cablin*, *Ficus religiosa*, *Ficus racemose*, *Musa paradisica*, *Senna occidentalis*, *Lagerstroemia speciosa*, *Phoenix dactylifera*, *Psidium guajava*, *Artocarpus heterophyllus*, *Syzygium cumini*, *Areca catechu*, *Psidium guajava*, *Citrus indica*, *Azadiracta indica*, *Hevea Brasiliensis*, *Bambusa pallida*, *Bambusa vulgaris*, *Gmelina arborea*, *Acacia auriculiformis*, *Bombax ceiba*, *Cocos nucifera*,

Ziziphus mauritiana, *Mangifera indica*, *Gmelina arborea*. Detailed List is depicted in Appendix A under Heading D.

The area along the RoW of **Bagafa – Belonia 132 kV D/C TL** is mainly under agricultural land and RF comprising of Open Hill Forest. The major plantation observed is of Teak and Rubber tree. In agriculture area majorly paddy fields are observed. Vegetation also comprised of fruit bearing trees like *Mangifera indica*, *Syzygium cumini*, *Musa paradisica*, *Ziziphus mauritiana*, *Cocos nucifera*, *Phoenix dactylifera*, *Psidium guajava*, *Artocarpus heterophyllus*, *Prunus domestica*, *Manilkara zapota*, *Litchi chinensis*, *Tamarindus indica* along with *Lantana*, *Jasminum*, *Senna occidentalis*, *Schleichera oleosa* etc.

Amongst economically important trees *Areca catechu*, *Artocarpus heterophyllus*, *Alstonia scholaris*, *Albizia lebbbeck*, *Bombax ceiba*, *Tectona grandis*, *Ficus racemose*, *Aegle marmelos*, *Ficus religiosa*, *Delonix regia*, *Bambusa vulgaris*, *Hevea Brasiliensis*, *Acacia auriculiformis*, *Cocos nucifera* are recorded. Teak plantation and Rubber plantation recorded along the TL route is mainly under forest department.

2.4.4.4 Faunal Elements

Faunal elements of the study area, were studied during floral survey / vegetation profile study of the project ROW. During the field surveys, no species encountered. However, during interaction with local people, fauna species generally found in the project area, are recorded. It is also noted that the number of mammal's species is decreasing gradually in the area and they are occasionally seen. Following faunal elements are recorded in the study area based on information from local people and secondary data.

Table 2-25: Fauna Recorded in Project Area

No.	Common Name	Scientific Name	Conservation Status IUCN (2020.1)
1.	Barking deer	Muntiacus muntjak	Least concern
2.	Wood snipe	Gallinago nemoricola	Vulnerable
3.	White-winged Duck	White-winged Duck	Endangered
4.	Leopard	Panthera pardus	Least concern
5.	Capped langur	Trachypithecus pileatus	Vulnerable
6.	Slow loris	Nycticebus	Not extinct
7.	Turdoides striata	Jungle babbler	Least concern
8.	Striped Tit Babbler	Mixornis gularis	Least concern
9.	White hooded babbler	Gampsorhynchus rufulus	Least concern
10.	Indian Blue Robin	Larvivora brunnea	Not Evaluated
11.	Marbled cat	Pardofelis marmorata	Vulnerable
12.	Barn Swallow	Hirundo rustica	Least concern
13.	Yellow eyed babbler	Chrysomma sinense	Least concern
14.	Great myna	Acridotheres grandis	Least concern
15.	Black throated thrush	Turdus atrogularis	Least concern
16.	Little Pied Flycatcher	Ficedula westermanni	Least concern
17.	Flower peckers	D. erythrorhynchus	Not evaluated
18.	Black Cross-barred Kukri Snake	Oligodon cinereus	Least concern
19.	Indus Valley Toad	Duttaphrynus stomaticus	Least concern
20.	Asian Common Toad	Duttaphrynus melanosticus	Least concern
21.	Fulvous Whistling Duck	Dendrocygna bicolor	Least concern
22.	Lesser Whistling Duck	Dendrocygna javanica	Least concern

No.	Common Name	Scientific Name	Conservation Status IUCN (2020.1)
23.	Common Teal	Anas crecca	Least concern
24.	Indian Peafowl	Pavo cristatus	Least concern
25.	Rain Quail	Coturnix coromandelica	Least concern
26.	Red Junglefowl	Gallus gallus	Least concern
27.	Crow	Corvus culminates	Least concern
28.	Sparrow	Passer Sp.	Least concern
29.	Fox	Vulpes benghalensis	Least concern
30.	Monkey	Phayre's leaf monkey	Least concern

2.4.5 Protected Areas – Tripura State

Tripura has two NP and four WLS covering an area of 603.64 sq.km. constituting 5.75% of the total geographical area of the State. There is no notified elephant reserve/ corridor found in Tripura. Map of PA of Tripura State is shown in **Map 2-21**.

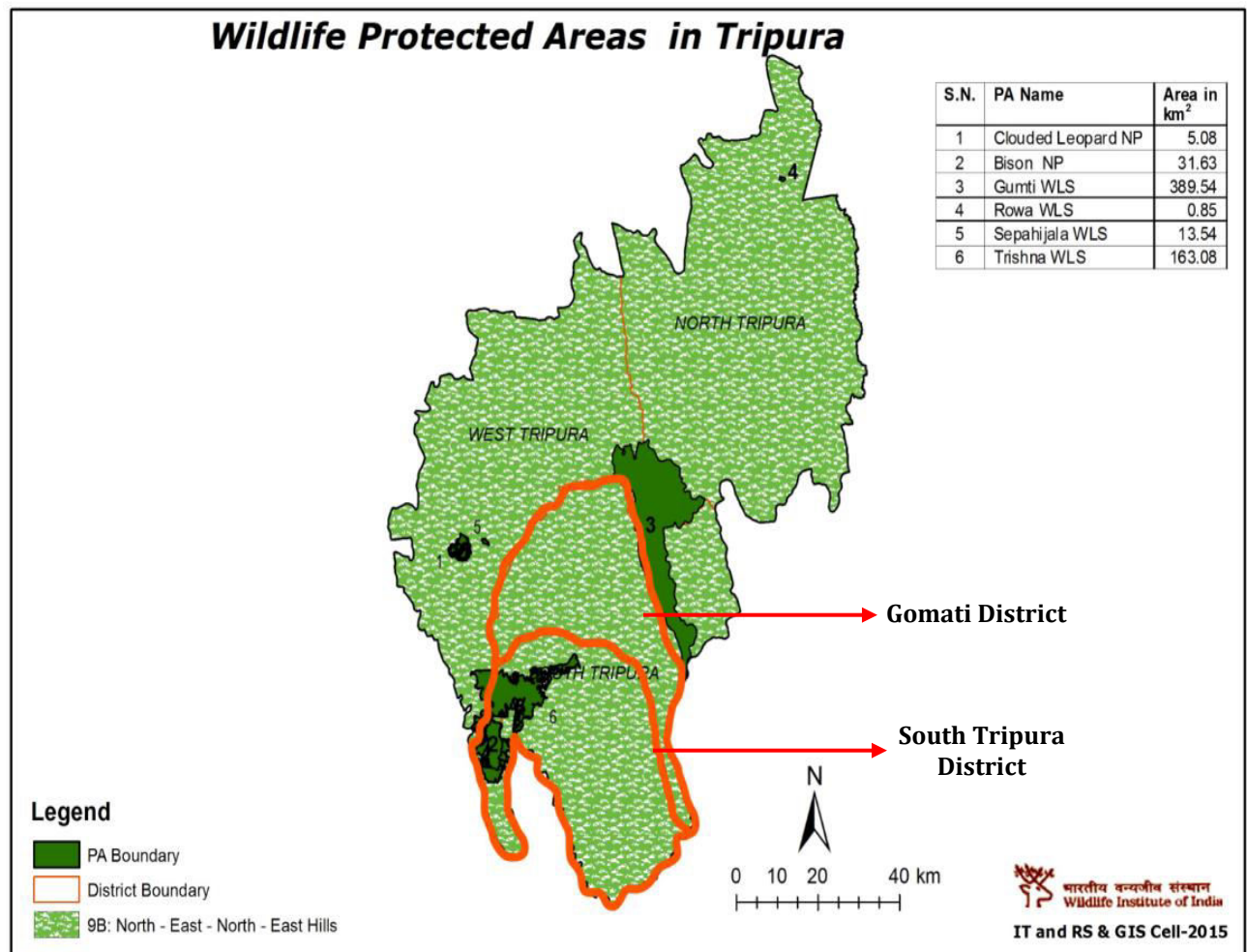
Table 2-26: PA of Tripura State

Sr. No.	Name of the PA (WLS /NP)	Area in Sq. Km	Location/ District	Important Flora and Fauna found
1.	Sepahijala WLS	18.54	Sepahijala	Birds and Primates, Migratory Birds in the winter, Spectacled Monkey.
2.	Gomati WLS	389.54	Dhalai, Gomati	Elephant, Sambar, Barking Deer, Wild Goats, Sparrow etc.
3.	Trishna WLS	194.71	South Tripura	Birds and Primates, Bison, Leopard, Barking Deer, Wild Dog, Capped Langur, Spectacled Monkey, Slow Lorries, etc.
4.	Rowa WLS	0.86	North Tripura	Many species of Birds and Primates
5.	Bison (Rajbari) NP	31.63	South Tripura	Bisons and many species of Birds
6.	Clouded Leopard NP	5.08	West Tripura	Clouded Leopard, Spectacled Langur and many Birds

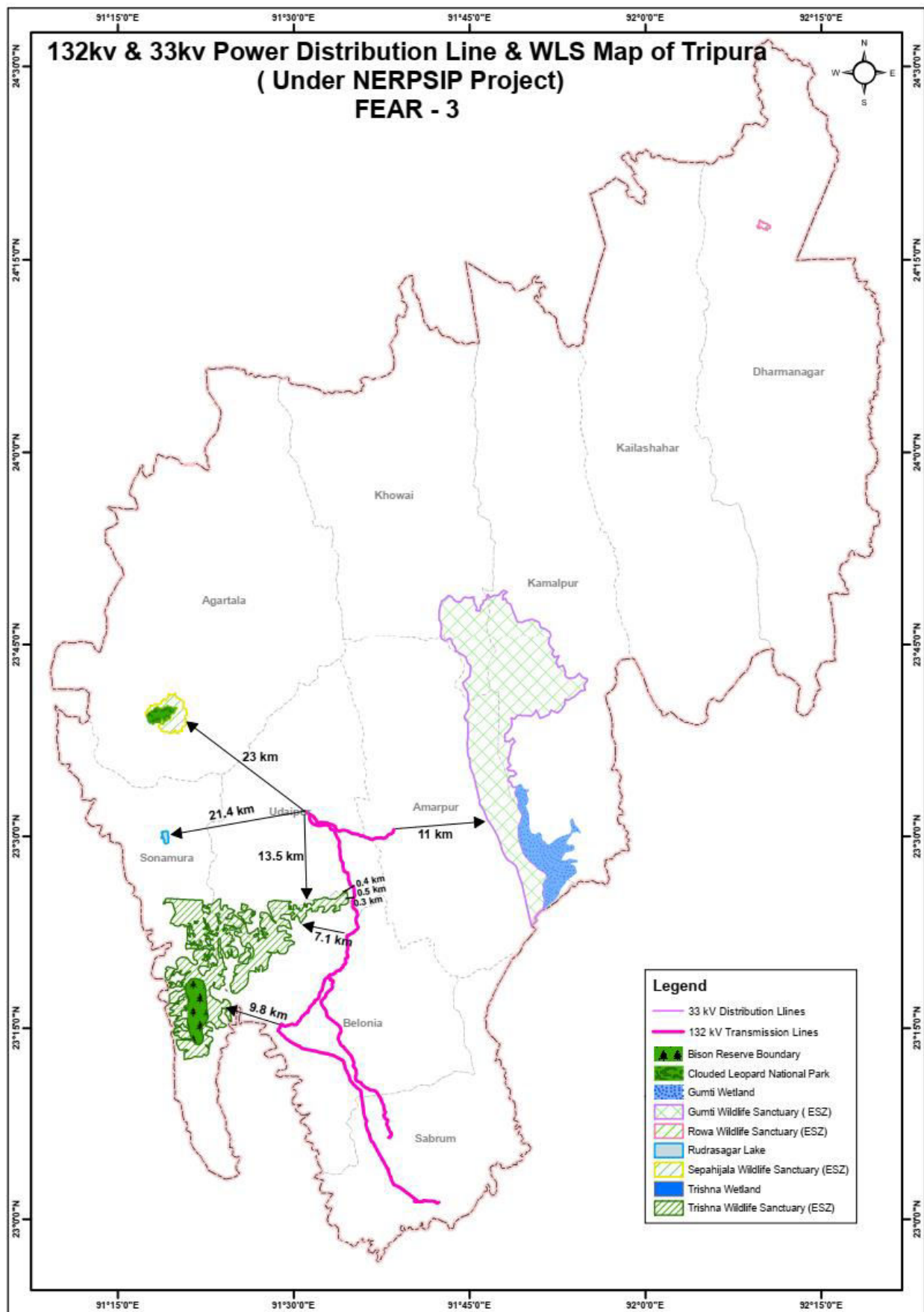
2.4.5.1 PA with respect to project districts:

The proposed TLs are not passing through any PA like NP, WLS, IBAs, conservation reserves, community reserves and biosphere reserves, etc., as all such areas have been completely avoided through meticulous alternative alignment analysis and careful route selection. 132 kV D/C Udaipur - Bagafa line alignment is passing at a distance of 0.3 km away from the Trishna WLS ESZ boundary from its nearest point in respect of line route. Other PAs are beyond 10km from project components. As confirmed by Wildlife Warden of Trishna Sanctuary Bison migration/ movement is confined to Trishna core which is quite far from proposed route alignment of 132 kV D/C Udaipur - Bagafa TL and no Bison has ever been reported from project area. The consolidated Map of PA with respect to FEAR III Project is depicted as **Map 2.22**. Wildlife Institute of India's geospatial map of area showing Trishna WLS boundary and FEAR III line routes in more details is placed in **Annexure 3**. No ecologically sensitive areas are getting adversely impacted due to project interventions because of TL and S/S. IA has already obtained necessary forest as per regulatory provisions under Forest (Conservation) Act, 1980 and IA has the obligation to comply with conditions prescribed in the above clearances.

Map 2-21: Map of PA (Eco sensitive zones) of Tripura



Map 2-22: FEAR III – Subprojects and PAs



2.5 Socio Economic Environment

For sustainable development, it is important to understand social and economic conditions of the community in the region, impacts of development on the community, measures to mitigate negative impacts and enhance the positive impacts. For new development initiatives, socio economic assessment plays an important role to ensure community participation and their acceptance of the development activity. It also helps in planning the activities for local area development.

2.5.1 Human and Economic Development – Tripura State³²:

Tripura is a hilly state in NER of India, bordered on 3 sides by Bangladesh, and home to a diverse mix of tribal cultures and religious groups. In the capital Agartala, the imposing Ujjayanta Palace is set among Mughal gardens, and Gedu Mia's Mosque has white marble domes and towers. South of the city, Neermahal summer palace sits in the middle of Lake Rudrasagar.

Tripura is an agrarian State with more than half of the population dependent on agriculture and allied activities. However, due to hilly terrain and forest cover, only 27 % of the land is available for cultivation. Rice, the major crop of the state, is cultivated in 91 % of the cropped area. According to the Directorate of Economics & Statistics, Government of Tripura, in 2018–19 along with rice cultivation other major cultivation are potato, sugarcane, pulses and jute. Jackfruit and pineapple top the list of horticultural products. Traditionally, most of the indigenous population practiced jhum method (a type of slash-and-burn) of cultivation. The number of people dependent on jhum has declined over the years.

Pisciculture has made significant advances in the State. At the end of 2009–10, the State produced a surplus of 104.3 million fish seeds. Rubber and tea are the important cash crops of the State. Tripura ranks second only to Kerala in the production of natural rubber in the country. The State is known for its handicraft, particularly hand-woven cotton fabric, wood carvings, and bamboo products. High quality timber including sal, garjan, teak and gamar are found abundantly in the forests of Tripura. The industrial sector of the State continues to be highly underdeveloped – brickfields and tea industry are the only two organized sectors. Tripura has considerable reservoirs of natural gas. According to estimates by Oil and Natural Gas Corporation (ONGC), the State has 400 billion cubic meter reserves of natural gas, with 16 billion cubic meters is recoverable. ONGC produced 480 million cubic meter natural gas in the State, in 2006–07. In 2011 and 2013, new large discoveries of natural gas were announced by ONGC.

The economy of Tripura can be characterized by rate of poverty, low capital formation inadequate infrastructure facilities, Geographical isolation and communication bottleneck, inadequate exploration and use of forest and mineral resources, slow industrialization and high unemployment. More than 50% of the population depends on agriculture for sustaining their livelihood. However, share of agriculture and allied activities in Gross State Domestic Production (GSDP) is only 23% primarily due to low capital base in the sector.

³² Economic Review of Tripura, 2018-19, Directorate of Economics & Statistics, Planning (Statistics) Department, Government of Tripura, Agartala

2.5.2 Economic Development – Project Districts

2.5.2.1 Economy – South Tripura District:

Agriculture is the main profession/source of livelihood of the district, with a net sown area of around 41,840 Ha. Paddy is the main food crop. Potato, sugarcane, jute and mustard are also grown. Fisheries and Animal Husbandry are other prominent sources of employment; current fish productivity of the district is 2281 kg/Ha/year. The district has not witnessed much industrial growth due to varied reasons, with presence of only two Industrial Areas located at Belonia and at Sabroom. There are about 132 numbers of reported registered factories in the district employing around 2250 workers. There are 5 numbers of Handloom units and around 18750 numbers of handloom weavers in the district. It has been informed that lack of reliable and uninterrupted power is considered to be major hurdle in the industrial development of the area.

2.5.2.2 Economy – Gomati District:

Agriculture is the main occupation. However, only 31.61% of the land in the district is cultivable. The holdings are small, and agriculture is mainly rainfed and at subsistence level. The State Government has set before itself a target of attaining self-sufficiency in food production by 2019 A.D. As a result of this, a number of activities are undertaken these days to bring more land under cultivation, make them irrigable and increase the productivity. A large population however is daily labourer, which depends on the employment generation schemes of the Government. As a result of weak economic base and lack of industrial development and entrepreneurship, dependency on the Government is very high. An analysis of occupational structure as per Economic Review of Tripura, 2018-19, Directorate of Economics & Statistics, Planning (Statistics) Department, Government of Tripura, Agartala, in the District shows that about 12.6% are cultivators, 8-9% are agricultural labourers and 1.61% are dependent on trade and commerce. The non-working population is about 68% which is an indication of the weak economic base and under-development. About 72% of the rural population are living below poverty line. Paddy is the main food crop grown. Potato, sugarcane, mesta, jute, mustard, etc. are some other crops grown in the district. Tea, coffee, rubber, jackfruit, banana, mango, pineapple, etc. are the major plantation crops.

2.5.3 Demography – Tripura State³³

Tripura is the second most populous State in NER after Assam. As per Census 2011 population was 36,73,917, out of which 18,74,376 males and 17,99,541 females. The data of Census-2011 shows that Tripura ranks 18th in terms of density of population at all India level. Among the North Eastern States (NES), in terms of density, Tripura remained the second highest populous State after Assam. The population density of Tripura in 2011 was 350 persons per sq.km., which means that 45 more people live in a sq. km. area in the State then they lived a decade ago. The population density for all India in 2011 was 382. There is a positive improvement in sex ratio in the State as it rose from 945 (per 1000 males) in 1991 to 948 (per 1000 males) in 2001 and further to 960 in 2011. As per Census 2011, the literacy rate of Tripura was 87.22 %. The density of population is 350 persons / sq. km.

³³ Census of India, 2011

The people of the Scheduled Tribes (ST) comprise about one-third of the population. As per Census-2011, ST population of the State was 11,66,813 which is 31.75 % of the total population of the State. The total ST male was 5,88,327 and ST female was 5,78,486. The Census-2011 data shows that SC population of the State was 6,54,918 (17.8 %). The total SC male was 3,34,370 and SC female was 3,20,548.

The workforce data based on Census-2011 has been released by the Registrar General of India, New Delhi shows that the total number of workers (main & marginal) in the State was 14,69,521. Out of these total workers, 11,59,561 were the main workers and 3,09,960 were the marginal workers in 2011. The total male workers (main & marginal) were 10,45,326 and remaining 4,24,195 were the female workers in 2011. Out of the total worker (main & marginal), 11,16,076 (75.95 percent) were in rural areas and 3,53,445 (24.05 percent) were in the urban area in 2011, respectively. The proportion of total workers (main & marginal) in total population of the State was 39.99 in 2011, which was 36.24 percent in 2001. The total main workers were 10,77,019 in 2011, out of which 8,87,881(83.44 percent) were male main workers and 1,89,138 (17.56 percent) were female main workers.

2.5.4 Demography – Project Districts

Population of the project districts i.e., South Tripura and Gomati in Tripura, as per 2011 census are as shown in **Table No. 2.27** through **Table 2.29**.

Table 2-27: Demography details of Project District

Sr. No.	District	HH	Population			Literacy Rate %			Sex Ratio	Density / sq. km.	Schedule Caste				Schedule Tribes			
			Male	Female	Total	Male	Female	Total			Male	Female	Total	%	Male	Female	Total	%
1	Gomati	102,707	225428	216110	441538	89.94	78.90	84.53	959	290	38306	36124	74430	16.86	94403	94151	188554	42.70
2	South Tripura	104,683	220,162	210,589	430,751	89.96	79.16	84.68	957	281	33705	32032	65737	15.26	76934	75757	152691	35.45

Note : Sex Ratio = (Females / 1000 * males), %=(ST or SC total/ Total District population*100), Literacy rate=(total male / female literate/total population*100)

Table 2-28: Occupational Pattern of Project Districts

Sr. No.	District	Total Workers				Main Workers				Marginal Workers				Non-Worker			
		Male	Female	Total	%	Male	Female	Total	%	Male	Female	Total	%	Male	Female	Total	%
1	Gomati & South Tripura	253,229	113,616	366,845	41.88	212,050	46,407	258,457	29.50	41,179	67,209	108,388	12.37	194,315	314,841	509,156	58.12

Note: Total Worker% = Total Worker/ Total Population x 100, Main Worker% = Main Worker/ Total Worker x 100, Marginal Worker% = Marginal Worker/ Total Worker x 100, Non-Worker% = Non-Worker/ Total Population x 100

Table 2-29: Main Worker Profile of Project Districts

Sr. No.	District	Main Workers	Cultivators				Agricultural Labor				Household Industry Worker				Other Workers			
			Male	Female	Total	%	Male	Female	Total	%	Male	Female	Total	%	Male	Female	Total	%
1	Gomati & South Tripura	258,457	64,847	20,683	85,530	23.32	67,167	44,165	111,332	30.35	2,993	3,382	6,375	1.74	118,222	45,386	163,608	44.60

Note: Total Cultivator% = Total Cultivator/ Main Worker x 100, Total Agricultural Labour% = Total Agricultural Labour/ Main Worker x 100, Household Industry Worker% = Total Household Industry Worker/ Main Worker x 100, Total Other Workers% = Total Other Workers/ Main Worker x 100

2.6 Baseline Description of the Subproject areas

The baseline data around the sub-project sites is broadly in conformity with the data of the project district i.e., Gomati and South Tripura. However, the topography encountered around the TL route alignment is 40 to 60% through hilly terrain. All the S/S are located in plain area. In case tower locations are on hill terrain and where ever positioning of tower on hill top is not possible leg extension is being utilized so as to minimize/ avoid benching/ revetment and to provide great stability.

Of the total 5 TL, all lines are passing through terrain of rock structure of Moderately to highly dissected Structural Hills, less dissected Denudational Hills and shallow Valley Fill as per line feature survey. The rock type is mostly of shaly sandstone and conglomerate of sandstone and pebble bed. The land use along the RoW (27 m for 132 kV) of lines comprises of agricultural land / paddy fields, private plantation, rubber plantation and govt. land. The TL at some locations pass through Railway, metal road, water bodies, etc. The TLs route involves notified RF forest land and some portion of UCF. Total 86 Ha of forest land is involved which has necessitated forest clearance under Forest (Conservation) Act, 1980. Please find the **Annexure 6 for Forest clearance obtained**. Besides all PA like NP, WLS, Biosphere Reserve etc.; Natural habitats, IBAs, Sacred groves, Wetlands and designated wildlife/elephant passage etc. have been completely avoided. The details of forest approvals obtained are as below;

TL Name	Forest in Ha	MoEFCC Clearance Status
Udaipur - Bagafa 132 kV D/C line	26.77 RF	Stage-I & Stage-II (final) approval obtained on 09.04.18 & 06.06.19 respectively.
Bagafa – Belonia 132 kV D/C line	2.5118 UCF	Stage-I & Stage-II (final) approval obtained on 30.10.18. & 07.06.19 respectively.
Belonia –Sabroom 132 kV D/C line	25.5204 RF	Stage-I & Stage-II approval obtained on 28.06.18 & 05.08.20 respectively
Bagafa – Satchand 132 kV S/C on D/C line	9.1503 RF	Stage-I & Stage-II (final) approval obtained on 12.10.18. and 24.08.20.
Udaipur - Amarapur 132 kV D/C line	22.0482 RF	Stage-I & Stage-II approval obtained on 10.04.18 & 29.08.19 respectively.

It has been observed that there are variations in final route length of TL from earlier routes considered and studied in IEAR. The TL length earlier in IEAR was 139.3 km. The updated total length of the project TLs in FEAR III 129.541 km. The total number of 530 towers are being/to be erected for all proposed 5 TLs. The meticulous exercise has resulted into the great reduction in Forest Area earlier reported in IEAR i.e., from 145.88 Ha to 86 Ha. This has resulted into reduction of the length and also the forest area involvement. Also, the environment & social sensitive areas are avoided/minimized from earlier identified and anticipated impacts in IEAR/EMP. The justification is discussed in the **Chapter 4 Section 4.2 under the heading change in scope of work w.r.t. IEAR**. Due impact assessment and mitigation measures are implemented as per prescribed EMP and following ESPPF prepared by TSECL. The details are discussed in Chapter 5.

It has been observed that land for all the proposed 4 S/S is already in possession with TSECL and no fresh land is needed to be acquired. As these substation locations are easily accessible with existing metal roads construction of new approach road is not required. The details of requirement of approach road along with google map photos of substations depicting status of approach have been placed at **Map 2.23**. However, it is to submit that in few cases i.e., 132/33 kV S/S at Bagafa of 50m and at Belonia 132/33kV S/S of 115m only strengthening/upgradation work of existing road is being undertaken to facilitate movement of construction materials and machineries to the construction sites of S/S in consultation with local authority and villagers.

Map 2-23: Location Details of Substations showing Surrounding Features and Environmental Settings

Establishment of 2 x 50 MVA, 132/33 kV new S/S at Bagafa



S/S Site in 2017 – Before Construction Work



S/S Site in 2021 – Construction Work in Progress

Detailed S/S site Photographs are presented in Chapter 4 in Section 4.3

Establishment of 2 x 50 MVA, 132/33 kV new S/S at Belonia



S/S Site in 2017 – Before Construction Work



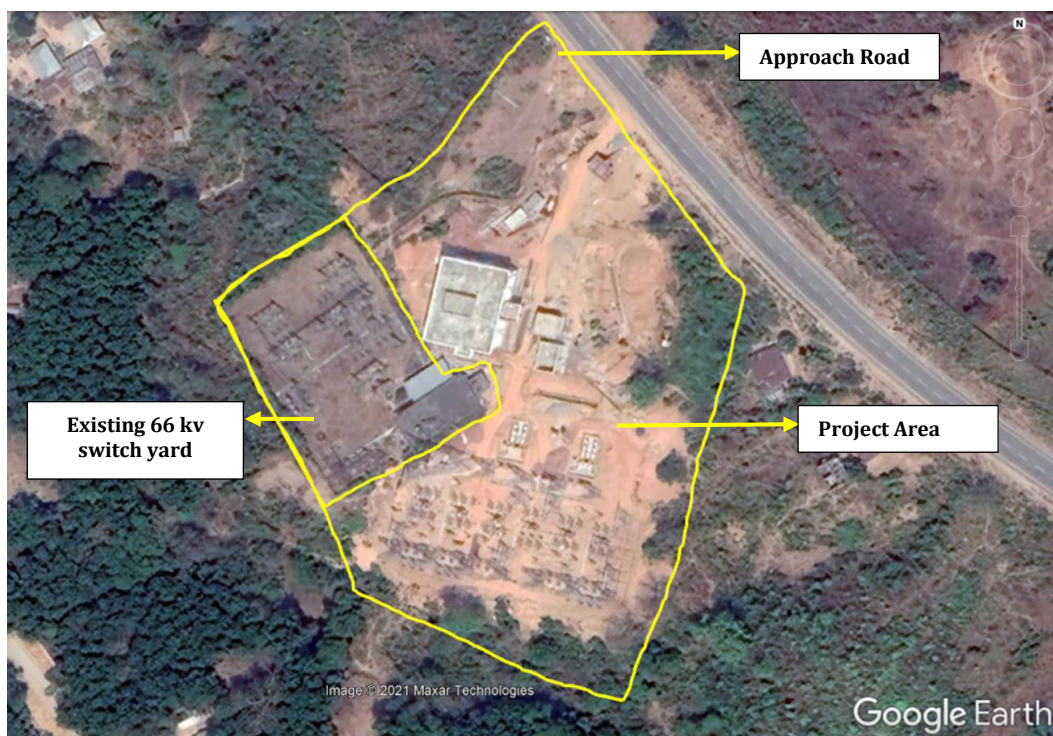
S/S Site in 2021 – Construction Work in Progress

Detailed S/S site Photographs are presented in Chapter 4 in Section 4.3

Establishment of 2x31.5 MVA, 132/33 kV new S/S at Sabroom.



S/S Site in 2017 – Before Construction Work



S/S Site in 2021 – Construction Work in Progress

Detailed S/S site Photographs are presented in Chapter 4 in Section 4.3

Establishment of 2x31.5 MVA, 132/33 kV new S/S at Satchand



S/S Site in 2017 – Before Construction Work



S/S Site in 2021 – Construction Work in Progress

Detailed S/S site Photographs are presented in Chapter 4 in Section 4.3

Regular environmental monitoring is being carried out at S/S locations during Construction activity. It is being observed that during construction activity dust emission is not envisaged as water sprinkling activity is regularly carried out at construction site which has nullified the impact of dust emission in the area. Construction activity is carried out in the confined space and locations are far from nearby habitations. Thus, Noise impacts are not envisaged. However, the baseline environmental monitoring for water and noise environment at various locations of subproject construction sites are being carried out as regular activity as part of EMP during construction phase by construction contractors. All the analysis results are found within prescribed limits. **Please refer Appendix A.**

During the field surveys, it was tried to survey minimum 10% of the route for flora data collection, which in some cases constituted a continuous stretch and, in some cases, could be covered in parts. The stretches were selected considering diversity of flora. At some places along the alignment, forest plantation is recorded e.g., rubber plantation which is homogenous. At some stretches the diversified flora is recorded. In Tripura State rare and endangered species of both Flora and Fauna are listed in **Section 2.4**. Also, during field survey in project area *Pterocarpus marsupium*, vulnerable species, and *Aegle marmelos* near threatened species as per Conservation Status IUCN (2020.1) are recorded. *Lantana Camera* is invasive species recorded during field survey. The fauna elements were not found during field surveys in the project areas except some bird and common fauna. Hence the data was collected through consultations with local public, Forest department officials and POWERGRID officials working in the project area. The details are reported in subsequent chapters. The detailed vegetation assessment is discussed in **Section 2.4.4** and list of vegetation recorded during field survey is depicted in **Appendix A under Heading D**.

The tree cutting in non-forest area was avoided during construction activities at S/S locations and at TLs at maximum. There is no provision of compensatory plantation in non-forest area in lieu of tree cutting in Tripura State. However, it was tried to retain the trees on site. Only grass growth on the S/S plot was cleared during land development prior to construction. At TLs locations trees were maximum tried to trim limited to the locations where the height of trees was hindering the work. Trees are cut only under unavoidable circumstances.

It is mandatory to do the compensatory afforestation as per the forest clearances obtained for the project. As per specific conditions in Forest Clearance obtained from MoEFCC, the compensatory afforestation is to be / being carried out on double the degraded forest area as suggested and identified by forest department. POWERGRID / IA has already paid the requisite cost as per prescribed law for the compensatory afforestation (CAMPAs) to Forest department. It may also be noted that the user agency/ IA has no role in taking compensatory afforestation activity except deposition of CA cost to forest dept/CAMPAs rather it is the forest dept responsibility to undertake the plantation as per CA scheme. **The details are explained in the evaluation chapter 5 Section 5.2.4.**

Electricity is one of the basic needs of 21st century. The subproject area is overall backward in terms of economic activities and lacks good communication system, shortage of power and lack of proper irrigation & marketing facilities adds to the poverty of the district. The current project is helpful for the local people of project district to uplift their economic condition. After improvement of the power supply, the socioeconomic status of this area will be improved this will possibly attract industrial & commercial investments in this area. While discussing with local people of project area, it was observed that they are very helpful and cooperating contractors and POWERGRID personnel for completion of this project. In conclusion, local people feel that their socioeconomic condition will upgrade because of this project.

3. POLICY, LEGAL & REGULATORY FRAMEWORK

3.1 Introduction

Power transmission project activities by their inherent nature and flexibility have negligible impacts on environmental and social attributes. Indian laws relating to environmental and social issues have strengthened in the last decade both due to local needs and international commitments. TSECL undertakes its activities within the purview of Indian and State specific laws keeping in mind appropriate international obligations and directives and guidelines with respect to environmental and social considerations of Funding Agencies.

3.2 Constitutional Provisions

Subsequent to the first United Nations Conference on Human Environment at Stockholm in June, 1972, which emphasized the need to preserve and protect the natural environment, the Constitution of India was amended through the historical 42nd Amendment Act, 1976 by inserting Article 48-A and 51-A (g) for protection and promotion of the environment under the Directive Principles of State Policy and the Fundamental Duties respectively. The amendment, inter alia provide:

- "The State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country". (New Article 48A)
- "It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creatures". (New Article 51 A (g))
- Article 21 of the constitution provides, "no person shall be deprived of his life or personal liberty except according to procedure established by law".

Article 21 is the heart of the fundamental rights and has received expanded meaning from time to time after the decision of the Supreme Court in 1978. The Article 21 guarantee fundamental right to life – a life of dignity to be lived in a proper environment, free of danger of disease and infection. The right to live in a healthy environment as part of Article 21 of the Constitution. Recently, Supreme Court has broadly and liberally interpreted the Article 21, transgressed into the area of protection of environment, and held that the protection of environment and citizen's right to live in eco-friendly atmosphere interpreted as the basic right guaranteed under Article 21.

Thus, the Indian Constitution has now two-fold provision:

- a. On the one hand, it gives directive to the State for the protection and improvement of environment.
- b. On the other hand, the citizens owe a constitutional duty to protect and improve natural environment.

Sixth Schedule

In Tripura, special provisions have been extended to the Tribal Areas under the 6th Schedule **[Articles 244(2) and 275(1)]** in addition to basic fundamental rights. Besides, the Tripura Panchayats (Second Amendment) Act, 1998 of Principal Act, 1993 includes ADC in Government

functioning. The Sixth Schedule is entirely focused at protection of tribal areas and interests by allowing self-governance through constitutional institutions at the district or regional level. These institutions are entrusted with the twin task of protecting tribal cultures and customs and undertaking development tasks.

The Sixth Schedule of the Constitution applies to a large part of the state, which is under the jurisdiction of the “Tripura Tribal Areas Autonomous District Council” (TTAADC). Out of the total geographical area of 10,491 sq. km, 7,133 sq. km (about 68%) is under the TTAADC.

Constitutional provisions in regard to social safeguards are well enshrined in the preamble such as JUSTICE, social, economic and political; LIBERTY of thought, expression, belief, faith and worship; EQUALITY of status and of opportunity; FRATERNITY assuring the dignity of the individual and the unity and integrity of the Nation. Fundamental Rights and Directive Principles guarantee the right to life and liberty. Health, safety and livelihood have been interpreted as part of this larger right. Social safeguards provisions are dealt in detail in different Article such as Article-14, 15 17, 23, 24, 25, 46, 330, 332 etc. POWERGRID have implemented the said constitutional provision in true spirit to fulfill its environmental and social obligations and responsibilities.

3.3 Environmental Mandatory Requirements

The applicable national and WB acts, rules and relevant policies in the context of the project are discussed in subsequent sections and its status of compliance are presented in **Table 3.1**.

3.3.1 National/State

➤ **GoT order/sanction under The Electricity Act, 2003**

Sanction of GoT is a mandatory requirement for taking up any new transmission project under the section 68(1) of The Electricity Act, 2003. The sanction authorizes TSECL to plan and coordinate activities to commission the new project. Electricity Act does not explicitly deal with environmental implications of activities related to power transmission and construction of S/S. However, TSECL integrates environmental protection within its project activities.

➤ **Forest Clearance under the Forest (Conservation) Act, 1980**

When transmission projects pass through forest land, clearance has to be obtained from relevant authorities under the Forest (Conservation) Act, 1980. This Act was enacted to prevent rapid deforestation and environmental degradation. State governments cannot de-reserve any forest land or authorize its use for any non-forest purposes without approval from the Central government. TSECL projects, when involving forest areas, undergo detailed review and approval procedures to obtain a Forest Clearance certificate from MoEF&CC, Government of India before starting any construction activity in designated forest area.

➤ **Environmental Clearances under Environment (Protection) Act, 1986**

Since TL projects are environmentally clean and do not involve any disposal of solid waste, effluents and hazardous substances in land, air and water they are kept out of the purview of Environment (Protection) Act, 1986. However, amendment in the Environment (Protection) Act, 1986 on 7th May 1992 made it necessary to obtain clearance from MoEF&CC for power

transmission projects in two districts in the Aravalli (viz., Alwar in Rajasthan and Gurgaon in Haryana). The Aravalli range, in these two areas, is heavily degraded; hence, any industrial activity there becomes critical. Environment Impact Notification, 1994 & 2006 lays down specific project categories that require clearance from MoEF&CC Power transmission projects are not included in this list.

➤ **Ozone Depleting Substances (Regulation and Control) Rules, 2000**

MoEF&CC vide its notification dated 17th July, 2000 under the section of 6, 8 and 25 of the Environment (Protection) Act, 1986 has notified rules for regulation /control of Ozone Depleting Substances under Montreal Protocol adopted on 16th September 1987. As per the notification certain control and regulation has been imposed on manufacturing, import, export and use of these compounds. TSECL follows provisions of notification and phase out all equipment which uses these substances and planning to achieve CFC free organization in near future.

➤ **Batteries (Management and Handling) Rules, 2001**

MoEF&CC vide its notification dated 16th May, 2001 under the section of 6, 8 and 25 of the Environment (Protection) Act, 1986 has put certain restriction on disposal of used batteries and its handling. As per the notification it is the responsibility of bulk consumer (TSECL) to ensure that used batteries are not disposed of, in any manner, other than by depositing with the dealer / manufacturer / registered recycler /importer / reconditioner or at the designated collection centers and to file half yearly return in prescribed form to the concerned State Pollution Control Board.

➤ **Hazardous Wastes (Management, Handling and Tran boundary Movement) Rules, 2008**

Vide notification dated 24th September, 2008 under the EPA, 1986, MoEF&CC notified rules for environmentally sound management of hazardous wastes to ensure that the hazardous wastes are managed in a manner which shall protect health and the environment against the adverse effects that may result from such waste. The used transformer oil has been declared as hazardous wastes vide this notification.

TSECL, being a bulk user of transformer oil is promised to comply with the provisions of the said rules (MoEF&CC notification dated 24th September 2008) if the practice of storing of used oil is maintained. In case it is decided to outsource the process of recycle of used oil to registered recycler as per the provisions of notification then TSECL regularly submits the desired return in prescribed form to concerned SPCB at the time of disposal of used oil.

➤ **E-waste (Management and Handling) Rules, 2016**

E-Waste (Management and Handling) Rules, 2011 has notified the E-Waste (Management) Rules, 2016 vide G.S.R. 338(E) dated 23.03.2016 which is effective from 01-10-2016. These rules are applicable to every producer, consumer or bulk consumer, collection center, dismantler and recycler of e-waste involved in the manufacture, sale, purchase and processing of electrical and electronic equipment or components specified in schedule – I of these Rules. Liability for damages caused to the environment or third party due to improper management

of e-waste including provision for levying financial penalty for violation of provisions of the Rules has also been introduced.

➤ **The Biological Diversity Act, 2002**

Under the United Nations Convention on Biological Diversity signed at Rio de Janeiro on the 5th June, 1992 of which India is also a party, GoI has enacted the Biological Diversity Act, 2002 to provide for conservation of biological diversity, sustainable use of its components and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith. As per the provision of act certain area which are rich in biodiversity and encompasses unique and representative ecosystems are identified and designated as Biosphere Reserve to facilitate its conservation. All restrictions applicable to PA like NP / WLS are also applicable to these reserves TSECL always abide by the provision of act wherever applicable, and always try by best efforts to totally avoid these biosphere reserves while finalizing the route alignment.

➤ **Tree Extraction vide notification No.F.7 (44)/For/FP-200I/PT11/29.042 dated 17.01.2002**

This specify which plantations need to be registered, which tree species do not require felling permission, what process is to be followed in order to fell trees outside non-recorded forest areas, how is the transit of timber originating from non-recorded forest areas how is the transit of timber originating from non-recorded forest areas regulated and how and why timber can be confiscated to Government. TSECL follows all provisions of this rule for felling of trees from non-forest land.

➤ **Ancient Monuments & Archaeological Sites and Remains Act, 1958**

An Act to provide for the preservation of ancient and historical monuments and archaeological sites and remains of national importance, for the regulation of archaeological excavations and for the protection of sculptures, carvings and other like objects.

➤ **The Scheduled Tribes & Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006**

This act recognizes and vests the forest rights and occupation in forest land to forest dwelling. Scheduled Tribes and other traditional forest dwellers who have been residing in such forests for generations but whose rights could not be recognized.

The definitions of forest dwelling schedule tribes, forestland, forest rights, forest villages, etc. have been included in Section 2 of the Act. The Union Ministry of Tribal Affairs (MoTA) is the nodal agency for implementation of the Act while field implementation is the responsibility of the respective State government agencies. Its implementation has also been linked with forest clearance process under Forest (Conservation) Act, 1980 w.e.f. August 2009 by MoEF&CC. TSECL is abide to the provisions of the act, if any portion of the TL is passing through forest land, in occupation of the forest dwelling scheduled tribes and other traditional forest dwellers for laying of TLs. However, for linear projects including TLs obtaining of NoC from the gram Sabha has been exempted for the requirement of FRA compliance as per MoEF&CC circular dated 5th February 2013 and 15th January 2014.

3.3.2 Funding Agency

For TSECL, mandatory environment requirements with respect to WB Operational Policies are as follows:

➤ **World Bank (WB) OP 4.01: Environmental Assessment**

The policy objective is to ensure the environmental and social soundness and sustainability of investment projects and support integration of environmental and social aspects of projects in the decision-making process.

TSECL takes remedial measures to prevent, minimize, mitigate, or compensate for adverse impact and improve environmental performance. Environment Assessment take into account the natural environment, human health and safety, and social aspects and trans-boundary and global environmental aspects. During EA process public is also informed at every stage of project execution and their views are considered during decision-making process.

➤ **World Bank OP 4.04: Natural Habitats**

The policy objective is to promote sustainable development by supporting the protection, conservation, maintenance, and rehabilitation of natural habitats and their functions.

➤ **World Bank OP 4.11: Physical Cultural Resources**

The policy objective is to preserve PCR and in avoiding their destruction or damage. PCR includes resources of archaeological, paleontological, historical, architectural, and religious (including graveyards and burial sites), aesthetic, or other cultural significance.

➤ **World Bank OP 4.36: Forests**

The objective of this policy is to realize the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests.

➤ **WB EHS Guidelines for Electric power T&D**

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry specific examples of Good International Industry Practice (GIIP). The EHS Guidelines for Electric Power T&D include information relevant to power transmission between a generation facility and a S/S located within an electricity grid. The following section provides a summary of EHS issues associated with electric power T&D that occur during the construction and operation phases of a facility, along with recommendations for their management. Additional recommendations for the management of environmental issues during the construction and decommissioning phases of power T&D systems are provided in the General EHS Guidelines. Examples of the impacts addressed in the General EHS Guidelines include: •

- Construction site waste generation;
- Soil erosion and sediment control from materials sourcing areas and site preparation activities;

- Fugitive dust and other emissions (e.g., from vehicle traffic, land clearing activities, and materials stockpiles);
- Noise from heavy equipment and truck traffic;
- Potential for hazardous materials and oil spills associated with heavy equipment operation and fueling activities.

3.4 Social Mandatory Requirements

The applicable national and WB acts, rules and relevant policies in the context of the project are discussed in subsequent sections and its status of compliance are presented in **Table 3.2**.

3.4.1 National/State

➤ **The Right to Fair Compensation and Transparency in Land Acquisition Rehabilitation and Resettlement Act, 2013 (RFCTLARRA)**

Govt. of India replaced the old Land Acquisition Act, 1894 and notified the new RFCTLARRA, 2013 which came into force from 1st January 2014. This act ensures appropriate identification of the affected families/households, fair compensation and rehabilitation of titleholders and non-titleholders. However, the new act i.e., RFCTLARRA, 2013 authorizes State Govt. (i.e., GoT) or its authorized Government agency to complete the whole process of acquisition of private land including Social Impact Assessment (SIA), Action Plan for R&R (i.e., Rehabilitation and Resettlement) & its implementation and the TSECL responsibility is limited to identification and selection of suitable land based on technical requirement and ensuring budget allocation. Also, as per Section 112 of the LARR Act, 2013, Tripura State has already notified LARR Rules, 2015.

➤ **Sixth schedule of the constitution**

Special provisions also have been extended to the Tribal Areas under the 6th Schedule [Articles 244(2) and 275(1) of the constitution] in addition to basic fundamental rights. The Sixth Schedule provides for administration of tribal areas as autonomous entities. The administration of an autonomous district is vested in a District Council and of an autonomous region, in a Regional Council. These Councils are endowed with legislative, judicial, executive and financial powers.

➤ **Rights of Way and Compensation under Electricity Act, 2003**

The Electricity Act, 2003 has a provision for notifying transmission company under section 164 (B) to avail benefits of eminent domain provided under the Indian Telegraph Act, 1885. Under this section TSECL may seeks for GoT authorization to exercise all the powers that the Telegraph authority possesses and can spot, construct and erect towers without acquiring the land. Moreover, all damages due to its activity are to be compensated at market rate. In case of agricultural or private land the provisions of section- 67 and/or section-68 (5 & 6) of the Electricity Act, 2003 and section-10 of the Indian Telegraph Act, 1885 are followed for assessment and payment of compensation towards such damages.

➤ **The Right to Information Act, 2005**

Right to Information Act 2005 mandates timely response to citizen requests for government information. It is an initiative taken by Department of Personnel and Training, Ministry of Personnel, Public Grievances and Pensions to provide a- RTI Portal Gateway to the citizens for quick search of information on the details of first Appellate Authorities, PIOs etc. amongst others, besides access to RTI related information / disclosures published on the web by various Public Authorities under the government of India as well as the State Governments.

➤ **Indian Treasure Trove Act, 1878 as amended in 1949**

It defines treasure specifically as "anything of any value hidden in the soil" and worth as little as 10 rupees. The finder of any such treasure, according to this law, needs to inform the most senior local official of the "nature and amount or approximate value of such treasure and the place where it was found". When any person is entitled, under any reservation in an instrument of transfer of any land or thing affixed thereto, to treasure in such land or thing, he shall, for the purposes of this Act, be deemed to be the owner of such land or thing.

3.4.2 Funding Agency

For TSECL, mandatory social requirements with respect to WB Operational Policies are as follows.

➤ **World Bank OP 4.12: Involuntary Resettlement**

These policies cover direct economic and social impacts both resulting from Bank- assisted investment projects, and are caused by the involuntary taking of land. To avoid or minimize involuntary resettlement and, where this is not feasible, assist displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

➤ **World Bank OP 4.10: Indigenous People (IP)**

This policy contributes to WB's mission of poverty reduction and sustainable development by ensuring that the development process fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples. The objective is to design and implement projects in a way that fosters full respect for indigenous peoples" so that they receive culturally compatible social and economic benefits, and do not suffer adverse effects during the development process. The project is promised to ascertain broad community support for the project based on social assessment and free prior and informed consultation with the affected Tribal community, if any.

➤ **WB Managing the Risks of Adverse Impacts on Communities from Temporary Project Induced Labour Influx 2016**

Provides guidance on identifying, assessing and managing the risks of adverse social and environmental impacts that are associated with the temporary influx of labor resulting from

Bank supported projects. provide concrete guidance on how to approach temporary labor influx within the environmental and social assessment process.

Table 3-1: Environmental Provisions

Sr. No.	Acts, Notification & Policies	Applicability to the project	Status of compliance
1. National			
1.1	Electricity Act, 2003	Applicable - TL projects are constructed under the ambit of Electricity Act, 2003 following the provisions of Section 67 & 68 of act	Complied with: MoP, GoI approved the NERPSIP Comprehensive scheme for six NES including Tripura under vide its Office Memorandum dated 1st December 2014.
1.2	Forest (Conservation) Act, 1980	Applicable-Since Udaipur - Bagafa 132 KV D/C line has 26.77 Ha of RF, Udaipur - Amarpur 132 KV D/C line has 22.0482 Ha of RF, Bagafa - Satchand 132 KV D/C line has 9.1503 Ha of RF, Bagafa - Belonia 132 KV D/C line has 2.5118 Ha of UCF, Belonia - Sabroom 132 KV D/C line has 25.5204 Ha of RF, forest clearance under FC Act 1980 is applicable in instant case.	Stage II clearance is obtained on 06.06.19 for Udaipur - Bagafa 132 KV D/C line, on 29.08.19 for Udaipur - Amarpur 132 KV D/C line, on 24.08.20 line for Bagafa - Satchand 132 KV D/C line, on 07.06.19 for Bagafa - Belonia 132 KV D/C line and 05.08.20 for Belonia - Sabroom 132 KV D/C line.
1.3	Environment (Protection) Act, 1986/Environment Impact Assessment Notification, 2006	Applicable Though some limited compliance measures notified under this EPA, 1986 are to be adhered to relevant rules and regulations under the EPA, 1986 applicable to the operations of TSECL	Complied with: Though applicable as it is umbrella legislation, However, as such statutory permission/ license is not required
(i)	Ozone depleting Substances (Regulation and Control) Rules, 2000	Applicable As per the notification, certain control and regulation has been imposed on manufacturing, import, export, and use of these compounds.	Complied with: Only CFC free equipment are being procured/specified in tender document
(ii)	Batteries (Management and Handling) Rules, 2001	Applicable during operation phase only Used batteries to be disposed to dealers, manufacturer, registered recycler, reconditioners or at the designated collection centers only. A half-yearly return to be filed as per Form-8 to the TSPCB	Batteries will be used during operational phase. Hence, the issue of proper handling and disposal of batteries as per the rules is not an issue during the construction phase.
(iii)	Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2016	Applicable Requires proper handling, storage and disposed only to authorized disposal facility (registered recyclers/ reproducers). In case it is decided to outsource the process of recycle of used oil to registered recycler as per the provisions of notification then TSECL to submit the desired return in prescribed form to concerned TSPCB at the time of disposal of used oil	Generally Used oil is generated after 10-15 years of operation of transformers and therefore, the handling and disposal of hazardous transformer oil is not an issue at this stage.
(iv)	E-waste (Management and Handling) Rules, 2016	Applicable To dispose e-waste generated in environmentally sound manner by channelizing to authorized collection centers/ registered dismantler / recyclers / return to producers. TSECL,	E-waste disposal is not an issue during construction phase.

Sr. No.	Acts, Notification & Policies	Applicability to the project	Status of compliance
		being a bulk consumer of electrical and electronics equipment to maintain record as per form-2 for scrutiny by TSPCB	
1.4	Biological Diversity Act, 2002	Not applicable as the project does not involve any biosphere reserves	
1.5	Ancient Monuments & Archaeological Sites & Remains Act, 1958	Not Applicable. All such areas have been completely avoided.	Not Required
1.6	Tree Extraction vide notification No.F.7 (44)/For/FP-200 I/PT11/29.042 dated 17.01.2002	Applicable The route has been selected in such a way that it has minimum obstructions under its alignment & majority of the trees have been trimmed. Only such trees are felled which create hindrance to electrical safety after due compliance of applicable tree felling provisions.	NOC is obtained under the provision
1.12	The Scheduled Tribes & Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006	Applicable as there is forest land involvement	Obtained
2. World Bank Operational Policy			
2.1	OP 4.01: Environmental Assessment	E & S aspects of the project have already been integrated into the management procedures based on comprehensive environment assessment undertaken by IA during 2015.	Complied with: E & S aspects of the project have already been integrated into management procedures based on comprehensive environment assessment undertaken by IA during 2015
2.2	OP- 4.04: Natural Habitats	The present project involves natural habitats such as biodiversity area, forest area, PA etc. Hence Applicable	Required
2.3	OP-4.11: Physical Cultural Resources (PCR)	The present project does not encroach upon any such resources	Not Required
2.4	OP-4.36: Forests	Applicable-Since Udaipur - Bagafa 132 KV D/C line has 26.77 Ha of RF, Udaipur - Amarpur 132 KV D/C line has 22.0482 Ha of RF, Bagafa - Satchand 132 KV D/C line has 9.1503 Ha of RF, Bagafa - Belonia 132 KV D/C line has 2.5118 Ha of UCF, Belonia - Sabroom 132 KV D/C line has 25.5204 Ha of RF, forest clearance under FC Act 1980 is applicable in instant case.	Complied with: To minimize adverse impact on forests, management measure already provided in ESPPF of June, 2015. Stage II clearance is obtained on 06.06.19 for Udaipur - Bagafa 132 KV D/C line, on 29.08.19 for Udaipur - Amarpur 132 KV D/C line, on 24.08.20 line for Bagafa - Satchand 132 KV D/C line, on 07.06.19 for Bagafa - Belonia 132 KV D/C line and on 05.08.20 for Belonia - Sabroom 132 KV D/C line.
2.5	WB EHS Guidelines for Electric power T&D	Applicable provisions of EHS guidelines have been followed during the implementation of the project	Complied with: EHS guidelines are being followed during project implementation.

Table 3-2: Social Provisions

Sr. No.	Acts, Notification & Policies	Applicability to the project	Status of compliance
1. National			
1.1	Sixth schedule of the constitution	Not applicable as the subproject district doesn't fall under six schedule areas.	Not Required
1.2	The Right to fair compensation and transparency in land acquisition, rehabilitation & resettlement act, 2013	Act ensures appropriate identification of the affected families/households, fair compensation and rehabilitation of titleholders and nontitle holders. Also, as per Section 112 of the LARR Act, 2013, Tripura State has already notified LARR Rules, 2015	Not Required
1.3	Right of Way (RoW) & compensation	Applicable. TSECL has been vested with the powers of Telegraph Authority under Section - 164 of the Electricity Act. Moreover, all damages due to its activity are to be compensated at market rate. In case of agricultural or private land the provisions of section- 67 and or section- 68 (5 & 6) of the Electricity Act, 2003 and section-10 of the Indian Telegraph Act, 1885 are followed for assessment and payment of compensation towards such damages.	Complied with: Implementing Agency has already been vested with powers of telegraph authority by GoI vide Gazette Notification dated Dec.24, 2003. However, compensation for all damages is being paid to the individual land owner as per the provision of Section-10 (d) of Indian Telegraph Act, 1885
1.4	The Right to Information Act, 2005	Applicable. Designated authorities to be in place.	The required mechanism to comply with the provisions of the act including designated officers at various levels are already in place in TSECL
1.5	Indian Treasure Trove Act, 1878 as amended in 1949	Not Applicable. No such instances reported in instant case till date.	Moreover, very less possibilities of such discoveries because of limited and shallow excavations
2. World Bank Operational Policy			
2.1	OP 4.12 – Involuntary Resettlement	Not applicable as there is no involuntary acquisition invoked for securing land for proposed S/S.	Not Required.
2.2	OP 4.10– Indigenous Peoples	Explicit consent from ADC and the Village Councils is required in the case of acquisition of lands which is not applicable in the project.	Complied with: NoC of from village councils (Head man, Gram Burrah) and land owners being obtained for community forest land / ADC area wherever applicable.
2.3	Managing the risks of adverse impacts on communities from temporary project induced labor influx	Applicable. However, the labours are appointed from local area and are nonresidential. Hence Impacts expected are very temporary and low in intensity	Complied. Guiding principles and recommendations are considered during labour appointment through construction contractor

3.5 Necessary Statutory Permission/Licenses/NOC Obtained in the Instant Case

The applicability of acts, notifications and policies have already been described in above paragraphs and table. As per the applicability, necessary permission/ licenses/ NOC so far to obtained by IA or contractor are:

- The project has initiated the process of obtaining required clearances from Railway Department. Under the provisions of Section 68(1) of Electricity Act, 2003, prior

approval GoT is a mandatory requirement to undertake any new transmission project in the State. As a part of permission / approval, GoI approved the NERPSIP comprehensive scheme for six NES States including Tripura under vide its Office Memorandum dated 1st December 2014. **Please Refer Annexure 5.**

- The project has followed for the procedure for required NOC from NHIDC, Tripura Industrial development corporation, Land Owner for Tower Footing. **Please Refer Annexure 5.**
- The project has obtained NOC from TIDC for construction of proposed TLs Udaipur - Bagafa 132 KV D/C line. **Please Refer Annexure 5.**
- All the contractors have obtained and operating the construction work with valid labor license as per provision under section – 12(1) of the Contract Labor (Regulation & Abolition) Act, 1970 and also certified under Section- 7(3) of the Building and Other Construction Workers (Regulation of Employment and Condition of Service) Act, 1996 from Ministry of Labor & Employment. The same are discussed and presented in relevant sections of subsequent chapters.
- All the contractors have obtained requisite insurance policy as per provisions of Employee Compensation Act, 1923 for its employed workforce. The same are discussed and presented in relevant sections of subsequent chapters.
- Since the tower locations are coming under various villages of 2 districts NoC from concerned land owner/ Headman / Village Council are being obtained as per the progress of work. The same are referred and presented in relevant sections of subsequent chapters. **Please Refer Annexure 5.**
- The proposed TLs Udaipur - Bagafa 132 KV D/C line has 26.77 Ha of RF, Udaipur - Amarpur 132 KV D/C line has 22.0482 Ha of RF, Bagafa - Satchand 132 KV D/C line has 9.1503 Ha of RF, Bagafa - Belonia 132 KV D/C line has 2.5118 Ha of UCF, Belonia - Sabroom 132 KV D/C line has 25.5204 Ha of RF, forest clearance under FC Act 1980 is applicable in instant case. Accordingly, Stage II clearance is obtained on 06.06.19 for Udaipur - Bagafa 132 KV D/C line, 29.08.19 for Udaipur - Amarpur 132 KV D/C line, 24.08.20 line for Bagafa - Satchand 132 KV D/C line, 07.06.19 for Bagafa - Belonia 132 KV D/C line and 05.08.20 for Belonia - Sabroom 132 KV D/C line. **Please Refer Annexure 5 for Forest clearance obtained.**
- It is mandatory to do the compensatory afforestation as per the forest clearances obtained for the project. As per specific conditions in Forest Clearance obtained from MoEFCC, the compensatory afforestation is to be carried out on double the degraded forest area as suggested and identified by forest department. POWERGRID has already paid the requisite cost as per prescribed law for the compensatory afforestation (CAMPA) to Forest department. POWERGRID has limited role up to compensation levy payments. Further to this Forest Department is being implementing the CAMPA.

4. MAJOR FEATURE OF FINAL ROUTE/ENVIRONMENT IMPACT

4.1 Introduction

Environmental impact of T&D line projects is not far reaching and are mostly localized to RoW. However, T&D project has some effects on natural and socio-culture resources. These impacts can be minimized by careful route selection. To minimize these possible impacts, TSECL & IA at the system planning stage itself try to avoid ecological sensitive areas like forest. Wherever such infringements are substantial, different alternative options are considered to select most viable route alignment. For further optimization of route modern survey techniques/tools like GIS, GPS aerial photography is also applied. Introduction of GIS and GPS in route selection result in access to updated/latest information, through satellite images and further optimization of route having minimal environmental impact. Moreover, availability of various details, constraints like topographical and geotechnical details, forest and environmental details etc. help in planning the effective mitigate measures including engineering variations depending upon the site situation/location.

At the system planning stage itself one of the factors that govern the evolution of system is the possible infringement with the forest. Wherever such infringements are substantial, different alternative options are considered.

While identifying the transmission system, preliminary route selection is done by TSECL based on the Survey of India Topo sheets, Forest Atlas (Govt. of India's Publication) and Google Maps etc. During route alignment all possible efforts are made to avoid the forest area involvement completely or to keep it to the barest minimum, whenever it becomes unavoidable due to the geography of terrain or heavy cost involved in avoiding it. Presence of important/protected natural habitats (IUCN category I - IV) is verified by superimposing the proposed alternative alignment on the Integrated Biodiversity Assessment Tool (IBAT) map. The route/site selection criteria followed is detailed below in the ensuing paragraphs.

4.2 Environmental Criteria for Route Selection

For selection of optimum route, the following points are taken into consideration:

- The route of the proposed TLs does not involve any human rehabilitation
- Any monument of cultural or historical importance is not affected by the route of the TL.
- The proposed route of TL does not create any threat to the survival of any community with special reference to Tribal Community.
- The proposed route of TL does not affect any public utility services like playgrounds, schools, other establishments etc.
- The line route does not pass through any National Parks, Sanctuaries etc.
- The line route does not infringe with area of natural resources.

In order to achieve this, TSECL undertakes route selection for individual TLS in close consultation with representatives of concerned Forest Department and the Department of revenue. Although under the law, TSECL has right of eminent domain yet alternative alignments are considered keeping in mind the above-mentioned factors during site selection,

with minor alterations often added to avoid environmentally sensitive areas and settlements at execution stage.

- As a rule, alignments are generally cited away from major towns, whenever possible, to account for future urban expansion.
- Similarly, forests are avoided to the extent possible, and when it is not possible, a route is selected in consultation with the local Divisional Forest Officer, that causes minimum damage to existing forest resources.
- Alignments are selected to avoid wetlands and unstable areas for both financial and environmental reasons.

In addition, care is also taken to avoid NP, WLS, ESZ, Tiger reserves, Biosphere reserves, Elephant passage / corridors and IBA sites etc. Keeping above in mind the routes of proposed lines under the project have been so aligned that it takes care of above factors. As such different alternatives for TLs were studied with the help of Govt. published data like Forest atlas, Survey of India and Google Maps etc. to arrive at most optimum route which can be taken up for detailed survey and assessment of environmental & social impacts for their proper management.

Similarly, the TOR for detailed survey using modern tool like GIS/GPS also contained parameters to avoid/reduce environmental impact while deciding the final route alignment. The major objectives for detailed survey that are part of contract are summarized below:

- i. The alignment of TL shall be most economical from the point of view of construction and maintenance.
- ii. Routing of TL through PF and RF area should be avoided. In case it is not possible to avoid the forest or areas having large trees completely then keeping in view of the overall economy, the route should be aligned in such a way that cutting of trees is minimum.
- iii. The route should have minimum crossing of major rivers, railway lines, and national/state highways, overhead EHP power lines and communication lines.
- iv. The number of angle point shall be kept to a minimum
- v. The distance between the terminal points specified shall be kept shortest possible, consistent with the terrain that is encountered
- vi. Marshy and low line areas, river beds and earth slip zones shall be avoided to minimum risk to the foundations
- vii. It would be preferable to utilize level ground for the alignment.
- viii. Crossing of power line shall be minimal. Alignment will be kept at a minimum distance of 300 meters from power lines to avoid induction problems on the lower voltage lines.
- ix. Crossings of communication lines shall be minimized and it shall be preferably at right angle, proximity and paralyses with telecom lines shall be eliminated to avoid danger of induction to them.
- x. Area subjected to flooding searches streams shall be avoided.
- xi. Restricted areas such as civil and military airfield shall be avoided. Care shall also be taken to avoid the aircraft landing approaches
- xii. All alignment should be easily accessible both in dry and rainy seasons to enable maintenance throughout the year.
- xiii. Certain areas such as query sites, tea, tobacco and saffron fields and rich plantation, gardens and nurseries that will present the owner problems in of right of way and leave clearance during construction and maintenance should be avoided.
- xiv. Angle point should be selected such that shifting of the point within 100 m radius is possible at the time of construction of the line.

- xv. The line routing should avoid large habitation densely populated areas to the extent possible.
- xvi. The area requires special foundations and those prone to flooding should be avoided.
- xvii. For examination of the alternatives and identification of the most appropriate route, besides making use of information/data/details available/extracted through survey of India topographical maps and computer aided processing of NRSA satellite imagery, the contractor shall also carry out reconnaissance / preliminary survey as may be required for the verification and collection of additional information/data/details.
- xviii. The contractor shall submit his preliminary observation and suggestion along with various information/data/details collected and also processed satellite imagery data, topographical map data marked with alternative routes etc. The final evaluation of the alternative routes shall be conducted by the contractor in consultation with owners' representatives and optimal route alignment shall be proposed by the contractor. Digital terrain modeling using contour data from topographical maps as well as processed satellite data shall be done by the contractor for the selected route. A flythrough perspective using suitable software(s) shall be developed or further refinement of the selected route. If required site visit and field verification shall be conducted by the contractor jointly with the owners' representatives for the proposed route alignment.
- xix. Final digitized route alignment drawing with the latest topographical and other details / features including all river railway lines, canals, roads etc. up to 8 Kms on both side of selected route alignment shall be submitted by the contractors for owner's approval along with report containing other information / details as mentioned above.

4.2.1 Evaluation of Alternative Route Alignment for Proposed Transmission Lines

In the instant project also, criteria for route selection as mentioned above, has been duly adhered to. All the TLs earlier were passing through rich vegetation and forest cover. To avoid anticipated impacts on biodiversity in the area, all the routes were studied with consideration of three best alignments as described in the IEAR. Three alternative alignments were studied with the help Google Maps and walkover survey to arrive at most optimum route for detailed survey. This was then verified on web-based IBAT Database. The images are Provided in **Annexure 4**. The final route was considered for the further detailed surveys and primary data collection.

Subsequently, the proposed routes of TLs were considered for detail survey by Contractor Agency (after awarding of contract) and environmental consultant. During detailed survey minor alterations as well as geometrical corrections of the route have been carried out which seems inevitable due to actual ground conditions with prime objective of avoiding dense forest/private plantation areas, settlements, CPR, and also considering the technical feasibility of the route from O&M point of view in consultation with the local prevalent in the project area. Therefore, minor change in scope of work has been observed with respect to IEAR scope which resulted due to the best effort of IA/TSECL in effectively integrating safeguard and engineering measures in successful minimization of environmental and social impacts. The changes are discussed in **Section 4.2.3**. The meticulous exercise has resulted into the great reduction in Forest Area earlier reported in IEAR i.e., from 145.88 Ha to 86 Ha.

Amongst 5 TLs, the proposed **132 KV D/C Udaipur –Bagafa TL** was earlier passing at 1 km distance Trishna WLS boundary. After detailed route analysis as described above, final alignment has been selected from three (3) different alignments as described in IEAR which is now traversing at 0.3 km from Trishna WLS boundary. **Please refer Annexure 3.**

4.2.2 Evaluation of Alternatives for Proposed Substations

For sub-station, site selection analysis of 2-3 alternatives sites is usually carried out based on environment and social aspects and technical requirement. Such analysis considers various site-specific parameters that include availability of infrastructure facilities such as access roads, water, distance from railheads, type of land (Government/ revenue/private land); social impacts such as number of families getting affected; CPR including feasibility of acquisition. It may be noted that in the instant case land for all the proposed S/S are already in possession with TSECL and no fresh land is required to be acquired and therefore, the said exercise is not required/needed for proposed project.

4.2.3 Change in Scope of Work w.r.t. IEAR

For changes in scope of work with respect to IEAR scope i.e., changes in the route alignment based upon alternatives studies and detailed ground survey for T&D line carried out on field is given is **Table 4.1**

Table 4-1: Change in Scope of Work w.r.t IEAR

Sr. No.	Details of Power Line / Substation	Change in Length of Power Lines (Km)/ Location of substation		Reason / Justification for change in scope of work
		As per IEAR	Final Route / Location	
A.	Transmission Line Network			
1	Udaipur - Bagafa 132 kV D/C line	32	32.56	To avoid or minimize forest area, To Avoid PA / habitation and structures
2	Bagafa – Belonia 132 kV D/C line	12.8	12.911	
3	Belonia –Sabroom 132 kV D/C line	46.4	38.815	
4	Bagafa – Satchand 132 kV S/C on D/C line	31.2	29.636	
5	Udaipur - Amarpur 132 kV D/C line	16.9	15.619	
C.	Substations			
1	Establishment 2 x 50 MVA, 132/33 kV new substation at Bagafa.	Unchanged. TSECL Own Land		
2	Establishment 2 x 50 MVA, 132/33 kV new substation at Belonia.	Unchanged. TSECL Own Land		
3	Establishment of 2x31.5 MVA, 132/33 kV new substation at Sabroom.	Unchanged. TSECL Own Land		
4	Establishment of 2x31.5 MVA, 132/33 kV new substation at Satchand.	Unchanged. TSECL Own Land		

4.3 Features and Satellite Images of T&D Lines

4.3.1 Transmission Lines (TLs)

4.3.1.1 Feature Details of Final Route Alignment of Udaipur - Bagafa 132 kV D/C TL

Udaipur - Bagafa 132 kV D/C TL covers 32.56 km distance. Total 137 transmission tower (TT) are proposed in this TL. The TL is finalized after detailed analysis considering the environmental features like forest / PA / river etc. The feature survey along the TL is carried out considering 27 mt ROW width i.e., 13.5 mt on either side from center line of the corridor. Geomorphological studies observed that the geology of project area is majorly having rock structure of shallow Valley Fill, highly dissected structural hills and less dissected denudational

hills. Rock type comprises Shaly sandstone with limestone bands and conglomerate of pebble bed.

Major part of the TL passes through plain agricultural fields (50.80%), open hill forest with rubber plantation (30.20%). The TL does not cross any National Highway, Railway and Power line. Other than agriculture, this line traverses through fallow land, metal roads, tree crops and groves, pond / lake, fallow lands, Bricks Kilns/Quarry, Barren Rocky/Waste Land, etc. The TL route involve RF land of about 26.77 Ha area which mandated forest clearance under Forest (Conservation) Act, 1980. Accordingly, Stage-I & Stage-II (final) approval obtained on 9th April 2018 and 6th June 2019 respectively. Besides all PA like NP, WLS and designated wildlife / elephant passage have been completely avoided. The landslide study during electric line feature survey and GIS mapping, reveals that the project region is low to moderate vulnerable to landslide hazard. The project area is medium to highly vulnerable to flood. The type of hazard for the project site is recorded as earthquake, windstorm, landslide and Flood.

As per detailed surveys and GIS imagery data ROW is crossing water bodies such as river, pond, canal, drain & nala. TL is crossing Maharani River (tributary of Gomati River) between TT 36/0 and 36/1, TT43/2 and 43/3. TL Crossing drain between TT 45/0 and 46/0. No TT is planned in water body. TT constructed well above the ground level at required elevation to keep the people and animals away from EMF contact. It also prevents the structure getting damaged during flood situation. All the tower locations are easily accessible through existing road to carryout construction and maintenance activity and construction of new approach road is not required. However, strengthening and upgradation of 50 mt approach road is required at 132 kV Bagafa S/S.

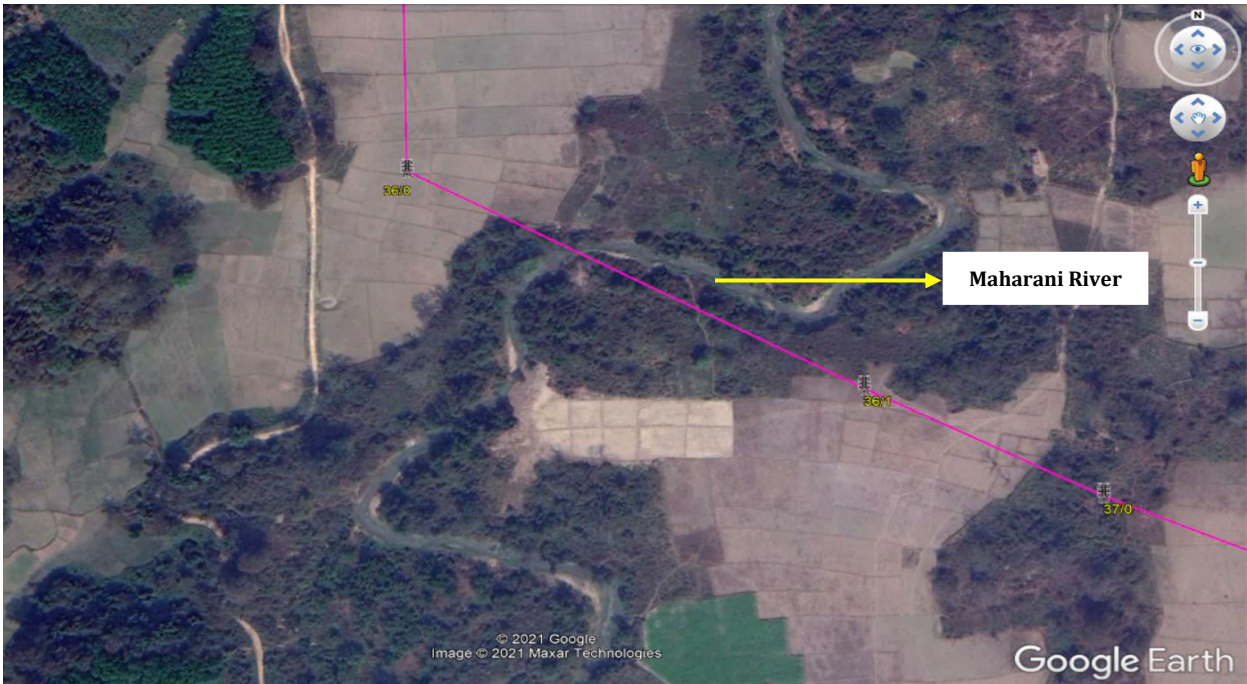
GIS route survey map and TL feature details are provided in **Annexure A1 & B1**. The major feature details are depicted in **Table 4.2**. The Google earth image of TL is provided in the **Map 4.1**.

Table 4-2: Udaipur – Bagafa 132 kV D/C TL

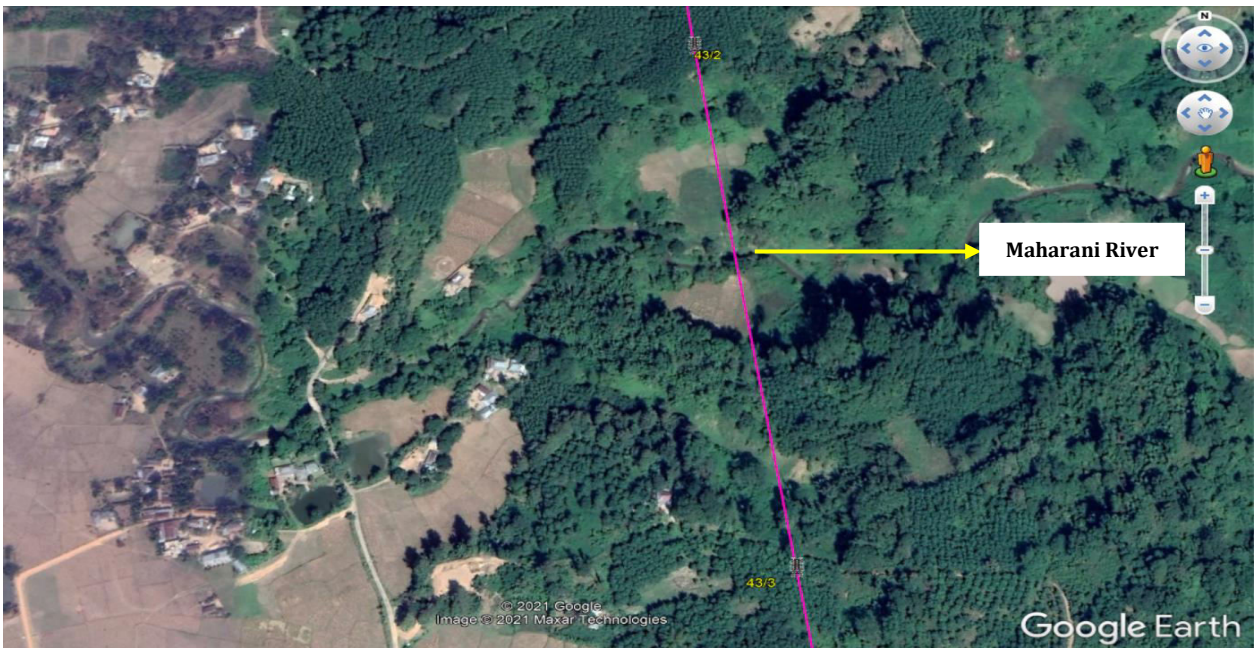
Electric Line Feature Details -27m ROW

Feature Class	Area In Ha.	% Of Area
Agriculture Land	45.63	50.80%
Rubber Plantation with Hilly Open Forest	27.13	30.20%
Mud Road	0.57	0.64%
Metal Road	0.76	0.85%
Gullied Ravenous	0.23	0.26%
Pond/Lake	2.19	2.43%
Bricks Road	0.82	0.92%
Bricks Kilns/Quarry	1.34	1.49%
Tree Crops and Groves	2.21	2.46%
Barren Rocky/Waste Land	1.98	2.21%
Vacant Land	0.39	0.44%
Fallow Land	1.91	2.12%
Drain/Nala	0.76	0.85%
River	0.02	0.02%
Electric Substation	3.75	4.17%
Canal	0.11	0.13%
Total	89.82	100.00

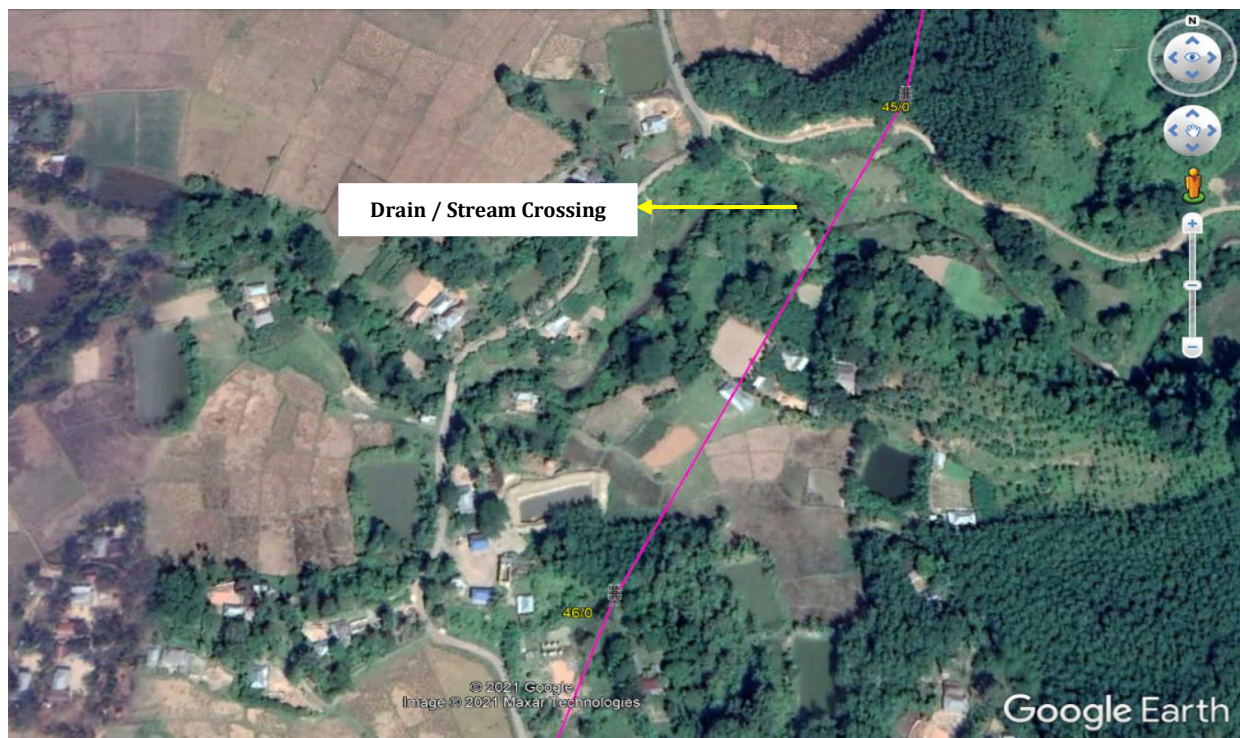
Photographs of the line location are given below:



TL Crossing Maharani River Between TT 36/0 and 36/1



TL Crossing Maharani River Between TT 43/2 and 43/3



TL Crossing Drain / Stream Between TT 45/0 and 46/0





133/33 kV Bagafa S/S – Construction Work



**Trench Construction (Left) and Transformer Foundation with Fire Wall (Right)
at 132 kV Bagafa S/S**



132/33 kV Bagafa S/S – Equipment Erection (Left) and Tower Erection (Right)



132/33 kV Udaipur Extension



132/33 kV Udaipur-Bagafa line



Retention Wall at 132/33 kV Bafaga S/S



Boundary Wall at 132/33 kV Bagafa S/S

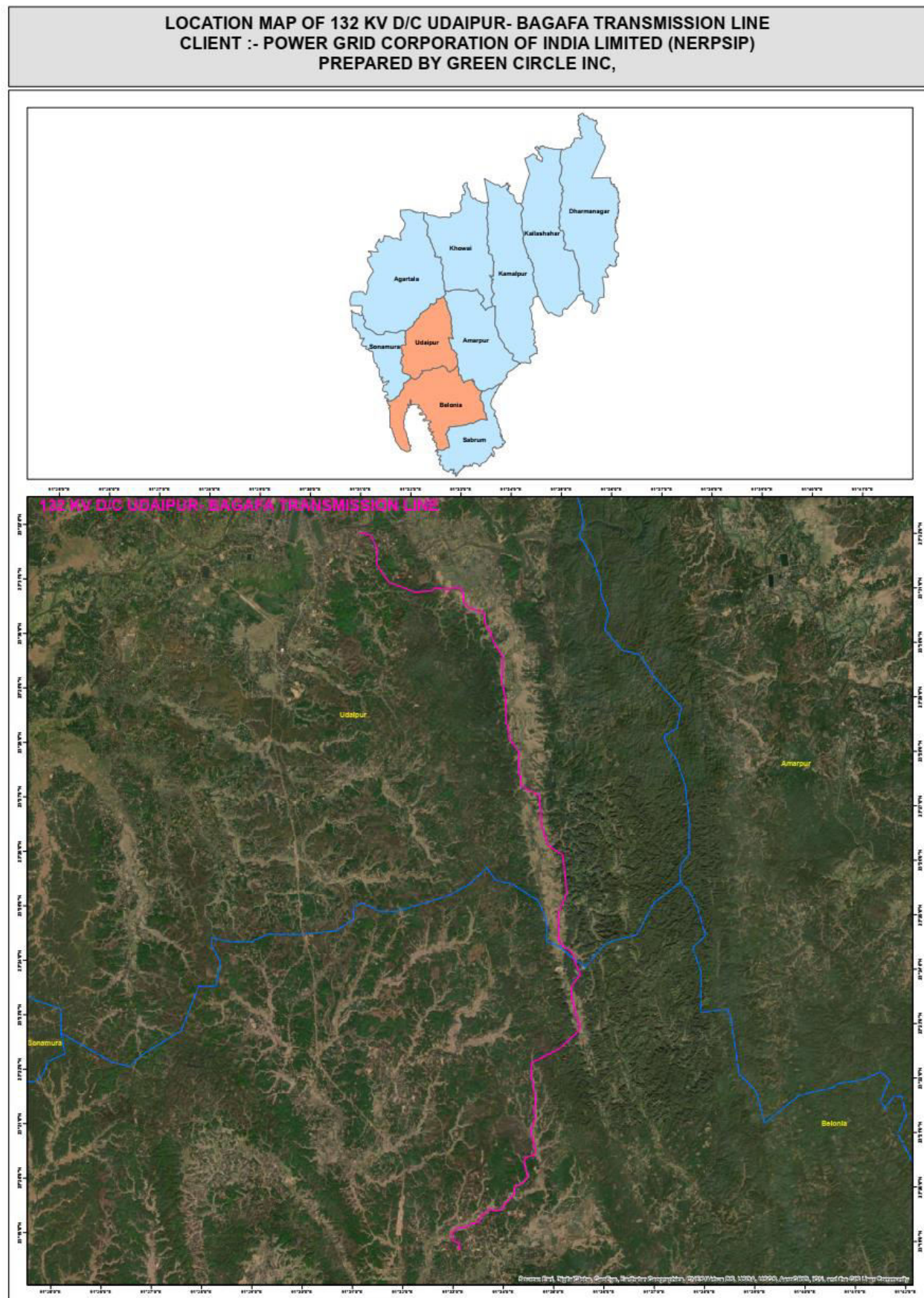


TL Section – In Agriculture Land



TL Crossing Bridge

Map 4-1: Google Earth Alignment Map for Udaipur - Bagafa 132 kV D/C TL



4.3.1.2 Feature Details of Final Route Alignment of Bagafa – Belonia 132 kV D/C TL

Bagafa – Belonia 132 kV D/C line covers 12.911 km distance. Total 50 TT are proposed in this TL. The TL is finalized after detailed analysis considering the environmental features like forest / PA / river etc. The feature survey along the TL is carried out considering 27 mt ROW Width i.e., 13.5 mt on either side from center line of the corridor. Geomorphological studies observed that the geology of project area is majorly having rock structure of less dissected denudational hills, shallow Valley Fill and moderately dissected structurally hills. Rock type comprises Shaly sandstone with limestone bands and conglomerate of sandstone and pebble bed.

Major part of the TL passes through plain agricultural fields (50%), open hill forest with rubber plantation (22%) between tower no. AP 15 -AP16/A and AP 29B -AP33. The selected line does not cross any National Highway, Power line but crosses Railway track. Other than agriculture, this line traverses through fallow land, metal roads, tree crops and groves, pond / lake, fallow lands, Waste Land, hill forest etc. The TL route involve UCF land of about 2.5118 Ha area which mandated forest clearance under Forest (Conservation) Act, 1980. Stage-I & Stage-II (final) approval obtained on 30th October 2018 and 7th June 2019 respectively. Besides all PA like NP, WLS and designated wildlife / elephant passage have been completely avoided. The landslide study during electric line feature survey and GIS mapping, reveals that the project region is low to moderate vulnerable to landslide hazard. The project area is medium to highly vulnerable to flood. The type of hazard for project area is recorded as earthquake, windstorm, landslide and Flood.

As per detailed surveys and GIS imagery data ROW Crosses water bodies such as river, pond, drain & nala. TL is crossing Muhuri river between TT 24 and 26. No TT is planned in water body. TT constructed well above the ground level at required elevation to keep the people and animals away from EMF contact. It also prevents the structure getting damaged during flood situation. All the tower locations are easily accessible through existing road to carryout construction and maintenance activity and construction of new approach road is not required. However, strengthening and upgradation of approach road of 50 mt at 132 kV Bagafa S/S and 115 mt at 132 kV Belonia S/S is required.

GIS route survey map and TL feature details are provided in **Annexure A2 & B2**. The major feature details are depicted in **Table 4.3**. The Google earth image of TL is provided in the **Map 4.2**.

Table 4-3: Belonia -Sabroom 132 kV D/C line

Electric Line Feature details- 27m ROW

Feature Class	Area In Ha.	% Of Area
Agriculture Land	18.86	49.81%
Bricks Road	0.51	1.34%
Drain/Nala	0.50	1.32%
Electric Substation	3.33	8.80%
Fallow Land	0.63	1.68%
Metal road	0.45	1.20%
Mud Road	0.23	0.61%
Pond/Lake	0.80	2.12%
Railway Track	0.07	0.19%
River	0.17	0.44%
Rubber Plantation/Orchards	8.28	21.87%

Feature Class	Area In Ha.	% Of Area
Tree Crops And Groves	1.55	4.10%
Vacant Land	1.92	5.06%
Waste Land	0.56	1.47%
Total	37.87	100%

Photographs of the line location are given below:



TL Crossing Muhuri River Between TT 24 and 26



TL Section - Tower Location



TL Section - Tower in Agriculture Field



TL Section - Tower Place where 66kVA which is going to be replaced with 132/33 kV



132/33 kV - Belonia Electric S/S



132/33 kV Belonia S/S – Construction of CRB



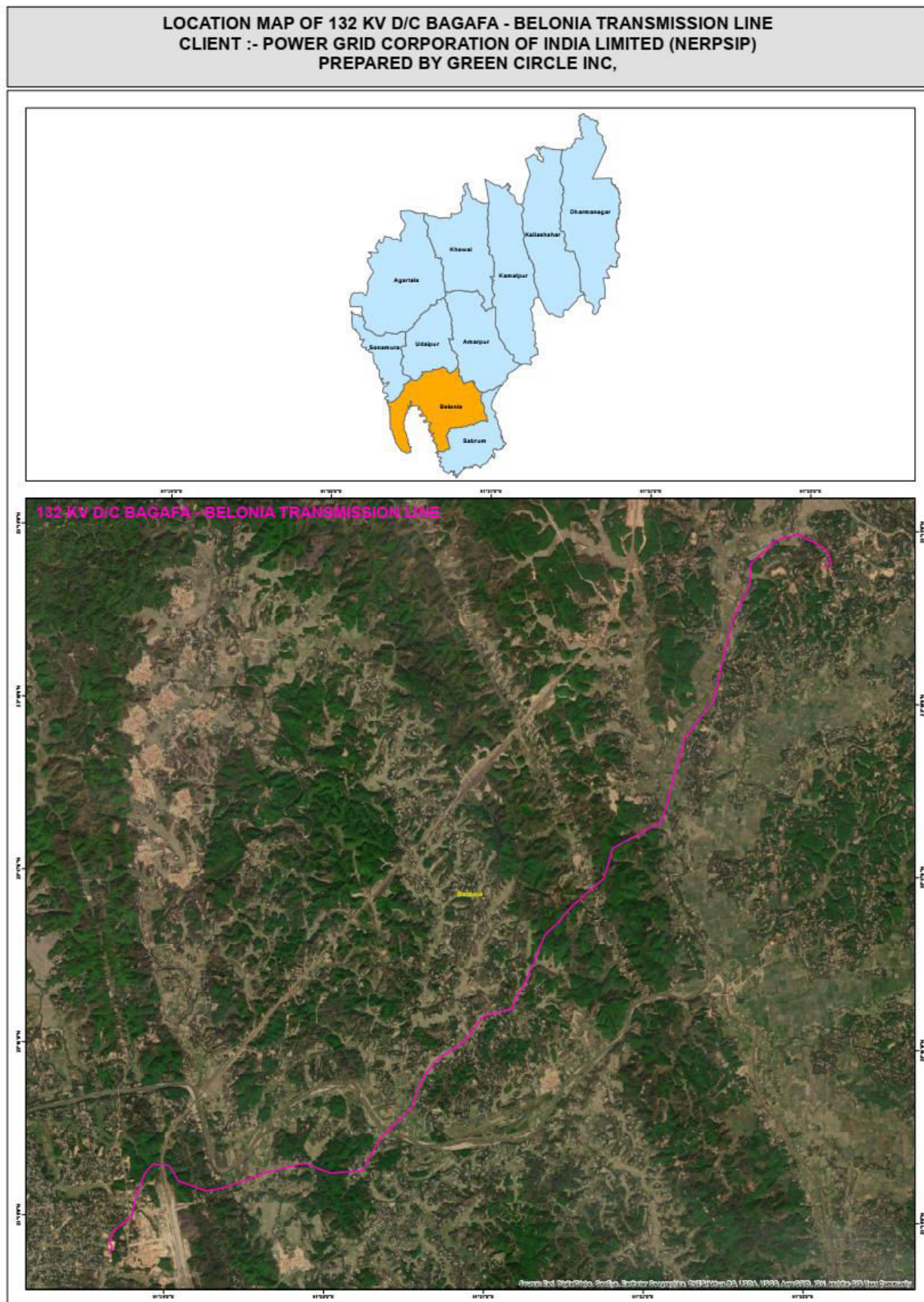
132/33 kV Belonia S/S – Equipment Erection



132/33 kV Belonia S/S – Equipment Erection



Map 4-2: Google Earth Alignment Map for Bagafa - Belonia 132 kV D/C TL



4.3.1.3 Feature Details of Final Route Alignment of Belonia – Sabroom 132 kV D/C TL

Belonia – Sabroom 132 kV D/C TL covers 38.815 km distance. Total 155 TT are proposed in this TL. The TL is finalized after detailed analysis considering the environmental features like forest / PA / river etc. The feature survey along the TL is carried out considering 27 mt ROW Width i.e., 13.5 mt on either side from center line of the corridor. Geomorphological studies observed that the geology of project area is majorly having rock structure of less dissected denudational hills, shallow Valley Fill and moderately dissected structurally hills. Rock type comprises shaly sandstone along with conglomerate of sandstone and pebble bed.

Major part of the TL passes through plain agricultural fields (29.43%), open hill forest with rubber plantation (44.27%) between tower no. AP 1 -AP4/A, AP 5A -AP16B, AP 24 G -AP25, AP 30 – AP35. The selected line does not cross any National Highway, Railway track and Power line. Other than agriculture, this line traverses through Metal Road, Waste Land, Vacant Land, Drain/Nala, Barren Rocky with Scrub Land, Bricks Road, Tree Crop and Groves, Mud Road, Pond/Lake, Brick Kilns/Quarry, River etc. The TL route involve RF land of about 25.5204 Ha area which mandated forest clearance under Forest (Conservation) Act, 1980. Stage-I approval obtained on 28th June 2018. Stage II permission obtained on 5th August 2020. Besides all PA like NP, WLS and designated wildlife / elephant have been completely avoided. The landslide study during electric line feature survey and GIS mapping, reveals that the project region is moderate to highly vulnerable to landslide hazard. The project area is very less to moderate vulnerable to flood. The type of hazard for the project area is recorded as earthquake, windstorm, landslide and Flood.

As per detailed surveys and GIS imagery data ROW crosses water bodies such as river, pond, drain & nala. TL is crossing Kalpania river between TT 25A and 25B No TT is planned in water body. TT constructed well above the ground level at required elevation to keep the people and animals away from EMF contact. It also prevents the structure getting damaged during flood situation. All the tower locations are easily accessible through existing road to carryout construction and maintenance activity and construction of new approach road is not required. However, strengthening and upgradation of 115 mt approach road is required at 132 kV Belonia S/S.

GIS route survey map and TL feature details are provided in **Annexure A3 & B3**. The major feature details are depicted in **Table 4.4**. The Google earth image of TL is provided in the **Map 4.3**.

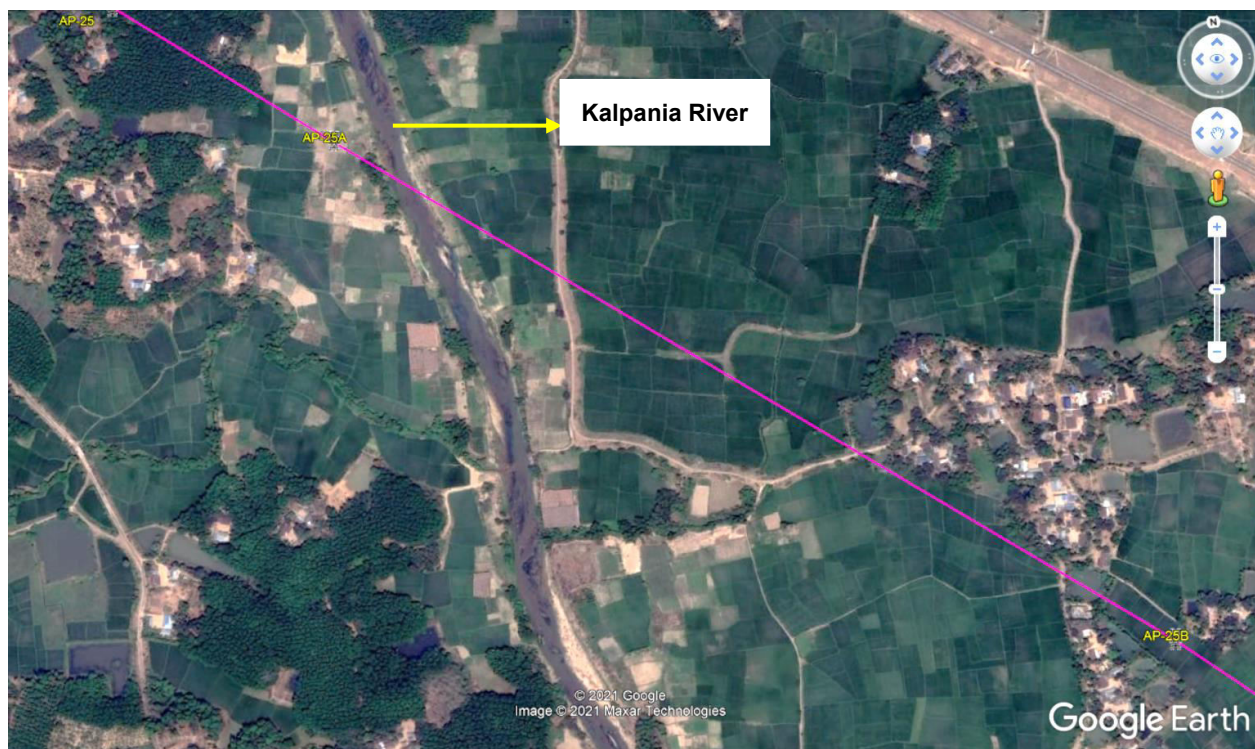
Table 4-4: Belonia -Sabroom 132 kV D/C line

Electric Line Feature Details-27m ROW

Feature Class	Area in Ha.	% Of Area
Electric Substation	3.26	3.00%
Rubber Plantation/Orchards	48.09	44.27%
Metal Road	0.74	0.68%
Vacant Land	0.87	0.80%
Drain/Nala	0.46	0.42%
Agriculture Land	31.97	29.43%
Barren Rocky with Scrub Land	5.31	4.89%
Bricks Road	0.23	0.21%
Tree Crop and Groves	3.18	2.92%

Feature Class	Area in Ha.	% Of Area
Mud Road	1.29	1.19%
Hilly Forest	6.27	5.78%
Pond/Lake	1.98	1.82%
Brick Kilns/Quarry	0.52	0.48%
Waste Land	4.26	3.92%
River	0.20	0.18%
Total	108.63	100%

Photographs of the line location are given below:



TL Crossing Kalpania River Between TT 25 A and 25B



TL Section – River Crossing



TL Section – Railway Route Crossing



TL Section – Tree/Crops



TL Section – Tree/Crops



TL Section – Tree Marking



TL Section – Agriculture Land



TL Section – Metal Road



TL Section - Tree Crops and Groves



TL Section - Tree Marking



TL Section - Location survey pole site



132/33 kV Sabroom S/S Building (left) and Retention Wall Construction (Right)

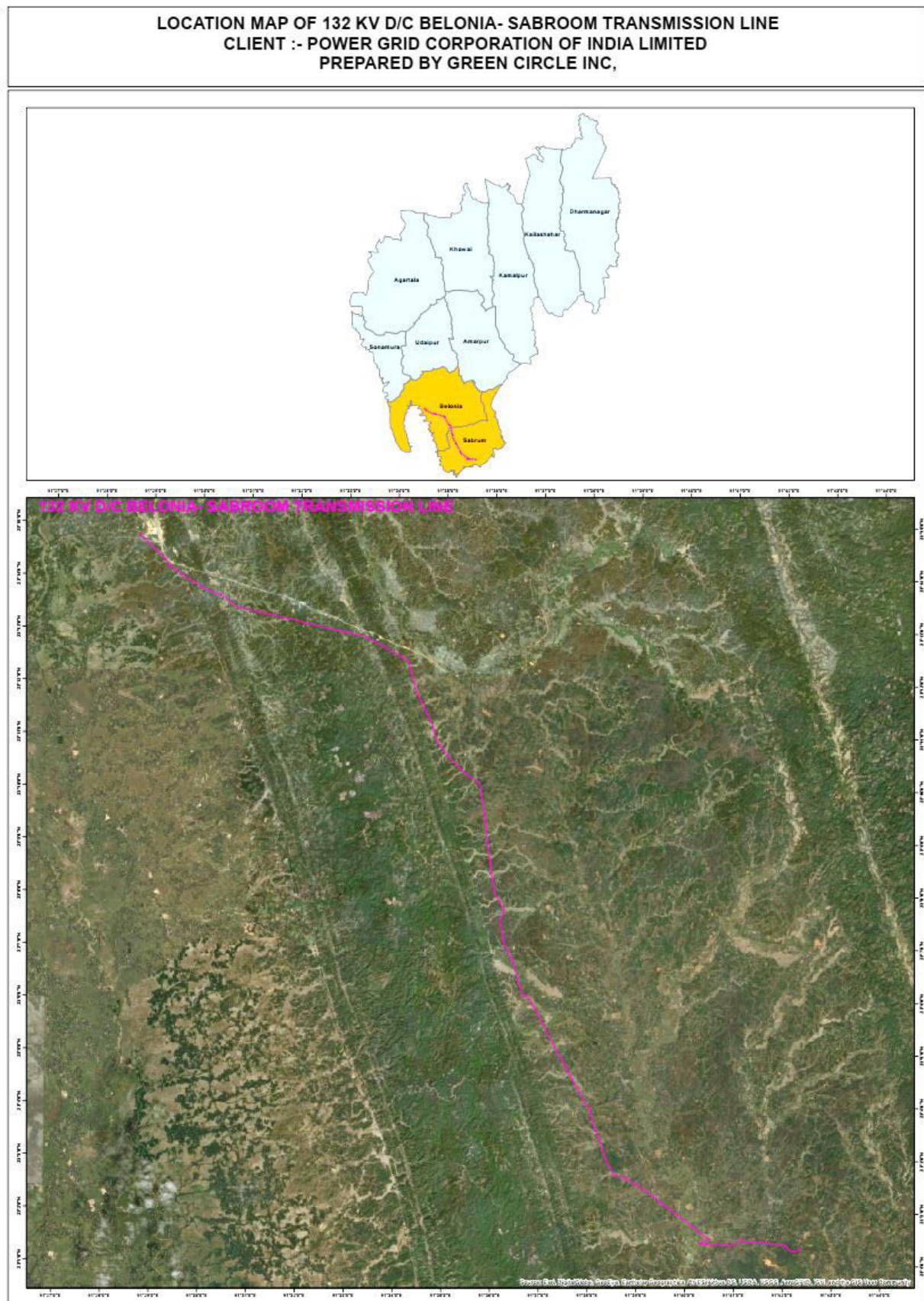


132/33 kV Sabroom S/S Transformer Erection (Left) and Drainage System (Right)



132/33 kV Sabroom S/S Trench Construction (Left) and Project Plot Area (Right)

Map 4-3: Google Earth Alignment Map for Bagafa – Sabroom 132 kV D/C TL



4.3.1.4 Feature Details of Final Route Alignment of Bagafa-Satchand 132kV S/C on D/C TL

Bagafa – Satchand 132 kV S/C on D/C TL covers 29.636 km distance. Total 119 TT are proposed in this TL. The TL is finalized after detailed analysis considering the environmental features like forest / PA / river etc. The feature survey along the TL is carried out considering 27 mt ROW Width i.e., 13.5 mt on either side from center line of the corridor. Geomorphological studies observed that the geology of project area is majorly having rock structure of moderately dissected structural hills, less dissected denudational hills, shallow Valley Fill and shallow alluvial layers. Rock type comprises shaly sandstone and conglomerate of sandstone and pebble bed.

Major part of the TL passes through plain agricultural fields (72.67%), open hill forest with rubber plantation (16 %) between tower no. AP 2 -AP3, AP 41-AP43, AP 63 -AP70. The selected line does not cross any National Highway and Power line. Other than agriculture, this line traverses through Metal Road, Waste Land, Pond/Lake, Vacant Land, Tree Crop and Groves, Mud Road, Brick Road, Fallow Land, River, Drain/Nala, Bridge, Barren/Rocky with Scrub Land, Railway etc. The TL routes involve RF land of about 9.1503 Ha area which mandated forest clearance under Forest (Conservation) Act, 1980. Stage-I approval obtained on 12th October 2018 and Stage II permission obtained on 24^h August 2020. Besides all PA like NP, WLS and designated wildlife / elephant passage have been completely avoided. The landslide study during electric line feature survey and GIS mapping, reveals that the project region is not vulnerable to landslide hazard. The project area is very less to moderate to highly vulnerable to flood. The type of hazard for the project area is recorded as earthquake, windstorm, Flood.

As per detailed surveys and GIS imagery data ROW crosses water bodies such as river, pond, drain & nala. TL is crossing Muhuri river between TT 31 and 32 and Lowgong River between TT 13 and 14. TL crosses drain / nalla between TT 34 and 35. No TT is planned in water body. TT constructed well above the ground level at required elevation to keep the people and animals away from EMF contact. It also prevents the structure getting damaged during flood situation. All the tower locations are easily accessible through existing road to carryout construction and maintenance activity and construction of new approach road is not required. However, strengthening and upgradation of 50 mt approach road is required at 132 kV Bagafa S/S.

GIS route survey map and TL feature details are provided in **Annexure A4 & B4**. The major feature details are depicted in **Table 4.5**. The Google earth image of TL is provided in the **Map 4.4**.

Table 4-5: Bagafa -Satchand 132 kV D/C line

Electric Line Feature Details-27m ROW

Feature Class	Area in Ha.	% Of Area
Agriculture Land	58.83	72.67%
Barren/Rocky with Scrub Land	1.35	1.66%
Brick Road	0.32	0.40%
Bridge	0.02	0.02%
Drain/Nala	1.07	1.32%
Electric Substation	2.19	2.70%
Fallow Land	0.24	0.30%
Metal Road	0.61	0.75%

Feature Class	Area in Ha.	% Of Area
Mud Road	0.31	0.38%
Pond/Lake	0.68	0.84%
Railway	0.21	0.26%
River	0.12	0.15%
Rubber Plantation/Orchards	12.94	15.98%
Tree Crop and Groves	0.89	1.09%
Vacant Land	0.60	0.74%
Waste Land	0.59	0.73%
Total	80.97	100%

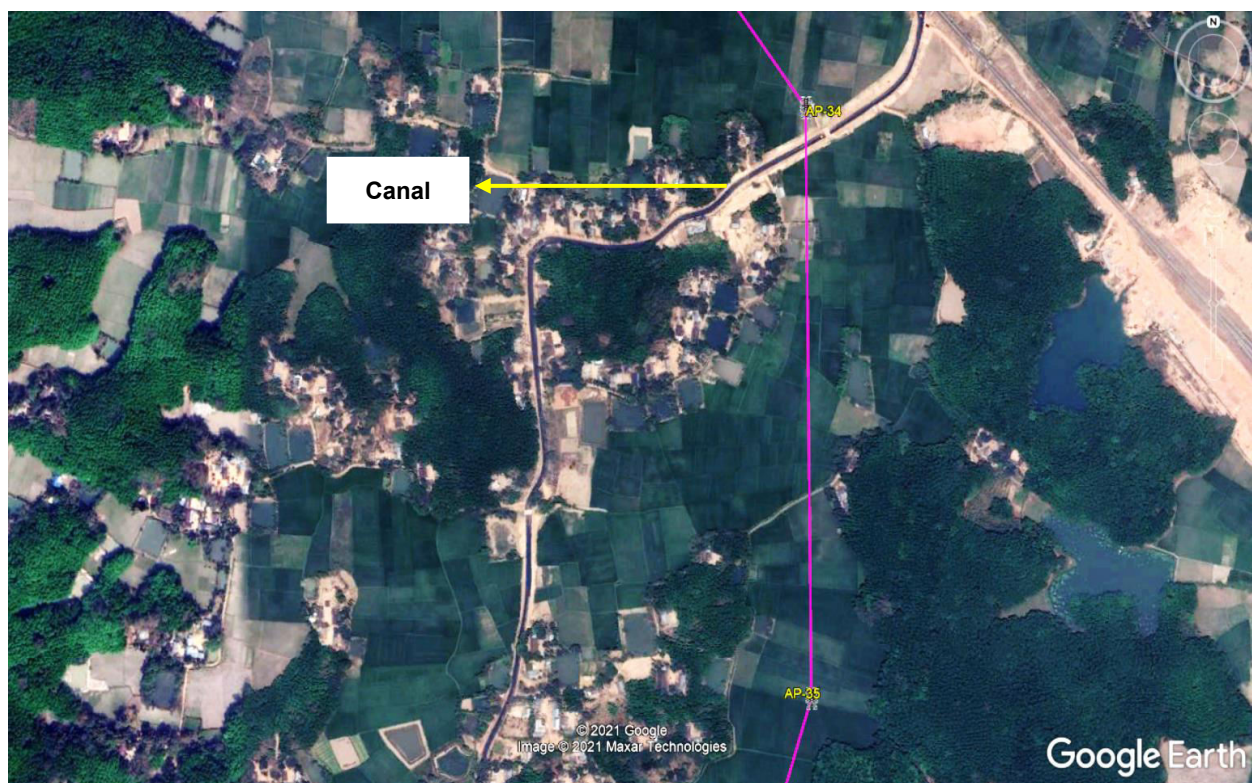
Photographs of Line Location are Given Below;



TL Crossing Laolang River between TT 13 and 14



TL crossing Muhuri river between TT 31 and 32



TL crossing drain / nalla between TT 34 and 35



TL Section – Railway Crossing



TL Section – Tree/ Crops



TL Section – Agricultural Land (Left) and Metal Road (Right)



TL Section – Tower Location Planned



TL Section – Tower Location Planned



132/33 kV Satchand S/S – Control Room Building (Left) and Transformer Erection (Right)



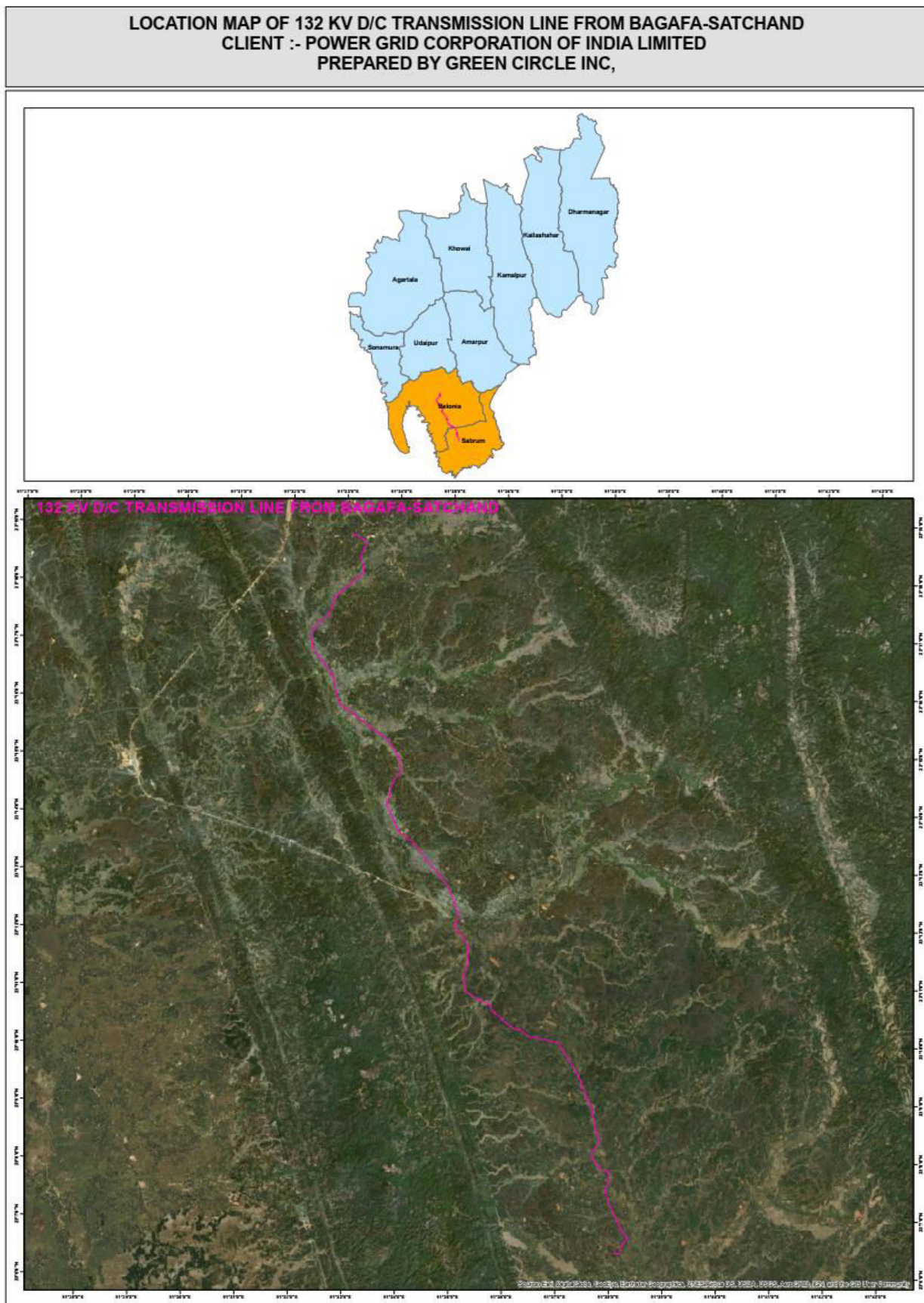
Retention Wall at 132/33 kV Satchand S/S

Drainage System at 132/33 kV Satchand S/S



1132/33 kV Satchand S/S – Trench Construction (Left) and Air Cell for Transformer (Right)

Map 4-4: Google Earth Alignment Map for Bagafa-Satchand 132kV S/C on D/C TL



4.3.1.5 Feature Details of Final Route Alignment of Udaipur – Amarpur 132kV D/C TL

Udaipur – Amarpur 132kV D/C TL covers 15.619 km distance. Total 69 TT are proposed in this TL. The TL is finalized after detailed analysis considering the environmental features like forest / PA / river etc. The feature survey along the TL is carried out considering 27 mt ROW width i.e., 13.5 mt on either side from center line of the corridor. Geomorphological studies observed that the geology of project area is majorly having rock structure of moderately dissected structural hills, highly dissected structural hills and less dissected denudational hills. Rock type comprises shaly sandstone and conglomerate of sandstone and pebble bed.

Major part of the TL passes through plain agricultural fields (18%), open hill forest (40%) between AP 37 to 55, AP 28 to 48, rubber plantation (15%) between tower no. AP 23 to 27, AP 51, AP 2. The selected line does not cross any National Highway and Power line. Other than agriculture, this line traverses through Barren Rocky/Waste Land, Fallow Land, Metal Road, Bricks Kilns/Quarry, Pond/Lake, Mud Road, Tree Crops and Groves, Vacant Land, River, Bricks Road, Canal, Drain/Nala etc. The TL route involve RF land of about 22.0482 Ha area which mandated forest clearance under Forest (Conservation) Act, 1980. Stage-I & Stage-II approval obtained on 10th April 2018 & 29th August 2019 respectively. Besides all PAs like NP, WLS and designated wildlife / elephant passage have been completely avoided. The landslide study during electric line feature survey and GIS mapping reveals that the project region is severe vulnerable to landslide hazard. The project area is very moderate to highly vulnerable to flood. The type of hazard for the project area is recorded as earthquake, severe landslide, windstorm, Flood.

As per detailed surveys and GIS imagery data ROW crosses water bodies such as river, pond, canal, drain & nala. TL is crossing Maharani River which is tributary of Gomati River between TT 22 and 23. No TT is planned in water body. TT constructed well above the ground level at required elevation to keep the people and animals away from EMF contact. It also prevents the structure getting damaged during flood situation. All the tower locations are easily accessible through existing road to carryout construction and maintenance activity and construction of new approach road is not required.

GIS route survey map and TL feature details are provided in **Annexure A5 & B5**. The major feature details are depicted in **Table 4.6**. The Google earth image of TL is provided in the **Map 4.5**.

Table 4-6: Udaipur - Amarpur 132 kV D/C line

Electric Line Feature Details-27m ROW

Feature Class	Area In Ha.	% Of Area
Agriculture Land	8.02	18.06%
Barren Rocky/Waste Land	2.68	6.05%
Bricks Kilns/Quarry	0.82	1.84%
Bricks Road	0.09	0.20%
Canal	0.12	0.26%
Drain/Nala	0.04	0.08%
Electric Substation	3.67	8.27%
Fallow Land	0.89	2.00%
Hilly Open Forest	17.75	40.00%
Metal Road	0.96	2.16%
Mud Road	0.18	0.41%

Feature Class	Area In Ha.	% Of Area
Pond/Lake	1.35	3.05%
River	0.08	0.19%
Rubber Plantation with Hilly Open Forest	6.51	14.68%
Tree Crops and Groves	0.97	2.17%
Vacant Land	0.25	0.56%
Total	44.37	1.00

Photographs of the line location are given below:



TL crossing Canal Between TT 14 and 15



TL crossing Canal Between TT 16/2 and 17



TL is crossing Maharani River (tributary of Gomati River) between TT 22 and 23



132/33 kV Amarpur S/S - Construction Site



TL Section - Pole Location



TL Section – Metal Road (Left) and Road side pole location (Right)



132/33 kV Amarpur Electric S/S construction site – Before Construction Started

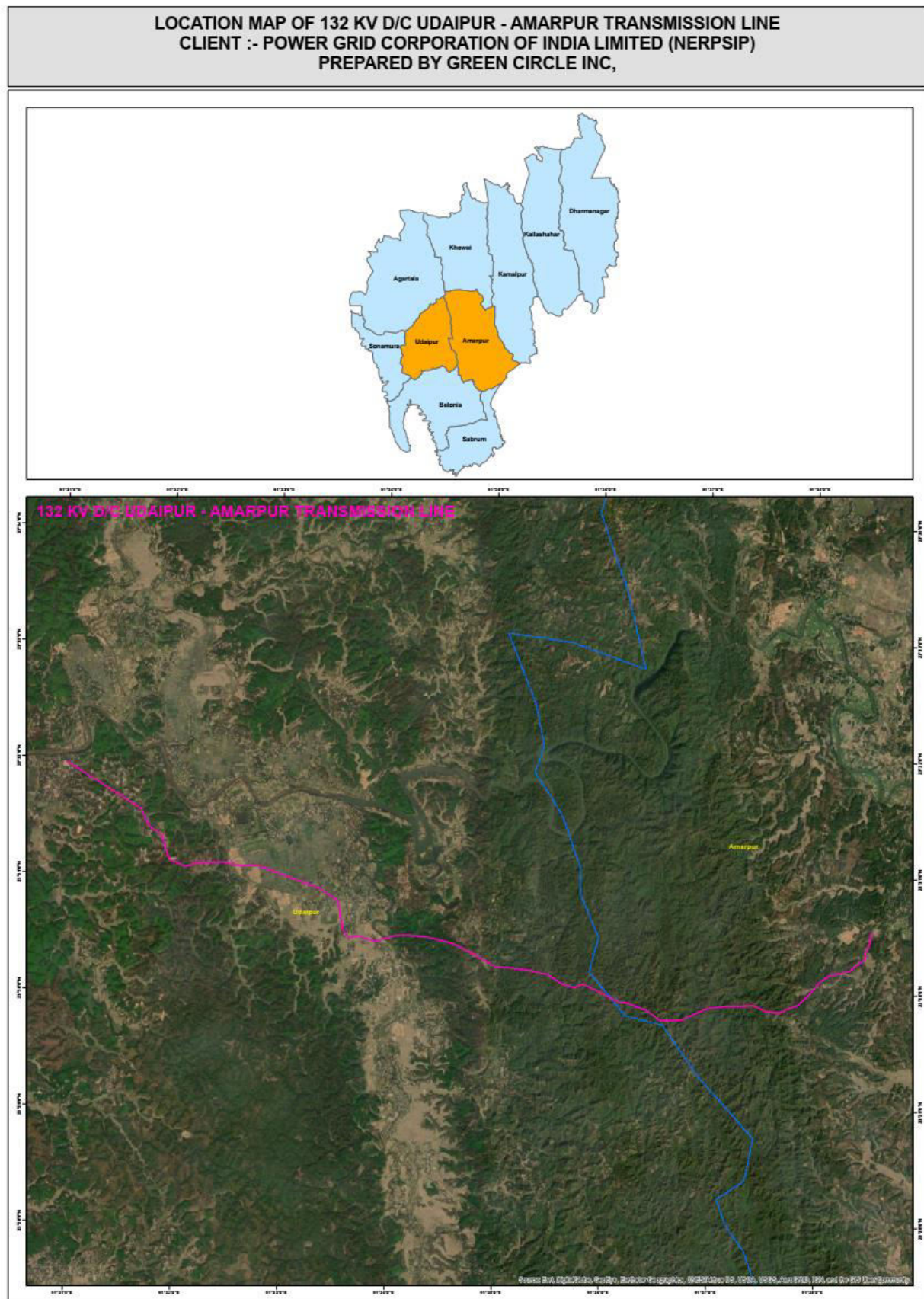


132/33 kV Amarpur SS – During Construction



TL Section – Pole Side Location (Left) and Tree/Crops (Right)

Map 4-5: Google Earth Alignment Map for Udaipur - Amarpur 132 kV D/C TL



4.4 Project Impacts

Based on the project details and the baseline environmental status, potential impacts due to the construction/ bay extension of S/S and along the final route of TLs have been assessed.

4.4.1 Impact of Transmission Lines

As per existing law i.e., MoP Guidelines Dated 5th October 2015 for Payment of Compensation for TL, land is not required to acquire for tower footing and ownership of land remains with the owner and is allowed to continue cultivation after construction. So, for all T&D Lines acquisition of land or any physical displacement is not applicable. However, as per the present provision in the Section 68 Electricity Act, 2003 and Indian Telegraph Act, 1885 only the damages (without acquisition of subject land) accrued to person while placing the tower and line are to be compensated (Section-10 (d) of Indian Telegraph Act).

However, some social impacts due to construction of lines or placing of towers are seen like temporary removal of soil in agriculture land, loss of standing crops / trees during construction phase only. All mitigation measures as per EMP are implemented by contractor and immediately restored on site as per EMP. Care has been taken by the contractors to avoid unnecessary loss of crops.

4.4.1.1 Landuse within Corridor (Right of Way)

Total land under ROW of TL 361.67 Ha. The major land use in ROW of TLs is agricultural land (163.32 Ha), Open Hill Forest (24.02 Ha), rubber plantation (69.31 Ha), Rubber Plantation with open hill forest (33.64 Ha), Tree, crops and groves (8.97Ha) etc. Details of land use are provided in **Table 4.7**.

4.4.1.2 Impact on soil and surface geology

The project terrain is mixed. As discussed in the feature studies, almost 50 to 60% portion of project area is in undulating terrain. In plain areas impact on soil & geology is almost negligible as the excavated pit material is stacked properly and back filled as well as used for resurfacing the area. On hill slopes where soil is disturbed and prone to erosion is suitably protected by revetment, breast walls, and proper drainage. Besides extensive leg /chimney extension is being used to avoid benching or cutting of slopes to minimize the impact on slope stability.

4.4.1.3 Impact of tower base on land

As per the assessment carried out in Compensation Plan for Temporary Damages (CPTD) by TSECL, the land required for erection of tower legs is very small i.e., for each leg of tower actual construction a small square area with side length ranging from 0.20 to 0.30 meter required depending on the types of towers. Four such square pieces of land is required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for an average 132 kV D/C TT ranges from 0.16-0.36 sq m of land. Thus, the actual impact is restricted to 4 legs of the tower and agriculture can continue as clearly depicted in the **Figure 4.1**.

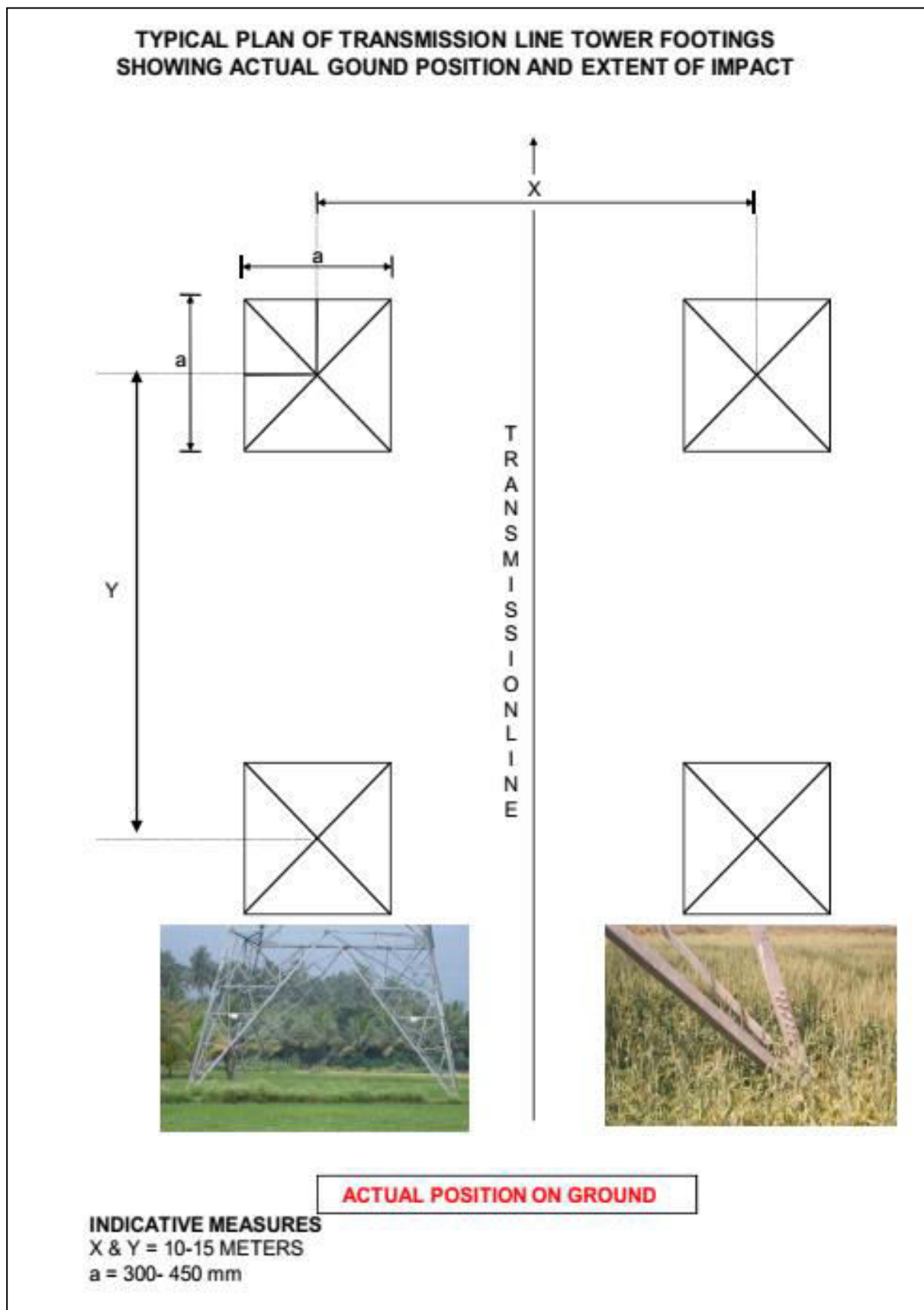


Figure 4-1: Typical Plan of Transmission Line Tower Footing

As already explained, the impact of TL is restricted to 4 legs of the tower and agriculture can continue after construction activity is over. The average land area required for erection of one 132 kV T/L tower is approx. 0.25 sq. mt. Based on above, total land loss estimated for construction 129.541 km of 132 kV TL is 132.5 Ha proposed under the present scheme. The compensation toward loss land is provided by following compensation MoP Guidelines Dated 5th October 2015 for Payment of Compensation for TL. Details of land loss for tower base are given in **Table 4.9**. The details of Status of Land Compensation (details of line wise land compensation status updated till June 2021) are given in **Table 4.9**.

4.4.1.4 Impact on Crop area / Tree Crops and Groves

Construction of line in crop season is avoided as far as possible. In case when installation of towers impact on agricultural activity, detailed assessment / survey is conducted looking at existing crops, general crop patterns, seasonal particulars, nature and extent of yield. Wherever necessary, permissions from tea estate owners were taken to erect towers in their agricultural fields. This data is compiled and analyzed to study the extent and nature of impact. For the temporary loss of crops, only agricultural land and private plantation land is considered for estimation. The damages are not done in complete RoW of line (20 m width of corridor for 132 kV D/c) but mostly restricted to tip to tip of the conductor and tower base area where average affected width/corridor would be limited to 20 m (maximum). The aspect is discussed in more detail in **section 5.2.5 in Chapter 5**.

One of the reasons is that schedules of construction activities are undertaken in lean season or post-harvest periods. Assets of any sorts are not acquired but during construction, only temporary damages are occurred. Based on the estimation of tower foot area as per the thumb rule explained in **section 4.4.1.3**, the total land considered for estimation of crop damage / tree damage because of tower foundation 132.5 Ha. The details of estimated impacted area due to TL ROW are given in **Table 4.10**. As per detailed survey, total 13755 no. of trees will be affected along RoW in non-forest area. However, actual felling will be very less as most of the tree will be looped/pruned along the RoW expect clear feeling below 3 m conductor area to maintain electrical safety clearance. Details of line wise tree enumerated in non-forest area is presented at **Table 4.12**. The status of Tree / Crop Compensation till June 2021 is presented in **Table 4.11**.

Impact on trees is assessed for all TLs within project scope where the actual trees cutting possibility is envisaged. The aspect is also discussed in more detail in **section 5.2.1 in Chapter 5**. Also, while construction of TLs fruit bearing season was avoided to prevent loss of crops. Tree compensation was calculated on the basis of tree enumeration and detailed surveys.

4.4.1.5 Impact on Trees in Forest Areas

As we discussed in the earlier sections in the instant case, tree cutting in Forest area is envisaged in TL sections. The details of enumerated tree in RoW is also integral part of forest Clearance proposals and is available on parivesh website. As per this a total of 6922 nos. of trees of different girth are coming under RoW of 5 lines which is provided in **Table 4.12**. However, as per MoEFCC guidelines dated 5.5.2014, tree feeling is restricted to below 3m of each conductor only and in remaining area of RoW looping/pruning is allowed to maintain electrical safety clearance. Hence, the actual felling of tree will be in the range of 25-30% of total tree enumerated by forest dept. The compensatory afforestation will be undertaken in

double the area of forest land diverted in the identified land by forest authority for which compensatory levies have already been deposited by IA/Utility .

Table 4-7: Type and Land Use within RoW of T&D Lines

Type and Land Use in ROW (Ha)	Transmission Lines					Total (Ha)
	Udaipur - Bagafa 132 kV D/C line	Bagafa - Belonia 132 kV D/C line	Belonia - Sabroom 132 kV D/C line	Bagafa - Satchand 132 kV S/C on D/C line	Udaipur - Amarpur 132 kV D/C line	
ROW Width (m)	27	27	27	27	27	
Brick Road	0.82	0.51	0.23	0.32	0.09	1.98
Electric SS	3.75	3.33	3.26	2.19	3.67	16.20
Agriculture land	45.63	18.86	31.97	58.83	8.02	163.32
Vacant Land	0.39	1.92	0.87	0.60	0.25	4.02
Tree Crops and Groves	2.21	1.55	3.18	0.89	0.97	8.79
Pond /Lake	2.19	0.80	1.98	0.68	1.35	7.00
Barren /Rocky / scrub land	1.98		5.31	1.35	2.68	11.32
Brick Kilns / Quarry	1.34		0.52		0.82	2.68
Bridge				0.02		0.02
Railway		0.07		0.21		0.28
Metal Road	0.76	0.45	0.74	0.61	0.96	3.52
Fallow Land	1.91	0.63		0.24	0.89	3.67
Mud Road	0.57	0.23	1.29	0.31	0.18	2.59
Gullied Ravinous	0.23					0.23
River	0.02	0.17	0.20	0.12	0.08	0.59
Waste Land		0.56	4.26	0.59		5.41
Drain /Nala	0.76	0.50	0.46	1.07	0.04	2.82
Rubber Plantation with OF	27.13				6.51	33.64
Rubber Plantation/Orchards		8.28	48.09	12.94		69.31
Hill Open Forest			6.27		17.75	24.02
Canal	0.11				0.12	0.23
Total	89.82	37.87	108.63	80.97	44.38	361.67

Table 4-8: Estimation of Actual Land Loss Because of TL Tower Base

Sr. No	Details of Transmission Lines	Length in km	Total Towers	Land Loss / Tower (Sq. mt.)	Total land loss area for tower base (sq. mt.)
1	Udaipur-Bagafa 132 kV D/C TL	32.56	137	0.25	34.25
2	Bagafa-Belonia 132 kV D/C TL	12.911	50	0.25	12.5
3	Belonia-Sabroom 132 kV D/C TL	38.815	155	0.25	38.75
4	Bagafa-Satchand 132kV S/C on D/C TL	29.636	119	0.25	29.75
5	Udaipur-Amarpur 132 kV D/C TL	15.619	69	0.25	17.25
Total		129.541	530		132.5

Table 4-9: Status of Land Compensation (details of line wise land compensation status updated till June 2021)

S.I. No	Name of the Line	Total Foundation Completed	Total Affected Persons for Tower Foundation	Compensation already paid to Affected Persons	Compensation for APs under progress	Total Compensation paid for Tower Base	Total Stringing Completed	Total Affected Persons in RoW Corridor	Compensation already paid to Affected Persons in RoW Corridor	Compensation for APs for RoW Corridor under progress	Total Compensation paid for RoW Corridor	No. of Pending cases/non-eligible cases with details thereof (e.g., Govt. land/ title disputes/ any other reasons)
		(No.)	(No.)	(No.)	(No.)	(Rs. Lakh)	(Km)	(No.)	(No.)	(No.)	(Rs. Lakh)	
1	132 kV D/c Bagafa-Belonia	17	3	Nil	Nil	Nil	Nil	No provision of compensation for APs in ROW corridor				3
2	132 kV D/c Belonia-Sabroom	25	20	2	18	1.27	Nil	No provision of compensation for APs in ROW corridor				Nil
3	132 kV S/c Bagafa-Satchand	19	12	5	7	0.691	Nil	No provision of compensation for APs in ROW corridor				Nil
4	132 kV D/c Udaipur-Bagafa	101	81	77	01	4.16	Nil	No provision of compensation for APs in ROW corridor				3
5	132 kV D/c Udaipur-Amarpur	61	22	221	0	Nil	8.5	No provision of compensation for APs in ROW corridor				3

Table 4-10: Loss of Crop Area

Transmission Lines	Width Considered for estimation of loss of crops	Agriculture land Area in Ha	Tree Crops and Groves Area in Ha	Total Area Considered for Compensation in Line
Udaipur - Bagafa 132 kV D/C line	20	87.72	4.95	92.67
Bagafa – Belonia 132 kV D/C line		36.15	3.49	39.64
Belonia –Sabroom 132 kV D/C line		62.38	6.87	69.25
Bagafa – Satchand 132 kV S/C on D/C line		115.9	2.34	118.24
Udaipur - Amarpur 132 kV D/C line		15.69	2.05	17.74
Total in Ha		317.84	19.7	337.54

Table 4-11: Details of Crop & Tree compensation (details of line wise compensation status updated till June 2021)

Sr. No.	Name of the Line	Affected Persons (APs) issued with notice (No.)	Compensation already paid to APs (No.)	Compensation to APs under progress (No.)	Affected Land Area (Ha.)	Compensation Paid for crop damages (Rs. Lakhs)			Total Tree Affected (No.)	Compensation Paid for Tree damages (Rs. Lakhs)			No. of Pending cases/non-eligible cases with details thereof (e.g., Govt land/title disputes/ any other reasons)
						Foundation	Erection	Stringing		Foundation	Erection	Stringing	
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
1	132 kV D/c Bagafa-Belonia	46	30	16	0.36	1.55	Nil	Nil	152	6.5	Nil	Nil	Nil
2	132 kV D/c Belonia-Sabroom	25	8	17	0.33	0.42	Nil	Nil	730	4.39	Nil	Nil	Nil
3	132 kV S/c Bagafa-Satchand	20	11	9	0.55	0.21	Nil	Nil	6259	13.81	Nil	Nil	Nil
4	132 kV D/c Udaipur-Bagafa	135	100	14	5.00	6.63	0.02	Nil	651	27.87	Nil	Nil	21
5	132 kV D/c Udaipur-Amarpur	69	55	1	0.08	2.92	0.91	0.49	903	10.81	0.43	1	13

Table 4-12: Trees Enumerated in Forest and Non Forest Area

Sr. No.	Name of Line	Trees Enumerated in Forest area (No.)	Trees Enumerated in Non-Forest area (No.)
1	Bagafa – Belonia 132 kV D/C line	156	758
2	Belonia –Sabroom 132 kV D/C line	331	2980
3	Bagafa – Satchand 132 kV S/C on D/C line	1768	4716 + 50 Bamboo
4	132 kV D/c Udaipur-Bagafa	2194	4371
5	132 kV D/c Udaipur-Amarpur	2473	507+ 383 Bamboo
Total		6922	13332 + 433 Bamboo

4.4.1.6 Other Damages

Major part of TLs traverses through agricultural fields. Habituated areas and other sensitive areas were purposely avoided to prevent damages. So, there is no possibility of damage to bunds, water bodies, etc. However, if damaged, local revenue department assess the cost of damage as per norms of GoT and submit estimate to the competent authority for approval.

4.4.2 Impact Due to Construction of New Substation and Bay Extension

All the S/S are being constructed on vacant lands owned by TSECL, so there is no displacement of people in this project. Therefore, there is no any social impact on the people residing in this area. Minor improvements to paths were made to reach to the new S/S, which is found useful for the local people of the particular area.

4.4.3 Impact on Indigenous People

GoI, under Article 342 of the Constitution, considers the following characteristics to define indigenous peoples [Scheduled Tribes (ST)]:

- tribes' primitive traits;
- distinctive culture;
- shyness with the public at large;
- geographical isolation; and
- Social and economic backwardness before notifying them as a Scheduled Tribe.

Essentially, indigenous people have a social and cultural identity distinct from the 'mainstream' society that makes them vulnerable to being overlooked or marginalized in the development processes. STs, who have no modern means of subsistence, with distinctive culture and are characterized by socio- economic backwardness, could be identified as Indigenous people. Indigenous people are also characterized by cultural continuity. Constitution of India identifies schedule areas which are predominately inhabited by such people. As, this project is directly connected with the life of local people of Tripura, there is no negative impact on indigenous people because of this project. Local people are cooperating project related authorities.

4.4.4 Summary of Impacts

Based on the above analysis of final route of TLs and location of S/S, the summarized environmental & social impact matrix is presented below in **Table 4.13**.

Table 4-13: Summary of Impacts

Sr. No.	Parameters	Extent of Impact																		
1.	Total Line Length	Transmission line: 129.541 km																		
2.	Total No. of Towers	TL Towers: 530																		
3.	Terrain	Plain and hilly Almost entire (approx. 40 to 60%) of lines are passing through hilly area and remaining approx. 40 to 50% through plains. S/S to be constructed/ augmented are mostly on plain terrain. However, provisions for revetment, breast walls, and proper drainage etc. have been made. Besides extensive leg /chimney extension is being used to avoid benching or cutting of slopes to minimize the impact on slope stability																		
4.	Forest land transverse	Transmission Line: 86 (RF amongst which 2.5118 is UCF), 22 km length <table border="1"> <thead> <tr> <th>TL Name</th><th>Forest in Ha</th><th>MoEFCC Clearance Status</th></tr> </thead> <tbody> <tr> <td>Udaipur - Bagafa 132 kV D/C line</td><td>26.77 RF</td><td>Stage-I & Stage-II (final) approval obtained on 09.04.18 & 06.06.19 respectively.</td></tr> <tr> <td>Bagafa – Belonia 132 kV D/C line</td><td>2.5118 UCF</td><td>Stage-I & Stage-II (final) approval obtained on 30.10.18. & 07.06.19 respectively.</td></tr> <tr> <td>Belonia –Sabroom 132 kV D/C line</td><td>25.5204 RF</td><td>Stage-I & Stage-II approval obtained on 28.06.18 & 05.08.20 respectively</td></tr> <tr> <td>Bagafa – Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line)</td><td>9.1503 RF</td><td>Stage-I & Stage-II (final) approval obtained on 12.10.18. and 24.08.20.</td></tr> <tr> <td>Udaipur - Amarpur 132 kV D/C line</td><td>22.0482 RF</td><td>Stage-I & Stage-II approval obtained on 10.04.18 & 29.08.19 respectively.</td></tr> </tbody> </table>	TL Name	Forest in Ha	MoEFCC Clearance Status	Udaipur - Bagafa 132 kV D/C line	26.77 RF	Stage-I & Stage-II (final) approval obtained on 09.04.18 & 06.06.19 respectively.	Bagafa – Belonia 132 kV D/C line	2.5118 UCF	Stage-I & Stage-II (final) approval obtained on 30.10.18. & 07.06.19 respectively.	Belonia –Sabroom 132 kV D/C line	25.5204 RF	Stage-I & Stage-II approval obtained on 28.06.18 & 05.08.20 respectively	Bagafa – Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line)	9.1503 RF	Stage-I & Stage-II (final) approval obtained on 12.10.18. and 24.08.20.	Udaipur - Amarpur 132 kV D/C line	22.0482 RF	Stage-I & Stage-II approval obtained on 10.04.18 & 29.08.19 respectively.
TL Name	Forest in Ha	MoEFCC Clearance Status																		
Udaipur - Bagafa 132 kV D/C line	26.77 RF	Stage-I & Stage-II (final) approval obtained on 09.04.18 & 06.06.19 respectively.																		
Bagafa – Belonia 132 kV D/C line	2.5118 UCF	Stage-I & Stage-II (final) approval obtained on 30.10.18. & 07.06.19 respectively.																		
Belonia –Sabroom 132 kV D/C line	25.5204 RF	Stage-I & Stage-II approval obtained on 28.06.18 & 05.08.20 respectively																		
Bagafa – Satchand 132 kV S/C on D/C line (utilizing the corridor of existing Bagafa Satchand 66 kV line)	9.1503 RF	Stage-I & Stage-II (final) approval obtained on 12.10.18. and 24.08.20.																		
Udaipur - Amarpur 132 kV D/C line	22.0482 RF	Stage-I & Stage-II approval obtained on 10.04.18 & 29.08.19 respectively.																		
5.	Rare/Endangered flora	Pterocarpus marsupium is vulnerable species, Aegle marmelos and Sweitinia Mahagony which is near threatened species as per Conservation Status IUCN (2020.1). found in project area.																		
6.	Rare/ endangered fauna	No rare/endangered fauna habitat found in project area.																		
7.	Total trees to be affected in Numbers	Total trees enumerated in forest and non-forest area in all 5 lines is 20677 nos.. However, clear felling tree will be restricted to 3m below each conductor which would be around 20-25% of total tree enumerated. Tree in Forest – 6922 nos. Tree in Non-forest – 13755 nos.																		
8.	Cleaning jungles of rank vegetations, grass, brush, wood, tree and saplings of girth up to 30 cm (measured at a height of 1 m above ground level).	5871 Sq.Mt.																		
9.	Migrating Wildlife/ breeding ground	NA																		
10.	National Park / sanctuaries	No PAs involved																		

Sr. No.	Parameters	Extent of Impact
11.	Wet land traversed	None
12.	Soil erodibility	Project locations are low to highly vulnerable to erosion and landslide. However, the mitigation measures are adopted and implemented.
13.	Historical / Cultural monuments	None
14.	Relocation of villagers	None
15.	Affected Structures	NA
16.	Total Affected People	NA
17.	Relocation of Villagers	NA
18.	Area of actual land loss under Tower Base	132.5 Sq.mt
19.	Affected Structures	Nil
20.	Temporary Damage to Crop	Temporary loss is observed during construction time. It is being recovered after construction activity and compensations are being given.
21.	Loss/ Hindrance to Public Utilities	Negligible, restricted to construction phase only.

5. POTENTIAL ENVIRONMENTAL IMPACT, THEIR EVALUATION AND MANAGEMENT

5.1 Introduction

Environmental impacts of T&D projects are not far reaching and are mostly localized to RoW. **(Refer Table 5.1)**. However, T&D projects have some effects on natural and socio-culture resources. All possible measures have been taken during the finalization of route alignment as described in the earlier chapter for the proposed T&D system, however, due to the peculiarity of terrain where project is being implemented, some environmental impacts may be there. The explanations in brief with regard to possible environmental impact and measures taken to minimize the same are given in ensuing paragraph.

Table 5-1: RoW Width & Clearance between Conductors and Trees

Transmission Voltage	Max. RoW (In Meters)	Min. Clearance (in Meters) between conductor & Trees *
132 kV	27	4.0

As per IS: 5613 and MoEF&CC guidelines finalized in consultation with CEA

5.2 Impact Due to Project Location and Design

5.2.1 Resettlement

During line routing stage itself all measures have been undertaken to avoid settlements such as cities, villages etc. in line with the guiding principle of avoidance as per ESPPF. During detail survey modern techniques/tools like GIS, GPS, and aerial photography were utilized to further optimization the final route alignment avoiding human habitation and other ecological and socially sensitive areas.

In present project construction of total 4 New S/S is under execution. The details are given in **Chapter 2 Section 2.6**. The area of land required for S/S is ranges from 1.64 to 3.7 Acres. depending upon voltage levels and no. of bays. In the instant scheme, TSECL does not need to acquire lands for (a) because TSECL already possess land for all four proposed substations and the same is available in their existing 66 kV substation at Bagafa, Belonia, Sabroom, & Satchand. As no fresh land is needed to be acquired for these substations, issue related to acquisition of land including possible R&R is not envisaged.

In respect of land requirement for erection of TLs / towers, no permanent acquisition is envisaged. Land for tower and ROW is not acquired and hence agricultural activities can continue. A Typical plan of TL tower footing indicating the above position with extent of damage and area of influence are depicted in **Figure 5.1 and 5.2** respectively

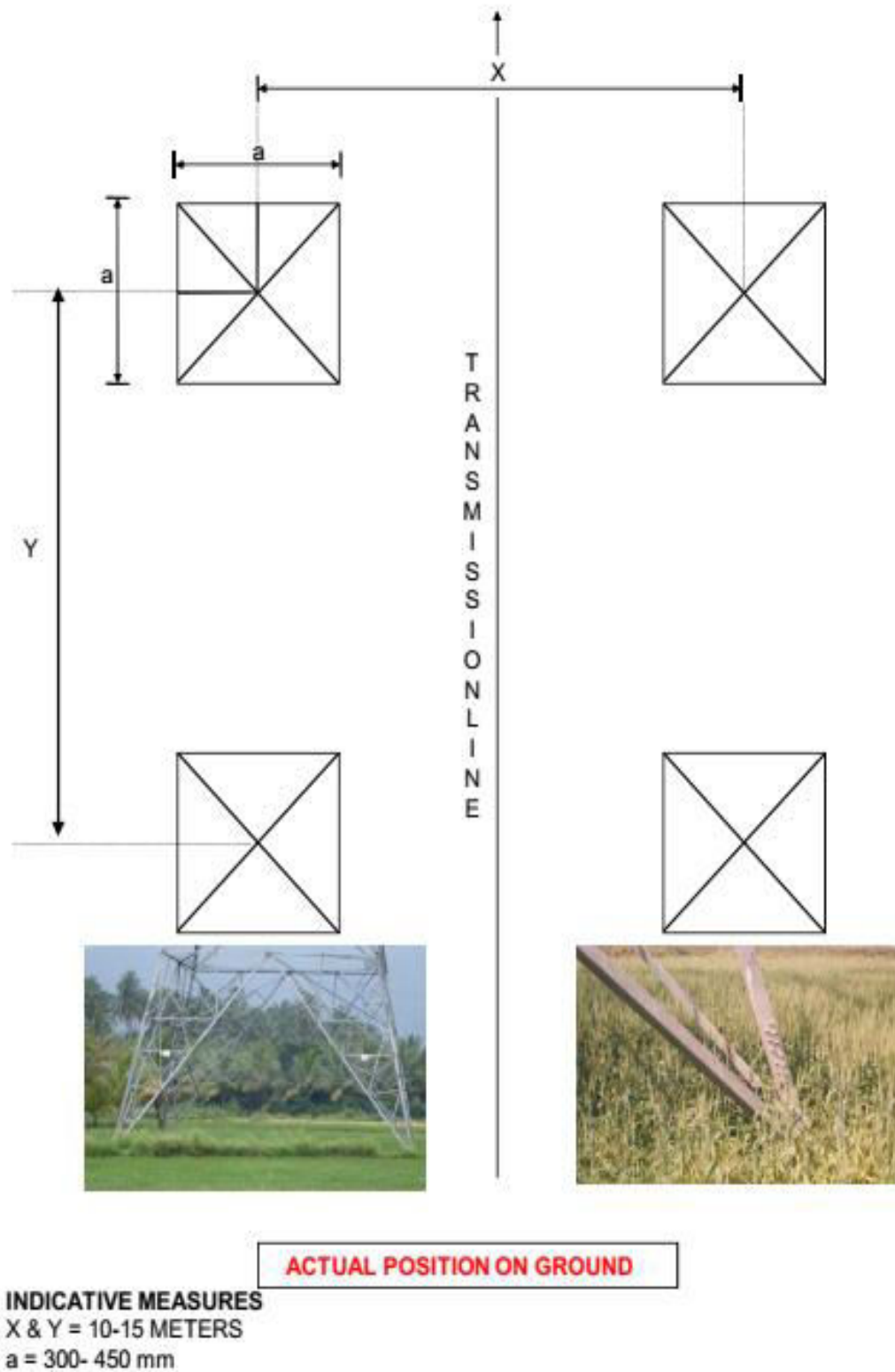


Figure 5-1: Typical Plan of Transmission Line Tower Footings Showing Actual Ground Position and Extent of Impact

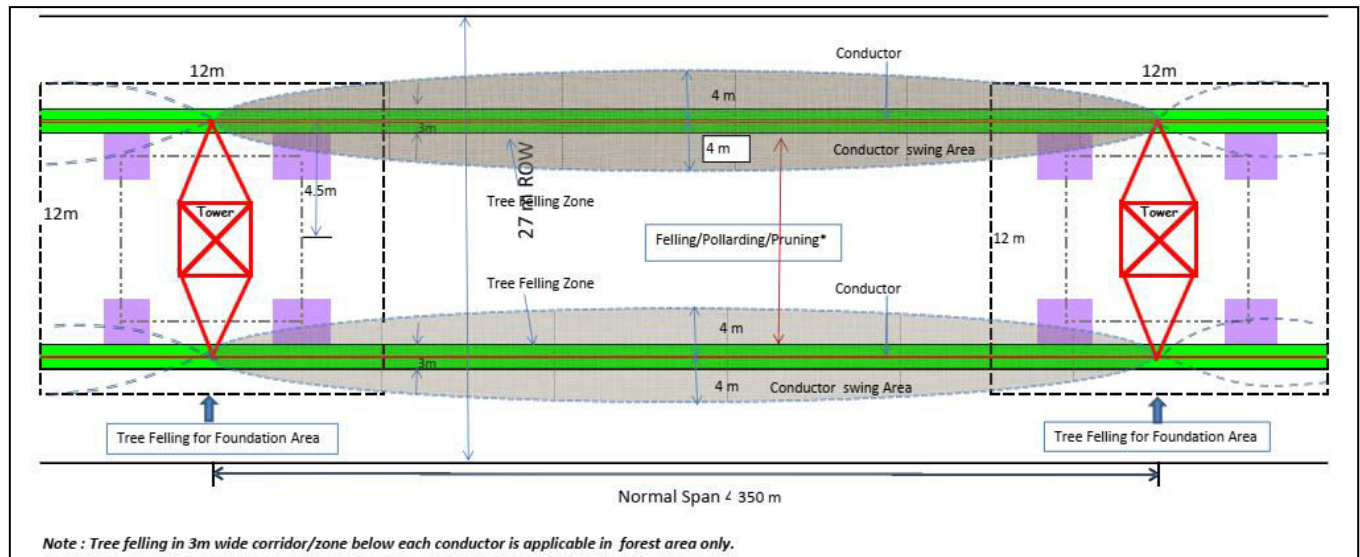


Figure 5-2: Schematic Diagram for Indicating Area of Influence/Impact for 132 KV D/C TL

Actual 132 KV line including tower on ground along with RoW and extent of impact due to erection of tower in undulating terrain, on agricultural land and in the area of vegetation is placed as **Figure 5.3, Figure 5.4.**

As described earlier all measures are undertaken by TSECL at the line routing stage itself to avoid settlements such as cities, villages etc. It may be seen from the above description of proposed route alignments and also keeping in mind that no permanent acquisition of land is involved for tower foundation as per existing law, these subprojects don't require any resettlement of villagers. However, some temporary damages/ disturbances can happen. Same are being compensated by the project under CPTD to minimize the damages and provide compensation plan for temporary damages in consultation with the GoT and PAPs and/ or community.

The project is being implemented in the tribal areas governed by TTAADC as per the provisions of Sixth Schedule of the Indian Constitution. It may be noted that all social issues are being dealt separately in accordance with the provisions of Social Management Framework (SMF, A-C), placed in the ESPPF of TSECL.



Figure 5-3: 132 kV line depicting actual position along with RoW and extent of damage



Figure 5-4: 132 kV Tower Base Showing Impact on Agricultural Land and Crop

5.2.2 Land value depreciation

The electric power acts as a catalyst for the growth and development of areas having accessibility to it. Based on previous experiences, land prices are generally expected to rise in the areas receiving power. In the present project, TLs pass through agriculture fields, private plantation area where the land-use is not going to change in foreseeable future. Therefore, the value of land is not adversely affected to a significant degree. intended to provide power supply

to populated area which boosts the economic status as well as land price of the area, thus, outweighing possible negative impacts, if any.

5.2.3 Historical/cultural monuments/value

As per the policy of route selection, only that route alignment is finalized which avoids all the historical and cultural monuments. As per the preliminary assessment carried out during finalization of route alignment in consultation with State revenue authorities and Archaeological Survey of India (ASI), no such monuments are coming in the proposed route alignments. Moreover, utmost care is being undertaken during detailed survey to avoid such areas. Also, the chance found procedure is already considered in the procedures.

5.2.4 Encroachment into precious ecological areas

As explained in **Chapters 2 in section 2.4.5 and Chapter 4 in section 4.2 during TL planning** all precautions have been taken right from planning stage to avoid routing of line through forest and PA like NP/WLS. In spite of taking due care during route selection, involvement of some forest area could not be avoided completely. Moreover, PA like WLS, NP, biosphere reserves etc. have been avoided completely. However, reference in EMP is maintained to address the issues in case of any eventuality / chance found condition. In the instant scheme one of the lines i.e., Udaipur - Bagafa 132 KV D/C TL was passing from 1 km distance from Trishna WLS and rich biodiversity. The line was realigned to minimize the dense forest and avoid any impact on wildlife and hence now passing at a distance of 0.3 kms from Trishna WLS boundary. The details are depicted in **Annexure 3**. Details of forest involvement in different lines are presented below in **Table 5.2**. Along with this ESPPF is strongly followed by IA during execution of project work.

Table 5-2: Details of Forest Involvement in Different Lines

Sl. No.	Name of Transmission Line	Forest Involvement (In ha.)
1	Udaipur - Bagafa 132 KV D/C line	26.77
2	Udaipur - Amarpur 132 KV D/C line	22.0482
3	Bagafa - Satchand 132 KV D/C line	9.1503
4	Bagafa - Belonia 132 KV D/C line	2.5118
5	Belonia - Sabroom 132 KV D/C line	25.5204
Total		86

It may be seen from the above table that out of total transmission line length of 129.541 km about 22 km (86 ha.) is passing through forest. Prior approval of GoI/MoEF&CC has been obtained under Forest (Conservation) Act, 1980. The details of clearance obtained are given below.

TL Name	Forest in Ha	MoEFCC Clearance Status
Udaipur - Bagafa 132 kV D/C line	26.77 RF	Stage-I & Stage-II (final) approval obtained on 09.04.18 & 06.06.19 respectively.
Bagafa – Belonia 132 kV D/C line	2.5118 UCF	Stage-I & Stage-II (final) approval obtained on 30.10.18. & 07.06.19 respectively.
Belonia –Sabroom 132 kV D/C line	25.5204 RF	Stage-I & Stage-II approval obtained on 28.06.18 & 05.08.20 respectively

TL Name	Forest in Ha	MoEFCC Clearance Status
Bagafa – Satchand 132 kV S/C on D/C line	9.1503 RF	Stage-I & Stage-II (final) approval obtained on 12.10.18. and 24.08.20.
Udaipur - Amarpur 132 kV D/C line	22.0482 RF	Stage-I & Stage-II approval obtained on 10.04.18 & 29.08.19 respectively.

The compensatory afforestation for Bagafa Belonia 132 kV D/C TL is being raised and maintained by Forest department over the double area i.e., 5.04 Ha of degraded forest land identified at Tekka Tulsi RF, Compartment No. 13, Hrishyamukh Range, Belonia Forest Division in South Tripura District of Tripura. Other Clearances and NOCs under FRA 2006 are being complied with. Funds required for Compensatory plantation to Forest Department are deposited by TSECL / IA. All the other stipulated conditions in the clearance copy are followed strictly. The copy of MoEFCC clearance for Bagafa Belonia 132 kV D/C TL is depicted in **Annexure 5**. All the compliances are submitted to Forest Department.

The compensatory afforestation for Udaipur Bagafa 132 kV D/C TL is being raised and maintained by Forest department over the double area i.e., 53.54 Ha of degraded forest land identified at 2 locations i.e., 36.94 ha in Amarpur Forest Sub-Division, Gomti District and 16.60 Ha in Sabroom Sub-Division, South District of Tripura. Other Clearances and NOCs under FRA 2006 are being complied with. Funds required for Compensatory plantation to Forest Department are deposited by TSECL / IA. All the other stipulated conditions in the clearance copy are followed strictly. The copy of MoEFCC clearance for Udaipur Bagafa 132 kV D/C TL is depicted in **Annexure 5**. All the compliances are submitted to Forest Department.

The compensatory afforestation for Belonia Sabroom 132 kV D/C TL is being raised and maintained by Forest department over the double area i.e., 52.31127 Ha of degraded forest land identified at Hrishyamukh Range, Bagafa Forest Sub-Division in South Tripura District of Tripura. Other Clearances and NOCs under FRA 2006 are being complied with. Funds required for Compensatory plantation to Forest Department are deposited by TSECL / IA. All the other stipulated conditions in the clearance copy are followed strictly. The copy of MoEFCC clearance for Belonia Sabroom 132 kV D/C TL is depicted in **Annexure 5**. All the compliances are submitted to Forest Department.

The compensatory afforestation for Bagafa Satchand 132 kV D/C TL is being raised and maintained by Forest department over the double area i.e., 18.78 Ha of degraded forest land identified at Tekka Tulsi RF, Compartment No. 11, Hrishyamukh Range, Belonia Forest Sub-Division in South Tripura District of Tripura. Other Clearances and NOCs under FRA 2006 are being complied with. Funds required for Compensatory plantation to Forest Department are deposited by TSECL / IA. All the other stipulated conditions in the clearance copy are followed strictly. The copy of MoEFCC clearance for Bagafa Satchand 132 kV D/C TL is depicted in **Annexure 5**. All the compliances are submitted to Forest Department.

The compensatory afforestation for Udaipur Amarpur 132 kV D/C TL is being raised and maintained by Forest department over the double area i.e., 44.08 Ha of degraded forest land identified at Pashchim Kalajhuri RF, CS Plot No-483, KH No. 3/84, under Amarpur range, Gomti District of Tripura. Other Clearances and NOCs under FRA 2006 are being complied with. Funds required for Compensatory plantation to Forest Department are deposited by TSECL / IA. All

the other stipulated conditions in the clearance copy are followed strictly. The copy of MoEFCC clearance for Udaipur Amarpur 132 kV D/C TL is depicted in **Annexure 5**. All the compliances are submitted to Forest Department.

It may also be noted that the user agency/ IA has no role in taking compensatory afforestation activity except deposition of CA cost to forest dept/CAMPA rather it is the forest dept responsibility to undertake the plantation as per CA scheme. IA has already deposited requisite cost against aforesaid CA. All these aspects are integral part of forest clearance process and is available on Parivesh.

The exercise is completed through detail survey and finalization of route through forest area in consultation with local forest authorities as per well-established forest clearance process described in ESPPF. As per the initial study/assessment most of the forests to be traversed by the subject lines are categorized as RF and found to be in various degree of degradation and even the wildlife species present are those who have adapted to open or disturbed habitat. It has also been confirmed by forest department that the plantation of *Tectona grandis*, *Shorea robusta*, *Terminallia bellirica* species have been carried out during last decade to enhance the density and quality of forest. Nonetheless, to mitigate losses to existing forests, clearing of the TL ROW is planned under supervision of forest department, and some low canopy seed trees and shrubs are kept intact which are not interfering with tower erection and line installation. The extracted wood to be sold by the forest department under the process of auction following prescribed guidelines in FC Act 1980. Three-meter-wide strips of land below each conductor is cleared during construction and one such strip is kept free of vegetation for maintenance purpose and regeneration up to certain height in remaining width of RoW is allowed after construction activity.

Periodical lopping/pruning of trees to maintain line clearance is done under the direction of forest department (for details refer **Figure 5.5** for tree felling pattern and refer **Figure 5.2** for area of influence). Moreover, to prevent unauthorized tree felling in forest area, measures like providing construction crews with fuel wood or alternative fuels by Contractor has been specified in **EMP (refer clause- 24)**.

TL can serve as new access routes into previously inaccessible or poorly accessible forests, thereby accelerating forest and wildlife loss. In such cases, TSECL cannot take action itself, but local Forest Department personnel normally assess the dangers and take appropriate action, such as establishing guard stations at the entrance to the forest etc. cost of which is borne by TSECL. Given the already easy access and degraded conditions at the proposed subprojects sites, this problem is not expected to be encountered. Nonetheless, TSECL staff will report to the Forest Department any noticeable encroachment induced by the Projects in such situation.

The tree cutting in non-forest area was avoided during construction activities at S/S locations and at TLs to the maximum possible extent. Trees are only removed to maintain electrical safety clearance. During land development prior to construction of substation shrubs/trees on the plot are cleared that create hinderance to work. In TLs corridor, only 3 m strip below each conductor is cleared during stringing activities and natural vegetation is allowed in cleared strips barring one which is kept for maintenance activity. In remaining corridor, mostly pruning/looping is done to maintain electrical clearance. There is no compensatory plantation against tree felling in non-forest land. However, compensation is paid to farmers/owners after

assessment of actual damage duly certified by revenue/forest/horticulture/rubber board authority as per provisions of for Tree Extraction vide notification No.F.7 (44)/For/FP-200 I/PT11/29.042 dated 17.01.2002 and The Electricity Act, 2003 & The Indian Telegraph Act, 1885. During our site visit and verification of documents it has been observed that the IA is complying with all such provisions in spirit.

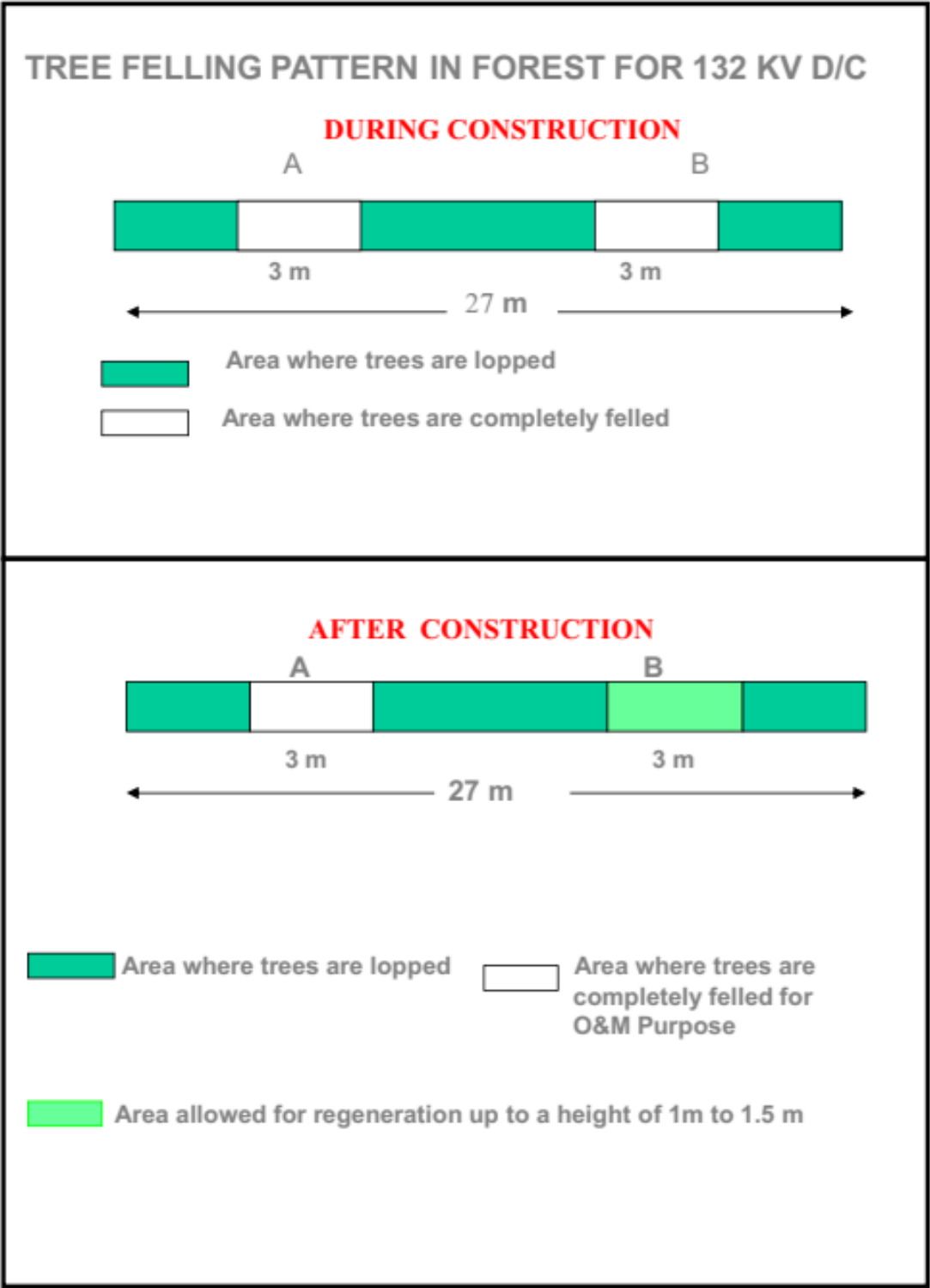


Figure 5-5: Tree Failing pattern

5.2.5 Lines into other valuable lands

Total land under ROW of TL 361.67 Ha. The major land use in ROW of TLs is agricultural land (163.32 Ha), Open Hill Forest (24.02 Ha), rubber plantation (69.31 Ha), Rubber Plantation with open hill forest (33.64 Ha), Tree, crops and groves (8.97Ha) etc. Details of land use are provided in **Table 4.7**.

MoP, GoI issued guidelines for payment of compensation towards damages in regard to ROW for TL on October 15, 2015, stipulating payment of 85% of land value for tower base area (between four legs) and compensation towards diminution of land value in the width of RoW corridor subject to a maximum of 15% of land value. **Refer Annexure 6**. However, these guidelines are not adopted by GoT till date, hence the existing practice of 100% land cost for tower base are being implemented. The letter was issued to TSECL regarding adoption of MoP, GoI Guidelines for payment of compensation towards damages in regards to RoW for TLs vide ref. NEAGT/NERPSIP- 102/2017-18/212 dated 15/05/2018. **Please Refer Annexure 7**.

TSECL intimated POWERGRID that GoT has decided for continuing with the prevailing practice of payment of compensation towards damage in regards to RoW for TLs. **Please Refer Annexure 8**.

Once the tree/crop is removed / damaged, TSECL issues a tree cutting/crop damaged notice to the land owner with a copy to the Revenue Officer to process the compensation payment. Based on the above the compensation payment is generated by means of a computerized program developed by the National Informatics Centre exclusively for this purpose. The detailed Valuation statement thus generated using this program is verified at various levels and approval of payment of compensation is accorded by the concerned District Collectors. On approval of compensation, the revenue officer shall further intimate the amount payable to the different landowners and TSECL arranges the payment by way of Demand Draft/Cheque to the affected parties. The payment is further disbursed at the local village office after due verification of the documents in presence of other witnesses. A sample case of compensation payment including notice to land owner, assessment and verification by revenue authority and payment to affected person etc. is enclosed as **Annexure 9**. The sample case of compensation payment including notice for crop/tree compensation provided in **Annexure 10**.

As described earlier in **section 4.4.1.3, 4.4.1.4 and 5.2.1** all measures are undertaken by TSECL at the line routing stage itself to avoid settlements such as cities, villages etc. It may be seen from the above description of proposed route alignments and also keeping in mind that no permanent acquisition of land is involved for tower foundation. As per existing law, these subprojects don't require any resettlement of villagers. However, some temporary damages/disturbances can happen. Same are being compensated under CPTD which is developed to minimize the damages and provide compensation plan for temporary damages. This is executed in consultation with the GoT and affected persons and community. As per existing laws and CPTD compensation for all damages (land / tree / crop) paid to the individual land owner. **Please Refer Table 4.9 and Table 4.11**. Budgetary provision of **Rs. 461.15 lakhs** have been made in the cost estimate to meet these expenses. **Refer Annexure 11**. Please refer **Chapter 4 section 4.4.1.3 and 4.4.1.4** for the details of compensation for tree, crop and land already paid till June 2021.

Agricultural activities are allowed to continue following the construction period. If bunds or other on-farm works are disturbed during construction or maintenance, they are restored to the owner's satisfaction following cessation of construction or maintenance activities.

5.2.6 Interference with other utilities and traffic

As per regulations enacted by GoI, it is mandatory for TSECL to seek clearance prior to construction from department of Railways, Telecommunications and wherever necessary from aviation authorities that are likely to be affected by the construction of TL. The TL affect nearby telecommunication circuits by causing electrical interference. A standing committee Power Telecom Co-ordination Committee (P.T.C.C.) has been constituted by GoI to plan and implement the mitigating measures for the induced voltage which may occur to nearby telecom circuit and suggest necessary protection measures to be adopted. The committee suggests measures like rerouting of the telecom circuits, conversion of overhead telecom circuits into cables etc. to minimize the interference. In the instance case no line is required Aviation and PTCC NOCs.

National Highway – 44 is the main approach road, which connects the construction sites including the proposed S/S through various state highways, district roads and village roads. It connects Shillong, the state capital of Meghalaya with Sabroom, near India-Bangladesh in Tripura, passing through Agartala. It runs for a distance of 630 km, of which 184 km is in Meghalaya, 111 km is in Assam and 335 km (208 mi) is in Tripura. NH-44 is also the only National Highway that links Tripura state capital Agartala with the rest of the Seven Sister States. The volume of traffic on the NH- 44 is quite low. It may be judged from the fact that this Tripura portion of NH-44 from Churaibari to Sabroom near Bangladesh border was decided to be upgraded to 4 lanes by National Highway Authority of India (NHAI) in 2007. However, due to low density of traffic, it has now been taken up for 2 lanes instead of 4 lanes as decided earlier. Therefore, we don't foresee any steep rise in volume of traffic due to mobilization for said projects.

Wherever TL crosses the railways, National Highways, Industrial Development Areas, Private Lands clearance is taken from that department / Authority / Land Owners. **Please Refer Annexure 5.** In general, TSECL's system is planned and executed in such a way that adequate clearance is maintained between TLs on the one hand, and railways, civil aviation, National Highway and defense installations on the other. Wherever the TLs pass by the airports the towers beyond specified height are painted in alternate orange and white stripes for easy visibility and warning lights are placed atop these towers.

5.2.7 Interference with drainage pattern

As the TLs are constructed aerielly and the blockage of ground surface is limited to very small area of tower footings, there is little possibility of affecting drainage pattern in case of poor management during construction. In the instant case well planned EMP is designed and it is mandatory for contractor to follow the clauses with site specific implementation plan. All the Towers are being erected at suitable elevation and region specific at above flood level.

5.2.7.1 Towers and drainage pattern

Moreover, the TLs proposed under the subject do not involve any tower to be placed in river beds for river crossing. However, management measures as specified in **EMP (refer clause –**

5 & 12) like appropriate siting of towers are undertaken during detailed alignment survey and design to avoid any incidence of flooding hazards of loss of agricultural production due to interference with drainage patterns or irrigation channels. In the infrequent instances where the natural flow/drainage is affected, flow is trained and guided to safe zones. The erection of towers is proposed above ground level at desired elevation to avoid flood situation and flood impacts. The **Annexure A** for GIS maps can reveal that the project is planned with suitable site-specific elevation above ground level.

Provision of drains around the tower pad in plain area is made as the monsoon is very intense and unpredictable in this area. To avoid any interference, DC towers are being used instead DB tower as single span limit is crossed in the stretches where TL is crossing river; cross-arm strengthening has been suggested. Also, as mentioned in previous chapter, use of leg extension is being implemented for towers to minimize/avoid benching/revetment, to minimize/ avoid chances of soil erosion, to minimize/ avoid sedimentation of river, to provide great stability.

5.2.7.2 Substations and drainage pattern

Since all proposed S/S are located mostly in plane terrain no effect on drainage of the area is envisaged. All the S/S are having systematic and adequate arrangement of drainage system right from design stage and are implemented on site. All drainage channels along or inside S/S are being trained and connected to main or existing drainage to avoid any erosion due to uncontrolled flow of water. Retention wall are proposed and being constructed at S/S locations. The actual site photos are shown in **section 5.4.1**. The sample drainage layouts are given in the **Annexure 12**.

5.3 Environmental Problems Due to Design

5.3.1 Escape of polluting materials

The equipment installed on lines and S/S are static in nature and do not generate any fumes or waste materials. However, detailed specification with respect to equipment design and S/S drainage and sewage design has been included in tender document to avoid any incidence of land and water contamination. Transformers have been designed with oil spill containment systems having sump of capacity of 200% of oil volume of largest transformer, and purpose-built oil, lubricant and fuel storage system, complete with spill cleanup equipment. Hazardous Waste Management compliances are being followed at each S/S. S/S are also include drainage and sewage disposal systems to avoid offsite land and water pollution. Apart from this, solid waste like packing materials, cables, aluminum conductor, sand, aggregate material, cements and steel generated during construction is carefully handled and removed from the sites periodically to avoid any contamination. Same can be figured out with the help of photographs placed below. Also, the system helps in avoiding accidents through contamination, spills and fire. Air Cell are fitted at each S/S which act as a barrier to separate undesirable elements in the atmosphere, such as water vapor, nitrogen, ozone and oxygen, from transformer oil within a conservator. This barrier also reduces condensation and oxidation inside the transformer and suppresses gas bubble formation in the transformer oil. Please see the pictures for onsite implemented drainage system and transformer erection with oil pits as given below.



Drainage System Development at 132/33 kV Satchand S/S



Drainage System Development at 132/33 kV Sabroom S/S



Transformer Erection with Oil Pit at 132/33 kV Satchand S/S



Transformer Erection with Oil Pit at 132/33 kV Sabroom S/S



Air Cell Installed at 132/33 kV Satchand S/S

5.3.2 Explosion/fire hazards

It may be noted that S/S are being constructed on the land provided by TSECL after considering all the risks and after following ESPPF. During the survey and site selection for TLs, and S/S, it has been ensured that these are kept away from oil/gas pipelines and other sites with potential for creating explosions or fires. Fires due to flashover from lines can be a more serious problem in forest. However, adequate safety measures are being taken to avoid such incidence and has been included in **EMP (refer clause - 15, 23 & 51)**. Besides this forest authorities also incorporate measures like making fire lines to prevent spreading of fire in the affected forest area. Apart from this, state of art safety instruments like automatic tripping system is installed in the S/S on both the ends so that line gets tripped within milliseconds in case of any fault. Firefighting instruments including fire extinguishers are kept in appropriate place for immediate action in case of any fire hazard. Firefighting system is well adopted along with general requirements and fire safety requirements. All the measures are implemented at all the S/S locations. The details of Firefighting system are given in **Annexure 12**. Please see the picture for onsite implemented fire wall at transformer as given below.



Transformer Foundation with Fire Wall at 132 kV Bagafa S/S

5.3.3 Erosion hazards due to inadequate provision for resurfacing of exposed area

Construction of 132kV line involves only small-scale excavation of area i.e., 3m L x 3m W x 3m H for tower footing that may result in generation of 108 m³ of excavated material from each tower. In case of 132/33 kV substation foundation, excavation of soil to the tune of 7500 m³ is required depending on site condition. It is estimated that a total of approximately 57240 m³ (530 X 108) and 30000 m³ (7500 x 4) of excavated materials is expected to be generated for construction of 530 numbers of tower and 4 numbers of S/S respectively proposed under present scheme. Moreover, the topsoil disturbed during the development of sites are stored properly and used to restore the top surface of the platform. Left over infertile and rocky material being used as fill for foundations and leveling / backfilling as detailed out in EMP (refer clause - 25, 26 & 28). Hence, possibility of erosion of exposed area due to construction activity is negligible.

5.3.4 Soil erosion and contamination

Construction of each 132kV tower foundations involve generation of approx. 108 m³ excavated earth respectively. Similarly, each 132/33 kV would generate approx. 7500 m³ excavated earth respectively. So, construction of 530 133kv towers generates 57240 m³ earth.

It has been observed that soil excavated for tower footings and S/S construction are optimally utilized for backfilling and the remaining soil being spread evenly and compacted. Top soil disturbed during the development of sites are used to restore the surface of the platform. Infertile and rocky material are carefully used as fill for S/S and TT foundations. Additional soil is utilized to maintain plain area. Moreover, the project is being implemented in plain area only and hence, possibility of erosion hazard is not anticipated from any of the project site.

5.3.5 Environmental aesthetics

Since spacing between each TT in case of 132 kV D/C TL is approx. 300 mt, this helps to nullify the effect of the visual aesthetics of the localities particularly when it is ensured to route the lines as far as away from the localities. TSECL takes up plantation of trees to buffer the visual effect around its S/S and to provide better living conditions. Wherever TSECL feels it appropriate, discussions are held regularly with local Forest Department officials to determine feasibility of planting trees along roads running parallel to TLs to buffer visual effect in these areas. In addition, towers are being painted grey or green to merge with the background.

5.3.6 Noise/vibration nuisances

The equipment installed at S/S are mostly static and are so designed that the noise level always remains within permissible limits i.e., 85 dB as per Indian standards. The noise levels reported during normal operating conditions are about 60 to 70 dB at 2 m. distance from the equipment. To contain the noise level within the permissible limits whenever noise level increases beyond permissible limits, measures like providing sound and vibration dampers and rectification of equipment are undertaken. In addition, plantations of sound absorbing species like Casuarinas, Tamarind, and Neem are raised at the S/S that reduce the sound level appreciably. DG set with proper enclosures is part of equipment specification/ design criteria. Some noise is unavoidable during construction phase like noise produced by concrete mixing equipment and excavators which are temporary and only in day time. However, regular monitoring by IA/Contractors and due maintenance of equipment are ensured to keep the noise level well within the prescribed limit. **Please Refer Appendix A under heading A**

5.3.7 Blockage of Wildlife passage

The proposed transmission lines don't pass through any PA and no migration paths of wildlife like elephant corridor exist near to subproject project locations hence possibility of any disturbance to wild life is not anticipated. In the instant scheme portion of 132 KV D/C Udaipur - Bagafa line passing at a distance of 0.3 km from the boundary of Trishna WLS is not cause any adverse impact on wildlife. The said sanctuary is situated between 23° 26.137' N and 91° 28.184' E and has an altitudinal gradient of 51-82 m. The total sanctuary area is 194.71 km² and is delimited on the east and west sides by the international boundary with Bangladesh.

As confirmed by Wildlife Warden of Trishna WLS Bison migration/ movement is confined to Trishna core which is quite far from proposed route alignment of Bagafa line and no Bison has ever been reported from project area. Moreover, location of 3-4 towers coming at adequately safe distance from the said sanctuary shall not cause any hindrance to free passage / movement / electrocution of birds as the species reported from the sanctuary are predominantly small bird having wingspan ranging from 19- 155 cm (Pheasant tailed Jacana-19-24 cm, White breasted king Fisher 35-42 cm, Indian Eagle & Hornbill 120-155 cm) whereas distance between two conductor is 4.6 m (460 cm) and distance between 2 tower is 300-350 m (30000-35000 cm). Though, bird guards and anti-perching devises is integral part of tower/pole design additional measures like installation of bird diverters shall be undertaken in all 5 TLs in compliance to forest clearance condition.

As all the TLs in the instance case are passing through RF, necessary Forest clearances are obtained with stipulated specific conditions. The conditions are being implemented on site to

avoid impact on Forest and wildlife environment. Also, the compliances are regularly submitted to permission Authority with site specific periodic monitoring report.

5.4 Environmental Problems During Construction Phase

5.4.1 Uncontrolled silt runoff

During construction, maximum 108 m³ from each tower foundation and 7500m³ of excavated materials for each S/S foundation is expected to be generated. However, adequate measures are taken to store excavated materials properly for refilling after construction is over. In hill slopes and erosion prone soils, internationally accepted engineering practices including bio-engineering techniques, wherever, feasible are being undertaken to prevent soil erosion. Moreover, excavation in the hilly areas is avoided in rainy days. Hence, uncontrolled silt run off is not anticipated.

As discussed in the earlier section, the terrain of the project area is 40 to 60% hilly and 40 to 60% plain. Majority of tower locations are on plain terrain. Wherever the tower has been positioned on hilltops leg extension is being utilized so as to minimize/ avoid benching/ revetment and to provide great stability.

Retaining walls are also being constructed to eliminate the chances of silt runoff/ soil erosion. The excavated material has been backfilled and any remaining earth has been spread around the base and compacted.

It has been observed that most of these S/S lands were secured by TSECL since long back. As these substation locations are easily accessible with existing metal roads construction of new approach road is not required. The details of requirement of approach road along with google map photos of substations depicting status of approach have been placed at **Map 2.23 (page 85 - 88)**. However, it is to submit that in few cases i.e., 132/33 kV S/S at Bagafa 50m approach road and at Belonia 132/33kV S/S 115m only strengthening / upgradation work of existing road will be undertaken to facilitate movement of construction materials and machineries to the construction sites of S/S in consultation with local authority and villagers. Since these S/S are in plain area and no cutting and filling or used of heavy machineries involved the anticipated impacts will be negligible. IA officials have confirmed that all necessary measures like sprinkling of water, minimum disturbance to local community shall be undertaken during construction work. Further, we have been informed that a separate screening / assessment report for all proposed approach roads under NERPSIP being complied by IA and same will be submitted to World Bank shortly.

As already explained, during construction limited quantity of excavated material is generated from tower foundations and S/S foundation. However, adequate measures have been taken like storage of excavated materials properly for refilling after construction is over. Further, excavation in the hilly areas is avoided in rainy days. Hence, uncontrolled silt run off is not anticipated. However, during construction, precautions are being taken by contractors, boundary/ retaining/ breast walls are being constructed to avoid any such runoff of excavated material from the construction sites. Moreover, S/S are being constructed above the highest flood level (HFL) by raising the foundation pad, therefore, are not prone to flooding/ erosive losses of soil.

So far there are no instances with potential of erosion during construction of above said lines. Similarly, there are no instances of erosion/losses of soils into adjoining area as all the overburden are being backfilled within the S/S boundary walls and properly managed. The S/S are not located in the vicinity of water bodies or ecologically sensitive areas.

5.4.2 Nuisance to nearby properties

While selection of site, due care is taken to keep the TLs and S/S away from settlements. Further, all the construction activities undertaken through the use of small mechanical devices e.g., tractors and manual labor, therefore nuisance to the nearby properties if any, is not expected. Since all construction related activities for new S/S are confined to existing S/S which are already inaccessible for general public due to its separation/demarcation by the boundary wall. Moreover, such areas are declared as prohibited for general public as per the provisions of Electricity Act. Hence, any adverse impact arising during the construction of these S/S are temporary and limited to the boundaries of existing S/S only do not impact nearby habitat / property nor health & safety of neighboring community.

5.4.3 Dust emission due to construction activities & vehicular movements

Exposed soils are compacted easily for prevention of dust emission due to construction activities. Sprinkling of water spray vulnerable area and covering transporting vehicles to avoid spillage of materials along with controlled speed measures have been observed in project site. Use of personal protective equipment and proper scheduling of transportation of materials are being undertaken to minimize and mitigate any adverse impact on construction materials. Regular water sprinkling is being carried out at construction sites and hence dust emission impacts are not observed.

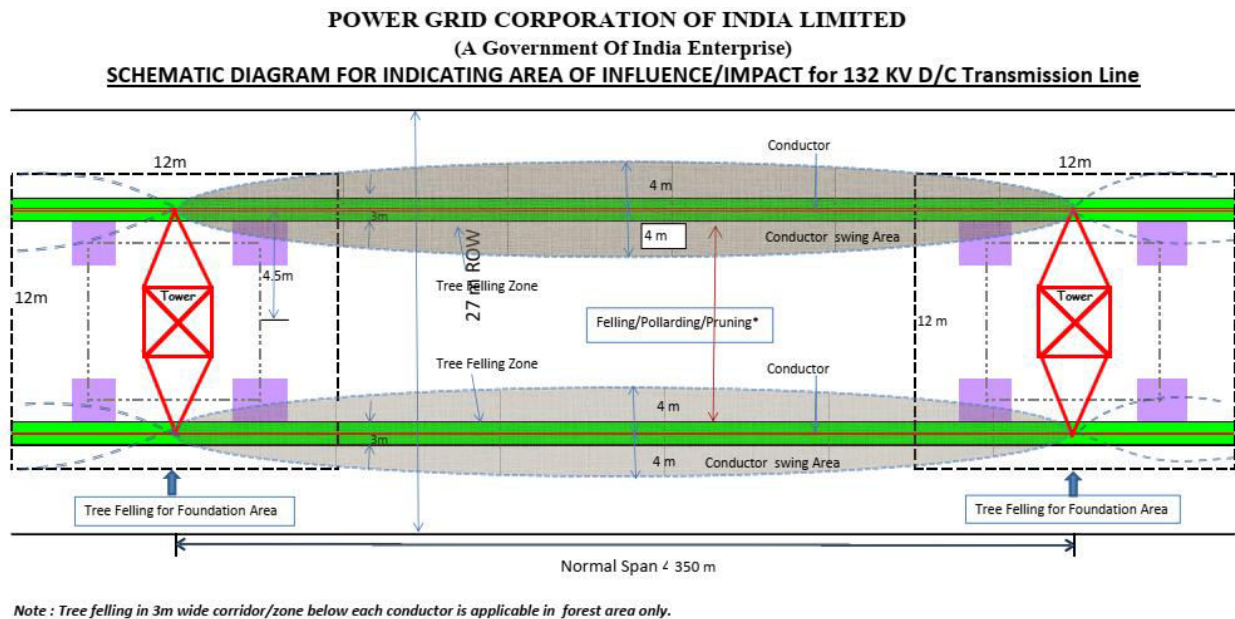
5.4.4 Interference with utilities and traffic and blockage of access way

Since all the locations of subprojects are not well connected through rail link, transportation of construction materials is mostly through road network. However, in environmental sensitive area like forest, transportation is planned mostly through head load. The necessary permission with all the activities proposed for the construction of S/S is obtained as described in the earlier sections. Access to the remote sites are along existing roads or village paths; minor improvements to paths may be made where necessary, but no major construction of roads is necessary either during construction or as a part of maintenance procedures.

In case access road/path is not available than existing field/bund is utilized after paying due compensation for any damage to crop or field. However, in case requirement of new access road through forest area including tree felling the same is to be included in forest proposal in consultation with forest department as per provisions of Forest (Conservation) Act, 1980. However, in case tree felling is not required in access road in forest area, the permission for the same is to be obtained from concerned DFO in accordance with MoEF&CC circular dated 7th October, 2014.

As and when a TL crosses any road/ railways line, adequate care/caution is taken so as not to cause any hindrance to the movement of traffic. Stringing at the construction stage is carried out during lean traffic period in consultation with the concerned authorities and angle towers are planted to facilitate execution of work in different stages. Apart from this, safety precaution

like barricading of work area and placement of visible signage is being undertaken to avoid any unforeseen incident.



5.4.5 Noise generation from construction activities

Generally, machineries and vehicular movements generate noise during construction activities. It has been found that construction works at S/S are potential to generate noise levels higher than the background noise as compared to construction activity of lines. Since construction sites are quite far from settlement/other sensitive receptors like school, hospitals, possibility of any direct impact to surrounding community is not anticipated. Moreover, all these activities are being undertaken during day time only.

To prevent any adverse impact, staffs/workers engaged in construction activity are equipped with personal protective equipment like earmuffs/ earplugs. Besides; construction techniques like use of low noise producing equipment /machinery selection and their proper maintenance of equipment/machinery are practiced by construction contractors which is also evident from the fact that noise levels reported/ measured during site visit are well within the prescribed limits. Regular noise level monitoring is being carried out by Construction Contractor.

5.4.6 Inadequate resurfacing for erosion control

Since, the towers for the proposed TLs are to be constructed in plain area as well as hilly area due care is being taken to control erosion. If due to terrain at some points towers may be placed on slopes and erosion prone soils, internationally accepted engineering practices including bio-engineering techniques wherever feasible are being undertaken to prevent soil erosion. This include cutting and filling slopes wherever necessary. The back cut slopes and downhill slopes are treated with revetments. As explained above adequate steps are being taken to resurface the area after construction. Wherever sites are affected by active erosion or landslides, both biological and engineering treatment is carried out, e.g., provision of breast walls and retaining walls, toe wall, revetment wall, stone pitching, guard wall, sowing soil binding grasses around the site. Additionally, one recharge pit is proposed at each S/S location.

Further, construction is generally undertaken in dry/non-monsoon period. The details of erosion control measures / slope protection work are provided in **Table 5.3** and **Figure 5.6**. The progress of boundary / retaining wall as on date is explained in **Table 5.4**. **Also Refer Annexure 15 for Drawing.**

Table 5-3: Erosion Control / Slope Protection Work – Proposed Locations

Description	Location
Retaining Wall	132/33kV Satchand
	132/33kV Belonia
	132/33kV Sabroom
Boundary Wall	All 132/33kV S/s

Table 5-4: Status of Erosion Control / Slope Protection Work at S/S

Sr. No.	Location Name	Progress
1.	Establishment 2 x 50 MVA, 132/33 kV new substation at Bagafa.	RM of 402 Boundary wall is planned. 102.5 RM is completed on site.
2	Establishment 2 x 50 MVA, 132/33 kV new substation at Belonia.	RM 101 Boundary wall and RM 42.7 Retaining Wall is planned. Retaining wall work is in progress: 32 m raft and 10 m 3rd lift wall and 5m 1st lift wall completed.
3	Establishment of 2x31.5 MVA, 132/33 kV new substation at Sabroom.	RM 45 Boundary wall and 232 Retaining Wall is planned. 43 RM retaining wall is completed on site.
4	Establishment of 2x31.5 MVA, 132/33 kV new substation at Satchand.	RM of 380 Boundary wall / Retaining wall is planned. 305 RM is completed on site.

The following photo shows boundary wall construction to avoid run off of the soil.

Figure 5-6: Erosion Control Measures



Boundary Wall

Boundary wall at Bagafa 132/33kV substation



Boundary Wall at Satchand 132/33kV substation



5.4.7 Inadequate disposition of borrow area

The TT foundations involve excavations on small scale basis and the excavated soil is utilized for back filling. The S/S selected on the sites in such a manner that the volume of cutting is equal to volume of filling avoiding borrowing of the area. Surplus earth/soil not generated up till now from any of the EHV S/S. If generated, soil would be utilized within S/S premises either for approach road construction or may be used for backfilling excavated pits. As such acquisition/opening of borrow area is not needed.

5.4.8 Protection of Worker's health/safety

All health and safety issues and its management aspects are integral part of project/contract specific safety plan which is also part of contract condition. Please refer a sample Agreement pertaining to the same in **Annexure – 16**. Various aspects such as work and safety regulations, workmen's compensation, insurance are adequately covered under the General Conditions of Contract (GCC), a part of bidding documents. Project is executed as per the approved plan and is regularly monitored by dedicated Safety personnel. Moreover, for strict compliance of safety standard/plan a special provision as a deterrent has been added in the contract which provides for a heavy penalty of Rs.10 lakhs for each accidental death and Rs.1.0 lakh/each for any injury and is deducted from the contractor's payment and paid to the deceased/affected family (**Annexure – 17**).

The project authority ensures that all contractors are operating with valid labour license as per provision under section – 12(1) of the Contract Labours (Regulation & Abolition) Act, 1970 and also certified under Section- 7(3) of the Building and Other Construction Workers (Regulation of Employment and Condition of Service) Act, 1996 from Ministry of Labour & Employment. Besides, the contractors have obtained requisite insurance policy as per provisions of Employee Compensation Act, 1923 for its employed workforce. Sample copy of labour license and insurance policy for workers is attached as **Annexure-18**.

TSECL maintains safety as a top priority and has framed guidelines/checklist for workers' safety as its personnel are exposed to live EHV apparatus and TLs. These guidelines / checklists include work permits and safety precautions for work on the TLs both during construction and operation and is regularly monitored by site in-charge. Sample copy of filled in checklist is enclosed as **Annexure-19**. Site inspection is regularly executed on sites by HSE team to ensure the measures implemented and workers health is taken care of. Sample site inspection report for the S/S and construction area is attached as **Annexure -20**. Along with this practice, IA also carry out HSE Audits on Site. Accordingly, the report is generated. During HSE Audit if the IA officials found any discrepancies and the HSE officer from contractor firm is not reporting on site regularly, letter is being issued to the contractor's firms for immediate action. The letters issued to contractors, HSE Audits and Compliance by Contractor W.R.T letters issued to Teems India Tower lines Pvt Ltd, Technofab Engineering Limited, SPML Infra Ltd are enclosed in **Annexure 21** for reference for the period of January to June 2021.

In addition, training is imparted to the workers in firefighting and safety measures. Standard safety tools like helmet, safety belt, gloves etc. are provided to them in accordance to the provisions of Safety Rules. First aid facilities are to be made available with the labor gangs, and doctors called in from nearby towns when necessary. Efforts are being made to hire labourers locally to the extent possible, else same have been outsourced. The workers have been

provided with PPEs such as boots and helmets. Mock drills such as fire safety, first aid etc. are conducted periodically to enhance the preparedness level of the workforce.

The number of outside (skilled) laborers are quite small, of the order of 25-30 people per group and remaining workforce of unskilled laborers are comprised of mostly local people. Workers are also covered by the statutory Workmen (Compensation) Act. Regular health checkups are conducted for construction workers. The construction sites and construction workers’ rest rooms are being disinfected regularly if required. In order to minimize/checking of spread of socially transmitted diseases e.g., HIV/AIDS etc. TSECL frequently conducts awareness building programs on such issues for the construction workers.

Work sites and quarters were fumigated to avoid Covid 19 risk to the workers. Awareness program on Covid 19 at S/S was carried out by the construction contractor to prevent Covid 19 infections. Distribution of essential food materials at S/S was done during lockdown period. Photos of health and safety measures taken at the work sites are as follows:

Disinfection at the residence of workers & use of sanitizers by workers



Covid-19 measures taken at the worksites for workers health and safety

Status of Toilet facility &HSE in Construction camps

NERPSIP project encourage employment of the local labours, thus construction camps are unavailable at sites. However, rest rooms are available at sites for use of employed labours during lunch hours. Soak pit toilets constructed by the contractor for staffs, labours & their families (separately for Gents & Ladies) at almost all 132/33kV S/S under NERPSIP-Tripura prior to the commencement of the construction activity.

Figure 5-7: Precautions Taken by the Contractor for Health and Safety of Workers





First Aid & Fire Safety Training





Medical Health Check Up



Covid Awareness



Training on Safety in general including Excavation & Soil management



Training for Workers – AIDS Awareness

Belonia



Satchand



Rest Rooms to be used during working hours





Soak-pit Toilet at 132/33kV



5.5 Environmental Problems Resulting from Operation

5.5.1 O&M Staff/Skills less than acceptable resulting in variety of adverse effects

The O& M program is normally implemented by S/S personnel for both the lines as well as S/S. Monitoring measures employed include patrolling and thermo- vision scanning.

The supervisors and managers entrusted with O&M responsibilities are intensively trained for necessary skills and expertise for handling these aspects. A monthly preventive maintenance program is carried out to disclose problems related to cooling oil, gaskets, circuit breakers, vibration measurements, contact resistance, con- denser, air handling units, electrical panels and compressors. Any sign of soil erosion is also reported and rectified. Monitoring results are published monthly, including a report of corrective action taken and a schedule for future action.

TSECL follows the best international practices while designing its system to maintain acceptable prescribed EMF level. The approved international standards and design, which The ICNIRP guideline for the general public (up to 24 hours a day) is a maximum exposure level of 1,000 mG or 100T. Further, because of issues relating to need to ensure health and safety relating to the line such as fire safety, safe voltages on metallic parts of buildings, and safety clearances to avoid flashover, the TLs are not passing over any residential properties and as such the potential for EMF effects to occur are avoided will be further diminished. All the S/S are being constructed following the Sustainable Building norms and construction manual.

Poly Chlorinated Biphenyls (PCBs) due to their high heat capacity, low flammability and low electrical conductivity were extensively used as insulating material in capacitors and transformers. But after the finding that these PCBs are non-biodegradable and have carcinogenic tendency, its use in electrical equipment as insulating medium has been banned all over the world long back. However, it has been reported in some studies that chances of contamination of oil with PCB is possible. Keeping that in mind, TSECL has discontinued procurement electrical equipment containing PCB more than 2 mg/kg and specification (as per IEC 61619 or ASTM D4059) is being stated in the tender document. Moreover, the subject scheme doesn't involve replacement of any PCB containing equipment; hence no disposal of such equipment is anticipated.

5.6 Critical Environmental Review Criteria

5.6.1 Loss of irreplaceable resources

The T&S projects do not involve any large-scale excavation. In TL land is affected to the extent 132.5 sq. m below the tower base for which compensation is being paid to land owner. **Please refer Chapter 4 and Table 4.19.** However, the subject TLs are passing through only 22 km of forest area out of total line length of 129.541 km. However, as per the recommendations of MoEFCC in Forest Clearances obtained (**Annexure 5**), afforestation is being undertaken on double the area diverted on degraded forest land which eventually will help in increase the forest cover.

5.6.2 Accelerated use of resources for short-term gains

TSECL do not intend to use any natural resources occurring in the area during construction as well as maintenance of ready sub projects. The construction material such as tower members, cement etc., are procured from factories while the excavated soil is being utilized for backfilling to restore the surface / filling of tower foundations. During construction of TL very small quantity of water is required which is met from nearby existing authorized source and through tanker. However, for S/S mostly ground water is used by installing a bore well during construction as well as for Operational stage. Moreover, provision of rain water harvesting in all proposed S/S by installing recharge pits under the present scheme has been made to conserve precious water resource and enhance the ground water level. Hence it may be seen that the activities associated with implementation of subject project do not intend to cause any accelerated use of resources for short term gains.

5.6.3 Endangering of species

As described earlier, *Pterocarpus marsupium* is vulnerable species and *Aegle marmelos* and *Sweetinia Mahagony* is near threatened species as per Conservation Status IUCN (2020.1) are recorded in the TL area. However, no tree cutting is executed of these species and stipulated conditions in forest clearance are followed strictly.

5.6.4 Promoting undesirable rural-to urban migration

The subprojects do not cause any submergence or loss of land holdings that normally trigger migration. It also does not involve acquisition of any private land holdings. Hence, there is no possibility of any migration.

5.7 Public Consultation:

Public consultation/information is an integral part of the project implementation. Public is informed about the project at every stage of execution. During survey also TSECL site officials meet people and inform them about the routing of TLs. During the construction, every individual, on whose land tower is erected and people affected by RoW, are consulted. Apart from organizing many informal group meetings in different villages public meeting were also organized in the routes of TLs along with the photographs. To get the maximum participation during the public consultation Program a notice was served well in advance to the villagers. The details of line and its importance were explained to the villagers.

Apart from this, public consultation using different technique like Public Meeting, Small Group Meeting, Informal Meeting was also be carried out during different activities of project cycle. During such consultation the public are informed about the project in general and in particular about the following:

- Complete project plan (i.e., its route and terminating point and S/S, if any, in between);
- Design standards in relation to approved international standards;
- Health impacts in relation to EMF;
- Measures taken to avoid public utilities such as school, hospitals, etc.;
- Other impacts associated with TLs and TSECL approach to minimizing and solving them;
- Compensation process for trees and crop damages.

In the instant project many group meetings were organized (informally and formally) in different villages where the interventions are likely to happen. Village women folk have actively participated in these meetings.

During the Public consultation the details of line and its importance were explained to the villagers by the officials of TSECL and POWERGRID. The consultation was arranged in interactive way and queries like tree/crop compensation, engagement of local people in construction activity, etc. were replied. The initiative was appreciated by the villagers and they assured to extend their cooperation for construction of the said subprojects. The process of such consultation shall continue during project implementation and even during O&M stage. Details of public consultation mentioned in **Appendix C**.

Apart from organizing many informal group meetings in different districts public meeting were also organized in the routes of TLs. To get the maximum participation during the public consultation Program a notice was served well in advance to the villagers. The details of line and its importance were explained to the villagers. The programmes are arranged in interactive way and queries like crop compensation, route alignment etc. were replied. Most of the participants were small farmers and were worried about their land through which the line is passing. They were informed that TSECL and POWERGRID don't acquire their land for construction of TLs.

Only towers are to be spotted in their fields where they can do farming without any fear because the tower height is very high and even tractor can pass below the tower. Moreover, there is no risk of passing current from the above line as there is foolproof system of earthing for tower. The consultation process was appreciated by the villagers. They were happy to know about the transparent policy of TSECL and POWERGRID for execution of the project and promised to extend their cooperation during construction of the line. The process of such consultation and its documentation shall be continued even during O&M stage.

Findings of public consultation:

1. People are well aware about the project, its various components and confirmed that IA & TSECL informed about the project at every stage of execution
2. People confirmed that IA & TSECL are taking every step possible to avoid/ minimize the environmental and social impacts along the route of TLs and at site of sub stations.
3. People confirmed that community reserves, sacred groves and community conserved areas are completely avoided while finalizing the route of lines
4. People also confirmed that their common property resources such as cemetery, school, community hall, habitation areas etc. have been completely avoided while finalizing the route of lines.
5. People informed that staff of IA/ contractor are easily approachable and are very open to address their grievances. As a result, no written grievance has been received till date.
6. People are very much happy with the rate of compensation being given to them and they are being involved in the process of deciding the rate of compensation.
7. People confirmed that there is no disturbance of any sort to their life/ livelihood due to the construction or various other activities being carried out under the project.
8. Execution of project work provides opportunities to local contractors to get involved in construction, fabrication, transportation etc. activities.
9. Most of the sub-contracts are awarded/ being awarded to local peoples.
10. Contractor prefer and engage local peoples for skilled and unskilled works
11. Local villagers rented out their buildings to contractor and IA for temporary offices and staff quarters in local that helps in income generation
12. Wherever possible contractor and IA purchase daily need requirements for local vendors and shopkeepers that helps in economic upliftment of the area
13. The contractor labor informed that they have been provided with PPEs such as boots and helmets.
14. Mock drills such as fire safety, first aid etc. are conducted periodically to enhance the preparedness level. Safety induction & awareness program including HIV/AIDS are also conducted. Safety film for transmission project in local language is shown for better awareness.
15. First aid boxes and provisions for treatment in case of emergencies are arranged locally/ nearby towns
16. It was revealed that contractor and IA work with close coordination with village heads and community to avoid any misunderstanding during work.

5.8 Compliance of EMP

The IA has a continuous monitoring mechanism of the project w.r.t. compliance of the mandatory requirements as stipulated in the IEAR. As many provisions of EMP related to construction contractor, EMP has been made integral part of contract document for its proper implementation by contractor/sub-contractor. Thus, the adherence to the clauses by the contractor is regularly monitored especially in respect of various implementation E & S measures including health and safety aspects. As part of the present study, mitigation measures as stipulated in the IEAR have been critically assessed/evaluated for compliance through physical inspection, verification of record/documents/drawing, interaction with project officials/contractor/villagers/construction workers and PRA etc. Based on above, a detailed compliance status w.r.t. each identified impacts enlisted in EMP have been prepared and is presented in the **Table 5.5**.

Table 5-5: Compliance of Environment Management Plan

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
Pre-construction								
1	Location of overhead line towers/ and alignment & design	Exposure to safety related risks	Setback of dwellings to overhead line route designed in accordance with permitted level of power frequency and the regulation of supervision at sites.	Tower location and overhead/ underground alignment selection with respect to nearest dwellings	Setback distances to nearest houses – once	Implementing Agency (IA)	Part of overhead lines tower / laying of underground cable site survey and detailed alignment survey and design	Careful route alignment had ensured that no house / dwelling unit is coming in the RoW.
2	Equipment specifications and design parameters	Release of chemicals and gases in receptors (air, water, land)	PCBs not used in S/S transformers or other project facilities or equipment.	Transformer design	Exclusion of PCBs in transformers stated in tender specification – once	IA	Part of tender specifications for the equipment	Compiled and included in tender document with technical specification.
			Processes, equipment and systems not to use chlorofluorocarbons (CFCs), including halon, and their use, if any, in existing processes and systems should be phased out and to be disposed of in a manner consistent with the	Process, equipment and system design	Exclusion of CFCs stated in tender specification – once	IA	Part of tender specifications for the equipment	Compiled and included in tender document with technical specification.
					Phase out schedule to be prepared in case still in use – once		Part of equipment and process design	Included in process design and its part of equipment specification.

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			requirements of the Government					
3	Transmission design	Exposure to electromagnetic interference	Line design to comply with the limits of electromagnetic interference from overhead power lines	Electromagnetic field strength for proposed line design	Line design compliance with relevant standards once	IA	Part of design parameters	Designs are in compliance with international standards as certified by PTI, USA, CPRI Bangalore
4	Substation location and design	Exposure to noise	Design of plant enclosures to comply with noise regulations.	Expected noise emissions based on S/S design	Compliance with regulations - once	IA	Part of detailed siting survey and design	Designs are in Compliance with minimal noise and acoustics with international standards as certified by PTI, USA, CPRI Bangalore
		Social inequities	Careful selection of site to avoid encroachment of socially, culturally and archaeological sensitive areas (i.e., sacred graves, graveyard, religious worship place, monuments etc.)	Selection of S/S location (distance to sensitive area).	Consultation with local authorities/ autonomous councils - once	IA	Part of detailed siting survey and design	Complied
5	Location of overhead line towers / laying of underground	Impact on water bodies	Avoidance of such water bodies to the extent possible. Avoidance of placement of tower	Tower location and overhead/ underground line alignment selection (distance to water	Consultation with local authorities- once	IA	Part of tower site survey and detailed underground /overhead line alignment survey and	Careful route selection and provision of adequate extensions has avoided the

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
	line & alignment and design		inside water bodies to the extent of possible	bodies)			design	habituated area to the extent possible.
		Social inequities	Careful route selection to avoid existing settlements and sensitive locations	Tower location and overhead/ underground line alignment selection (distance to nearest dwellings or social institutions)	Consultation with local authorities/ autonomous councils and land owners - once	IA	Part of detailed tower site and overhead/ underground alignment survey and design	Transmission (132/33kV) lines are routed either age of agriculture land or side of the road ensuring that it does not obstruct and create any public nuisance
			Minimize impact on agricultural land Careful selection of site and route alignment to avoid encroachment of socially, culturally and archaeological sensitive areas (i. graveyard, religious worship place, monuments etc.)	Tower location and overhead/ underground line alignment selection (distance to agricultural land) Tower location and overhead/ underground line alignment selection (distance to sensitive area)	Consultation with local authorities/ autonomous councils and land owners - Once Consultation with local authorities/ autonomous councils - once			
6	Involuntary acquisition or permanent land acquisition for S/S.	Loss of land/ income change in social status etc.	Compensation and R&R measures are extended as per provision of RFCT LARR Act, 2013 (Right to Fair Compensation and Transparency in Land Acquisition,	Compensation and monetary R&R amounts/ facilities extended before possession of land.	As per provisions laid out in the act	State Govt.	Prior to award /start of S/S construction.	No Land Acquisition in the project. Hence no cases of R&R. Other compensation as per existing rules.

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			Resettlement and Rehabilitation Act, 2013)					
7	Line through PA/ precious ecological area	Loss of precious ecological values / damage to precious species	Avoid siting of lines through such areas by careful site and alignment selection (NP, WLS, Biosphere Reserves/ Biodiversity Hotspots)	Tower location and overhead/ underground line alignment selection (distance to nearest designated ecological PA / sensitive areas)	Consultation with local forest authorities - once	IA	Part of detailed site selection and alignment survey /design	<p>Complied.</p> <p>Udaipur - Bagafa 132 KV D/C line has 26.77 Ha of RF, Udaipur - Amarpur 132 KV D/C line has 22.0482 Ha of RF, Bagafa - Satchand 132 KV D/C line has 9.1503 Ha of RF, Bagafa - Belonia 132 KV D/C line has 2.5118 Ha of UCF, Belonia - Sabroom 132 KV D/C line has 25.5204 Ha of RF, forest clearance under FC Act 1980 is obtained.</p> <p>Stage II clearance is obtained on 06.06.19 for Udaipur - Bagafa 132 KV D/C line, 29.08.19 for Udaipur - Amarpur 132 KV D/C line, 24.08.20 line for Bagafa - Satchand 132 KV D/C line, 07.06.19 for Bagafa - Belonia 132 KV D/C line and</p>

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
								05.08.20 for Belonia - Sabroom 132 KV D/C line.
			Minimize the need by using RoW wherever possible	Tower location and overhead / underground line alignment selection	Consultation with local authorities and design engineers - once	IA	Part of detailed site selection and alignment survey /design	Complied
8	Line through identified Elephant corridor / Migratory bird	Damage to the Wildlife/ Birds and also to line	Study of earmarked elephant corridors to avoid such corridors, Adequate ground clearance, Fault clearing by Circuit Breaker, Barbed wire wrapping on towers, reduced spans etc., if applicable	Tower location and overhead/ underground line alignment selection. Minimum/maximu m ground clearance	Consultation with local forest authorities - once. Monitoring - quarterly basis	IA	Part of detailed site selection and alignment survey /design and Operation	There is no elephant corridor in the selected route.
			Avoidance of established/ identified migration path (Birds & Bats). Provision of flight diverter/ reflectors, bird guard, elevated perches, insulating jumper loops, obstructive perch deterrents, raptor hoods etc7., if applicable	Tower location and overhead/ underground line alignment selection	Consultation with local forest authorities - once	IA	Part of detailed site selection and alignment survey /design and Operation	Complied, Bird guards are being provided in towers.

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
9	Line through forestland	Deforestation and loss of biodiversity edge effect	Avoid locating lines in forest land by careful site and alignment selection	Tower location and overhead/ underground line alignment selection (distance to nearest PF or RF)	Consultation with local authorities - once	IA	Part of detailed site selection and alignment survey/design	Minimum tree cutting is done. The shrubby vegetation is retained as it is. Wherever tree cutting is necessary, it was done under supervision of forest department.
			Minimize the need by using existing towers, tall towers and RoW, wherever Possible		Consultation with local authorities and design engineers - once			Minimum tree cutting is done. The shrubby vegetation is retained as it is. Wherever tree cutting is necessary, it was done under supervision of forest department.
			Measures to avoid invasion of alien species	Intrusion of invasive species	Consultation with local forest authorities - once			Complied
			Obtain statutory clearances from the Government	Statutory approvals from Government	Compliance with regulations - once for each subproject			Complied Since Udaipur - Bagafa 132 KV D/C line has 26.77 Ha of RF, Udaipur - Amarpur 132 KV D/C line has 22.0482 Ha of RF, Bagafa - Satchand 132 KV D/C line has 9.1503 Ha of RF, Bagafa -

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
								<p>Belonia 132 KV D/C line has 2.5118 Ha of UCF, Belonia - Sabroom 132 KV D/C line has 25.5204 Ha of RF, forest clearance under FC Act 1980 is obtained in instant case.</p> <p>Stage II clearance is obtained on 06.06.19 for Udaipur - Bagafa 132 KV D/C line, 29.08.19 for Udaipur - Amarpur 132 KV D/C line, 24.08.20 line for Bagafa - Satchand 132 KV D/C line, 07.06.19 for Bagafa - Belonia 132 KV D/C line and 05.08.20 for Belonia - Sabroom 132 KV D/C line.</p>
			Consultation with autonomous councils wherever required	Permission/ NOC from autonomous councils	Consultation with autonomous councils—once during tower placement			Not applicable.
10	Lines through farmland	Loss of agricultural	Use existing tower or Footings	Tower location and overhead/	Consultation with local	IA	Part of detailed alignment survey	Foundations cast during lean period to

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
		production/ change in cropping pattern	wherever possible.	underground line alignment selection.	authorities and design engineers – once		and design	avoid damage to the crops during harvesting.
			Avoid sitting new towers on farmland wherever feasible	Tower location and overhead/ underground line alignment selection	Consultation with local authorities and design engineers – once		Part of detailed sitting and alignment survey /design	Due care taken to avoid the damage to the extent possible.
11	Noise related	Nuisance to neighboring properties	Substations sited and designed to ensure noise is to not be a nuisance	Noise levels	Noise levels to be specified in tender documents – once	IA	Part of detailed equipment design	Complied, Appropriately located. No noise anticipated
12	Interference with drainage patterns/ irrigation channels	Flooding hazards/ loss of agricultural production	Appropriate sitting of towers to avoid channel interference	Tower location and overhead/ underground line alignment selection (Distance to nearest flood zone)	Consultation with local authorities and design engineers – once	IA	Part of detailed alignment survey and design	No S/S or towers are located in the natural drainage or irrigation channels. All the towers and S/S are designed and constructed at desired elevation above flood level.
13	Escape of polluting materials	Environmental pollution	Transformers designed with oil spill containment systems, and purpose-built oil, lubricant and fuel storage system,	Equipment specifications with respect to potential pollutants	Tender document to mention specifications – once	IA	Part of detailed equipment design /Drawings	Spill control plan is ready and no spilled material is going / will go out of substation due to provision secondary containment. All transformers are well

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			complete					built with oil pits. Hazardous management, storage and handling rules 2016 are adhered to.
			Substations to include drainage and sewage disposal systems to avoid offsite land and water pollution.	Substation sewage design	Tender document to mention detailed specifications – once	IA	Part of detailed substation layout and design/drawings	Spill control plan is ready and no spilled material is going / will go out of substation due to provision secondary containment. Internal drainage and sewerage system is well planned and implemented at all S/S.
14	Equipment's submerged under flood	Contamination of receptors	Substations constructed above the high flood level (HFL) by raising the foundation pad	Substation design to account for HFL (elevation with respect to HFL elevation)	Base height as per flood design-once	IA	Part of detailed substation layout and design/drawings	Substations constructed above the high flood level (HFL) by raising the foundation pad and the surface run off is directed along with the boundary of the substation. Internal drainage system is well planned and implemented at all S/S.
15	Explosions /Fire	Hazards to life	Design of substations to include modern firefighting equipment	Substation design compliance with fire prevention and control codes	Tender document to mention detailed	IA	Part of detailed substation layout and design /drawings	Complied, adequate numbers of fire extinguishers are provided being

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			Provision of firefighting equipment to be located close to transformers		specifications – once			planned in lean period or avoided during harvest Complied, the fire extinguishers are placed at strategic locations.
Construction								
16	Equipment layout and installation	Noise and vibrations	Construction techniques and machinery selection seeking to minimize ground disturbance.	Construction techniques and machinery	Construction techniques and machinery creating minimal ground disturbance- once at the start of each construction phase	IA (Contractor through contract provisions)	Construction period	Complied, Anti-vibration pad are used.
17	Physical construction	Disturbed farming activity	Construction activities on cropping land timed to avoid disturbance of field crops (within one month of Harvest wherever possible).	Timing of start of construction	Crop disturbance – Post harvest as soon as possible but before next crop – once per site	IA (Contractor through contract provisions)	Construction period	Foundation being planned in lean period or avoided during harvest.
18	Mechanized construction	Noise, vibration and operator safety, efficient	Construction equipment to be well maintained.	Construction equipment – estimated noise	Complaints received by local	IA (Contractor through contract provisions)	Construction period	Complied, Anti-vibration pad are used and most of the

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
		Operation		emissions	authorities – every 2 weeks			construction activities are done during day time.
		Noise, vibration, equipment wear and tear	Turning off plant not in use.	Construction equipment-estimated noise emissions and operating schedules	Complaints received by local authorities – every 2 weeks	IA (Contractor through contract provisions)	Construction period	Complied, Anti-vibration pad are used.
19	Construction of roads for accessibility	Increase in airborne dust particles	Existing roads and tracks used for construction and maintenance access to the line wherever possible.	Access roads, routes (length and width of new access roads to be constructed)	Use of established roads wherever possible – every 2 weeks	IA (Contractor through contract provisions)	Construction period	Existing Road used to access the line route; water sprinkling is done during additional construction activity.
		Increased land requirement for temporary accessibility	New access ways restricted to a single carriageway width within the RoW.	Access width (meters)	Access restricted to single carriage-way width within RoW – every 2 weeks	IA (Contractor through contract provisions)	Construction period	Most of the construction activity are done during day time and water sprinkling is done during additional construction activity
20	Construction activities	Safety of local villagers	Coordination with local communities for construction schedules, Barricading the construction area and spreading awareness among locals	Periodic and regular reporting /supervision of safety arrangement	No. of incidents- once every week	IA (Contractor through contract provisions)	Construction period	Construction safety procedures are followed with proper barricading with night vision
		Local traffic obstruction	Coordination with local	Traffic flow (Interruption of	Frequency (time span)- on daily	IA (Contractor through contract	Construction period	There is be any heavy traffic flow anticipated

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			authority/requisite permission for smooth flow of traffic	traffic)	basis	provisions)		due to the construction activities. The construction is planned only in day time
21	Temporary blockage of utilities	Overflows, reduced discharge	Measure in place to avoid dumping of fill materials in sensitive drainage area	Temporary fill placement (m3)	Absence of fill in sensitive drainage areas – every 4 weeks	IA (Contractor through contract provisions)	Construction period	The subprojects are planned in such a way there are no blockages of any utilities.
22	Site clearance	Vegetation	Marking of vegetation to be removed prior to clearance, and strict control on clearing activities to ensure minimal clearance.	Vegetation marking and clearance control (area in m2)	Clearance strictly limited to target vegetation – every 2 weeks	IA (Contractor through contract provisions)	Construction period	Included in contract provisions and being monitored regularly. An area of 400 m2 is being cleared tower foundation at each location depending on the type of tower. In rest of ROW trees that are coming in the electrical clearance zone are cleared.
23	Trimming /Cutting of trees within RoW	Fire hazards	Trees allowed growing up to a height within the RoW by maintaining adequate clearance between the top of tree and the conductor as per the regulations.	Species-specific tree retention as approved by statutory authorities (average and max. tree height at maturity, in meters)	Presence of target species in RoW following vegetation clearance – once per site	IA (Contractor through contract provisions)	Construction period	Tree height and its canopy are monitored during constructions activities and there after felling coupled with other safety measures applied restrict any such incident.
		Loss of vegetation and	Trees that can survive pruning to comply	Species-specific tree retention as	Presence of target species in	IA (Contractor through contract	Construction period	Route selection and alignment is done with

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
		deforestation	should be pruned instead of cleared.	approved by statutory authorities	RoW following vegetation clearance - once per site	provisions)		respect to no or minimal cuts of trees.
			Felled trees and other cleared or pruned vegetation to be disposed of as authorized by the statutory bodies.	Disposal of cleared vegetation as approved by the statutory authorities (area cleared in m2)	Use or intended use of vegetation as approved by the statutory authorities - once per site	IA (Contractor through contract provisions)	Construction period	The felled trees are disposed out to local authorities.
24	Wood/vegetation harvesting	Loss of vegetation And deforestation	Construction workers prohibited from harvesting wood in the project area during their employment, (apart from locally employed staff continuing current legal activities)	Illegal wood /vegetation harvesting (area in m2, number of incidents reported)	Complaints by local people or other evidence of illegal harvesting - every 2 weeks	IA (Contractor through contract provisions)	Construction period	No Wood/ vegetation harvesting is allowed in substation and line area.
25	Surplus earthwork/soil	Runoff to cause water pollution, solid waste disposal	Soil excavated from tower footings/substation foundation disposed of by placement along roadsides, or at nearby house blocks if requested by landowners	Soil disposal locations and volume (m3)	Acceptable soil disposal sites - every 2 weeks	IA (Contractor through contract provisions)	Construction period	Excavated earth is used for refilling. The top/ fertile soil is kept separately for resurfacing and other earth is used for refilling.
26	Substation construction	Loss of soil	Loss of soil is not a major issue as	Borrow area sitting (area of site in m2)	Acceptable soil borrow areas	IA (Contractor through contract	Construction period	All necessary measured undertaken during

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			excavated soil is to be mostly reused for filling. However, in case of requirement of excess soil the same is to be met from existing quarry or through deep excavation of existing pond or other nearby barren land with agreement of local communities	and estimated volume in m ³)	that provide a benefit - every 2 weeks	provisions)		construction.
		Water pollution	Construction activities involving significant ground disturbance (i.e. substation land forming) not undertaken during the monsoon season	Seasonal start and finish of major earthworks (pH, BOD /COD, Suspended solids, others)	Timing of major disturbance activities – prior to start of construction activities	IA (Contractor through contract provisions)	Construction period	No such water pollution activities are carried out. Proper sewerage system and drainage system is designed and implemented at all S/S locations.
27	Site clearance	Vegetation	Tree clearances for easement establishment to only involve cutting trees off at ground level or pruning as appropriate, with tree stumps and roots left in place and ground cover left	Ground disturbance during vegetation clearance (area, m ²)	Amount of ground disturbance – every 2 weeks	IA (Contractor through contract provisions)	Construction period	Complied. Minimum trees cut for site clearance. Some trees were trimmed
				Statutory approvals	Statutory approvals for tree clearances – once for each	IA (Contractor through contract provisions)	Construction period	Complied. Minimum trees cut for site clearance. Some trees were trimmed

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			undisturbed		site			
28	Substation foundation/ tower erection disposal of surplus earthwork/fill	Waste disposal	Excess fill from substation/tower foundation excavation disposed of next to roads or around houses, in agreement with the local community or landowner.	Location and amount (m3) of fill disposal	Appropriate fill disposal locations – every 2 weeks	IA (Contractor through contract provisions)	Construction period	These provisions are strictly complied and recorded during construction.
29	Storage of chemicals and materials	Contamination of receptors (land, water, air)	Fuel and other hazardous materials securely stored above high flood level.	Location of hazardous material storage; spill reports (type of material spilled, amount (kg or m3) and action taken to control and clean up spill)	Fuel storage in appropriate locations and receptacles – every 2 weeks	IA (Contractor through contract provisions)	Construction period	Complied and condition is taken care during storage. Hazardous materials are managed by following Hazardous waste management rules 2016. Also, transformers are erected with oil pits for proper management and collection of oil.
30	Construction schedules	Noise nuisance to neighboring properties	Construction activities only undertaken during the day and local communities informed of the construction schedule.	Timing of construction (noise emissions, [dB(A)])	Daytime construction only – every 2 weeks	IA (Contractor through contract provisions)	Construction period	It is ensured by site In-charge that construction activities takes place during day time and villagers are informed in advance and affected villagers are even served notice in advance and Anti-vibration pad

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
								are used.
31	Provision of facilities for construction workers	Contamination of receptors (land, water, air)	Construction workforce facilities to include proper sanitation, water supply and waste disposal facilities.	Amenities for Workforce facilities	Presence of proper sanitation, water supply and waste disposal facilities once each new facility	IA (Contractor through contract provisions)	Construction period	Construction workers are provided all the necessary basic facilities as well as safety equipment.
32	Influx of migratory workers	Conflict with local population to share local resources	Using local workers for appropriate asks	Avoidance/reduction of conflict through enhancement/ augmentation of resource requirements	Observation & supervision- on weekly basis	IA (Contractor through contract provisions)	Construction period	Local workers are employed for the construction work, so that no any conflict arose at the construction locations.
33	Lines through farmland	Loss of agricultural productivity	Use existing access roads wherever possible	Usage of existing utilities	Complaints received by local people /authorities - every 4 weeks	IA (Contractor through contract provisions)	Construction period	Crop compensation is paid as per CPTD
			Ensure existing irrigation facilities are maintained in working condition	Status of existing facilities				No irrigation facilities are affected or blocked.
			Protect /preserve topsoil and reinstate after construction completed	Status of facilities (earthwork in m3)				All measures to resurface the excavated area by top soil is adopted as described above.
			Repair /reinstate damaged bunds etc.	Status of facilities (earthwork in m3)				Damaged bunds were repaired to normal

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			after construction					stage
		Loss of Income	Land owners/ farmers compensated for any temporary loss of productive land as per existing regulation	Process of Crop/tree compensation in consultation with forest dept. (for timber yielding tree) and Horticulture dept. (for fruit bearing tree)				Compensation as per CPTD are paid.
34	Uncontrolled erosion/silt runoff	Soil loss, downstream siltation	Need for access tracks minimized, use of existing roads. Regeneration of vegetation to stabilize works areas on completion (where applicable) Avoidance of excavation in wet season Water courses protected from siltation through use of bunds and sediment ponds	Design basis and construction procedures (suspended solids in receiving waters; area re-vegetated in m2; amount of bunds constructed [length in meter, area in m2, or volume in m3])	Incorporating good design and construction management practices – once for each site	IA (Contractor through contract provisions)	Construction period	All necessary measured undertaken during construction. Regeneration/ cultivation is allowed in the complete RoW and even in the area below tower after completion of construction activities. It is ensured by the site In-charge that no excavation is carried out during monsoon /rainy season. The selected route does not come in the natural drainage.
35	Nuisance to nearby	Losses to neighboring land	Contract clauses specifying careful	Contract clauses Design basis and	Incorporating good	IA (Contractor through contract	Construction period	Complied

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
	properties	uses/ values	construction As much as possible existing access ways is to be Productive land is to be reinstated following completion of construction	layout Reinstatement of land status (area affected, m2)	construction Incorporating good design engineering Consultation with affected parties – twice – immediately	provisions)		
		Social inequities	Compensation is to be paid for loss of production, if any.	Implementation of Tree/Crop Compensation (amount paid)	Consultation with affected parties – once in a quarter	IA	Prior to construction	Complied Tree Crop compensation is paid as per CPTD.
36	Flooding hazards due to construction impediments of natural drainage	Flooding and loss of soils, contamination of receptors (land, water)	Avoid natural drainage pattern/ facilities being disturbed/blocked/ diverted by on-going construction activities	Contract clauses (e.g. suspended solids and BOD/COD in receiving water)	Incorporating good construction management practices-once for each site	IA (Contractor through contract provisions)	Construction period	The S/S and tower area at constructed at suitable elevation above HFL of the area. Hence no impact on drainage pattern due to flood
37	Equipment submerged under flood	Contamination of receptors (Land, water)	Equipment stored at secure place above the high flood level (HFL)	Store room level to be above HFL (elevation difference in meters)	Store room level as per flood design-once	IA	Construction period	The S/S and tower area at constructed at suitable elevation above HFL of the area. Hence no impact on drainage pattern due to flood
38	Inadequate siting of borrow areas (quarry areas)	Loss of land values	Existing borrow sites is to be used to source aggregates, therefore, no need to develop new sources of aggregates	Contract clauses	Incorporating good construction management practices – once for each site	IA (Contractor through contract provisions)	Construction period	Complied, no such sites are selected for substation and tower location in low lying area.
39	Health and	Injury and	Safety equipment's	Contract clauses	Contract clauses	IA (Contractor	Construction period	Complied, by providing

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
	safety	sickness of workers and members of the public	(PPEs) for construction workers Contract provisions specifying minimum requirements Construction camps Contractor to prepare and implement of health and safety plan. Contractor to arrange for health and safety training sessions	(number of incidents and total lost-work days caused by injuries and sickness)	compliance – once every quarter	through contract provisions)		displays, PPEs and training of the contractors and contract workers. Complied. No incident of accident / injury reported All health and safety plan are in place and monitored regularly. HSE Audits are carried out regularly by LA and Contractor HSE Officer Regular briefing / training for contract workers is organized by contractor/POWERGRID
40	No Regular construction stage monitoring	Likely to maximize damages	Training of environmental monitoring personnel Implementation of effective environmental monitoring and reporting system using checklist of all contractual environmental requirements	Training schedules Respective contract checklists and remedial actions taken thereof.	No. of programs attended by each person – once a year Submission of duly completed checklists of all contracts for each site – once	IA	Routinely throughout construction period	Periodic Environment monitoring and Training program are organized for such persons. Complied. Regular monitoring by site and Corporate is organized.

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			Appropriate contact clauses to ensure satisfactory implementation of contractual environmental mitigation measures.	Compliance report related to environmental aspects for the contract	Submission of duly completed compliance report for each contract – once			All provisions are compiled and monitored regularly by Site
Operation & Maintenance								
41	Location of line towers and overhead/ underground line alignment & design	Exposure to safety related risks	Setback of dwellings to overhead line route designed in accordance with permitted level of power frequency and the regulation of supervision at sites.	Compliance with setback distances (“as-built” diagrams)	Setback distances to nearest houses – once in quarter	TSECL	During operations	Designed as per guidelines of ICNIRP and ACGIH and checked by CPRI and M/s PTI, USA
42	Line through identified bird flyways, migratory path	Injury/ mortality to birds, bats etc due to collision and electrocution	Avoidance of established/ identified migration path (Birds & Bats). Provision of flight diverter/ reflectors, elevated perches, insulating jumper loops, obstructive perch deterrents, raptor hoods etc., if applicable	Regular monitoring for any incident of injury/mortality	No. of incidents- once every month	TSECL	Part of detailed site selection and alignment survey and Operation	Complied, Bird guards are being provided in towers. Further, additional measures like installation of bird diverters shall be undertaken in all 5 TLs in compliance to forest clearance condition
43	Equipment Submerged under flood	Contamination of receptors (Land, water)	Equipment installed above the high flood level (HFL) by raisin	Substation design to account for HFL	Base height as per flood design – once	TSECL	During operations	The area is not prone to flood, but necessary care is taken by the

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			the foundation pads.					authorities to avoid such situations like erection of system at suitable elevation considering site specific HFL
44	Oil spillage	Contamination Of land/ nearby water bodies	Substation transformers located within secure and impervious sump areas with a storage capacity of at least 100% of the capacity of oil in transformers and associated reserve tanks.	Substation bunding (Oil sump) ("as-built" diagrams)	Bunding (Oil sump) capacity and permeability - once	TSECL	During operations	Oil sump of sufficient capacity (200% by volume of oil tank in transformer) is provided for every transformer. Secondary containment is provided
45	SF6 (Sulfur hexafluoride) management	Emission of most potent GHG causing climate change	Reduction of SF6 emission through awareness, replacement of old seals, proper handling & storage by controlled inventory and use, enhance recovery and applying new technologies to reduce leakage	Leakage and gas density/level	Continuous monitoring	TSECL	During Operations	Being Complied.
46	Inadequate provision of staff/workers health and	Injury and sickness of staff /workers	Careful design using appropriate technologies to minimize hazards	Usage of appropriate technologies (lost work days due to illness and injuries)	Preparedness level for using these technologies in	TSECL	Design and operation	Being Complied. In design and operation standards of safety procedure followed.

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
	safety during operations				crisis - once each year			
			Safety awareness rising for staff.	Training/awareness programs and mock drills	Number of programs and percent of staff / workers covered - once each year			Proper safety training to all workers and primary safety kits/PPEs are provided in every site.
			Preparation of fire emergency action plan and training given to staff on implementing emergency action plan	Provision of facilities	Complaints received from staff /workers every 2 weeks			Regular mock drills on fire and other occupational hazards are organized. Fire emergency is displayed at all substation in English and local language.
47	Electric Shock Hazards	Injury/ mortality to staff and public	Careful design using appropriate technologies to minimize hazards	Usage of appropriate technologies (no. of injury incidents, lost work days)	Preparedness level for using this technology in crisis- once a month	TSECL	Design and Operation	Electric shock emergency response plan is displayed at all substations with periodic training in local language.
			Security fences around substations	Maintenance of fences	Report on maintenance - every 2 weeks			Security fences around substations are provided
			Barriers to prevent climbing on/ dismantling of towers	Maintenance of barriers				Barriers to prevent climbing on/ dismantling of towers provided
			Appropriate warning signs on facilities	Maintenance of warning signs				Appropriate warning signs on facilities

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			Electricity safety awareness raising in project areas	Training /awareness programs and mock drills for all concerned parties	Number of programs and percent of total persons covered – once each year			provided Training /awareness programs and mock drills for all concerned parties are conducted periodically in local language.
48	Operations and maintenance staff skills less than acceptable	Unnecessary environmental losses of various types	Adequate training in O&M to all relevant staff of substations & T&D line maintenance crews. Preparation and training in the use of O&M manuals and standard operating practices	Training/awareness programs and mock drills for all relevant staff	Number of programs and percent of staff covered – once each year	TSECL	Operation	Training and educating the staffs with pictorial signage's. Induction training along with refreshers training is periodically carried out.
49	Inadequate periodic Environmental monitoring.	Diminished ecological & social values.	Staff to receive training in environmental monitoring of Project operations & maintenance activities.	Training/awareness programs and mock drills for all relevant staff	Number of programs and percent of staff covered – once each year	TSECL	Operation	Periodical environmental monitoring is planned.
50	Equipment specifications and design parameters	Release of chemicals and gases in receptors (air, water, land)	Processes, equipment and systems using chlorofluorocarbons (CFCs), including halon, should be phased out and to be disposed of in a manner consistent with the requirements	Process, equipment and system design	Phase out schedule to be prepared in case still in use – once in a quarter	TSECL	Operations	Provisions for collection and storage is adequate.

Clause No.	Project Activity /Stage	Potential Impact	Proposed Mitigation Measures	Parameter to be Monitored	Measurement & Frequency	Institutional Responsibility	Implementation Schedule	Compliance Report
			of the Govt.					
51	Transmission line maintenance	Exposure to electromagnetic interference	Transmission line design to comply with the limits of electromagnetic interference from overhead power lines	Required ground clearance (meters)	Ground clearance - once	TSECL	Operations	Designed as per guidelines of ICNIRP and ACGIH and checked by CPRI and M/s PTI, USA.
52	Uncontrolled growth of vegetation	Fire hazard due to growth of tree / shrub / Bamboo along RoW	Periodic pruning of vegetation to maintain requisite electrical clearance. No use of herbicides/ pesticides	Requisite clearance (meters)	Assessment in consultation with forest authorities - once a year (pre- monsoon /post- monsoon	TSECL	Operations	All necessary measured are being undertaken during operation.
53	Noise related	Nuisance to neighboring properties	Substations sited and designed to ensure noise is to not be a nuisance.	Noise levels {dB(A)}	Noise levels at boundary nearest to properties and consultation with affected parties if any - once	TSECL	Operations	Being Complied. Appropriately located. No noise anticipated

5.9 Conclusions:

It is clear from the above discussion that the area is rich in natural forest resources. But careful route selection following the principle of avoidance, ecologically sensitive areas like NP / WLS have been avoided completely but complete avoidance of forest could not be achieved due to terrain limitations. However, all possible efforts have been taken that line route is aligned in such a way that it involves minimum forest stretch. In the instant case there is only line involving forest area of 86 Ha. for which adequate mitigation measure like providing funds for raising compensatory afforestation on double the area of degraded forest land as recommended in Forest Clearances is being done by State Forest department at IA's/owner cost. **Please refer Forest Clearances obtained with stipulated conditions in Annexure 5.** Moreover, to reduce the impact on forest area bare minimum felling of trees is done in RoW in the forest. The infrastructural constraints are very real and pose a limiting factor on the development of the area. The above facts while on the one hand underline the need for implementation of the subject scheme for overall development of the area and on another hand suggests that a detailed EIA may not be necessary as per the provisions of existing regulations.

TL routes and S/S location have been selected judiciously by considering the technical, environmental, socio-economic aspects. Though some changes in line length & route alignment have been observed in TL as compared to IEAR scope but as a result careful route selection IA could able to avoid ecologically & socially sensitive areas including forest, protected PA, PCR etc. completely in all the lines and S/S being implemented under this project.

The present T&D schemes not only improve overall power supply situation but also improve reliability, quality, security and enhancement of power supply in the Tripura state. From the above discussion, it would seem that the area is rich in physical resources. But careful route selection has minimized involvement of forest area to the extent possible but could not be completely avoided due to terrain and other physiographical reasons. Thus, routes selected for detailed survey are the most optimum alignment and involved minimum forest.

The provisions of IEAR & EMP are being implemented at ground level and strict compliance by construction contractors is ensured through regular monitoring by IA. So far, no major impacts apart from earlier identified impacts are anticipated due to such changes in scope. Besides, all other applicable laws/rules/regulations of the country & funding agencies are being complied with and till date no violation/ penalty with respect to contravention of any regulations has been reported. During assessment, it has also been observed that so far, the project has achieved zero fatality with no major noncompliance of EMP/Contract provisions as stipulated in IEAR, which is an indicative of the strict vigil of the IA.

It has also emerged from the survey & PRA exercise that the PAPs were appreciative of the project and hoped that the power scenario would improve after commissioning of the project. Local people also benefited through project related employment that was being generated. Following observations are drawn from the observations through site visits.

- During the construction phase, the implementing agency needs to ensure strict compliance of the contract provisions/EMP by Contractor especially in respect of workers health and safety.

- Along with labours, supervisors, engineers and Staff of Implementing Agency (IA) should also need to follow the health and safety precautions.
- Need of regular induction and training program for labours and engineers at all sites.
- Training for PMU staff regarding monitoring and implantation of EMP as proposed in IEAR. It is suggested to deploy more environmental professionals for effective environmental monitoring and reporting system.
- Good coordination between IA officers and contractors regarding implementation of Health and Safety Plan.
- Health checkup of labours and other working staff are regularly executed and records are maintained. However, the Records of labour registration should be well maintained and strictly monitored.
- Training and awareness regarding cleanliness and solid waste disposal to maintain the hygiene in the labour camps and construction sites.
- The basic needs at workers camp should be provided on site. Transit camps should be well equipped.
- Wearing of PPE should be made compulsory to workers during working hours.
- Cleanliness at workers camp area / construction area should be maintained which not found adequate during site visits
- Demarcation and protection for sites where work has been on hold due to various reasons to avoid accidents and runoff of excavated soil from construction sites
- Project staff of the implementing agency should be well versed with the contents of the IEAR so as to ensure proper compliance by the contractors.
- Overall, the commissioning of the project aims to augment the power distribution and availability in the region which will further catalyze economic activity and development of the area/region.

6. MONITORING AND ORGANIZATION SUPPORT STRUCTURE

For smooth implementation of this project, following administrative and functional set up have been institutionalized for project implementation, review and monitoring.

6.1 Administrative Arrangement for Project Implementation

MoP, GoI has appointed POWERGRID as Design cum Implementation Supervision Consultant (i.e., Project Management Consultant-PMC) and now redesignated as Implementing Agency (IA). However, the ownership of the assets with respective State government or State Utilities, which upon progressive commissioning is to be handed over to them for taking care of Operation and Maintenance of assets. The arrangement for monitoring and reviewing of project from the perspective of environment and social management are form part of overall arrangements for project management and implementation environment. Following implementation arrangement has been proposed at different levels for smooth implementation of this project;

Central Project Implementation Unit (CPIU) - A body responsible for coordinating the preparation and implementation of the project and is housed within the IA's offices at Guwahati. The "Project-In-Charge" of IA & Head of each of the SPCU is a member of CPIU.

State Project Coordination Unit (SPCU) – A body formed by the Utility and responsible for coordinating with IA in preparing and implementing the project at the State level. It consists of experts across different areas from the Utility and is headed by an officer of the rank not below Chief Engineer, from the Utility.

Project Implementation Unit (PIU) – A body formed by the IA, including members of Utility on deputation, and responsible for implementing the Project across the State, with its personnel being distributed over work site & working in close association with the SPCU/ CPIU. PIU report to State level "Project Manager" nominated by the Project-in- Charge of IA. The IA is Core team stationed at the CPIU on permanent basis and other IA officers (with required skills) visits as and when required by this core team. This team is represented IA and to be responsible for all coordination with SPCU, PIU, within IA and MoP, GoI. CPIU is also assist MoP, GoI in monitoring project progress and in its coordination with WB.

6.2 Review of Project Implementation Progress

To enable timely implementation of the project/subprojects, following committee has been setup to review the progress;

Joint Co-ordination Committee (JCC): IA and SPCU nominate their representatives in a body called JCC to review the project. IA was specified quarterly milestones or targets, which is to be reviewed by JCC through a formal monthly review meeting. This meeting forum is called as Joint Co-ordination Committee Meeting (JCCM). The IA is convene & keep a record of every meeting. MoP, GoI and WB may join as and when needed. Minutes of the meeting to be shared with all concerned and if required, with GoI and WB.

High Power Committee (HPC): The Utility in consultation with its GoT is arranged to constitute a High-Power Committee (HPC) consisting of high-level officials from the Utility,

State/ District Administration, Law enforcement agencies, Forest Department etc. so that various permission/ approvals/ consents/ clearances etc. are processed expeditiously so as to reach the benefits of the Project to the end consumers. HPC is meet on bimonthly basis or earlier, as per requirement. This forum to be called as High-Power Committee Meeting (HPCM) and the SPCU is kept a record of every meeting. Minutes of the meeting is always shared with all concerned and if required, with GoI and WB.

Contractor's Review Meeting (CRM): Periodic Review Meeting is held by officials of PIU with Contractors at field offices, State Head Quarters (PIU location) and if required with core team of IA at Guwahati. These is to be called "Contractor's Review Meeting" (CRM). PIU is keep a record of all CRMs, which shared with all concerned and if required, with GoI and WB.

A review is frequently held among MoP, GoI, WB, GoT, Utility and IA, at four (4) months interval or earlier if needed, primarily to maintain oversight at the top level and also to debottleneck issues that require intervention at GoI/ State Government level. Minutes of the meeting is generally prepared by IA and shared with all concerned.

6.3 Environmental and Social Monitoring

Monitoring is a continuous process for TSECL projects at all the stages, be it the site selection, construction or maintenance. As Implementing Agency (IA) POWERGRID endeavors to implement the project in close coordination with the respective state power utilities and departments. POWERGRID has been implementing the project based on the Implementation / Participation agreements that were signed separately between POWERGRID and the Power utilities.

The success of TSECL lies in its strong monitoring systems. Apart from the Field In- Charge reviewing the progress on daily basis regular project review meetings are held at least on monthly basis at corporate level wherein apart from construction issues the environmental aspects of the projects are discussed and remedial measures taken wherever required. The exceptions of these meetings are submitted to the Directors and Chairman and Managing Director of the Corporation. The progress of various on- going projects is also informed to the Board of Directors.

TSECL has formed a separate cell at the Circle office level namely Environment and Social Management Cell (ESMC) headed by AGM (Transmission) for proper implementation and monitoring of environmental & social management measures. TSECL organization support structure is depicted in **Figure 6.1**. Key responsibilities of the ESMC are follows:

- Coordinating environmental and social commitments and initiatives with various multilateral agencies, GoT and MoEF&CC.
- Coordination of all environmental activities related to a project from conceptualization to operation and maintenance stage.
- Advising and coordinating /Site office to carry out environmental and social surveys and route alignment for new projects.
- Advising site offices to follow-up with the state forest offices and other state departments for expediting forest clearances and other E & S issues of various projects.
- Providing a focal point for interaction with the MoEF&CC for expediting forest

clearances

- Training of Circle and Site officials on E & S issues arising out of T&D projects and their management plan.
- Training of other departments to familiarize them with the ESPP document.

Additionally, Field In-Charge reviews the progress on daily basis and periodic review by higher management including review by Heads of SPCU and CPIU undertaken wherein apart from construction issues the environmental aspects of the projects are discussed and remedial measures taken wherever required. Besides, Periodic Contractor's Review Meeting (CRM) are being held by officials of PIU with Contractors at field offices, State Head Quarters (PIU location) and with CPIU at Guwahati for better coordination and resolution any pending issues. The WB mission team also visits various sites every six months to review the progress status including ground level implementation of safeguard measures. Any observation/agreed action plan suggested by WB in the Aide Memoire is religiously complied in time bound manner. Additionally, review meeting among MOP, GoI, WB, State Governments., Utility and IA being held periodically to maintain oversight at the top level and also to debottleneck issues that require intervention at GoI/ State Government level.

The Capacity building and Institutional Strengthening program of the IA is held intermittently to enhance the skills of the project officials. Besides, separate E & S training are also organized for Official of State Utility under Capacity Building & Institutional Strengthening (CBIS) program. Further, State utility meetings between IA and AEGCL/APDCL are held on a monthly/ bi-monthly basis to assess the work progress and difficulties encountered in respect of land acquisition, RoW and compensation if any. The IA has a continuous monitoring mechanism of the project w.r.t. compliance of the mitigation measures as stipulated in the IEAR. Thus, the adherence to the clauses by the contractors are regularly monitored especially in respect of various implementation E & S measures including health and safety aspects. Due to such strong institutional support structure coupled with monitoring mechanism in place, no major non-compliance was observed/reported during the implementation of projects till date. The project has so far had zero fatality which is indicative of the strict vigil of the IA.

During the present study, our team also observed mitigation measures as suggested in IEAR are mostly complied with even though some gaps were found with respect proper to documentation. It has been observed during field visit and interactions with local people, contractors and contract workers that PGCL has adequately taken all precautions and importance to environmental & social aspects. The stakeholders are satisfied with the various measures taken by TSECL its proven fact from the interactions that no complaints are received from the project area. Design realignment, consultation i.e., PAP, Environment & safety awareness training and regular interactions with all the stakeholders has led to sustainability of the project.

As regards monitoring of impacts on ecological resources particularly in Forest, Sanctuary or National Park, it is generally done by the concerned Divisional Forest Officer, Chief Wildlife Warden and their staff as a part of their normal duties. A detailed Environment Management Plan (EMP) including monitoring plan for all possible environmental and social impact and its proper management has been drawn (**Table- 5.5**) and is being implemented during various stage of project execution. Since many provisions of EMP are to be implemented by contractor hence for proper monitoring EMP has included in the contract document. A budget

estimate towards tree/crop/tower base compensation and EMP implementation is prepared and is placed at **Annexure-11**. A summary of the same is presented below **Table No.6.1**:

Table 6-1: Summary Budget Estimate

Sr. No.	Budgetary Head	Amount(Rs. Lakhs)
1	Forest compensation	2845.00
2	Tree & Crop damage Compensation	426.35
3	Land Compensation for Tower Footing	34.81
4	Implementation Monitoring & Audit	34.00
Total		3340.16

Any other measures like provision of bird guards, spike guards, barbed wire fencing or any other arrangement for addressing the issues like bird hit/animal/elephant scratching etc. is finalized only after detailed/ check survey and finalization of route alignment. Since the detailed/ check survey is part of main package requirement of such measures, its extent and estimated cost is incorporated in the revised cost estimate proposal which is normally prepared for all projects as there is a considerable time gap between planning and actual implementation. However, as per the preliminary assessment such additional measures may not be required in the instant scheme as no such impact are envisaged due to routing of lines far away from such sensitive areas.

6.4 Grievance Redressal Mechanism:

Grievance Redressal Mechanism (GRM) is an integral and important mechanism for addressing/resolving the concern and grievances in a transparent and swift manner. In accordance with the provision in ESPPF, Grievance Redress Committees (GRC) has been constituted at the project/scheme level and at Corporate/HQ. This GRC is aimed to provide a trusted way to voice and resolve environment & social concerns of the project, and to address the concerns of the affected person/community in a time bound manner without impacting project implementation.

The Corporate/HQ level GRC has been constituted and notified which is headed by Director (PMU). Similarly, project level GRCs have been constituted for each transmission and S/S covered under this project. Notifications of Corporate & Project level GRC are shown in **Annexure 22**.

Apart from above, grievance redresses in built in crop/tree compensation process where affected persons are given a chance to place their grievances after issuance of notice by revenue officials on the basis of assessment of actual damages. Grievances received towards compensation are generally addressed in open forum and in the presence of many witnesses. Process of spot verification and random checking by the district collector/ its authorized representative also provides forum for raising the grievance towards any irregularity / complain. Moreover, TSECL & POWERGRID officials also address to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful, if required.

Implementation Arrangement for Environment and Social Management by TSECL

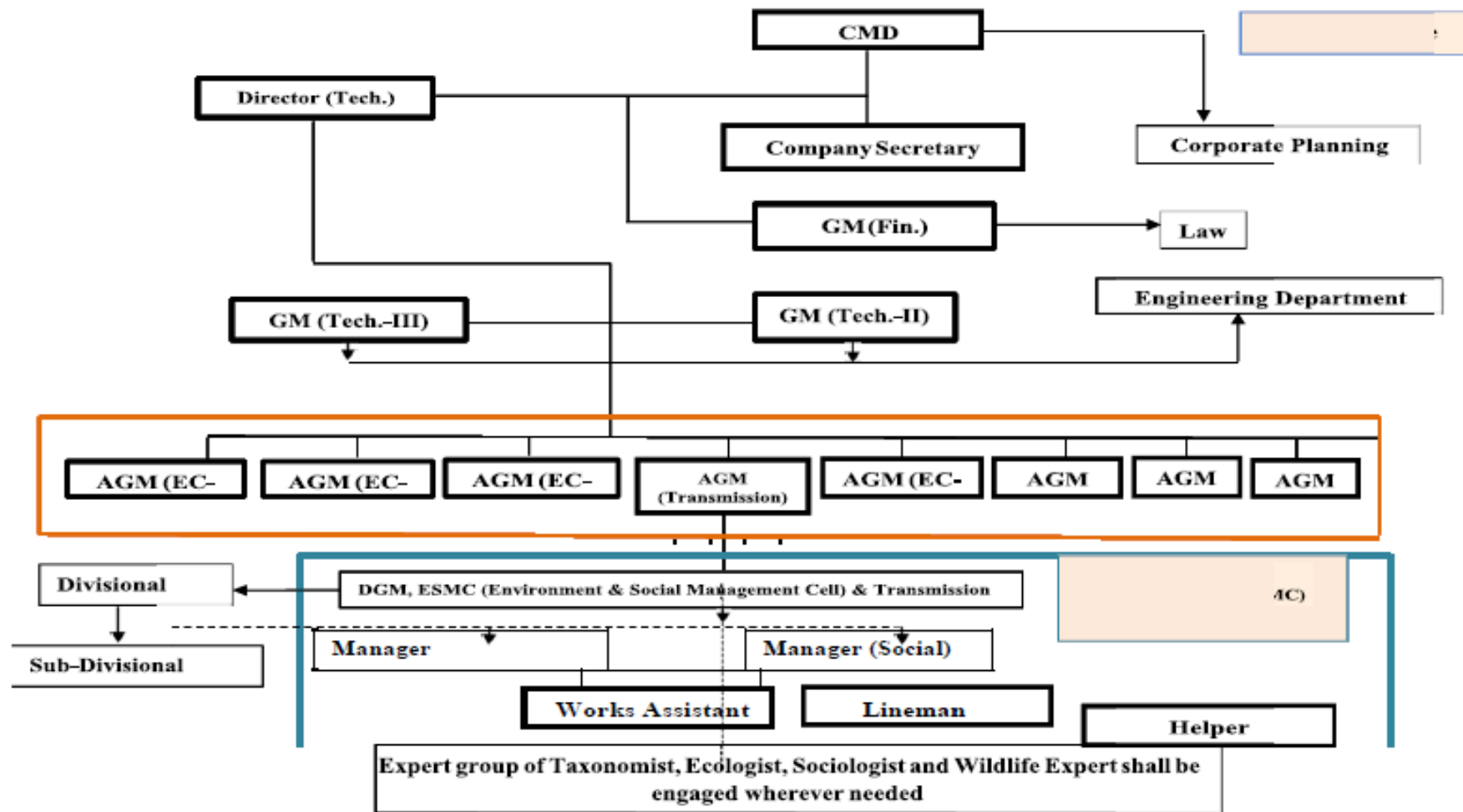


Figure 6-1: Implementation Arrangement for E&S Management by TSECL

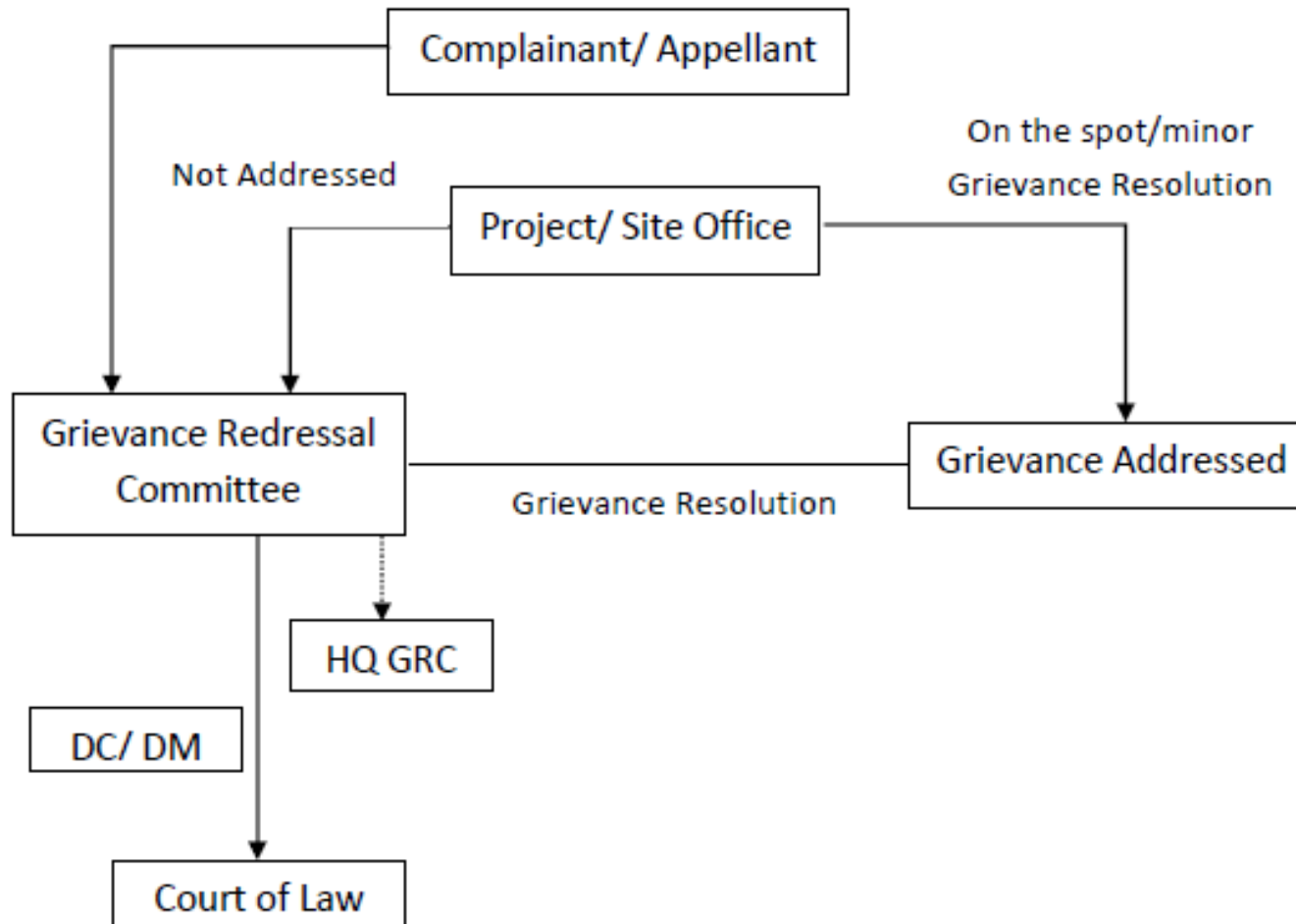


Figure 6-2: Grievance Redressal Mechanism

Site level Grievance Redressal Committee (GRC) has already been constituted. The nominated officials from TSECL and POWERGRID for GRC and **details are annexed in Annexure 22**. Nominees from local administration, panchayat/ADC & affected persons are also mandatory for GRC. Letter has already been issued twice to AGM (Transmission), TSECL for his early action in this regard (**copy of letters enclosed in Annexure 22**).

It has been observed that concerns of public are addressed regularly through public consultation process which started from project planning to construction and will be continued in O&M also. As per record available, no written complaint or court case is registered till study period against any of the sub projects in instant case. However, we have been informed that only some minor complaints of verbal nature were received by site officials which were also resolved instantly and amicably by site Officials after discussion & deliberation with affected person in consultation of revenue/district officials.

6.5 Good practices of project:

- **All the precautions were taken for health and safety of workers**

At all the other places the contractor has taken all the necessary precautions for prevention of diseases at the project sites. Workers were provided with all the safety equipment, special measures taken for prevention of Covid-19.

- **All the stakeholders were considered for consultation during the project cycle**

All the stakeholders were consulted by POWERGRID and their queries were resolved during formal / informal meetings. Therefore, no any major issue observed during project construction. Because of strong PAP consultation, no any written complaint / court case has been received so far.

- **Eco sensitive zones avoided as far as possible**

ESZ avoided totally. River / water ecosystem was not harmed because of pile foundation as no pile foundation work is envisaged in the FEAR III.

- **Avoidance of habituated areas**

Habituated areas were avoided as far as possible to lay towers of 132 kV line. The residential houses are far from the RoW of 132 kV towers, therefore, there is no chance of damage to the human being because of 132 kV line.

- **Interference with utilities**

Wherever utilities were crossed, necessary permissions/NoC is taken from the concern authorities to lay electric wires from their premises. During construction, the concern officials are taking care of avoiding damage to the utility instruments & premises

7. REFERENCES

1. Initial Environment Assessment Report (IEAR) for T & D Network in Gomati and South Tripura districts Prepared by Environment and Social Management Power Grid Corporation of India Ltd
2. Guidelines for diversion of forest land for non-forest purposes under the Forest (Conservation) Act, 1980 F. No.7-2s/ 2912-FC Government of India Ministry of Environment and Forests
3. Guidelines for payment of compensation towards damages in regard to Right of Way for transmission lines, No.3/7/2015-Trans Government of India Ministry of Power
4. A guide for the investigation, development, and design of power transmission lines, by Holland H. Farr, 1980
5. Electric Energy Systems Theory: An Introduction; Olle I. Elgerd, McGraw-Hill, 1971.
6. Transmission Line Reference Book – 345 kV and Above, Second Edition, Revised; Electric Power Research Institute, 1987.
7. Transmission Line Reference Book – HVDC to ± 600 kV; Electric Power Research Institute.
8. Electric Power Transmission; John Zaborszky and Joseph W. Rittenhouse, Rensselaer Bookstore, 1970.
9. Elements of Power System Analysis, Second Edition; William D. Stevenson, McGraw-Hill, 1962.
10. Power System Planning; Robert L. Sullivan, McGraw-Hill, 1977.
11. Electric Transmission Lines, Hugh H. Skilling, McGraw-Hill, 1951.
12. MOEF & CC Guide Line No. F.NO. 11-9/98-FC(pt) dt 05/02/2013 :- linear projects like transmission line are exempted from obtaining consent of Gram Sabha
13. Anonymous 1996. State of Forest Report 1995. Forest Survey of India, Dehradun.
14. Anonymous. 2000. State of Forest Report 1999. Forest Survey of India, Dehradun.
15. Anonymous. 2002a. Biodiversity Characterization at Landscape level in NES of India using Satellite Remote Sensing and Geographical Information System. Indian Institute of Remote Sensing, Dehradun.
16. Census Data: Office of the Registrar General & Census Commissioner, India Ministry of Home Affairs, Government of India
17. District Profile 2019
18. Economic Development Tripura 2019-2020

Annexure

Annexure 1

Power Map of Tripura State

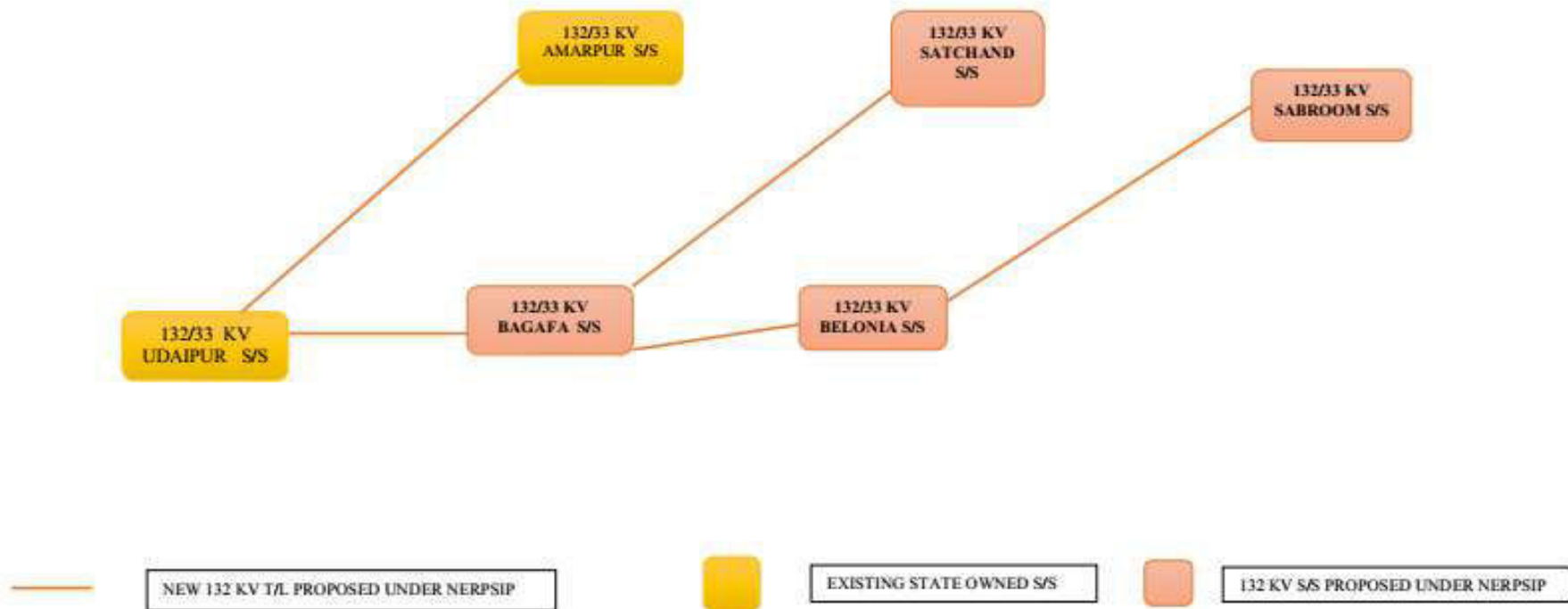
POWER MAP OF TRIPURA



Annexure 2

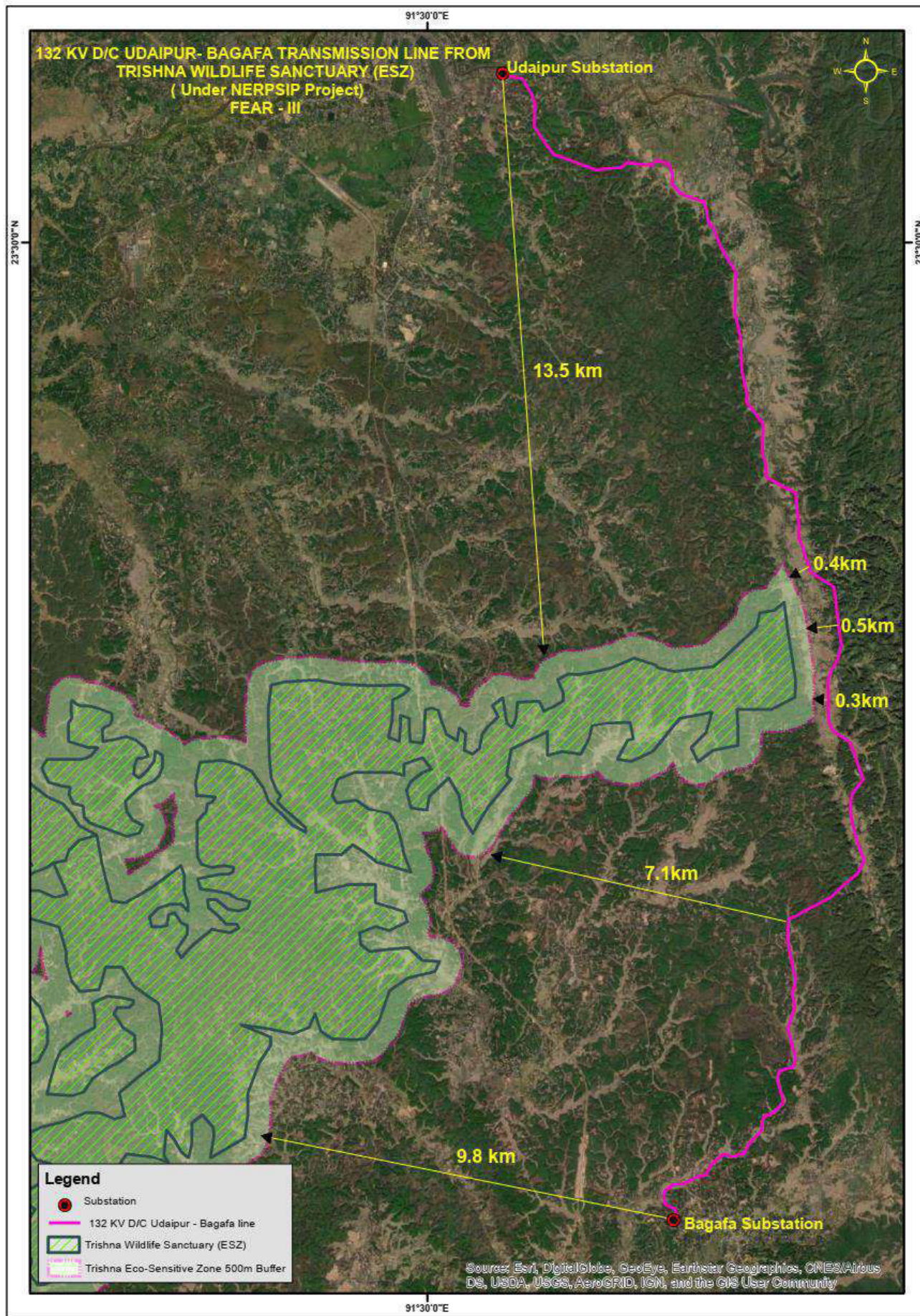
Schematic Map of Projects Covered in FEAR III

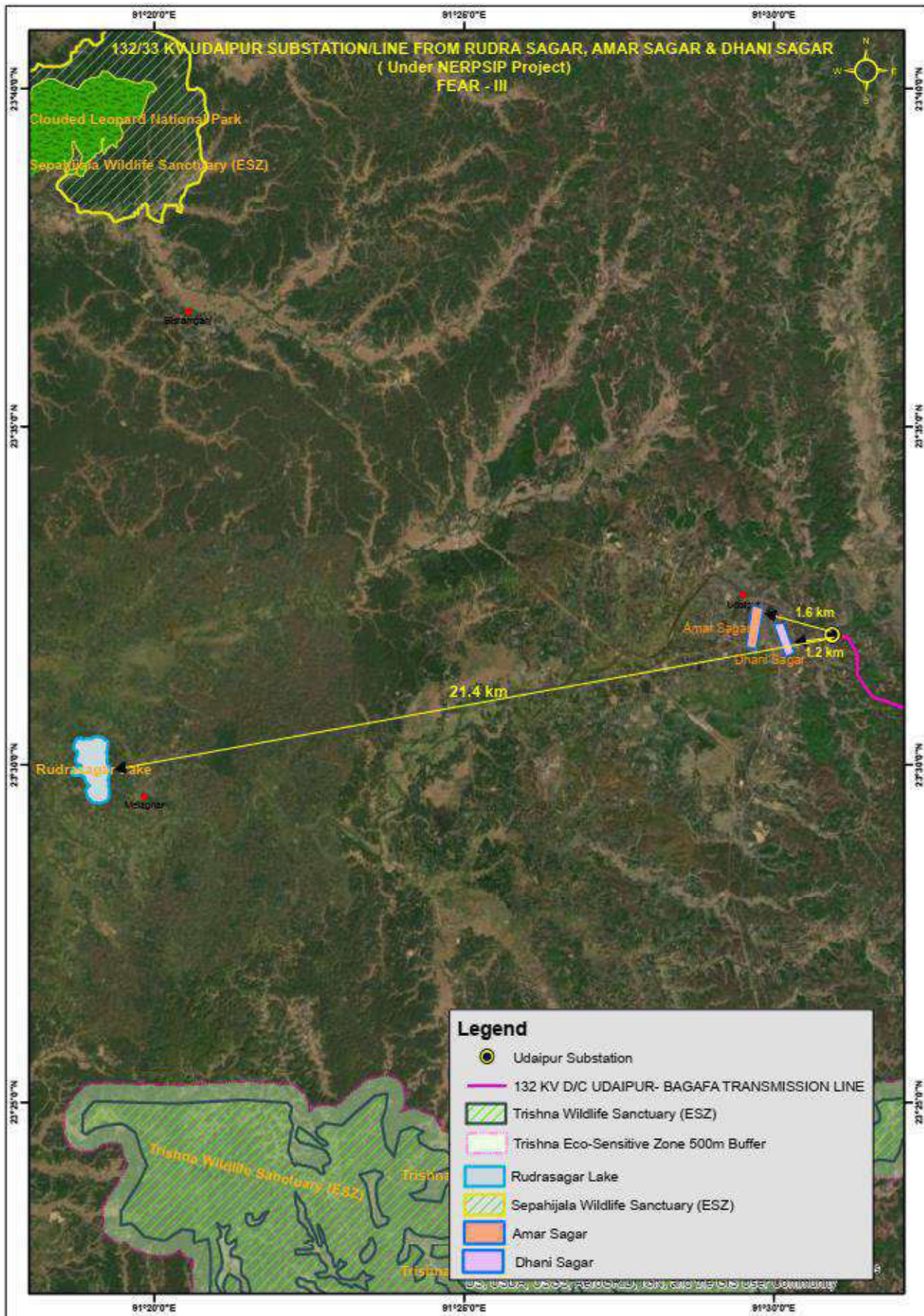
Schematic Map Showing proposed Transmission Network in Gumti & South Tripura District under NER Power System Improvement Project in TRIPURA



Annexure 3

Distance of 132 kV Udaipur - Bagafa D/C TL from Trishna WLS







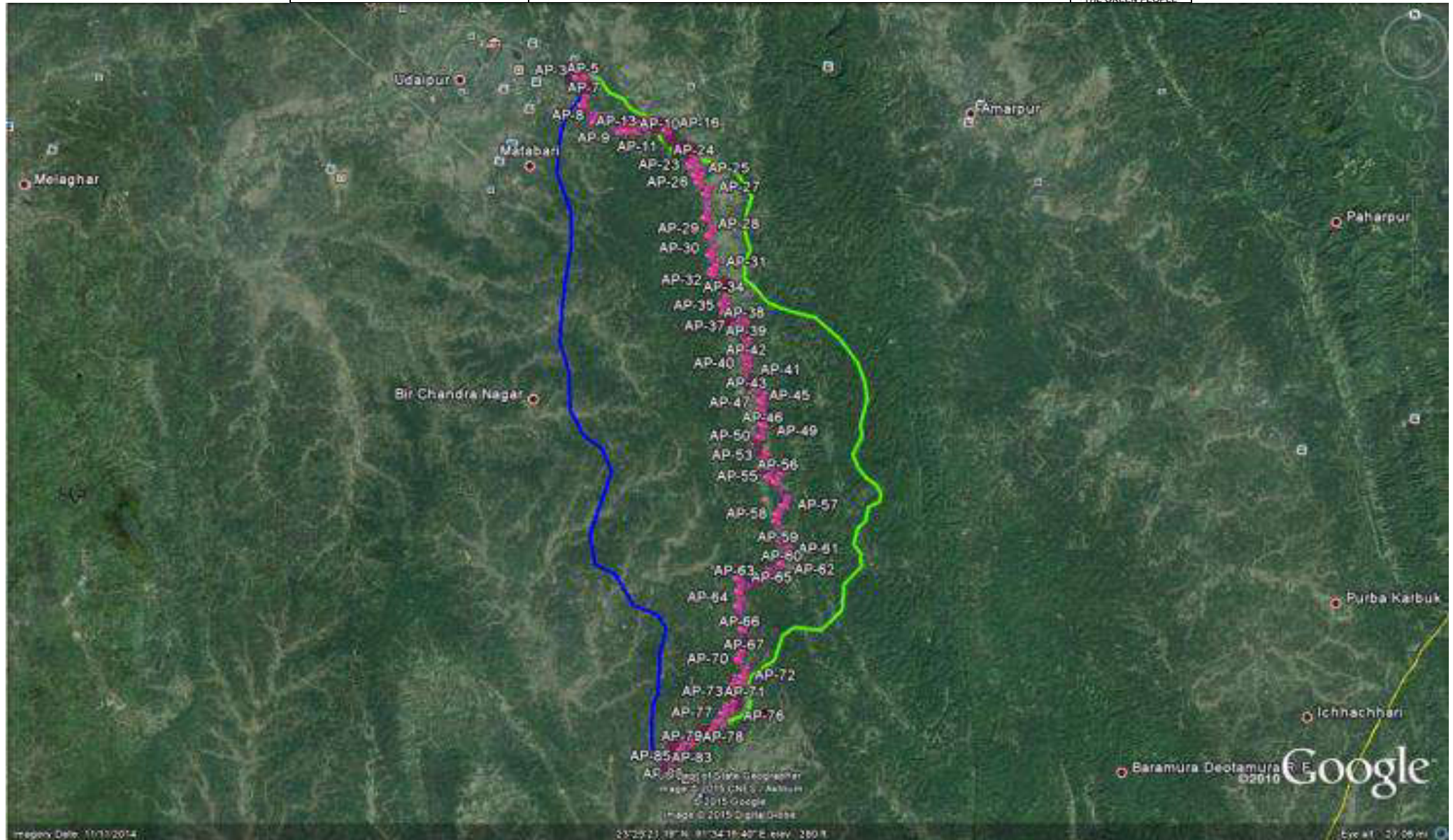
पावरग्रिड
POWERGRID

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



Annexure 4

Alternative Analysis of TLs



Alternative Route Alignment for 132 kV D/C Udaipur - Bagafa Tr. Line - Alternative I, II and III



IBAT Map Superimposing For 132 kV D/C Udaipur - Bagafa TL - 1 km Distance from Trishna WLS

Geospatial Map of Area Showing Sanctuary Boundary and Bison Reserve Vis-À-Vis 132 kV D/C Udaipur – Bagafa Line Route



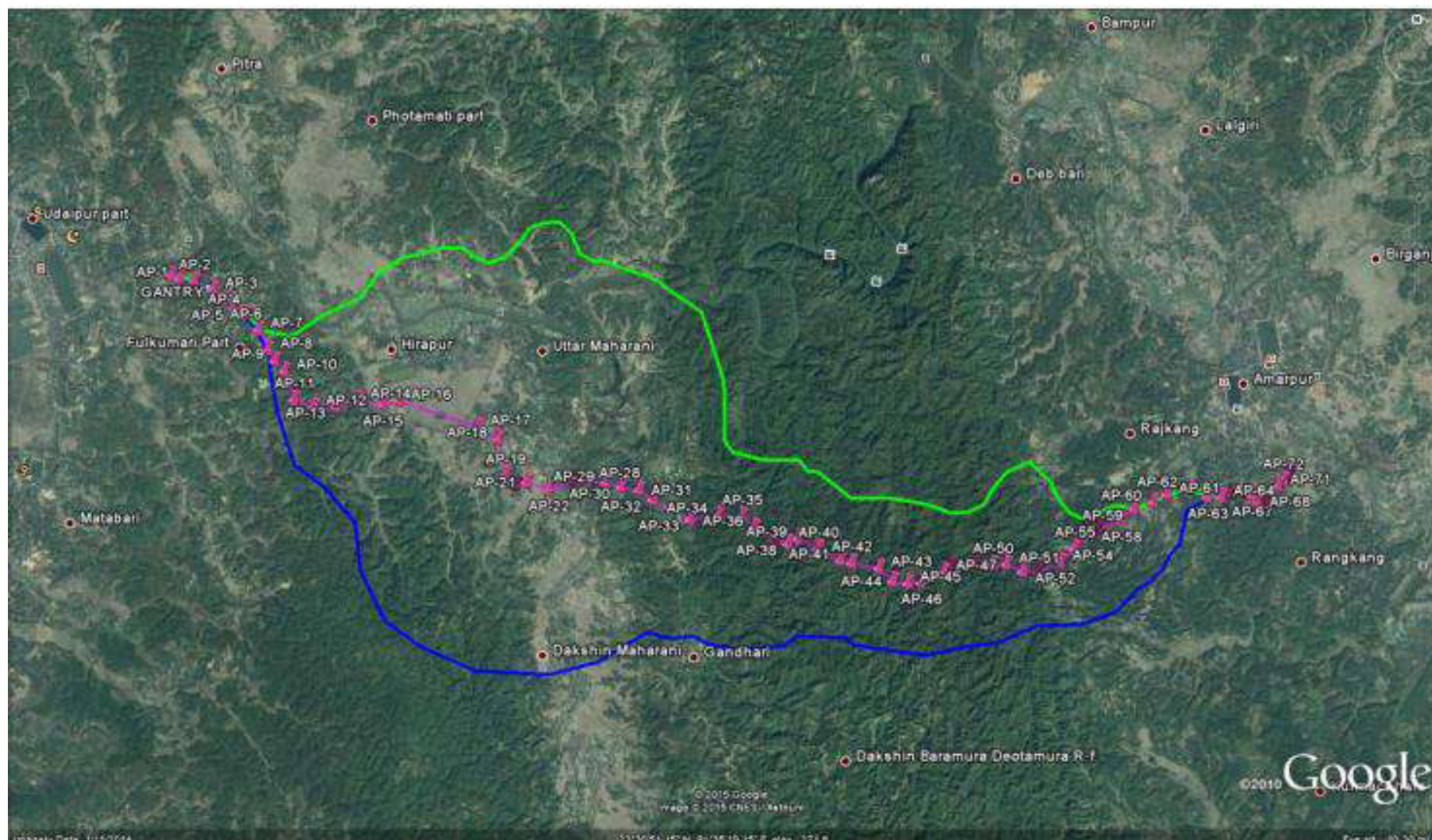


पावरग्रिड
POWERGRID

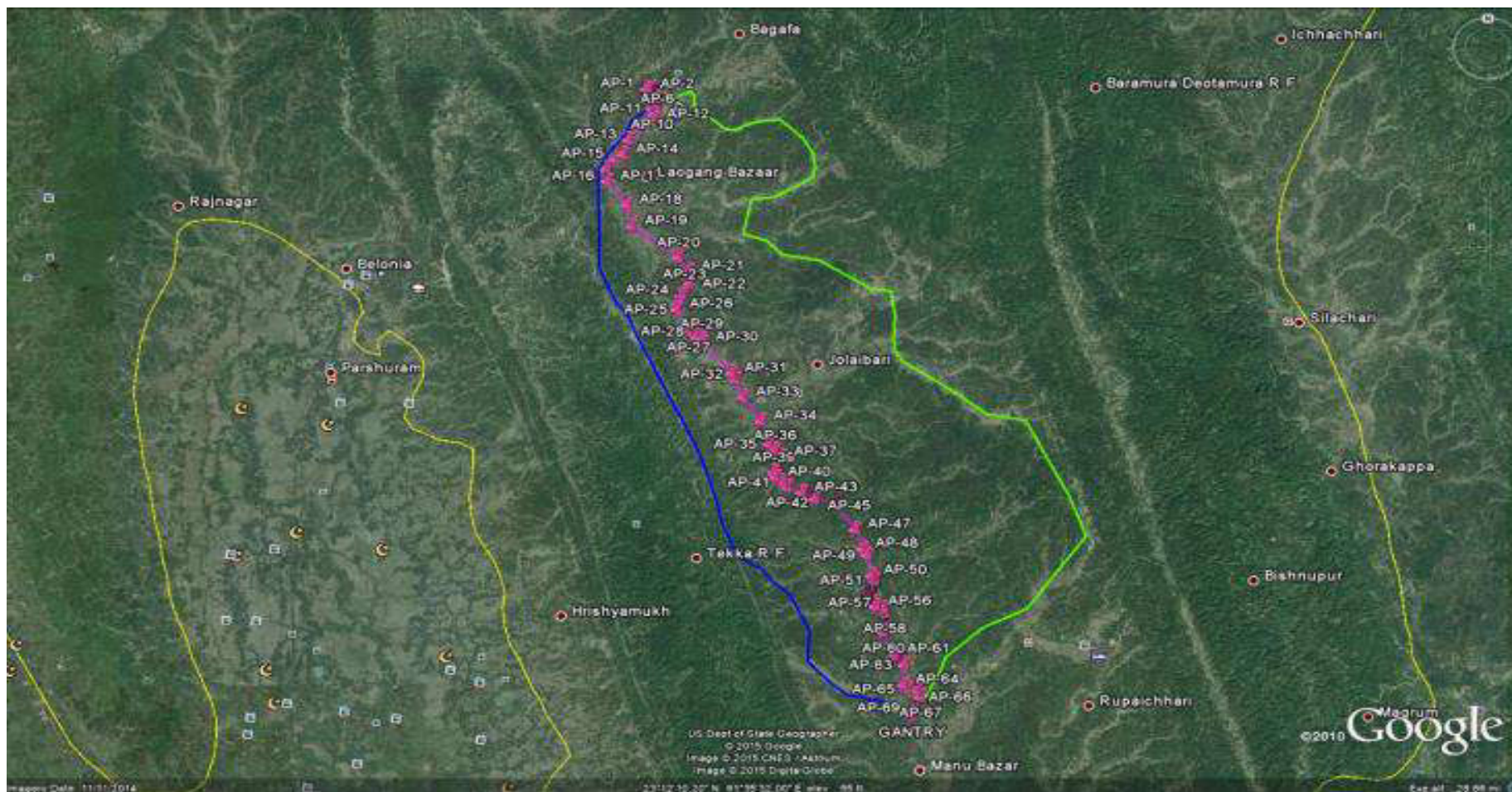
FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



Alternative Route Alignment for 132 kV D/C Udaipur – Amarpur Tr. Line – Alternatives I, II and III to Avoid RF Area

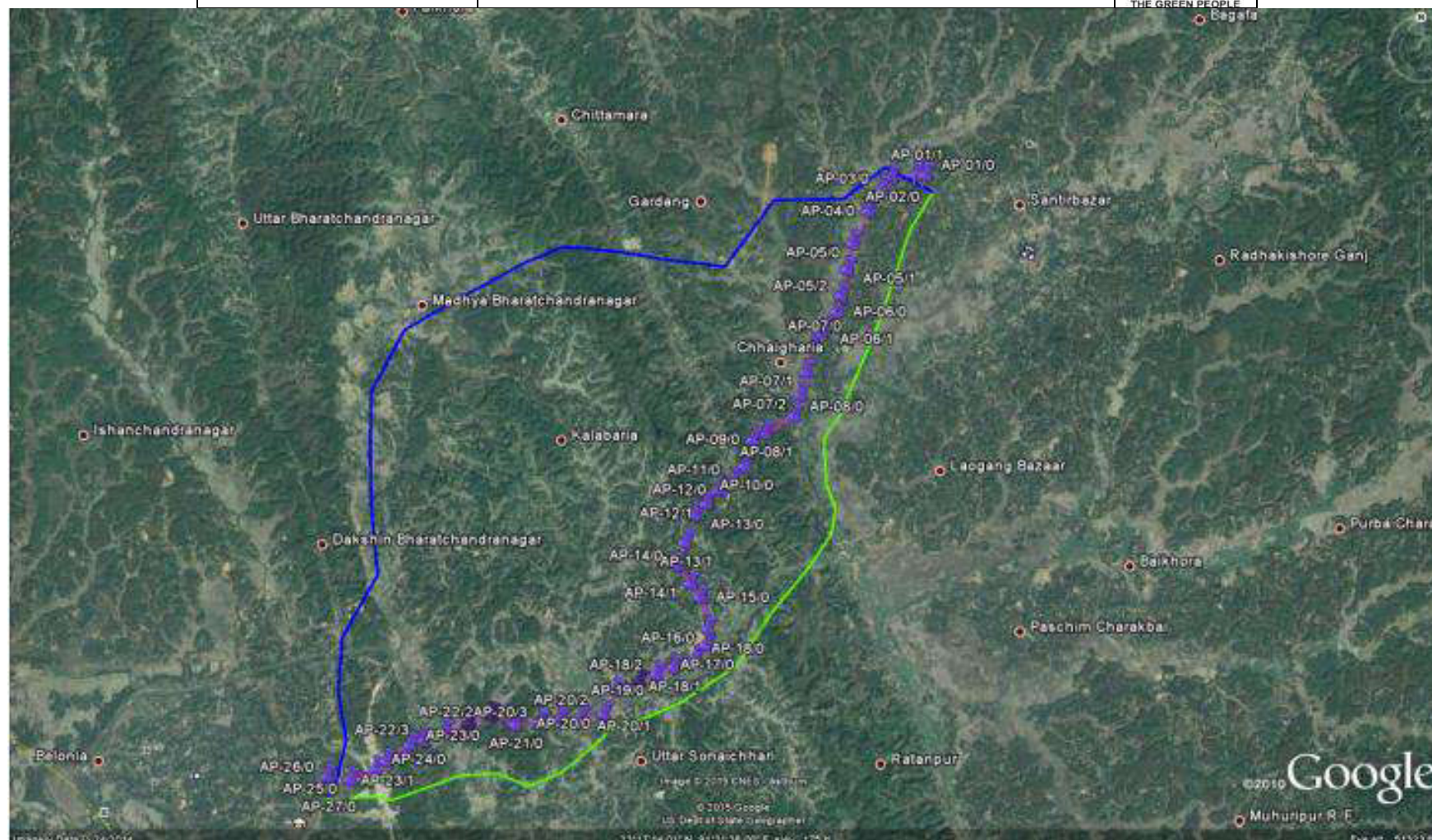


Alternative Route Alignment for 132 kV D/C Bagafa –Satchand Tr. Line – Alternatives I, II and III to Avoid RF Area



- Alternative 1 Final
- Alternative 2
- Alternative 3

Alternative Route Alignment for 132 kV D/C Bagafa – Belonia Tr. Line – Alternatives I, II and III to Avoid RF Area



- Alternative 1 Final
- Alternative 2
- Alternative 3

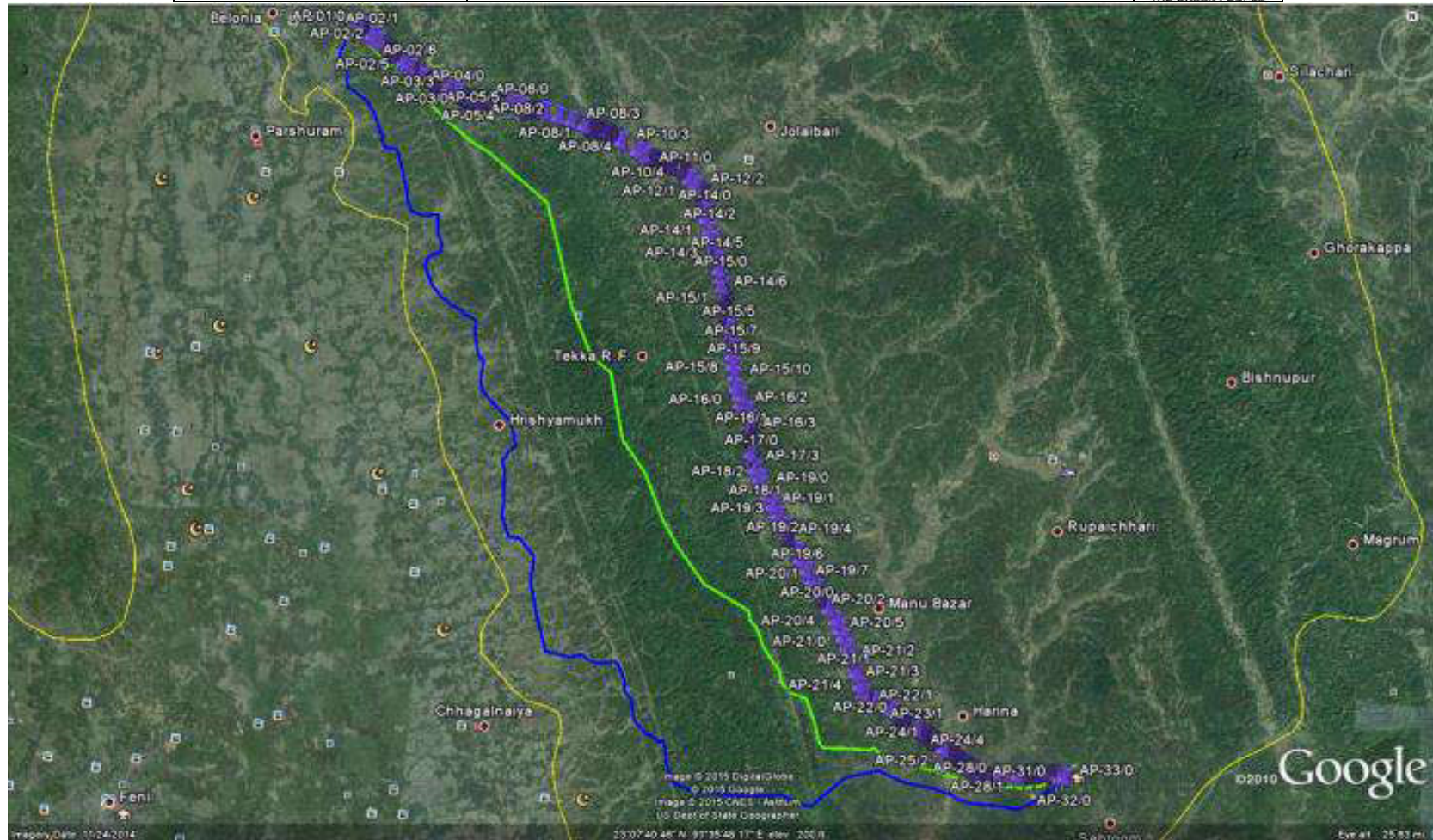


पावरग्रिड
POWERGRID

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



Alternative Route Alignment for 132 kV D/C Belonia – Sabroom Tr. Line – Alternatives I, II and III to Avoid RF Area



- Alternative 1 Final
- Alternative 2
- Alternative 3

Annexure 5

Details of NOCs obtained from Various Authorities

1. Intimation to NHIDC for

- a. 132/33 kV Udaipur - Bagafa TL Crossing at
NH – 8**
- b. 132/33 kV Belonia - Sabroom TL Crossing at
NH – 108A**
- c. 132/33 kV Bagafa - Satchand TL Crossing at
NH – 108A and NH – 8**



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. NEUDP/NERPSIP/2020-21/1627

Date: 02.03.2021

To,

The General Manager,
NHIDCL Teliamura,
Khowai, Tripura,
Pin- 799205

Sub: Intimation regarding NH-8 High way crossing of 132 KV D/C Udaipur to Bagafa Transmission line at Bagafa under Santirbazar Subdivision, South Tripura District.

Sir,

It is to inform you that Power Grid Corporation of India, a Govt. of India Enterprise (under the Ministry of Power) is presently working for power system development of Tripura state under NERPSIP (North Eastern Regional Power System Improvement Project). This project is funded by the World Bank & Govt of India (50:50). The owner of this project is Tripura State Electricity Corporation Limited (TSECL) and POWERGRID is implementing the project on behalf of TSECL.

132 KV D/C Udaipur to Bagafa Transmission line is crossing NH-8 High way at Bagafa under Santirbazar Subdivision, South Tripura District. The coordinates of tower locations corresponding to NH crossing are: AP-81: 23° 19'10.82", 91°33'13.80"; AP-82: 23° 19'09.37", 91°33'08.11". NH crossing details drawings are enclosed here with for your kind information please.

Enclosed: i) 5 copies of drawings profile
ii) 5 copies of details drawings

Yours faithfully


(A. C. Das)
Sr. DGM, Udaipur
NERPSIP, Tripura
Mob-9435507303

✓ Copy to: Sr.GM, NERPSIP, Agartala for kind information please.



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. NEUDP/NERPSIP/2020-21/ 787

Date: 19.02.2021

To,

The General Manager,
NHIDC, Teliamura.
Khowai, Tripura,

Sub: Intimation regarding NH -108A High way crossing of 132 KV D/C Belonia – Sabroom Transmission line at Uttar Sunichari village Belonia Subdivision South Tripura District.

Sir,

It is to inform you that Power Grid Corporation of India, a Govt. of India Enterprise (under the Ministry of Power) is presently working for power system development of Tripura state under NERPSIP (North Eastern Regional Power System Improvement Project). This project is funded by the World Bank & Govt of India (50:50). The owner of this project is Tripura State Electricity Corporation Limited (TSECL) and POWERGRID is implementing the project on behalf of TSECL.

NH -108A High way is crossing , 132 KV D/C Belonia – Sabroom Transmission line at Uttar Sunichari village Belonia Subdivision South Tripura District at GPS coordinate E 347097.28 N 2569475.87 NH crossing details drawings are enclosed here with for your kind information please.

Enclosed :- A. 5 copies of drawings profile
B. 5 copies of details drawings

Yours faithfully



A. C. Das
Sr. DGM, Udaipur
NERPSIP, Tripura
9435507303



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. NEUDP/NERPSIP/2020-21/ 788

Date: 14.02.2021

To,

The General Manager,
NHIDC, Teliamura,
Khowai, Tripura,

Sub: Intimation regarding NH -108A & NH8 High way crossing of 132 KV D/C Bagafa-Satchand Transmission line at West Pilak & Sakbari village Santibazar & Sabroom Subdivision South Tripura District.

Sir,

It is to inform you that Power Grid Corporation of India, a Govt. of India Enterprise (under the Ministry of Power) is presently working for power system development of Tripura state under NERPSIP (North Eastern Regional Power System Improvement Project). This project is funded by the World Bank & Govt of India (50:50). The owner of this project is Tripura State Electricity Corporation Limited (TSECL) and POWERGRID is implementing the project on behalf of TSECL.

NH -108A High way is crossing , 132 KV D/C Bagafa- Satchand Transmission line at West Pilak village Santibazar Subdivision , South Tripura District at GPS coordinate E 354960 N 2567602 and NH-08 crossing at Sakbari village , Sabroom Subdivision South Tripura District at GPS coordinate E 357668 N 2562770 . NH crossing details drawings are enclosed here with for your kind information please.

Enclosed :- A. 5 copies of drawings profile
B. 5 copies of details drawings

Yours faithfully



A. C. Das
Sr. DGM, Udaipur
NERPSIP, Tripura
9435507303

- 2. Intimation to Railway for**
- a. 132/33kV Satchand – Bagafa TL Crossing
near Julaibari**
 - b. 132/33kV Belonia – Sabroom TL Crossing
near Manubazar**
 - c. 132/33kV Bagafa – Satchand TL Crossing
near Jolaibari**

**TRIPURA STATE ELECTRICITY CORPORATION LIMITED**
(A Govt. of Tripura Enterprise)

No.F. 5(5)/TECH/TD/UDP/2020-2021/ ২৩০৭-০০০

Date: 27.02.2021

To

The DRM/Engg.

N.F.Railway, Lumding Division,

Lumding, Assam

Sub: - Submission of Proposal for approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track near Jolaibari (HP.87/4-87/5)

Dear Sir,

Please find the attached herewith the complete proposal consisting following documents for necessary approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track between Jolaibari to Belonia at HP.87/4-87/5 under your jurisdiction.

It is requested to get the proposal examined and arrange to convey necessary permission to execute the work of the above said transmission line crossing over the railway track at the earliest possible.

Enclosed all required Annexure and demand draft as detailed below:

1. Signed copy of online application.
2. Original DD Bearing No:034308, Dated: 24/02/2021 of amount of Rs. 2000/-
3. Signed copy of Draft agreement.
4. Signed copy of Questionnaires.
5. Profile & detailed drawing of the crossing span.
6. Tower spotting data.

Thanking You

Yours sincerely

**Dy. General Manager**
Transmission Division, Udaipur
Gomati District, Tripura

Copy forwarded to:-

1. The additional General Manager, Transmission Circle, Agartala for kind information please.
2. The Sr. GM, NERPSIP, POWERGRID, Agartala for information please.

Received
for 08/03/2021
for Dm (N) WLS


Dy. General Manager

**TRIPURA STATE ELECTRICITY CORPORATION LIMITED**

Office of the Deputy General Manager
Transmission Division, Udaipur
Gomati District, Tripura

No.F. 5(5)/TECH/TD/UDP/2020-2021/ 2246-48

Dated: 17-02-2021

To
The DRM/Ersg.
N.F.Railway, Lumding Division.
Lumding, Assam

**Sub: - Submission of Proposal for approval of crossing of overhead 132 kV
S/C Belonia to Sabroom Transmission line over Agartala to Sabroom BG
Railway Track near Manubazar (HP.110/8-110/9).**

Dear Sir,

Please find the attached herewith the complete proposal consisting following documents for necessary approval of crossing of overhead 132 kV S/C Belonia to Sabroom Transmission line over Agartala to Sabroom BG Railway Track between Manubazar to Sabroom at HP.110/8-110/9 under your jurisdiction.

It is requested to get the proposal examined and arrange to convey necessary permission to execute the work of the above said transmission line crossing over the railway track at the earliest possible.

Enclosed all required Annexure and demand draft as detailed below:

1. Signed copy of online application.
2. Original DD Bearing No:184487, Dated: 09/02/2021 of amount of Rs. 2000/-
3. Signed copy of Draft agreement.
4. Signed copy of Questionnaires.
5. Profile & detailed drawing of the crossing span.
6. Tower spotting data.

Thanking You,

Yours sincerely,

Dy. General Manager
Transmission Division, Udaipur
Gomati District, Tripura

Copy to:

1. The Additional General Manager, Transmission Circle, Agartala for kind information please.
2. The SR.GM, NERPSIP, POWERGRID, Agartala for information please.

*Received
18/02/2021
For DRM(M) 2mg.*

[Signature]
17/02/2021
Dy. General Manager

**TRIPURA STATE ELECTRICITY CORPORATION LIMITED**

Office of the Deputy General Manager
Transmission Division, Udaipur
Gomati District, Tripura

No.F. 5(5)/TECH/TD/UDP/2020-2021/ 2243-45

Dated: 17-02-2021

To
The DRM/Engg.
N.F.Railway, Lumding Division,
Lumding, Assam

Sub: - Submission of Proposal for approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track near Julaibari (HP.91/6-91/7).

Dear Sir,

Please find the attached herewith the complete proposal consisting following documents for necessary approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track between Julaibari to Thali:Twisa at HP.91/6-91/7 under your jurisdiction.

It is requested to get the proposal examined and arrange to convey necessary permission to execute the work of the above said transmission line crossing over the railway track at the earliest possible.

Enclosed all required Annexure and demand draft as detailed below:

1. Signed copy of online application.
2. Original DD Bearing No:184486, Dated: 09/02/2021 of amount of Rs. 2000/-
3. Signed copy of Draft agreement.
4. Signed copy of Questionnaires.
5. Profile & detailed drawing of the crossing span.
6. Tower spotting data.

Thanking You,

Yours sincerely,

Dy. General Manager
Transmission Division, Udaipur
Gomati District, Tripura

Copy to:

1. The Additional General Manager, Transmission Circle, Agartala for kind information please.
2. The SR.GM, NERPSIP, POWERGRID, Agartala for information please.

*Received
In 05/02/2021
For DM (as) LMS*

Kao.
Dy. General Manager

3. TIDC NOC

**Tripura Industrial Development Corporation Ltd.***(A Government of Tripura Undertaking)*

"ISO 9001:2015 certified"

No.: TIDC/ESTT/239/Part-II/ 98-100

Date:- 15 May, 2021.

To
✓ The Ch. Manager,
POWERGRID,
NERPSIP,
Near Hall Chowmuhani,
Belonia - 799155, South Tripura.

**Sub:-Construction of 132 KV D/C Bagafa-Belonia & 132 KV D/C
Rabindranagar - Belonia Transmission Line - Regarding placement of one
Multi Circuit tower in TIDC land at Sarasima, Belonia.**

Ref.: NERBLN/NERPSIP/2021 - 22/BLN- 51/913, dt.01/05/2021.

Sir,

With reference to the subject cited above, this is to inform you that TIDC
Ltd. is agreed with your proposal.

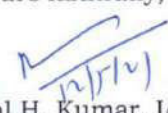
TIDC's Bank details are given below:-

- (i) Union Bank of India
- (ii) IFS Code:- UBIN0536164.
- (iii) A/C No.:-361602010003846.

This is for your kind information and doing the needful please.

Enclo:- One Xerox copy of Bank Cheque.

Yours faithfully,


(Raval H. Kumar, IAS)
Managing Director

Copy to:-

1. The District Magistrate & Collector, South Tripura, Belonia for
information please.
2. The SDM, Belonia, South Tripura for information and necessary action.

Shilpa Nigam Bhawan, Khejur Bagan, P.O. Kunjaban, AGARTALA, TRIPURA (WEST), PIN-799006

Phones : (0381) 241-6617, 241-6446, 241-6373, 241-4327, 241-7608, Fax No. (0381) 241-4503

Website : www.tidc.org.in E-mail:- tidcltd.in@gmail.com. CIN: U75112TR1974SGC001491

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 (A Govt. of Tripura Enterprise)

NOTICE

Ref No.:

Date: 19/09/2021

To

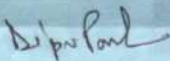
T.D.C. Agartala.

 Sub:- Utilization of land for tower footing at Loc. No. **MC-02 (Belonia end)** type of tower **QD+DD**, in connection with **"132 KV Bogate-Belonia Transmission Line"**

Dear Sir,


 As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, **Belonia**, will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name:- TIDC	219.4546 Sq meters.	TIDC
2	Plot No.:- 2197		
3	Khatian No.:- 3043		
4	Jote No.:-		
5	Mouza:- Sarasima.		



Signature of the Power Grid Corp. of India Ltd.

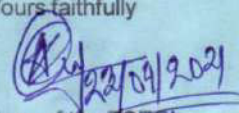
DIPU PAUL
 JUNIOR ENGINEER
 NERPSIP, BELONIA
 POWERGRID


 Signature of Tehsildar
Sarashima T.K.
 Belonia, South Tripura


 Signature /Thumb impression of land Owner / Present Occupier
 Address :-
Assistant Engineer
TIDC Ltd.

 Witness :- 1.
 2.

Yours faithfully


 Signature of the TSECL
 Name & Seal
Manager (Electrical)
 Belonia 56/33/11 KV Sub-Station,
 Belonia, South Tripura.

Copy to :-

1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,



 Signature of TSECL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 Transmission Division, 79 Tilla, Agartala

Manager (Electrical)
 Belonia 56/33/11 KV Sub-Station,
 Belonia, South Tripura.

4. NOC from Land Owner for Tower Footing on Plot

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)



113 **NOTICE**

Ref No. : NERPSIP/NERSTC/SAT/1/e/01 Date : 22/01/2020

To Narayan Chandra Debnath
S/o - Madan Chandra Debnath

Sub :- Utilization of land for tower footing at Loc. No. AP-1/0, type of tower DD+0, in connection with Interconnection of 132 kV Sabroom - Satchand transmission line at Satchand end.

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Narayan Chandra Debnath</u>	84.18 sqm	<u>Narayan Chandra Debnath</u> <u>S/o - Madan Chandra Debnath</u>
2	Plot No. :- <u>1155</u>		
3	Khatian No. :- <u>110</u>		
4	Jote No. :-		
5	Mouza :- <u>Soulk Kalapaniya</u>		

Signature of the Power Grid Corp. or its authorized officer
Name and Seal
POWERGRID SATCHAND

Signature of the owner
Name and Seal
11/02/2020

Signature/Thumb impression of land Owner / Present Occupier
Address :-
Vill+P.O - Satchand
P-9 - Manu Bazar
Sabroom Tripura (S)
Yours faithfully

Witness :- 1. Choudhury Boro Deb Nath
2. ...

Signature of the TSECL
Name & Seal Manager (E)
66kV sub-station
Satchand


Copy to :-
1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,

Signature of TSECL
Manager (E)
66kV sub-station
Satchand

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

5. Forest Clearance from MoEFCC

Stage II Forest Clearance for Bagafa – Belonia 132 kV D/C line

 <p>Government of India Ministry of Environment, Forest & Climate Change, North Eastern Regional Office, Law-U-Sib Lumbatngen, Near MTC Workshop, Shillong-793021, टेली/Tel(0364)-253-7609,7340/7395/7278, ईमेल/Email-ro.nez.shil@gmail.com/moefshil 09@rediffmail.com</p>	<p>भारत सरकार पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय पूर्वांतर क्षेत्रीय कार्यालय, शिलांग लॉड सीब लुम्बतंगेन एम् टी सी के पास, शिलांग - ७९३०२१ क्स/ Fax -0364- 2536041/2536983</p>
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No. 3-TR B 040/2018-SHI **622-23** 7th June, 2019

सेवा में,
सचिव / Secretary,
त्रिपुरा की सरकार / Government of Tripura,
पर्यावरण और वन विभाग / Environment and Forest Department,
अगरतला / Agartala.

Sub : Proposal for diversion of 2.511 ha of forest land for construction of 132 KV D/C Transmission Line from Bagafa to Belonia under DFO, South in favor of Tripura State Electricity Corporation Limited.

Sir,

This has got reference to the State Government's letter No. F.6-1116/FC/For-2017/56-60 dated 17.04.2018 and No. F.6-1116/FC/For-2017/435-437 dated 15.09.2018 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980. After careful consideration of the proposal of the State Govt of Tripura, In-principle approval was granted vide this office letter of even number dated 30.10.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the in-principle approval and has requested the Central Government to grant final approval.

In this connection and on the basis of the compliance report furnished by the State Government vide letter No. F.6-1116/FC/For-2019/Pt-I/80-82 dated 07.05.2019 and confirmation of funds transferred and payment details checked from in web portal, **Final Approval** of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion **2.511 ha** of forest land for construction of 132 KV D/C Transmission Line from Bagafa to Belonia under DFO, South, subject to the following conditions:

- (1) The legal status of the forest land shall remain unchanged.
- (2) Compensatory afforestation (CA) shall be carried out over double the area diverted i.e. 5.04 ha in degraded forest identified at Tekka Tulsi RF, Compartment No. 13, Hrishyamukh Range, Belonia Forest Sub-Division in South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. The species planted should be indigenous and Medicinal Plants / Shrubs / Herbs (about 20%).
- (3) The demarcation of forest land proposed for diversion shall be done on the ground at project cost using four feet high reinforced cement concrete pillars with serial numbers, forward and backward bearings and distance from pillar to pillar superscribed on the pillars
- (4) The User Agency shall restrict the felling of trees to minimum number in the diverted forest land and the trees shall be felled only when it is unavoidable under strict supervision of the State Forest Department.

- (5) The plantation of dwarf species in right of way under the transmission lines wherever feasible should be carried out under project cost in consultation with State Forest Department.
- (6) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- (7) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- (8) No labour camps shall be established on the forest land.
- (9) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
- (10) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (11) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- (12) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
- (13) The User Agency will have to obtain the Forest (Conservation) Act, 1980 clearance for removal of stone, river sand, river boulders in forest land, if necessary.
- (14) All other clearances / NOCs under different rules / regulations / local laws and under Forest Dwellers (Recognition of Forest Rights) Act, 2006 as required vide MoEF, New Delhi guideline No. 11-9/98-FC(Pt) dated 05.02.2013 shall be complied with.
- (15) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
- (16) The forest land shall not be used for any purpose other than that specified in the project proposal.
- (17) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- (18) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- (19) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
- (20) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

This is issued with the approval of Addl. Director General (Central).

भवदीय

(आर. एल. सांगा)/(R.L. Sanga)

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Copy to:

1. प्रधान मुख्य संरक्षक एफ वन और होफ / The Principal Chief Conservator of Forests & HoFF
त्रिपुरा की सरकार / Government of Tripura, पर्यावरण और वन विभाग / Environment and Forest Department,
अगरतला / Agartala.

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

0/e

Stage II Forest Clearance for Udaipur - Bagafa 132 kV D/C line

GOVERNMENT OF INDIA
Ministry of Environment, Forest & Climate Change,
North Eastern Regional Office,
Law-U-Sib Lumbatngen,
Near MTC Workshop, Shillong-793021,
टेली/Tel(0364)-253-7609,7340/7395/7278,

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
लॉड सीब लुम्बतंगेन
एम टी सी के पास, शिलांग - ७९३०२१
क्स/Fax -0364- 2536041/2536983

ईमेल/Email-ro.nez.shil@gmail.com/moefshil 09@rediffmail.com

No. 3-TR C 073/2017-SHI 600-0/

6th June, 2019

सेवा मे,

सचिव / Secretary,
त्रिपुरा की सरकार / Government of Tripura,
पर्यावरण और वन विभाग / Environment and Forest Department,
अगरतला / Agartala.

Sub : Proposal for diversion of 26.77 ha of forest land for construction of 132 KV D/C Transmission Line from Udaipur (Banduar) (Gomti District) to Bagafa (South Tripura District) under District Forest Officer, Gumti & South by Tripura State Electricity Corporation Limited.

Sir,

This has got reference to the State Government's letter No. F.6-1054/FC/For-2015/275 dated 14.09.2017 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the ECA, 1980. After careful consideration of the proposal of the State Govt of Tripura, In-principle approval was granted vide this office letter of even number dated 09.04.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the in-principle approval and has requested the Central Government to grant final approval.

In this connection and on the basis of the compliance report furnished by the State Government vide letter No. F.6-1054/FC/For-2015/Pt-I/89-91 dated 07.05.2019 and confirmation of funds transferred and payment made in web portal, **Final Approval** of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion **26.77 ha** of forest land for construction of 132 KV D/C Transmission Line from Udaipur (Banduar) (Gumti District) to Bagafa (South Tripura District) under District Forest Officer, Gumti, subject to the following conditions:

- (1) The legal status of the forest land shall remain unchanged.
- (2) Compensatory afforestation (CA) shall be carried out over double the area diverted i.e. 53.54 ha identified at 2 (two) locations i.e. 36.94 ha in Amarpur Forest Sub-Division, Gomti District & 16.60 ha in Sabroom Sub-Division, South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. The species planted should be indigenous and Medicinal Plants / Shrubs / Herbs (about 20%).
- (3) The demarcation of forest land proposed for diversion shall be done on the ground at project cost using four feet high reinforced cement concrete pillars with serial numbers, forward and backward bearings and distance from pillar to pillar superscribed on the pillars.

- (4) The User Agency shall restrict the felling of trees to minimum number in the diverted forest land and the trees shall be felled only when it is unavoidable under strict supervision of the State Forest Department.
- (5) The plantation of dwarf species in right of way under the transmission lines wherever feasible should be carried out under project cost in consultation with State Forest Department.
- (6) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- (7) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- (8) No labour camps shall be established on the forest land.
- (9) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
- (10) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (11) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- (12) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
- (13) The User Agency will have to obtain the Forest (Conservation) Act, 1980 clearance for removal of stone, river sand, river boulders in forest land, if necessary.
- (14) All other clearances / NOCs under different rules / regulations / local laws and under Forest Dwellers (Recognition of Forest Rights) Act, 2006 as required vide MoEF, New Delhi guideline No. 11-9/98-FC(Pt) dated 05.02.2013 shall be complied with.
- (15) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
- (16) The forest land shall not be used for any purpose other than that specified in the project proposal.
- (17) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- (18) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- (19) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
- (20) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

This is issued with the approval of Addl. Director General (Central).

भवदीय

(आर. एल. सांगा)/(R.L. Sanga)

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Copy to:

1. प्रधान मुख्य संरक्षक एफ वन और होफ / The Principal Chief Conservator of Forests & HoFF
त्रिपुरा की सरकार / Government of Tripura, पर्यावरण और वन विभाग / Environment and Forest Department,
अगरतला / Agartala.

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Stage II Forest Clearance for Belonia –Sabroom 132 kV D/C line

Government of India
Ministry of Environment, Forest & Climate Change
North Eastern Regional Office
Law-U-Sib, Lumbatngen
Near MTC Workshop, Shillong-793021
Tel(0364)-253-7609,7340/7395/7278.
Fax No(0364)2536041/2536983.
Email:- ro.nez.shil@gmail.com &
moefro.shillong@gov.in

भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
लॉड सीब लुम्बतंगेन
एम टी सी के पास, शिलांग - ७९३०२१
टेली(0364) 253-7609,7340/7395/7278
फैक्स (0364)-2536041/2536983

No.3-TR C 080/2017-SHI **1189-90**

5th August, 2020

सेवा में,

सचिव/Secretary,

त्रिपुरा सरकार/ Government of Tripura

पर्यावरण और वन विभाग /Department of Environment & Forests,

कुंजावन, अगरतला/ Kunjaban, Agartala.

Sub: Diversion of 25.5204 ha of forest land for construction of 132 KV DC transmission line from Belonia (South Tripura District) to Sabroom (South Tripura District) under NERPSIP Project by Tripura State Electricity Corporation Limited.

Sir,

This has reference to the State Govt letter No. F.6-1091/FC/For-2015/345-49 dated 18.10.2017 and No. F.6-1091/FC/For-2015/Pt.I/161-164 dated 22.06.2018 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980.

After careful consideration of the proposal, In-Principle approval was granted vide this office letter of even number dated 28.06.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the In-Principle Approval and has requested the Central Government to grant final approval.

In this connection and on the basis of the compliance report furnished by the State Government letter No. F.6-1091/FC/For-2015/PT-I/86-88 dated 07.05.2019 and even no. 310 dated 04.08.2020 of Govt of Tripura and confirmation of transaction of compensatory levies amount from the e-portal and Challan for collection of Ad-hoc CAMPA fund dated 05.09.2018, '**Final Approval**' of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of **25.5204 ha** of forest land for construction of 132 KV DC transmission line from Belonia (South Tripura District) to Sabroom (South Tripura District) under NERPSIP Project by Tripura State Electricity Corporation Limited, subject to the following conditions:

- (1) The legal status of the forest land shall remain unchanged.
- (2) The forest land will be handed over only after required non-forest land for the project is handed over to the user agency.
- (3) Compensatory afforestation shall be raised by the State Forest Department over double the degraded forest area of 52.31127 ha identified at Hrishyamukh Range in Bagafa Forest Sub-Division, South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. As far as possible, a mixture of

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- local indigenous species shall be planted and monoculture of any species may be avoided.
- (4) The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.
 - (5) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
 - (6) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
 - (7) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
 - (8) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
 - (9) No labour camps shall be established on the forest land.
 - (10) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
 - (11) The boundary of the diverted forest land shall be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer.
 - (12) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
 - (13) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
 - (14) The forest land shall not be used for any purpose other than that specified in the project proposal.
 - (15) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
 - (16) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
 - (17) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
 - (18) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

भवदीय


(W. I. Yatbon)

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Copy to :

1. प्रधान मुख्य वन संरक्षक, त्रिपुरा सरकार, पर्यावरण और वन विभाग, कुंजावन, अगरतला /
Principal Chief Conservator of Forests, Govt. of Tripura, Department of Environment
& Forests, Kunjaban, Agartala.


उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

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Stage II Forest Clearance for Bagafa – Satchand 132 kV S/C on D/C line



Government of India
 Ministry of Environment, Forest & Climate Ch
 North Eastern Regional Office
 Law-U-Sib, Lumbatngen
 Near MTC Workshop, Shillong-793021
 Tel(0364)-253-7609,7340/7395/7278.
 Fax No(0364)2536041/2536983.
 Email:- ro.nez.shil@gmail.com &
 moefro.shillong@gov.in

भारत सरकार
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
 पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
 लॉड सीब लुम्बतंगेन
 एम् टी सी के पास, शिलांग - ७९३०२१
 टेली(0364) 253-7609,7340/7395/7278
 फैक्स (0364)-2536041/2536983

No.3-TR C 031/2018-SHI *1289-90*

24th August, 2020

सेवा में,

सचिव/Secretary,
 त्रिपुरा सरकार/ Government of Tripura
 पर्यावरण और वन विभाग /Department of Environment & Forests,
 कुंजावन, अगरतला/ Kunjaban, Agartala.

Sub: Diversion of 9.1503 ha of forest land construction of 132 KV D/C Transmission Line from Bagafa to Satchand under District Forest Officer, South, Tripura.

Sir,

This has reference to the State Govt letter No. F.6-1028/FC/For-2014/739-43 dated 23.02.2018 and F.6-1028/FC/For-2014/Pt.I/325-27 dated 27.08.2018 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980.

After careful consideration of the proposal, In-Principle approval was granted vide this office letter of even number dated 12.10.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the In-Principle Approval and has requested the Central Government to grant final approval.

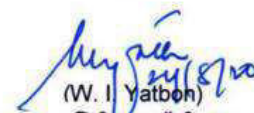
In this connection and on the basis of the compliance report furnished by the State Government letter No. F.6-1028/FC/For-2014/Pt.I/298 dated 31.07.2020 and even no 329 dated 11.08.2020 of Govt of Tripura and a confirmation of transaction of compensatory levies amount from the e-portal and Challan for Ad-hoc CAMPA fund dated 08.01.2019, 'Final Approval' of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of **9.1503 ha** of forest land construction of 132 KV D/C Transmission Line from Bagafa to Satchand under District Forest Officer, South, Tripura, subject to the following conditions:

- (1) The legal status of the forest land shall remain unchanged.
- (2) The forest land will be handed over only after required non-forest land for the project is handed over to the user agency.
- (3) Compensatory afforestation shall be raised by the State Forest Department over double the degraded forest area of 18.78 ha identified in Tekka Tulshi RF, compartment No. 11, Hrishyamukh Range, Belonia Forest Sub-Division in South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. As far as possible, a mixture of local indigenous species shall be planted and monoculture of any species may be avoided.
- (4) The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.

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- (5) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- (6) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- (7) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
- (8) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
- (9) No labour camps shall be established on the forest land.
- (10) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
- (11) The boundary of the diverted forest land shall be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer.
- (12) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (13) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- (14) The forest land shall not be used for any purpose other than that specified in the project proposal.
- (15) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- (16) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- (17) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
- (18) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.


भवदीय


(W. I. Yatbon)
उप वन महानिरीक्षक (केंद्रीय)/

Deputy Inspector General of Forests (C)

Copy to :

1. प्रधान मुख्य वन संरक्षक, त्रिपुरा सरकार, पर्यावरण और वन विभाग, कुंजावन, अगरतला /
Principal Chief Conservator of Forests, Govt. of Tripura, Department of
Environment & Forests, Kunjabon, Agartala.


उप वन महानिरीक्षक (केंद्रीय)/
Deputy Inspector General of Forests (C)

o/c

Stage II Forest Clearance for Udaipur - Amarpur 132 kV D/C line

Government of India
Ministry of Environment, Forest & Climate Change
North Eastern Regional Office
Law-U-Sib, Lumbatngen
Near MTC Workshop, Shillong-793021
Tel(0364)-253-7609,7340/7395/7278.
Fax No(0364)2536041/2536983.
Email:- ro.nez.shil@gmail.com & moefro.shillong@gov.in

भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
पूर्वाञ्चल क्षेत्रीय कार्यालय, शिलांग
लॉड सीब लुम्बतंगेन
एम् टी सी के पास, शिलांग - ७९३०२१
टेली(0364) 253-7609,7340/7395/7278
फैक्स (0364)-2536041/2536983
ईमेल: ro.nez.shil@gmail.com/moefro.shillong@gov.in

No.3-TR C 074/2017-SHI **1931-32**

29th August, 2019

सेवा में,

सचिव/Secretary,
त्रिपुरा सरकार/ Government of Tripura,
पर्यावरण और वन विभाग /Department of Environment & Forests,
कुंजावन, अगरतला/ Kunjaban, Agartala.

Sub:- Proposal for diversion of 22.0482 ha of forest land for construction of 132 KV DC transmission line from Udaipur (Banduar) (Gumti District, Tripura) to Amarpur (Gumti District, Tripura) under NERPSIP Project under Gumti District.

Sir,

This has got reference to the State Govt letter No. F.6-1088/FC/For-2015/268-72 dated 11.09.2017 and No. F.6-1088/FC/For-19/505 dated 05.08.2019 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980.

After careful consideration of the proposal, In-Principle Approval was granted by Regional Office, Shillong vide letter No. 3-TR C 074/2017-SHI/327-28 dated 10.04.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the In-Principle Approval and has requested the Central Government to grant Final Approval.

In this connection and on the basis of the compliance report furnished by the State Government vide letter F. No. F.6-1088/FC/For-2019/83-85 dated 07.05.2019, F.No. F.6-1088/FC/For-19/Pt-I/505 dated 05.08.2019 and confirmation of transaction date i.e. 05.09.2018 and 19.11.2018 of compensatory levies amount from the e-portal, **Final Approval** of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 22.0482 ha of forest land for construction of 132 KV DC transmission line from Udaipur (Banduar) (Gumti District, Tripura) to Amarpur (Gumti District, Tripura) under NERPSIP Project under Gumti District subject to the following conditions:

- 1) Legal status of the forest land shall remain unchanged.
- 2) Forest land will be handed over only after required non-forest land for the project is handed over to the user agency.

- 3) Compensatory afforestation shall be taken up by the Forest Department over double the degraded forest area of 44.08 ha identified at Paschim Kalajhuri RF, CS Pot No-483, KH No-3/84, under Amarpur Range, Gumti district of Tripura at the cost of the user agency. As far as possible, a mixture of local indigenous species shall be planted and monoculture of any species may be avoided.
- 4) The user agency shall restore the forest land which was utilized for existing 66KV transmission line and revert back to the State Forest Department, Govt of Tripura, after the construction and implementation of this instant proposal.
- 5) State Govt shall take up the eco-restoration of elephant habitat in Gandhari Reserve Forest as per the submitted project component.
- 6) The user agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- 7) Plantation of dwarf species in right of way under the transmission lines wherever feasible shall be carried out under project cost in consultation with State Forest Department. The plantation should consist of atleast 50% indigenous medicinal plants/herbs species of the total seedlings.
- 8) The User Agency shall comply with the guidelines for laying transmission lines through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- 9) User Agency shall obtain Environmental Clearance as per the provisions of the Environmental (Protection) Act, 1986, if applicable.
- 10) The layout plan of the proposal shall not be changed without prior approval of Central Government.
- 11) No labour camp shall be established on the forest land.
- 12) Sufficient firewood, preferably the alternate fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternate fuel.
- 13) The boundary of the diverted forest land shall be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer.
- 14) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- 15) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- 16) The forest land shall not be used for any purpose other than that specified in the project proposal.
- 17) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- 18) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- 19) Regular patrolling of the transmission lines shall be carried out by the user agency to check sag and swing, and contact of the live wire with the trees.
- 20) The User Agency shall take all possible precautions & care all the time not to impact adversely the surrounding forests and forest land by their actions/activities.

- 21) The proposal will be implemented under the overall supervision of the concerned Divisional Forest Officer.
- 22) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF&CC Guideline F. No. 11-42/2017-FC dt 29/01/2018.
- 23) Any other condition that the Ministry of Environment, Forests & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

This has the approval of Deputy Director General of Forests (Central).

भवदीय,

(W.I. Yathon)

वन उप महानिरीक्षक (केंद्रीय)

/Deputy Inspector General of Forests(C)

Copy to:

प्रधान मुख्य वन संरक्षक/ Principal Chief Conservator of Forests & HoFF, त्रिपुरा सरकार/
Government of Tripura, पर्यावरण और वन विभाग /Department of Environment & Forests, कुंजावन,
अगरतला/ Kunjaban, Agartala.

वन उप महानिरीक्षक (केंद्रीय)

/Deputy Inspector General of Forests(C)

१८

Annexure 6

MoP Guidelines Dated 5th OCT.'15 for Payment of Compensation for Transmission Line

No 3/7/2015-Trans
Government of India
Ministry of Power
Shram Shakti Bhawan
Rafi Marg, New Delhi – 110001

Dated, 15th October, 2015

To

1. Chief Secretaries/Administrators of all the States/UTs
(As per list attached)
2. Chairperson, CEA, New Delhi with the request to disseminate the above
guidelines to all the stakeholders.
3. CMD, PGCIL, Gurgaon.
4. CEO, POSOCO, New Delhi.
5. Secretary, CERC, New Delhi.
6. CMD of State Power Utilities/SEBs.

Subject: Guidelines for payment of compensation towards damages in regard to
Right of Way for transmission lines.

During the Power Ministers Conference held on April 9-10, 2015 at Guwahati with States/UTs, it has, *inter alia*, been decided to constitute a Committee under the chairmanship of Special Secretary, Ministry of Power to analyse the issues related to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this count. Subsequently, this Ministry had constituted a Committee with representatives from various State Governments and others. The Committee held several meetings to obtain the views of State Governments on the issue and submitted its Report along with the recommendations (copy of the Report is at Annex-1).

2. The Recommendations made by the Committee are hereby formulated in the form of following guidelines for determining the compensation towards "damages" as stipulated in section 67 and 68 of the Electricity Act, 2003 read with Section 10 and 16 of Indian Telegraph Act, 1885 which will be in addition to the compensation towards normal crop and tree damages. This amount will be payable only for transmission lines supported by a tower base of 66 KV and above, and not for sub-transmission and distribution lines below 66 KV:-

- (i) Compensation @ 85% of land value as determined by District Magistrate or any other authority based on Circle rate/ Guideline value/ Stamp Act rates for tower base area (between four legs) impacted severely due to installation of tower/pylon structure;

—/—

- (ii) Compensation towards diminution of land value in the width of Right of Way (RoW) Corridor due to laying of transmission line and imposing certain restriction would be decided by the States as per categorization/type of land in different places of States, subject to a maximum of 15% of land value as determined based on Circle rate/ Guideline value/ Stamp Act rates.
- (iii) In areas where land owner/owners have been offered/ accepted alternate mode of compensation by concerned corporation/ Municipality under Transfer Development Rights (TDR) policy of State, the licensee /Utility shall deposit compensation amount as per (i) & (ii) above with the concerned Corporation/ Municipality/ Local Body or the State Government.
- (iv) For this purpose, the width of RoW corridor shall not be more than that prescribed in the table at Annex-2 and shall not be less than the width directly below the conductors.
3. Necessary action may kindly be taken accordingly. These guidelines may not only facilitate an early resolution of RoW issues and also facilitate completion of the vital transmission lines through active support of State/ UT administration.
4. All the States/UTs etc are requested to take suitable decision regarding adoption of the guidelines considering that acquisition of land is a State subject.

Yours faithfully,

Jyoti Arora
(Jyoti Arora)

Joint Secretary (Trans.)
Tele: 011-2371 0389

Copy, along with enclosure, forwarded to the following:

1. Secretaries of Government of India (Infrastructure Ministries/Deptt including MoEF - As per attached list)
2. Prime Minister's Office (Kind Attn: Shri Nripendra Mishra, Principal Secretary to PM)
3. Technical Director, NIC, Ministry of Power with the request to host on the website of Ministry of Power.

Copy to PS to Hon'ble MoSP (IC) / Secretary (Power) / AS (BNS) / AS (BPP) / All Joint Secretaries/EA/ All Directors/DSS, Ministry of Power.

- 2 -

Annexure 7

The letter was issued to TSECL regarding adoption of MoP, GoI Guidelines for payment of compensation towards damages in regards to RoW for Transmission lines vide ref. *NEAGT/NERPSIP-102/2017-18/212* dated 15/05/2018.



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)

दूरभाष : (0361)2330045 (क)
NERPSIP Office,
Ranigan-06(Middle), 3rd Crossing, Agartala - 799002.
उत्तर पूर्वी क्षेत्र / NORTH EASTERN REGION
Date: 15/05/2018



पावरग्रिड

Ref. : NEAGT/NERPSIP-102/2017-18/211

To:
The AGM(Transmission Circle)
Tripura State Electricity Corporation Limited
79 Tilla : Transmission Circle
Agartala, Tripura(W)

Sub: Adoption of MoP, Govt guidelines for payment and compensation towards damage in regards to RoW for Transmission line for State Government-Reg.

Dear Sir,
With reference to the above subject this is to inform you that Ministry of Power (MOP), Government of India (GOI) has issued "Guidelines for payment of compensation towards damages in regards to Right of Way for Transmission Lines" on 15th October 2015. In the said letter MoP requested all the states/UTs etc to take suitable decision regarding adoption of the guidelines considering that compensation towards diminution of land value in the width of Right of Way is a state subject.

As per the guidelines, Govt of Assam & Manipur has already implemented the guideline in their respective states. The notification issued by Govt of Assam & Govt of Manipur is enclosed herewith for your ready reference. The guidelines of MoP, GOI and Notification of Govt of Assam was also earlier forwarded to M/s TSECL vide our letter ref NEAGT/NERPSIP-102/2017-18/465 dtd 06/06/2017.

In view of above, since we have already started construction activity of 132kV Transmission lines under NERPSIP Tripura Project, you are hereby requested to kindly take up the matter with state government for issuing guidelines for payment of compensation towards the damage in regards to RoW for Transmission Lines.

Thanking you,



Yours faithfully


(S.I. Singh)
Dy. General Manager
POWERGRID, Agartala.

Copy for kind information to:

1. CMD TSECL, Corporate Office, Banamalipur, Agartala.

Registered Office: B-9 Qutab Institute Area, Katwaria Sarai, New Delhi- 110016
Tel: 011-26560112, Fax: 26601081, Website: <http://www.powergridindia.com>
संविन एव संप्रतिन मे जगत् बचाए
Save Energy for Benefit of Self and Nation

Annexure 8

TSECL intimated POWERGRID that Govt. of Tripura has decided for continuing with the prevailing practice of payment of compensation towards damage in regards to RoW for Transmission lines.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED**(A Govt. of Tripura Enterprise)**

No. F. 5(85) / TSECL / 2018 – 19 / 631

Dated, Agartala, the 25th September, 2018

To
The DGM (NERPSIP),
PGCIL,
Ramnagar – 06, 3rd crossing,
Agartala – 799002.

Sub : Adoption of MoP, GoI guidelines for payment of compensation towards damage in
regards to RoW for Transmission lines. – reg.

Ref: 1) NEAGT / NERPSIP-102 / 2017-18 / 212, dated 15.05.2018.
2) Minutes of Meeting of 4th Project Steering Committee of MoP, GoI vide No. 3 / 16 / 2013 –
Trans. Pt – 3, dated 11th June, 2018.
3) F.1(2) / DT / TSECL / 2018 / 24194, dated, 07.09.2018.

Sir

Kindly refer to Minutes of Meeting of the 4th Project Steering Committee of Ministry of Power, Govt. of
India held on 18th May 2018 at Guwahati on NER Power System Improvement Project (NERPSIP),
where it had been recorded that all States are to confirm their stand on the issue of payment of land
compensation for the tower footing and line corridors to MoP.

In view of the above, please find enclosed herewith the letter of Tripura State Electricity Corporation
Ltd. (TSECL) in the above context for favour of your kind record please.

Thanking you

Encl: As Stated.

Yours faithfully


Addl. General Manager
Transmission Circle, TSECL, Agartala
25/09/18

TRIPURA STATE ELECTRICITY CORPORATION LIMITED**(A Govt. of Tripura Enterprise)**

No. F. I (2) / DT / TSECL / 2015 / 24194

Dated, Agartala, the 7-September, 2016

To
The Joint Secretary (Trans),
Ministry of Power,
Govt. of India,
Rafi Marg, Shram Shakti Bhawan, New Delhi 110001.

Sub: - Adoption of MoP, Govt. guidelines for payment of compensation towards damage in
regards to RoW for Transmission lines. - reg.

Sir,

This is to inform you that Govt. of Tripura has decided for continuing with the prevailing practice of payment of compensation towards damage in regards to RoW for Transmission lines as mentioned here-under :

- i) 100 % land value is compensated for tower base affected area as per rate assessed by the District Administration of State Govt. Apart from this if there be any damage to tree/crops/structure in the said area, compensation to the occupier / land owner for the damage in the tower base area is also paid as per State Govt. approved rates. In areas where Land owner does not allow to erect towers, the required land is acquired through acquisition process / purchased through Land Purchase Committee as per norms of State Govt.
- ii) If there be any damage to tree/crops/ structure in the Corridor of width of Right of Way between the towers, compensation for the same is paid to the owner as per rate approved by the State Govt.
- iii) No compensation is paid for the Corridor of land in the width of Right of Way between the towers at present.


Recommendations of the Guidelines issued by Ministry of Power, Govt. of India vide letter dated 15.10.2015 regarding payment of compensation towards damage in regards to RoW for Transmission lines will not be feasible to transmission line developmental activities in the State of Tripura.

This is for favour of your kind record please.


Yours faithfully,


(M. Debbarma)Director (Technical)
TSECL, Agartala

Other correspondences with TSECL in respect to RoW Compensation of 132kV Transmission lines are given below.



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)



पावरग्रिड

Ref: NEAGT/NERPSIP-101/2017-18/169

दस्तावेज : (0301)2330045 (8)
NERPSIP Office,
Bamunagar-06(Middle); 3rd Crossing, Agartala - 791002.
उत्तर पूर्वी क्षेत्र / NORTH EASTERN REGION
Date: 27/04/2018

To,
The AGM(Transmission Circle)
Tripura State Electricity Corporation Limited
79 Tilla; Transmission Circle
Agartala, Tripura(W)

Sub: Compensation of 132kV Transmission line which are to be constructed under NERPSIP
Tripura-Reg.

Dear Sir,

With reference to the above it is to inform you that there are 14 Nos. of 132kV Transmission line to be constructed in Tripura under NERPSIP Project.

The survey activities of all the Transmission Lines have been completed and the construction of the lines is being started shortly. For Finalization of Surface Damage Compensation to the affected land owners along the route of the Transmission line the following action may kindly be taken from your side:-


- 1) District Authority may kindly be intimated to depute their representative for identification and authentication of the land owner,
- 2) The rates of Tree/Crops compensation prevailing in Tripura State may kindly be provided for assessment of the compensation amount.
- 3) Authorized representative of TSECL may kindly be identified area wise/Line wise for signing of Compensation notice / assessment sheet etc.

The name of the lines where construction activity is being started is enclosed in Annexure-01.

Your early action in this regards is highly solicited.

Thanking you.

Yours faithfully



(S.I. Singh)
Dy. General Manager
POWERGRID, Agartala.

Copy for kind information to:-


1. CMD TSECL, Corporate Office, Bamunagar, Agartala.

Registered Office: B-9 Qutab Institute Area, Katwaria Sarai, New Delhi- 110016
Tel: 011-26560112, Fax: 26601081, Website: <http://www.powergridindia.com>
सहजता एवं राष्ट्रहित में कार्य
Serve Energy for Benefit of Self and Nation

TSECL office order dated 04/05/2018 regarding nominated officials who are authorised to sign compensation notice for obtaining RoW and all Statutory Clearances for the corresponding Transmission lines

Received & J. No. 663
Dated: 04/05/2018

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)



No.F. 5(85)/AGM/TC/2018-19/219-239 Dated :- 4th May, 2018

ORDER

As per Clause No. 7.8 of the Implementation / Participation Agreement signed between Tripura State Electricity Corporation Limited (TSECL) & Power Grid Corporation of India Limited (PGCIL) on 13th March, 2015 regarding implementation of NER Power System Improvement Project (NERPSIP) pertaining to the State of Tripura, the Utility (TSECL) as Owner has the responsibilities of obtaining Right of Way (RoW) and all Statutory Clearances viz. Environment, Forest / River / Canal / Power Lines / Roads / Highways/ Railway Crossing, PTCC, Aviation, Electrical inspector etc. PowerGrid being the Implementing Agency will undertake all the activities for and on behalf of the Owner (TSECL) as well as provide technical / administrative assistance to TSECL to avail RoW / Clearances.

For smooth implementation of the Project, following Officials of TSECL are hereby authorized to sign on the compensation notice jointly with PowerGrid for obtaining Right of Way (RoW) and all Statutory Clearances for the corresponding Transmission Lines as mentioned below -

Sl. No.	Name of Line	Name of Authorized Official	Address for Communication
1	132 KV D/C Bagaila - Belonia Transmission Line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Bagaila S/S 3. Sr. Manager / Manager, Belonia S/S.	DGM, Transmission Division, Udaipur, Gomati District, Tripura.
2	132 KV S/C (on D/C Tower) - Bagaila - Satchand Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Bagaila S/S. 3. Sr. Manager / Manager, Satchand S/S.	
3	132 KV D/C Udaipur - Bagaila Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Bagaila S/S.	
4	132 KV D/C Udaipur to Amarpur Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Amarpur S/S.	
5	132 KV D/C Belonia to Sabroom Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Belonia S/S. 3. Sr. Manager / Manager, Sabroom S/S.	
6	132KV interconnection portion of 132 KV S/C Sabroom - Satchand Transmission Line at Sabroom end	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Sabroom S/S.	
7	132 KV interconnection portion of 132 KV S/C Sabroom - Satchand Transmission Line at Satchand end	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Satchand S/S.	
8	132 KV D/C Rabindranagar - Rokhia Transmission line	1. Sr. Manager, Rabindranagar S/S.	DGM, Transmission Division, Agartala, 79 Tilla, West District, Tripura.
9	L/C of Suramaninagar - Rokhia 132 KV line at Gokulnagar S/S	1. Sr. Manager, TSD, 79 Tilla, Agartala.	
10	L/C of 132 KV Agartala (79 Tilla) - Dhalabati Transmission line at Mohanpur.	1. Sr. Manager, Transmission Sub-division, 79 Tilla, Agartala	

KSD

OFFICE OF THE ADDITIONAL GENERAL MANAGER, TRANSMISSION CIRCLE, 79 TILLA, AGARTALA
PHONE & FAX: 0381-235-1579

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



Sl. No	Name of Line	Name of Authorized Official	Address for Communication
11	132 KV D/C Rabindranagar - Belonia Transmission line	1. Sr. Manager, Rabindranagar S/S 2. Sr. Manager, Banduar S/S	1. DGM, Transmission Division, Agartala, 79 Tilla, West District, Tripura. 2. DGM, Transmission Division, Udaipur, Gomati District, Tripura
12	LIL of 132 KV S/C Ambassa - P.K. Bari Transmission Line at Manu S/S	1. Sr. Manager, Ambassa S/S	DGM, Transmission Division, Kumarghat, Unokoti District, Tripura.
13	132 KV interconnection portion from Manu (Old-existing) S/S to Manu (New) S/S for charging of 132 KV S/C Manu-Chawmaru TL		
14	132 KV D/C Kalashahar- Dhamanagar Transmission line	1. Sr. Manager / Manager, Gourmagar S/S, Kalashahar. 2. Sr. Manager / Manager, Mission Tilla S/S, Dhamanagar.	

In addition, DGM, TD, Agartala / DGM, TD, Udaipur / DGM, TD, Kumarghat / DGM, P – II, / DGM, P – III, / DGM (Civil), / Sr. Manager (Civil), Planning, Transmission Circle, Agartala and Sr. Manager, Transmission Civil Sub-Division, Agartala are hereby instructed to redress Grievances / disputes, if any, for early resolve and smooth execution of the project.


Addl. General Manager
Transmission Circle, TSECL, Agartala.
04/05/18


Copy to:-


- 1-3) The DGM, TD, Agartala // Udaipur // Kumarghat for necessary action.
- 4-6) The DGM, P – II // DGM, P – III // DGM, Civil, TC, Agartala for necessary action.
- 7) The DGM, NERPSIP, PGCL, Agartala for kind information and necessary action.
- 8-13) SM, Banduar S/S // SM, TSD, Agartala // SM, Ambassa S/S // SM, Rabindranagar S/S // SM (Civil), Planning, TC, Agartala // SM, TSD (Civil), Agartala, for necessary action.
- 14-20) SM / M, Mission Tilla S/S // SM / M, Gourmagar S/S // SM / M, Bagala S/S // SM / M, Belonia S/S // SM / M, Satchand S/S // SM / M, Sabroom S/S // SM / M, Amarpur S/S, for necessary action.
- 21) Office order book.


Addl. General Manager
04/05/18

OFFICE OF THE ADDITIONAL GENERAL MANAGER, TRANSMISSION CIRCLE, 79 TILLA, AGARTALA
PHONE & FAX: 0381-235-1579

**TSECL letters to Sub-Divisional Magistrate-Bishalgarh; Sadar & Mohanpur for
Deployment of Tehsildar for Identification of affected Land owners for 132kV LILO line
Rokhia-Surjamaninagar at 132kV Gokulnagar S/s & Agartala-Dhalabil at 132kV
Mohanpur S/s, respectively.**

 **TRIPURA STATE ELECTRICITY CORPORATION LIMITED**
(A Govt. of Tripura Enterprise)



No F 5885 / AGM / TC / 2018-19 **318-22** Dated **15-05-2018**

To
The Sub-Divisional Magistrate
Bishalgarh Sub-Division
Dist-Sepahjala Tripura

Sub: Deployment of Tehsildar for Identification of Land owner for Construction of 132kV LILO line of
Rokhia - Surjamaninagar at 132kV Gokulnagar S/S.


Dear Sir,

This is to bring to your kind notice that Government of India has entrusted Power Grid Corporation of India Ltd. (A Government of India Enterprise) for the task of implementation of the North Eastern Region Power System Improvement Project (NERPSIP) in the State of Tripura. Under the said project various 132kV & 33kV Power Transmission Lines are to be constructed along with the associated Substation in the State.


Tehsildar of Baramnagar & Gokulnagar Tehsil may kindly be informed to extend their co-operation in order to identify the land owner en-route the 132kV LILO of Rokhia - Surjamaninagar Transmission line at Gokulnagar Substation under Bishalgarh Sub-Division.


NERPSIP being a time-bound Central Sector Project, your co-operation in this regard is highly solicited towards timely completion of the same.

Thanking you.

Yours faithfully,

Addl. General Manager
Transmission Circle
Agartala **15/05/18**

Copy to:-
1) DM & Collector Sepahjala District, Bishalgarh for kind information.
2) DGM (NERPSIP), PowerGrid, Agartala.
3) DGM, TD, Agartala - DGM (Civil), Transmission Circle, Agartala.


18 MAY 2018
CT


Addl. General Manager
15/05/18

Addl. General Manager, Transmission Circle, 79 Tilla, Agartala, West Tripura, Tel. & Fax - (0381)225-1579

TRIPURA STATE ELECTRICITY CORPORATION LIMITED**(A Govt. of Tripura Enterprise)**

No.F 5(85) / AGM / TC / 2018-19/ 382-87

Date: 17-05-2018

To
The Sub-Divisional Magistrate
Mohonpur Sub-Division
Dist- West Tripura

Sub: Deployment of Tehsildar for identification of Land owner for Construction of 132kV LILO line of
Agartala – Dhalabli at 132kV Mohonpur S/S.

Dear Sir,

This is to bring to your kind notice that Government of India has entrusted Power Grid Corporation of India Ltd. (A Government of India Enterprise) for the task of implementation of the North Eastern Region Power System Improvement Project (NERPSIP) in the State of Tripura. Under the said project various 132kV & 33kV Power Transmission Lines are to be constructed along-with the associated Substation in the State.

Tehsildar of Mohonpur Tehsil may kindly be informed to extend their co-operation in order to identify the land owner en-route the 132kV LILO of Agartala – Dhalabli Transmission line at Mohonpur Substation under Mohonpur Sub-Division.

NERPSIP being a time-bound Central Sector Project, your co-operation in this regard is highly solicited towards timely completion of the same.

Thanking you



Yours faithfully,

[Signature]
Addl. General Manager
Transmission Circle,
Agartala. 17/05/18

Copy to:-

- 1) DM & Collector, West Tripura District, for kind information.
- 2) DGM (NERPSIP), PowerGrid, Agartala.
- 3-4) DGM, TD, Agartala / DGM (CIVIL), Transmission Circle, Agartala.

Addl. General Manager

Addl. General Manager, Transmission Circle, 79 Tilla, Agartala, West Tripura, Tel. & Fax - (0381)225-1579

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



No.F.5(85)/AGM/TC/2018-19/ 435-39

Dated: 21-05-2018

To
The Sub-Divisional Magistrate
Sadar Sub-Division
Dist. West Tripura

Sub: Deployment of Tehsildar for identification of Land owner for Construction of 132kV LILO line of
Rokhia - Surjamaninagar at 132kV Gakulnagar S/S.

Dear Sir,

This is to bring to your kind notice that Government of India has entrusted Power Grid Corporation of India Ltd(A Government of India Enterprise) for the task of implementation of the North Eastern Region Power System Improvement Project (NERPSIP) in the State of Tripura. Under the said project various 132kV & 33kV Power Transmission Lines are to be constructed along-with the associated Substation in the State.

Tehsildar of Bikanranagar Tehsil may kindly be informed to extend co-operation in order to identify the land owner en-route the 132kV LILO of Rokhia - Surjamaninagar Transmission line at Gakulnagar Substation.

NERPSIP being a time-bound Central Sector Project, your co-operation in this regard is highly solicited towards timely completion of the same.

Thanking you.



Yours faithfully,


Addl. General Manager
Transmission Circle
Agartala 21/05/18

Copy to:-

- 1) The DM & Collector, West Tripura District, for kind information.
- 2) The DGM (NERPSIP), PowerGrid, Agartala
- 3-4) The DGM, TD, Agartala / DGM (Civil), Transmission Circle, Agartala.




Addl. General Manager
21/05/18

Addl. General Manager, Transmission Circle, 79 Tilla, Agartala, West Tripura, Tel. & Fax - (0381)235-1579

**Draft notice for compensation for construction of 132kV Transmission lines under
NERPSIP-Tripura****TRIPURA STATE ELECTRICITY CORPORATION LIMITED**

(A Govt. of Tripura Enterprise)



No.F.5(85) IASG/T/C/2018-19/ 323-29

Dated 15.05.2018

To:
The DGM (NERPSIP)
Power Grid Corporation of India Ltd.
Rammagar-06, Agartala

Sub - Forwarding of Draft Notice for compensation for construction of TL line under NERPSIP - Tripura.
Ref - NEAGT / NERPSIP - 102 / 2017 - 18 / 213, dated 15.05.2018.

Sir,

With reference to the above, kindly find enclosed herewith the sample copy of Notice in Ann-01 & 02 to be used for Surface damage compensation & Land Compensation in respect of construction of Transmission Line under NERPSIP, Tripura.

It is further to be noted that each notice shall be of 5 copies (1 original & 4 Carbon Copy) and Joint signature of POWERGRID & TSECL in original to be put in all the copies of notice. After signing of notice, 1st copy to be handed over to the affected Land Owner, 2nd Copy will be kept at POWERGRID, 3rd & 4th Copies to be forwarded to respective DM & SDM for assessment, and 5th Copy to be handed over to TSECL.

Once assessment is completed and compensation amount is finalized from the respective District Administration, the payment shall be done by POWERGRID.

Thanking you.

Enclor - As stated above.

Land notice is not
submitted
P.L. collect

15/5/2018
Hassanul Kabir

Yours faithfully,


Addl. General Manager
Transmission Circle
Agartala 15/05/18

Copy to:-

- 1-3) The DGM, TD, Agartala / Udaipur / Kumarghat
- 4-5) The DGM (P - I) / DGM (P - II) / DGM (Civil), Transmission Circle, Agartala

Addl. General Manager

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)


NOTICE

Ref No. _____

Date: ____/____/____

To _____

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-154 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities

- a. Foundation Loc No. _____
 b. Erection Loc No. _____
 c. Stringing Loc No. from _____ to _____

II. (1) Name of the Owner and Address:

- (2) Name of the Village / Mouza & J.L. No.
 (3) Name of PS & District
 (4) Plot No/ Khatian No

Particulars of trees /Crops / Other standing properties:

Sl. No.	Item	Species	Dimension	Qty.
1)	Trees			
2)	Crops			
3)	Others			

Signature of the owner
 Address :- _____

Signature of Power Grid Corp of India Ltd.

Signature of TSECL

Signature of Tehsildar

Witness:

Copy to:

- The D.M. _____ for kind information please.
- The Deputy General Manager _____ for favour of kind information.
- The S.D.M. _____ for kind information. It is highly requested to assess the value of the said trees/crops etc. from his kind end and inform this office for payment of compensation.
- The Tehsildar, _____

Signature of TSECL

Address of the concern Division/ Communicating address

Annexure 9

Sample Copy of Land Compensation Notices

1. 132/33 kV Udaipur Amarpur TL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

NOTICE

Ref No. :

320

Date : 16/12/2020

To Pradip Kumar Jamatia

Sub :- Utilization of land for tower footing at Loc. No. 40/0 type of tower DC+06 in connection with "Udaipur-Bazafa 132 KV D/L Transmission Line"

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, Udaipur will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Krishna Kumar Jamatia</u>	<u>9.68 X 9.68 m²</u> <u>= 89.64 m²</u>	<u>Pradip Kumar Jamatia</u> <u>- Son</u>
2	Plot No. :- <u>205</u>		
3	Khatian No. :- <u>62/1</u>		
4	Jote No. :-		
5	Mouza :- <u>Baishabari</u>		

Signature of the Power Grid Corp. of India Ltd.
Name and Seal

Signature of Tahasildar
Name & Seal
Tehsildar
Ganje T.K.
Udaipur Gomati Tripura

Signature / Thumb impression of land Owner / Present Occupier
Address :-

Witness :- 1. Ranjit Jamatia
2. Ranjit Jamatia

Yours faithfully

Pradip Kumar Jamatia
Signature of the Owner / Present Occupier
Name & Seal
132 KV Sub-Station
Udaipur, Gomati District.

Copy to :-

- The D.M. Gomati for kind information please
- The Deputy General Manager, TSECL, I.D., V.D.P. for favour of kind information.
- The S.D.M. Udaipur for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
- The Tehsildar, Ganje T.K.

Pradip Kumar Jamatia
Signature of the Owner / Present Occupier
Name & Seal
132 KV Sub-Station
Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

2. 132/33 kV Udaipur - Amarpur TL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)


NOTICE

Ref No. : 377

Date : 27/01/2021

To Soma Goswami Dey

Sub :- Utilization of land for tower footing at Loc. No. A/O, type of tower DA+00, in connection with " 132 KV Udaipur-Amarpur D/C transmission line "

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/sting etc. related to the above-mentioned work. The Sub-Divisional Magistrate, Udaipur will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Sunil Chandua Debnath</u>	<u>1.207 x 7.207 m²</u>	<u>Soma Goswami Dey</u>
2	Plot No. :- <u>1398</u>	<u>2</u>	<u>Buyer</u>
3	Khatian No. :- <u>1110</u>	<u>25.24 m²</u>	
4	Jote No. :- <u>NA</u>	<u>25.97 m²</u>	
5	Mouza :- <u>Fulkumari</u>	<u>(02 hqs)</u>	

Signature of the Power Grid Corp. of India Ltd.
Name and Seal

Signature of the Sub-Divisional Magistrate
R. K. Prasad
Udaipur, Gomati, Tripura

Soma Goswami Dey
Signature /Thumb impression of land Owner / Present Occupier
Address :-

Witness :- 1.
2.

Yours faithfully

Soma Goswami Dey
Signature of the TSECL
132 KV Sub-Station, Banduar
Udaipur, Gomati District.






Copy to :-

1. The D.M. Gomati for kind information please
2. The Deputy General Manager, TSECL, T.D. for favour of kind information.
3. The S.D.M. Udaipur for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar, Hahar, R.K.P.

Soma Goswami Dey
Signature of TSECL
132 KV Sub-Station, Banduar
Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

3. 132/33 kV Udaipur - Bagafa TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED			
(A Govt. of Tripura Enterprise)			
573	 NOTICE	Date : 17/03/2021	
Ref No. :			
To <u>Devananda Reang</u>			
Sub :- Utilization of land for tower footing at Loc. No. <u>18/10</u> , type of tower <u>DB+03</u> in connection with " <u>132 kV Udaipur - Bagafa D/C Transmission line</u> ."			
<p>Dear Sir,</p> <p>As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, <u>Udaipur</u>..... will assess necessary compensation in this respect.</p>			
Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Tapan Reang</u>	(8.19 X 8.19)m ² = 67.076 m ²	<u>Devananda Reang</u>
2	Plot No. :- <u>1031</u>		
3	Khatian No. :- <u>700</u>		
4	Jote No. :-		
5	Mouza :- <u>Baishabari</u>		
 Signature of the Power Grid Corp. of India Ltd. Name and Seal		 Signature of Tahasildar Garjee T.K. Udaipur Gomati Tripura	<u>Devananda Reang</u> Signature /Thumb impression of land Owner / Present Occupier Address :-
Witness :- 1. 2.		Yours faithfully  Manager Signature of the TSECL Name & Seal	
Copy to :- 1. The D.M. <u>Gomati</u> for kind information please 2. The Deputy General Manager, <u>TSECL, T.D.</u> for favour of kind information. 3. The S.D.M. <u>Udaipur</u> for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation. 4. The Tehsildar, <u>Garjee T.K.</u>			
 Manager Signature of TSECL Name & Seal			
TRIPURA STATE ELECTRICITY CORPORATION LIMITED Transmission Division, 79 Tilla, Agartala			

4. 132/33 kV Udaipur - Bagafa TL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

NOTICE

Ref No. :

Date : 28 / 11 / 2020

To *Gandhi Kumar Jamatia*

Sub :- Utilization of land for tower footing at Loc. No. *81*, type of tower *DBT*, in connection with "*132 kV Udaipur Bagafa TL Transmission Line*"

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, *Udaipur*, will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <i>Gandhi Kr. Jamatia</i>	<i>6.759 x 6.759 m</i> <i>45.659 m</i>	<i>Self</i>
2	Plot No. :- <i>1187/2508</i>		
3	Khatian No. :- <i>414</i>		
4	Jote No. :- <i>—</i>		
5	Mouza :- <i>South Maharani</i>		

[Signature]
Signature of the Power Grid Corp. of India Ltd.
Name and Seal
उ.पु.अ. ३४३३, १३२ क.व. उदापुर

[Signature]
Signature of Tahasildar
Name & Seal

[Signature]
Signature /Thumb impression of land Owner / Present Occupier
Address :-

Witness :- 1. *Rabi Baidya Jamatia*
2. *Byjoy Bhakta Gouda*

Yours faithfully

[Signature]
Signature of the TSECL
Senior Manager, TSECL
Name & Seal
132 KV Sub Station, Bandwar
Udaipur, Gomati District.

Copy to :-

1. The D.M. *Gomati*..... for kind information please
2. The Deputy General Manager, *TSECL*..... for favour of kind information.
3. The S.D.M., *Udaipur*..... for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar, *Maharani*..... T.K

[Signature]
Senior Manager, TSECL
Signature of TSECL
132 KV Sub Station, Bandwar
Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

NOTICE

Ref No. : **316**

Date : **01/12/2020**

To **Kuhiram Reang. Jo Lati-Badhurai Reang.**

Sub :- Utilization of land for tower footing at Loc. No. **46/0**, type of tower **DA+00**, in connection with " **132 KV B. Udaipur - Bagafa A/C Transmission Line.**"

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, **Udaipur**..... will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- Badhurai Reang.	6.987 X 6.987 ft = 48.82 m²	Kuhiram Reang Son.
2	Plot No. :- 1316		
3	Khatian No. :- 262		
4	Jote No. :- -		
5	Mouza :- Baishabari		

Signature of the Power Grid Corp. of India Ltd.
अखिल पावर ग्रिड कॉर्पोरेशन लिमिटेड
पावरग्रिड, न.ए. उदायपुर
उ.पु.क्षे. उदायपुर / NER, UDAIPUR

Signature of Tahasildar
Name & Seal
Tehsildar
Gargee T.K.
Udaipur Gomati Tripura

Signature /Thumb impression of land Owner / Present Occupier
Address :-

Witness :- 1. **Lambita Reang**
2.

Yours faithfully

Signature of the TSECL
Name & Seal
Senior Manager, TSECL
132 KV Sub-Station, Bandwar
Udaipur, Gomati District.

Copy to :-

- The D.M. **Gomati**..... for kind information please
- The Deputy General Manager, **TSECL**..... for favour of kind information.
- The S.D.M., **Udaipur**..... for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
- The Tehsildar, **Gargee**.....

Signature of TSECL
132 KV Sub-Station, Bandwar
Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



NOTICE

Ref No. : **321**

Date : **16/12/2020**

To : **Suchitra Rani Jamatia**

Sub :- **Utilization of land for tower footing at Loc. No. 91/0, type of tower DB+03, in connection with "132 KV Udaipur-Bagaha D.C. transmission line"**

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/sting etc. related to the above-mentioned work. The Sub-Divisional Magistrate, Udaipur will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Pagat Lari Jamatia</u>	<u>7.965 x 7.965 m²</u> <u>= 63.441 m²</u>	<u>Suchitra Rani Jamatia</u> <u>Granddaughter.</u>
2	Plot No. :- <u>540</u>		
3	Khatian No. :- <u>100</u>		
4	Jote No. :- <u>-</u>		
5	Mouza :- <u>Baishabari</u>		



Signature of the Power Grid Corp. of
India Ltd.
Name and Seal


Signature of Tahasildar
Name & Seal
Garjee T.K.
Udaipur Gomati Tripura


Signature /Thumb impression of land
Owner / Present Occupier
Address :-

Witness :- 1. Shyamal Jamatia
2. -


Yours faithfully


Signature of the Senior Manager, TSECL
Name :- S. S. Banduar
132 KV Sub. Station, Banduar
Udaipur, Gomati District.

Copy to :-

1. The D.M. Gomati for kind information please
2. The Deputy General Manager, TSECL for favour of kind information.
3. The S.D.M. Udaipur for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar, Garjee T.K.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala


Signature of the Senior Manager, TSECL
Name :- S. S. Banduar
132 KV Sub. Station, Banduar
Udaipur, Gomati District.

ANNEXURE-I

POWER GRID CORPORATION OF INDIA LTD

NERPSIP Belonia Office

ASSESSMENT OF LAND VALUE FOR TOWER BASE OF 132 KV D/C BAGAFI-BELONIA TRANSMISSION LINE

Sl No	Tower Loc No & Tower Type	Name & Address of affected Land Owner	Village/Tehsil/Mo uza	Plot/Khasia No	Measured area of affected land (in sqm)	Measured area of affected land (in Hact)	Governe nt approved value per Kant (in Rs.)	Government approved value per Hact (in Rs.)	Assessed value of affected land (in Rs.)	Bank Details of affected land owner for payment of land value	Remarks
A	B	C	D	E	F	G	H=(G/10000)	I	J=(I*6.172)	K(H*J)	L
1	409 DB/1 (DB+0) Dtd 10.11.2020	Sh. Sanjit Datta Vill: East Kolabaria, ICDS PO & PS: Belonia, Dist: South Tripura.	Vill: East Kolabaria, Tehsil: Maichera Mauza: Kolabaria	Plot No. 6890 Kh No. 1599	51.941	0.0051941	228000.00	14,07,216.00	3655.00	Tripura State Co-operative Bank Limited Branch: Belonia A/C No. 000412010007770. PSC-ICIC001SCBL	The land is in joint holding of Sh. Sanjit Datta & Mrs. Subarna Datta who are wife & husband & they also hold a joint bank account.
2	409 DB/1 (DB+0) Dtd 10.11.2020	Mrs. Subarna Datta Vill: East Kolabaria, ICDS PO & PS: Belonia, Dist: South Tripura.	Vill: East Kolabaria, Tehsil: Maichera Mauza: Kolabaria	Plot No. 6890 Kh No. 1599					3655.00	Tripura State Co-operative Bank Limited Branch: Belonia A/C No. 000412010007770. PSC-ICIC001SCBL	
		1 Hact= 6.172 Kant							TOTAL Rs.	7310.00	

[Signature]

DR. P. K. SINGH / MR. CHAUDHURY
Zonal Chief Manager
Director Power Grid
PGCIL, New Delhi

[Signature]
Sub-Divisional Magistrate
Belonia, South Tripura.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

NOTICE

Date: 10 / 11 / 2020

TO: MR. SANJIT DATTA & MRS. SUBARNA DATTA
Subject: Utilization of land for tower footing at Loc. No. 16/1, type of tower DB+0, in connection with "132 KV BELONIA - BAGHA TRANSMISSION LINE"
Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, BELONIA will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name:- MR. SANJIT DATTA	51.941 m ²	SELF (HUSBAND AND WIFE)
2	Plot No.:- 6890		
3	Khatian No.:- 1599		
4	Jote No.:-		
5	Mouza:- KOLABARIA		

Prasenjit Dhar

Signature of the Power Grid Corp. of India Ltd.

Name and Seal

PRASENJIT DHAR
FS (ELECT)
NERPSIP, BELONIA
PACIL

Signature of Tehsildar

Name & Seal

Tejshildar
Maichara T.R.
Belonia, South Tripura

Subarna Datta
Sanjit Datta

Signature / Thumb impression of land

Owner / Present Occupier

Address :-
EAST KOLABARIA, P.O. - BELONIA,
P.S. - BELONIA, SOUTH TRIPURA.

Witness :- 1. **Sanjit Datta**
2. **Subarna Datta**

Yours faithfully

Signature of the TSECL
Name & Seal
Manager (Electrical)
Belonia, South Tripura.

Copy to :-

1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,

Signature of TSECL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

**GOVERNMENT OF TRIPURA
OFFICE OF THE SUB-DIVISIONAL MAGISTRATE
BELONIA, SOUTH TRIPURA**

No. F&D 237-SDM/BLN/SUR/2018/ 610

Dated, Belonia, the 21st Dec. 2020.

**The Chief Manager,
POWERGRID, NERPSIP,
Belonia, South Tripura.**

Sub:- Providing rate/value of land for the purpose of making compensation payment of Tower base to the affected land owners against construction of 132 KV D/C Bokafa- Belonia Transmission Line associated with NERPSIP works of Tripura, at mouja- Kalabaria under Belonia Sub-Division

Ref:- Your letter No. NERBLN/NERPSIP/2020-2021/BLN-51, dated-27.11.2020.

Sir,


With reference to the subject mentioned above, I am furnishing herewith the Government approved rate as per the latest Land Valuation Chart of the following plots under Kalabaria Mouja under Belonia Sub-Division for enabling payment of compensation to the land owners in connection with construction of 132 KV DC Bokafa - Belonia Transmission Line associated with NERPSIP works of Tripura.

The detail particulars of land are as follows.

Sl No.	Name of T.K	Name of Mouja	Khatian No.	Plot No.	Class of land	Recorded Land Owner	Rate as per the latest Land Valuation Chart (Rs. per Kani)
1.	Maichera	Kalabariya	1599	6890/p	Tilla	1. Sri sanjit Kr. Datta, S/o- Prabhat Datta. 2. Subarna datta, W/O- Sri sanjit Kr. Datta.	2,28,000/-


This is for your information and necessary action.

Yours faithfully


Sub-Divisional Magistrate
Belonia, South Tripura.

Copy to:

1. The District Magistrate & Collector, South Tripura for favour of kind information.
2. SR.GM, POWERGRID, NERPSIP Agartala, Tripura for information.


Sub-Divisional Magistrate
Belonia, South Tripura.

भारत सरकार
Government of India
Enrollment No. : 2183-50010-00080

To
Sangit Datta
CGO LT, Pashar Datta
GAC, HILARVA
KALABURGA / EAST KALABURGA
South Tripura
Tribal, 791106
9774801120

आपका क्रमांक / Your No. :
8705 6502 5392
मेरा आधार, मेरी पहचान

भारत सरकार
Government of India
Sangit Datta
CGO LT, Pashar Datta
KALABURGA / EAST KALABURGA
South Tripura, 791106

मेरा आधार, मेरी पहचान

पहचान का प्रमाण है, तबतक का नहीं।
पहचान का प्रमाण अनिवार्य प्रमाणपत्र द्वारा प्राप्त करें।

is proof of identity, not of citizenship.
To establish identity, authenticate online.

देश भर में मान्य है।
अधिकांश में सरकारी और गैर-सरकारी सेवाओं
का लाभ उठाने में उपयोगी सेवा।
is valid throughout the country.
will be helpful in availing Government
and Non-Government services in future.

Unique Identification Authority of India

Address: CGO LT, Pashar Datta, GAC, HILARVA,
KALABURGA / EAST KALABURGA, South
Tripura, Tribal, 791106

8705 6502 5392

Sangit Datta

[illegible]

Please paste photograph properly
Do not use staple pins

000412010007770 X
000412010007770 W

Photograph(s) needs to be attested by issuing authority

Tripura State Co-operative Bank Limited

Sanjit Bata
Subarna Datta

SEARCH NAME : BELONGIA
ACCOUNT NO. : 000412010007770 : IFS Code : TIC000TSCBL : MICR CODE :
CUSTOMER NAME : MR SANJIT BATA
ADDRESS : BELONGIA
CITY : SUDH
TRIPURA INDIA
CUSTOMER NO : 160474
OPERATOR : 16/04/2012
NOMINEE :
EMAIL ID :
MOBILE NO : 0


Verified
Dipul Paul
JUNIOR ENGINEER
NERPSIP, BELONGIA
POWERGRID

Annexure 10

Sample Copy Tree/ Crop Compensation Notices

Location: 132kV D/C Ugaipur - Amarpur TL

128
(A Govt. of Tripura Enterprise)


NOTICE

Page No. :
Ref No. :
To : **Manik Debboruma**
Date : **04/02/2021**

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed **132 Kv Ugaipur - Amarpur D/C** Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: **NA**
b. Erection Loc No: **NA**
c. Stringing Loc No. from **AP 06** to **AP 07**

II. (1) Name of the Owner and Address: Sonamoni Debboruma, Prast. Manik Debboruma,
(2) Name of the Village / Mouza & J.L. No. **Kalua Bepa / Fulkumaser**
(3) Name of PS & District **R.K. Pura & Gomati**
(4) Plot No/ Khatian No **P-1896, K-1654.**

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees	Rubbere (6 years)		21 nos (Twenty one)
2)	Crops	NA		
3)	Others	NA		

Manik Debboruma
Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd.
Signature of Tehsildar
Signature of TSECL
Manager
Signature of TSECL
Manager
Signature of TSECL

Witness :
Copy to :

1. The D.M. **Gomati** for kind information please.
2. The Deputy General Manager, **TSECL, TA** for favour of kind information.
3. The S.D.M., **Ugaipur** for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
4. The Tehsildar, **R.K. Pura, T.K.**

Location: 132kV D/C Udaipur - Bagafa TL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Page No. :

173


NOTICE

Ref No. :

Date : 08/04/2021

To **RADHA JAMATIA**

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up to date thereto, this is to inform you that the proposed 132 KV Udaipur - Bagafa D/C Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: 38/2
- Erection Loc No. NA
- Stringing Loc No. from NA to NA

- (1) Name of the Owner and Address: Radha Jamatia
- (2) Name of the Village / Mouza & J.L. No. Baishabari
- (3) Name of PS & District R.K. Pw & Gomati
- (4) Plot No/ Khatian No

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees	Rubber	(6 years)	215 nos (fifteen)
2)	Crops	NA		
3)	Others	NA		

Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd.

Signature of TSECL
132 KV Sub-Station
Gomati South Tripura

Witness :

Gopinath Jamatia

Signature of Tehsildar
Garjee T.K.
Udaipur Gomati Tripura

Copy to :

- The D.M. Gomati for kind information please.
- The Deputy General Manager, TSECL, T.O. for favour of kind information.
- The S.D.M., Udaipur for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
- The Tehsildar, Garjee T.K.


Signature of TSECL

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Signature of TSECL
132 KV Sub-Station
Gomati South Tripura

Location: 132/33kV Udaipur Bagafa TL

Page No. : 152


NOTICE

Ref No. : Date : 18/03/2021

To Suchitra Rani Jamatia

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed 132 KV Udaipur Bagafa TL Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: NA

b. Erection Loc No: NA

c. Stringing Loc No. from NA to NA

II. (1) Name of the Owner and Address: Suchitra Rani Jamatia / Jagat Hare Jamatia

(2) Name of the Village / Mouza & J.L. No. Vill + Mouza - Baishabari - Grand father.

(3) Name of PS & District P.K. Pur & Gomati Dist.

(4) Plot No/ Khatian No P-570, Kh-100

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees			
2)	Crops	<u>Chilli</u>	<u>(10 x 10) m²</u> <u>= 100 m²</u>	<u>= 0.01 ha.</u>
3)	Others			

Signature of the owner: Suchitra Rani Jamatia

Signature of Power Grid Corp. of India Ltd. [Signature]

Signature of TSECL [Signature]

Address :- Udaipur Gomati Tripura

Signature of Tehsildar Ganje T.K.

Witness : Udaipur Gomati Tripura

Copy to :

1. The D.M. Gomati for kind information please.

2. The Deputy General Manager, TSECL, T.D. for favour of kind information.

3. The S.D.M., Udaipur for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.

4. The Tehsildar, Ganje T.K.

Signature of TSECL [Signature]

DGM, Transmission Division, Udaipur, Gomati District, Tripura

132/33kV Sub-Station
Udaipur South Tripura

Location: 132/33kV Udaipur Bagafa TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED **(A Govt. of Tripura Enterprise)**

Page No. : 05



NOTICE

Ref No. :

Date : 08/03/2021

To **Jiban Reang**

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed **132 KV Udaipur - Bagafa D/C** Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: **79/0**
 - Erection Loc No. **NA**
 - Stringing Loc No. from **NA** to **NA**
- ii. (1) Name of the Owner and Address: **Jiban Reang**
 (2) Name of the Village / Mouza & J.L. No. **Narailang / West Khatla**
 (3) Name of PS & District **Santirbazar, South Tripura**
 (4) Plot No/ Khatian No **P-766, Kh-48**

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees	NA		
2)	Crops	Paddy (Hybrid podo)	(30 x 30)m² - 900 m²	
3)	Others	NA		

Jiban Reang
Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd.

Signature of TSECL
[Signature]

Signature of Tehsildar
Bokafa T. K.

Witness :

Copy to :

- The D.M. **South** for kind information please.
- The Deputy General Manager, **Santirbazar** for favour of kind information.
- The S.D.M., **Bagafa T.A.** for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind and inform this office for payment of compensation.
- The Tehsildar, **Bagafa T.A.**

Signature of TSECL
[Signature]

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Location: 132/33kV Udaipur Bagafa TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Page No. : 08

NOTICE

Date : 22/09/20

Ref No. :

To *Khatiya Mohan Jamali*

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed *Udaipur to Bagafa 132 kV D/C T.L.* Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: *8/2*

b. Erection Loc No.to.....

c. Stringing Loc No. from.....to.....

II. (1) Name of the Owner and Address:

(2) Name of the Village / Mouza & J.L. No. *Golasing Bari*

(3) Name of PS & District *Birganj & South Tripura*

(4) Plot No/ Khatian No *(200/1808)/842*

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension / Age	Qty.
1)	Trees	(a) <i>Redwood</i> (b) <i>Rubber</i>	<i>7 yrs</i> <i>7 yrs</i>	<i>17 nos (Location)</i> <i>12 nos (Approach)</i> <i>71 = 13 nos</i>
2)	Crops	<i>NA</i>		
3)	Others	<i>Jam fruit</i>	<i>98cm</i>	<i>01 (Approach)</i>

Signature of the owner *Khatiya Mohan Jamali*

Signature of Power Grid Corp. of India Ltd. *Rajiv Singh*

Signature of TSECL *Ranjit Sarkar*

Signature of Tehsildar *Mahesh Chandra*

Witness :

Copy to :

1. The D.M. *Udaipur* for kind information please.

2. The Deputy General Manager, *Transmission, Udaipur* for favour of kind information.

3. The S.D.M., *Udaipur* for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.

4. The Tehsildar, *Udaipur*

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Page No. :

07

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

NOTICE

Ref No. :

To *Supriya Desbarm*

Date: 9/9/20

Dear Sir/ Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed *Udaipur - Bagra 132 KV D/L* Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: *AP-10*
- Erection Loc No.
- Stringing Loc No. from to

II. (1) Name of the Owner and Address:

- Name of the Village / Mouza & J.L. No. *Ramngay Road No-1*
- Name of PS & District *Ramngay 2 West Tripura*
- Plot No/ Khatian No *378/1965/1041*

Particulars of trees / Crops / Other standing properties:

SL. No.	Item	Species	Dimension / Age	Qty.
1)	Trees	<i>Rubber</i>	For Location 08 years	09
			Approach 08 yrs	04
				Total 13
2)	Crops (Nil)	<i>Teak</i>	OF Cirtk, 0.4m = 2 nos	0.63m = 2 nos
			0.44m = 2 nos	0.62m = 1 nos
			0.45m = 2 nos	0.63m = 1 nos
			0.5m = 2 nos	0.75m = 1 nos
			0.55m = 1 nos	
3)	Others (Nil)		'All are of height 5m'	

Supriya Desbarm
9/9/2020
Signature of the owner
Address :-

Rajiv Saha
9/9/20
Signature of Power Grid Corp. of India Ltd.

Tehsildar
Signature of Tehsildar
Mahesh T. R.
Udaipur, Gomati, Tripura.

Signature
09/09/20
Signature of TSECL
Senior Manager, TSECL
132 KV Sub-Station, Banduar
Udaipur, Gomati District.

Witness :

Copy to :

- The D.M. *Udaipur* for kind information please.
- The Deputy General Manager, *Transmission Division, Udaipur* for favour of kind information.
- The S.D.M., *Udaipur* for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
- The Tehsildar, *Udaipur*

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Signature
09/09/20
Signature of TSECL
Senior Manager, TSECL
132 KV Sub-Station, Banduar
Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Page No. :


NOTICE

Ref No. :

Date : 4/9/20

To *Ratna Debbarma*

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed *Udaipur to Rajahmundry 132 kV TL* Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: *AP-7/0*
- Erection Loc No.
- Stringing Loc No. from.....to.....

II. (1) Name of the Owner and Address:

- Name of the Village / Mouza & J.L. No. *240. Pakumari Chaitraibung.*
- Name of PS & District *Rajahmundry, Gomati*
- Plot No/ Khatian No *2000/480 (Khat)*

Particulars of trees / Crops / Other standing properties:

SL. No.	Item	Species	Dimension / Age	Qty.
1)	Trees	<i>Rubber</i>	<i>7 yrs</i>	<i>10</i>
2)	Crops	<i>NA</i>	<i>NA</i>	<i>NA</i>
3)	Others	<i>NA</i>	<i>NA</i>	<i>NA</i>

Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd

Signature of TSECL

Senior Manager, TSECL
132 KV Sub-Station, Bandua

Witness :

Copy to :

- The D.M. *Udaipur* for kind information please.
- The Deputy General Manager, *Transmission, Udaipur* for favour of kind information.
- The S.D.M., *Udaipur* for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
- The Tehsildar, *Udaipur*

Signature of TSECL

Senior Manager, TSECL
132 KV Sub-Station, Bandua

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Location: 132/33kV Bagafa Satchand TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Book No. : 17 Page No. 805
Date : 16/04/2021

NOTICE

To Tirth Roy Tripura
S/o- Goni Krishna Tripura
Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed 132 kV Bagafa to Satchand Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / election of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: AP 50/0
b. Erection Loc. No.
c. Stringing Loc No. from to

II. (1) Name of the Owner and Address : Tirth Roy Tripura, Goni Para, Sakbari
(2) Name of the Village / Mouza & J.L. No. Sakbari / Sakbari
(3) Name of PS & District Manubazar S. South Tripura.
(4) Plot No/Khatian No. 372 / 107

Particulars of trees/Crops/Other standing properties :

Sl. No.	Item	Species	Dimension	Qty.
1)	Trees			
2)	Crops	Ash gourd	38m x 32m	0.1216 Ha (Hectare)
3)	Others			

For Tirth Roy Tripura
Kalinohan Tripura
Signature of the owner
Address :- Goni Para, Sakbari

Signature of Power Grid Corp of India Ltd.
Signature of Tehsildar
Bhuratali T K
Sabrom, South Tripura

Signature of TSECL
Manager
132/33KV Sub-Station
Manubazar South Tripura

Witness : Mijesh Tripura
Copy to :-
1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Signature of TSECL
Manager
132/33KV Sub-Station
Manubazar South Tripura



**पावरग्रिड
POWERGRID**

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



सत्यमेव जयते

**INDIA NON JUDICIAL
Government of Tripura
e-Stamp**

Certificate No.	: IN-TR08571557234190T
Certificate Issued Date	: 30-Apr-2021 12:07 PM
Account Reference	: CSCACC (GV)/ trcsceg07/ TR-STR TAN0011/ TR-STR
Unique Doc. Reference	: SUBIN-TRTRCSCEG0716465215593286T
Purchased by	: SUDHARAM TRIPURA
Description of Document	: Article IA-4 Affidavit
Property Description	: NO OBJECTION
Consideration Price (Rs.)	: 0 (Zero)
First Party	: SUDHARAM TRIPURA
Second Party	: NA
Stamp Duty Paid By	: SUDHARAM TRIPURA
Stamp Duty Amount(Rs.)	: 5 (Five only)



Please write or type below this line-

SJ NO 1000 DATE 30-9-2021



30/9/2021
NOTARY PUBLIC
Sabroom South Tripura

QT 0000484227

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at: www.shcilestamp.com or using e-Stamp Mobile App of Stock Holding.
2. Any discrepancy in the details on the Certificate and as available on the website / Mobile App renders it invalid.
3. The onus of checking the legitimacy is on the users of the certificate.
4. In case of any discrepancy, please inform the Competent Authority.

SLIP 1000 DATE 30-9-2021

Vide e-Stamp No. QT 0000484227

**BEFORE THE NOTARY PUBLIC
SABROOM, SOUTH TRIPURA**

I, Sri Sudharam Tripura, S/O Late Laban Chandra Tripura, of- Sakbari, P.S- Manubazar, Sub Division- Sabroom Dist- South Tripura, State- Tripura, age about 85 Years, by Caste- Hindu, by Occupation- Oldage, citizen of India, do hereby solemnly affirm and declare as follows:-

- 1) That I am a bonafied citizen of India, presently residing in the above mentioned address permanently.
- 2) That some land under mouja Sakbari, TK Bhuratali, Khatian No. 107, plot No. 372, land measuring 0.70 Satak recorded is my name before the competent authority.
- 3) It is true that I did not possess the above mentioned land. The owner of said land is Sri Tirtharoy Tripura S/O Gori Krishna Tripura of Sakbari permanently and I am not interested to get any benefit from that land as well as from Govt. Department.
- 4) That I have no any objection if Tirtharoy Tripura getting any financial benefit from any Govt. department or any other authority, and the above mentioned land bounded by North Laxmi Mohan, South Jamiroy, East and West Thirtharoy Tripura.

All are true to the best of my knowledge

VARIFICATION

That the statements made above are true to the best of my knowledge and belief and I signed this the 30th April 2021 A.D. at Court premises

IDENTIFIED BY ME

Advocate
20/4/21
Manik Lal Bhownik
Advocate
Sabroom SDJM Court
Sabroom, Tripura (SI)

Deponent

30/9/2021
GOMAL CHANDRA MAJUMDER
NOTARY PUBLIC
Sabroom, South Tripura

জিপুরা গ্রামীণ ব্যাংক
TRIPURA GRAMIN BANK

ABBREVIATIONS

1. Cash : Cash	6. Int. : Interest
2. Clg. : Clearing	7. Com. : Commission
3. Tfr : Transfer	8. P&T : Postage & Telegra
4. Dft. : Draft	9. BC : Bankers Cheque
5. D.W. : Dividend Warrant	10. Chgs : Other Charges

8064012000494

নাম / Branch

NOMINATION REGISTERED (Y/N)

সঞ্চয়ী ব্যাংক একাউন্ট পাস বই / SAVINGS BANK ACCOUNT PASS BOOK

গ্রাহক আইডি / Customer ID

আইডি নং / Account No.

নাম / Name (s)

ঠিকানা / Address

সঞ্চয়ী আইডি / Mode of Operation

তারিখ / Date

অফিসার / Officer, শাখা পরিচালক / Branch Manager

A/c details :-
Sh. Tirtharoy Tripura
Tripura Gramin Bank .
A/c no- 8064012000494
IFSC- PUNBORRBTGB

Shale

ত্রিপুরা সরকার
ত্রিপুরা ভূমি রাজস্ব ফর্ম - ৭
(বিধি নিয়ম ৫৩(১) ধারা দ্রষ্টব্য)

ONLY FOR DISPLAY

মোজা : শাকবাড়ী
তহশীল : ভোরাভলী

খতিয়ান নং : ১০৭
রেভিনিউ সার্কেল : মনু বাজার

মহকুমা : সাক্রম
টৌজি নং : ১০২

উপরিস্থ স্বত্ত্বের বিবরণ				
খতিয়ান নং	বিবরণ ও দখলকার (বিস্তারিত)	পরস্পর অংশ	রাজস্ব	যে তারিখ হইতে ধার্য্য খাজনা আমলে আসিবে
(১)	(২)	(৩)	(৪)	(৫)
১	ত্রিপুরা সরকার	১০০০০০	৩.৮৫ তিন টাকা পঁচাশী পয়সা মাত্র	১৬(২) ধারা সাপেক্ষ

Reference No.:

অত্র স্বত্ত্ব					
স্বত্ত্বের বিবরণ ও দখলকার (বিস্তারিত)	অংশ	স্বত্ত্বের শ্রেণী ও বিবরণ	স্বত্ত্বের বিশেষ নিয়ম ও অনুমতি	অধীনস্থ স্বত্ত্ব, অধীনস্থ স্বত্ত্বের পৃথক খতিয়ানের নম্বর	
(৬)	(৭)	(৮)	(৯)	(১০)	
১ দং সুধারাম ত্রিপুরা পিতা: লবন চন্দ্র রোয়াজা সাংওপোঃ-নিজ জাতি-ত্রিপুরা	১০০০০০	রায়তি চিরস্থায়ী	রাজস্ব বৃদ্ধির যোগ্য		
	১০০০০০				

অত্র স্বত্ত্বের আপন দখলীয় জমি									
দাগ নম্বর		উত্তর সীমানা		জমির শ্রেণী		অত্র স্বত্ত্বের বসদায় পরিমাণ			
সাবেক	হাল	দাগ নম্বর	দখলকার	জমির শ্রেণী	মন্তব্য	একর	শতক	হেক্টর	আর
(১১)	(১২)	(১৩)	(১৪)	(১৫)	(১৬)	(১৭)	(১৮)	(১৯)	(২০)
৬৩/৮১৩	১১৬	১১৪	ধর্মরাম	লুঙ্গা	মোঃ ১১৮ নং দাগ	০	৭০	০	২৮৩
৬৪	১১৮	১০২	বন বিভাগ	নাল (নাল)	অনুমতি ধর্মরাম ত্রিপুরা পিতা: লবন চন্দ্র রোয়াজা সাং- নিজ	০	১০	০	০৪০
১২০/৮৫২	৩৭২	৩৭০	লক্ষী	নাল (নাল)	জোর দং লক্ষী মোহন ত্রিপুরা পিতা: বামন চন্দ্র ত্রিপুরা সাং-নিজ ১৩৮৮বাং১৩৯১ ত্রিং সন হইতে	০	৪০	০	১৬২
মোট দাগ: ৩				আপন দখলীয় জমির মোট		১	২০	০	৪৮৫
				জের		০	০০	০	০০০
				অধীনস্থ স্বত্ত্বের মোট					
				সর্বমোট		১	২০	০	৪৮৫

Printed On: 26/05/2021

Compared By
Rajeeb Chisim, LDC

Authenticated By
Gautam Sinha, RI

Annexure 11

Tree Compensation Process

Tree Cutting in Non-Forest Area – Notification and Process

No. F.7 (200)/For/FP-2000-09/ 19.611-29
GOVERNMENT OF TRIPURA
FOREST DEPARTMENT

Dated: 20/10/2010, 2010.

NOTIFICATION

Whereas the Hon'ble Supreme Court of India vide order dated 12.5.2001 in Writ Petition (Civil) No. 202/ 1995 had directed, inter-alia, that guidelines/rules be framed regarding extraction of trees from non-forest areas including plantations on non-forest areas;

Whereas in pursuance of the said directives, the State Government framed the guidelines on extraction of trees from non-forest areas vide notification No.F.7 (44)/For/FP-2001/PT-II/29.042 dated 17.01.2002;

Whereas in view of certain operational difficulties in implementation of the guidelines, it was deemed necessary to revise the aforesaid guidelines and revised guidelines duly approved Council of Ministers were referred to Ministry of Environment & Forests, Govt. of India vide this office letter No.F.7 (200)/For/FP-2k-2009/1110 dated 24th March, 2010 for concurrence.

Whereas the Ministry of Environment & Forests, Govt. of India has concurred the revised guidelines vide letter F.No.8-24/2010-FP dated 23rd September, 2010 with certain modifications and same was incorporated in the draft guidelines. Now therefore in exercise of all the enabling powers the following guidelines are hereby laid down by the State Govt. of Tripura with immediate effect.

- 1.1 These guidelines shall be called the "Guidelines for extraction of trees from non-forest areas"
- 1.2 These shall extend to the whole of the State in respect of extraction of trees from non-forest areas.
- 1.3 These shall come into effect from the date of their notification in the official gazette

2. **DEFINITION:**

In these guidelines, unless there is anything repugnant to the subjects or context

- (a) "Government" means Government of Tripura.
- (b) 'Forest' means (i) Reserved forest or Protected Forest or any other areas legally constituted as 'forest'; and (ii) any area recorded as 'Forest' in Government records maintained by Forest Department or other Govt. Departments and (iii) deemed forest area identified as per Supreme Court order dated 12.12.96 in Writ Petition (C) No. 202/95.
- (c) "Non-forest area" for the purpose of these guidelines means land, which is not 'Forest' as per 2 (b) above.
- (d) "Authorized officer" means the officer as prescribed by the Forest Department.
- (e) "PCCF" means Head of the Forest Department of Tripura.

(f) "Extraction" means felling and/or transportation of trees, including timber and firewood derived there from, away from the plot of land, where the trees stand or where these were felled.

(g) "Domestic use/purpose" means use of produce for one own use excluding sale.

(h) "Marking Rules" means Tripura Forest (Timber Marking) Rules, 1985 and amendments made thereto from time to time.

3. REGISTRATION OF TREES FOR PERMISSION FOR EXTRACTION:

3.1 For permission of extraction of trees standing on any plot of non-forest area, the owner of the plot who wants to extract trees shall get the trees registered with authorized officer in the manner as may be prescribed in this behalf by the State Government.

3.2 Application for registration of trees shall be made to the concerned authorized officer through the concerned Range Officer in the prescribed application Form along with prescribed Registration fee.

3.3 While registering a plot with trees standing thereon, it shall be, inter-alia, ensured that the applicant is the legal titleholder; and it is a non-forest area as per Para-2 (c) above.

3.4 Processing of applications; enquiry in to the status of land and trees standing there upon; and felling and extraction shall be carried out in accordance with instructions issued by Forest Department from time to time.

3.5 Tree registration shall remain valid for 7 (seven) years. After this period, registration shall have to be done afresh.

3.6 No registration shall be required for cases mentioned under "Special Provisions".

4. TREES NOT REQUIRING TREE REGISTRATION CERTIFICATES AND EXTRACTION PERMISSION

4.1 No permission from Forest Department will be needed for extraction of trees from non-forest land in the following cases.

a) For tree species namely Aam (*Mangifera indica*), Lichi (*litchi chinensis*), Sajna (*moringa oleifera*), Guava (*psidium guajava*)

The owner will, however, be required to intimate the local Range Officer at least 10 days in advance in Form prescribed by Forest Department about such intention.

4.2 The State Govt. shall be competent to add or delete species in Para 4.1 above.

5. PROCEDURE FOR EXTRACTION OF RUBBER TREES

No registration shall be required for felling of rubber trees. The procedure for extraction of rubber trees shall be separately prescribed by the Forest Department.

6. Service Charge:

Service charge shall be realized by the Forest Department from the owners of the trees for rendering the service on account of verification of the land, marking of trees namely stand marking, log marking and sale marking, issue of transit pass, etc. at the rates prescribed by State Government from time to time.

7. **SPECIAL PROVISIONS:**

Permission of following kinds in the context of non-forest land as per para 2(c) above may be issued by the Authorized officer on receipt of application from legal title holder. Such permissions shall not be considered repugnant to contrary provisions in para (3).

- a. Permission for extraction of such trees from non-forest land that pose danger to the human life and property may be accorded within 10 days from the date of receipt of application from the owner.
- b. Action for extraction of trees from non-forest land which is also Govt. land for construction of Govt. buildings, roads including widening of roads, bridges and railway lines, etc. shall be taken within 45 days from the date of receipt of the complete application from the user agency. Extraction and disposal of felled trees will be done by the Forest Department and revenue collected by way of sale of such timber etc. will be deposited by the Forest Department in the Government exchequer.
- c. One time permission for extraction of 5 trees for domestic use from plots of non-forest land which are not contiguous to forest land.
- d. In habitation areas, public places, roads where the trees have fallen due to natural causes like storm, decay of the tree, etc., causing severe inconvenience to people, the owner will be free to displace the same after giving intimation in writing to the Authorized officer. In other places, where trees have fallen due to such natural causes, intimation shall be given by the owner to the Authorized officer. The Authorized officer shall first causes enquiry and if he is satisfied with natural cause of the fall of tree/trees, he may allow extraction after recording the reasons within 20 (twenty) days.

8. **CONFISCATION OF TREES FELLED IN VIOLATION OF GUIDELINES**

- 8.1 Timber obtained from trees felled in violation of these guidelines shall be seized by the Forest Department.
- 8.2 On enquiry, if the trees are found felled from:
 - a. Private land, the Authorized officer shall be at liberty to release the timber obtained from such trees, to the legal title holder(s), after recovery of an amount equal to 25% of the royalty payable for the tree/timber. However, such released timber shall not be eligible for purchase or use by any wood based unit, traders or registered timber transporters.
 - b. Govt. land/ Forest land, these shall be deemed to have been confiscated to the State Government.
- 8.3 For verification and recovery of the timber mentioned in para 8.1 above the staff of the Forest Department shall have the authority to enter the plot of land where the trees were felled and the Authorized officer shall have the authority to issue search warrants to his staff to search the premises, including houses, concerned.
- 8.4 The seizure of timber as per 8.1 above shall be without prejudice to any other action, including legal action or prosecution in a court of law.

9. **REPEAL AND SAVINGS:**

This is issued in supersession of guidelines and executive orders issued earlier on this matter.


The registration certificates already issued regarding trees on different plots as per guidelines communicated vide no F.7 (44)/For/FP/2001/PT-II/29042, dated 17th January, 2002 will however continue to remain valid.

By order of the Governor,


Chief Secretary,
Government of Tripura

Copy to:

1. The Principal Secretary to the Governor, Tripura for favour of information of the Governor, Tripura.
2. The Principal Secretary to the Chief Minister, Tripura for favour of information of the Chief Minister, Tripura.
3. The P.S. to the Minister for Finance, Tripura for favour of information of the Minister for Finance, Tripura.
4. The P.S. to the Minister for Forests Tripura for favour of information of the Minister for Forests, Tripura.
5. The P.S. to the Minister for Planning, Tripura for favour of information of the Minister for Planning, Tripura.
6. The S.A. to the Chief Secretary, Tripura for favour of information of the Chief Secretary, Tripura.
7. The Principal Chief Conservator of Forests, Tripura.
8. The Principal Secretary, Planning, Tripura.
9. The Principal Secretary, Finance, Tripura.
10. The Chief Wildlife Warden, Tripura.
11. The Inspector General of Forests (Forest Conservation), Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
12. The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, North Eastern Regional office, Law-U-Sib, Lumbatngen, Near M.T.C. Workshop, Shillong 793 021.
13. The Chief Conservator of Forests (Planning & Development), Tripura.
14. The Nodal Officer, Forest (Conservation) Act, Tripura.
15. The Chief Conservator of Forests (Administration), Tripura.
16. The Additional/ Joint Secretary, Forests, Tripura.
17. The Manager, United Bank of India, Agartala.
18. The Manager, Government Press, Agartala for publishing in Tripura Gazette.


(C. K. Das) 20.10.10
Joint Secretary to the
Government of Tripura

**TREE / CROP/ TOWER FOOTING COMPENSATION PROCESS
(OTHER THAN FOREST LAND COMPENSATION)**

As per the provisions of Electricity Act, 2003 and Indian Telegraph Act 1885, land for tower and right of way is not acquired and agricultural activities are allowed to continue. However, the acts also stipulate that licensee shall pay full compensation to all interested for any damages sustained during the execution of said work. Accordingly, TSECL pays compensation to land owners towards damages if any during implementation of transmission project as well as during operation and maintenance phase. TSECL follows the principle of avoidance, minimization and mitigation in the construction of line in agricultural field having crop due to inherent flexibility in phasing the construction activity and tries to defer construction in cropped area to facilitate crop harvesting. However, if it is unavoidable and is likely to affect project schedule, compensation is given at market rate for standing crops. All efforts are also taken to minimize the crop damage to the extent possible in such cases. As regards trees coming in the Right of Way (RoW) following procedure is adopted for enumeration: All the trees which are coming within the clearance belt of ROW on either side of the center line are identified and marked/numbered from one AP (Affected Person) to the other and documented. Type, Girth (Measured 1 m. above ground level), approximate height of the tree is also noted for each tree. Trees belonging to Govt., Forest, Highways and other local bodies may be separately noted down or timely follow up with the concerned authorities for inspection and removal. Cashew, Guava, Lemon and other hybrid trees which are not of tall growing nature are not marked for cutting since these trees can be crossed using standard tower extensions if required. TSECL also pay compensation to affected land owners for utilization of their land for tower footing.

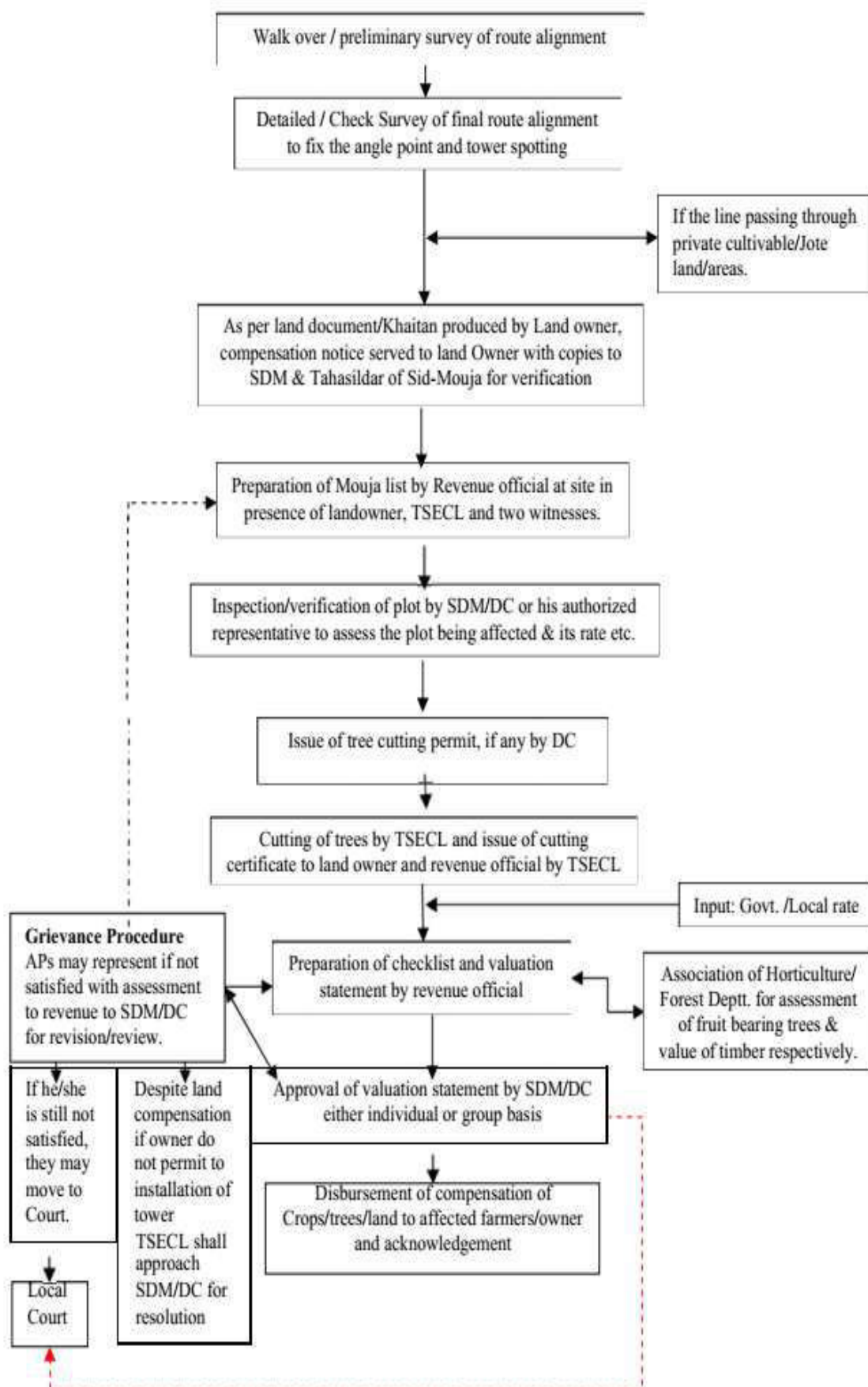
A notice under Electricity Act, 2003/ Indian Telegraph Act, 1885 is served to the landowners informing that the proposed transmission line is being routed through the property of the individual concerned. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops/land inevitability likely to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owners. A copy of said notice is further issued to the Revenue Officer/SDM, who has been authorized by the Tripura Govt. for the purpose of assessment/valuation and disbursement of compensation to the affected parties.

The revenue officer shall further issue a notice of intimation to the concerned land owner and inspect the site to verify the documents related to the proof of ownership and a detailed Mouja list is prepared for the identified trees/ crops/ land for tower footing inevitability damaged during the course of the construction. For assessing the true value of timber yielding trees help of forest officials is taken and for fruit bearing trees help of Horticulture department is taken.

The Mouja list shall contain the land owner details including extent land area utilization for tower footing, type of tree/crop, its present age, variety, yielding pattern etc. and the same is prepared at site in the presence of the land owner. These Mouja lists are further compiled and a random verification is conducted by the concerned DC or his authorized representative in order to ascertain the assessment carried out by the revenue office is

genuine and correct. After this process the District Collector/ a tree cutting permit to TSECL to enable removal / damage to the standing tree/crop identified in the line corridor. Similarly on the basis of enquiry report received from concerned Tehsildar, SDM issue land valuation certificate to TSECL for payment of compensation to land owner. Once the tree/crop is removed / damaged, TSECL shall issue a tree cutting/crop damaged notice to the land owner with a copy to the Revenue Officer to process the compensation payment. Based on the above the compensation payment is generated by means of a computerized programme developed by the National Informatics Center exclusively for this purpose. The detailed Valuation statement thus generated using this programme is verified at various levels and approval of payment of compensation is accorded by the concerned District Collectors.

On approval of compensation, the revenue officer shall further intimate the amount payable to the different landowners and TSECL arranges the payment by way of Demand Draft to the affected parties. The payment is further disbursed at the local village office after due verification of the documents in presence of other witnesses.



Budget Estimation

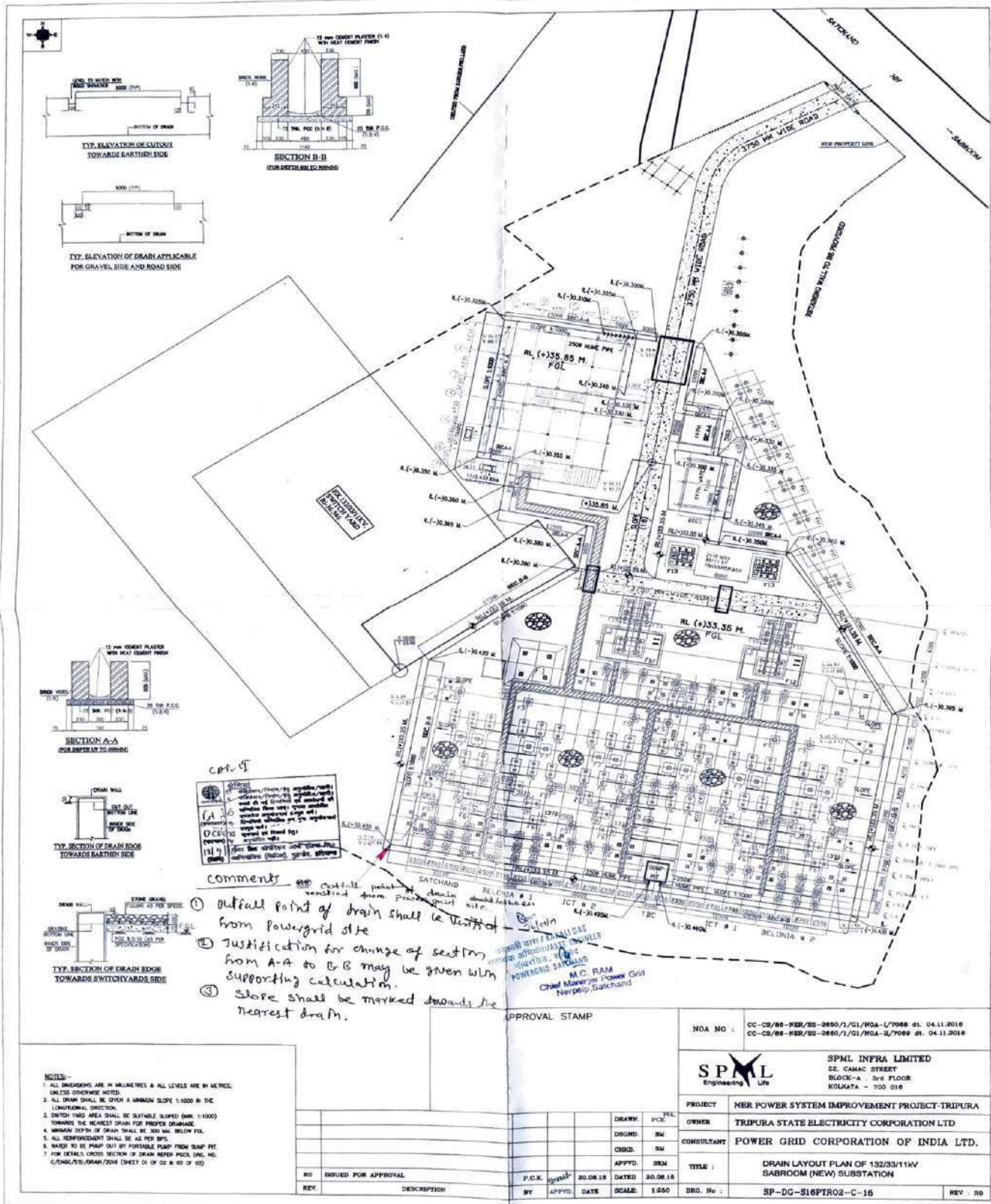
BUDGET ESTIMATE TOWARDS FOREST AND CROP/TREE/ TOWER FOOTING COMPENSATION

Total 132 kV T/L length	-	139.3 Kms.
Total 132 kV tower locations	-	420 approx.
A. Compensation		
1 Forest	-	Rs. 2845.00 lakhs.
2. Crop & Trees		
- 132 kV T/L length in Private /Revenue land	-	85.27 Kms.
- Crop/tree compensation 132 kV line- (85.27 kms @ 5,00,000/-)	-	Rs. 426.35 lakhs
3. Land compensation for 132 kV tower footing- (256 towers x 13,600/-)	-	Rs 34.81 lakhs
Sub Total - A (1+2+3)	-	Rs. 3306.16 lakhs
B. Implementation Monitoring & Audit		
i) Man-power involved for EMP implementation & Monitoring in entire route of transmission Line (Rs.10, 000/- x 140Km)	=	Rs. 14.00 lakhs
ii) Independent Audit (LS) if needed	=	Rs. 20.00 lakhs
Sub Total - B	-	Rs. 34.00 lakhs
GrandTotal (A+B)	=	Rs. 3340.16 lakhs

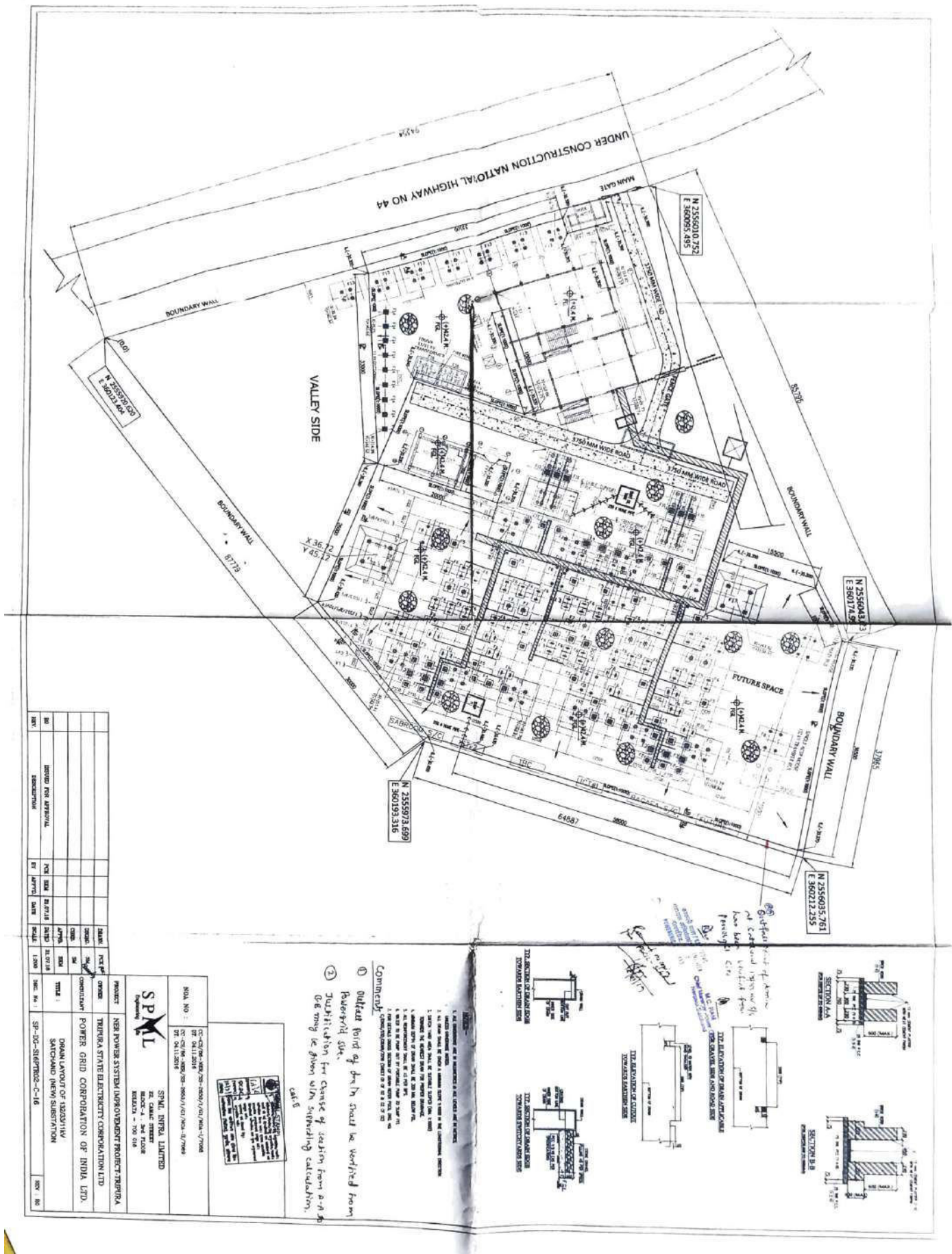
Annexure 12

Drainage System / Mechanism for Sub-Station:

Sample Drainage layout of Sabroom S/s

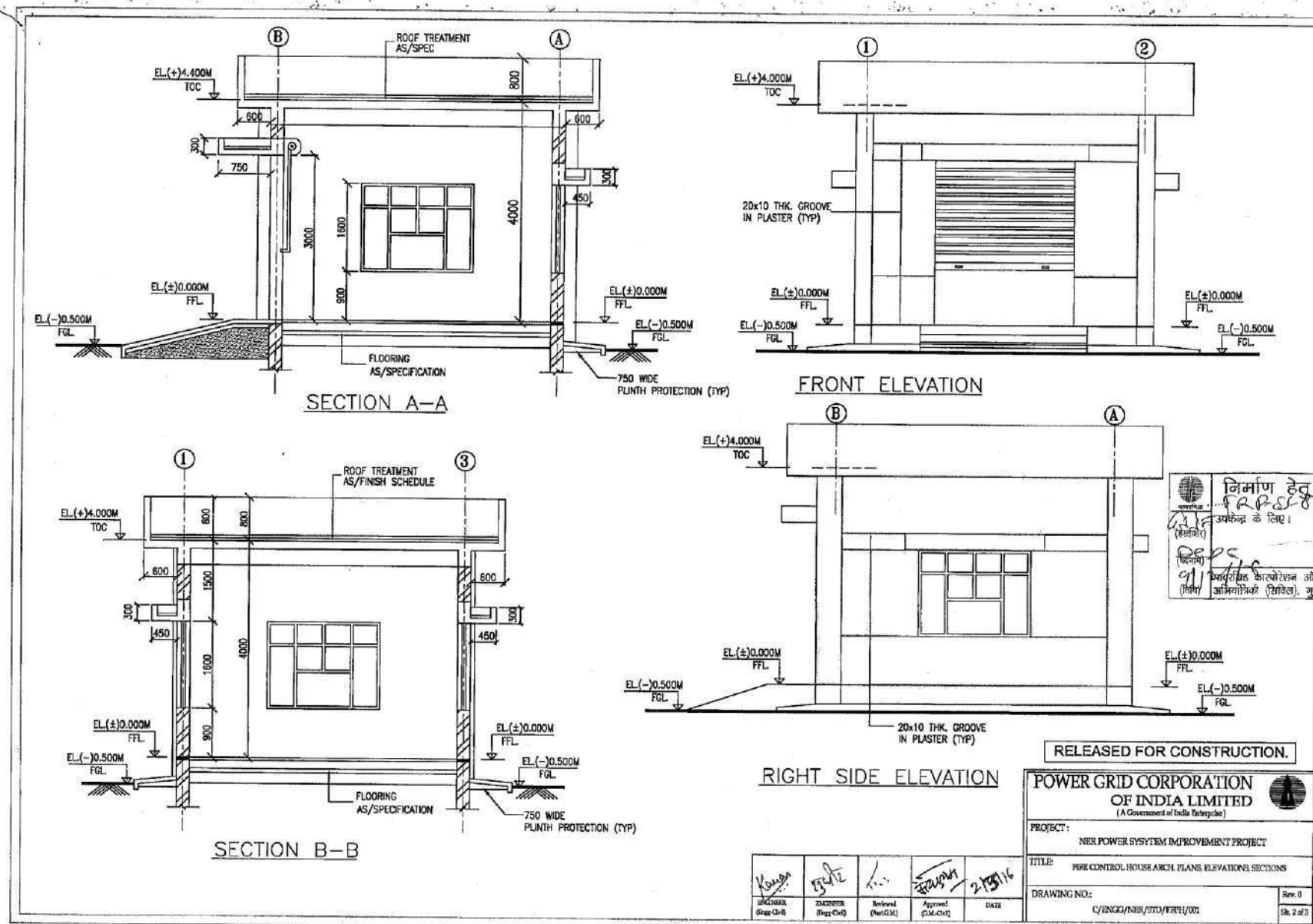


Sample Drainage layout of Satchand S/s



Annexure 13

Fire Fighting System



निर्माण हेतु जारी
... 12.12.80 ... 01.01.81
अपेक्ष के लिए।
(हस्ताक्षर)
(दिनांक)
91/12/80
(तिथि) भारतीय कर्मचारी आयोग, इंडिया रि
अभियंत्रक (सिविल), गुजरात, हरिया

RELEASED FOR CONSTRUCTION.

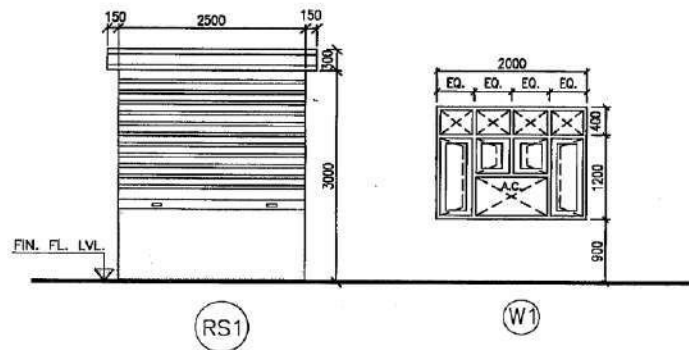
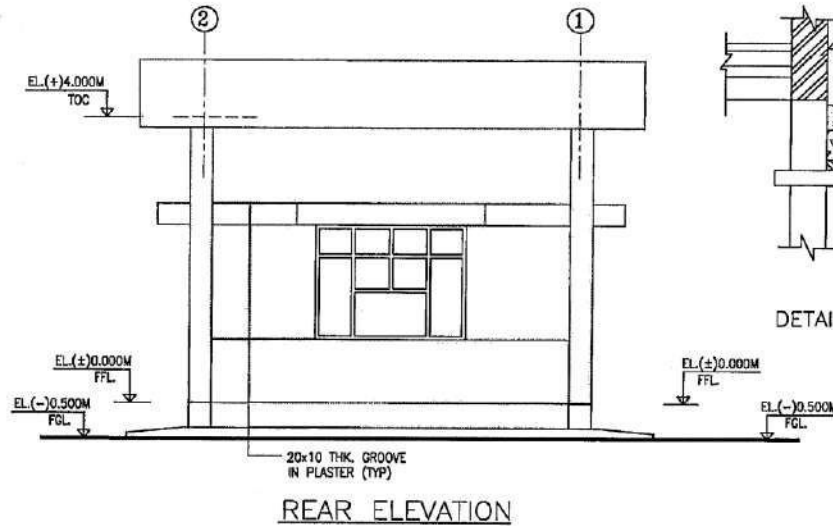
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)

PROJECT: NER POWER SYSTEM IMPROVEMENT PROJECT

TITLE: FIRE CONTROL HOUSE ARCH. PLANS, ELEVATIONS, SECTIONS

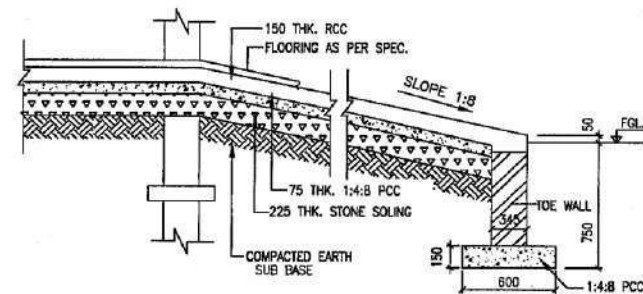
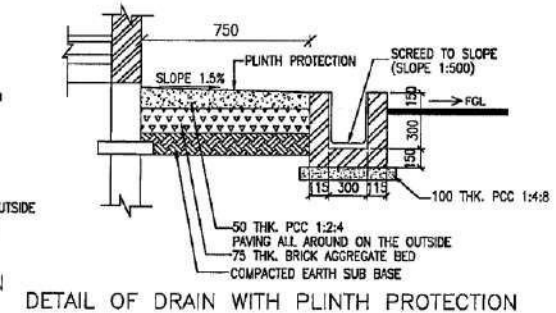
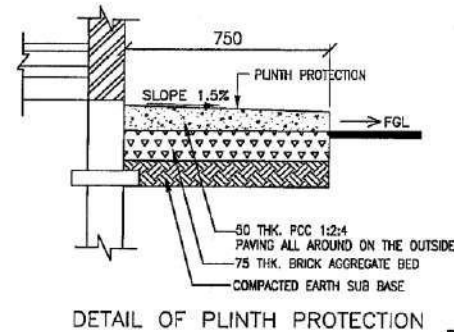
DRAWING NO: C/ENGG/NER/STD/FTH/00



Rev. 8
Sh. 2 c

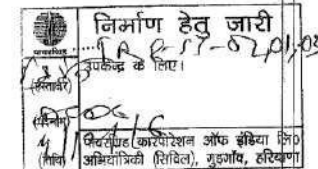


SCHEDULE OF DOORS & WINDOWS

TYPE	OPENING SIZE	FRAME SIZE	CILL LEVEL	LINTEL LEVEL	NOS.	DESCRIPTION
RS1	2500 X 3000	2500 X 3000	-	3000	1	STEEL ROLLING SHUTTER
W1	2000 X 1600	1980 X 1580	900	2500	3	STANDARD STEEL WINDOW PARTLY FIXED & PARTLY OPENABLE



-  SIDE HUNG OPENABLE PANEL
 FIXED GLASS PANEL
 FFL = FINISH FLOOR LEVEL
 FGL = FINISH GRADE LEVEL
 H.P. = HIGH POINT
 L.P. = LOWER POINT



POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

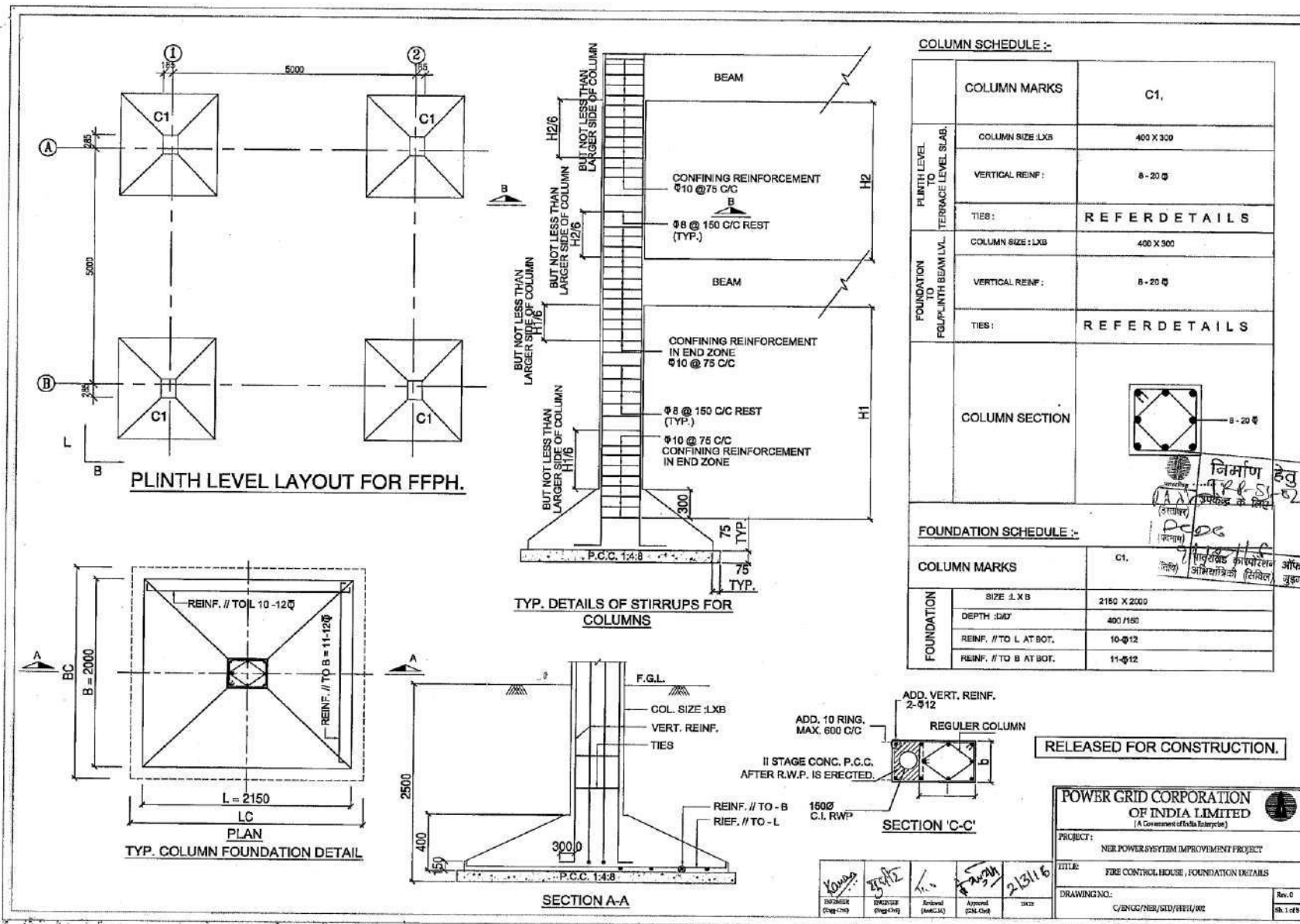
PROJECT: NER POWER SYSTEM IMPROVEMENT PROJECT

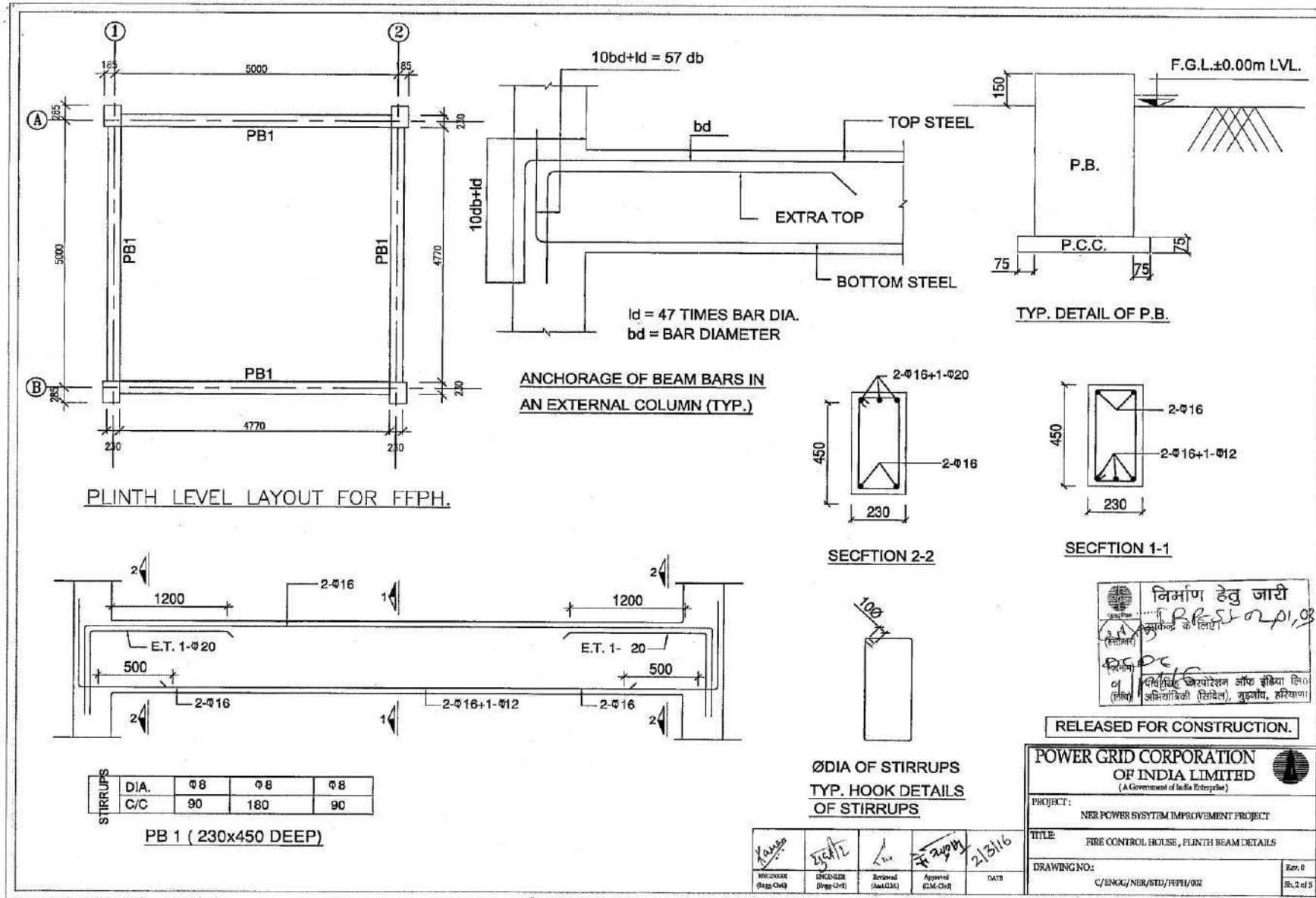
TITLE: FIRE CONTROL HOUSE ARCH. PLANS, ELEVATIONS, SECTIONS AND DETAILS

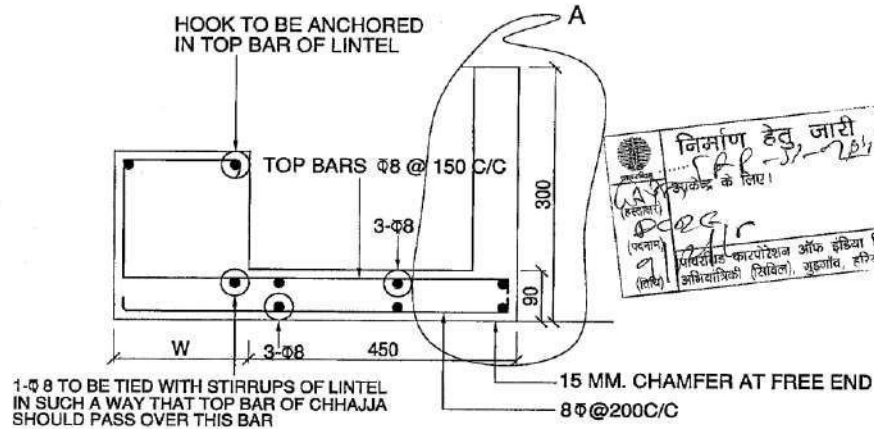
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Rev. 0

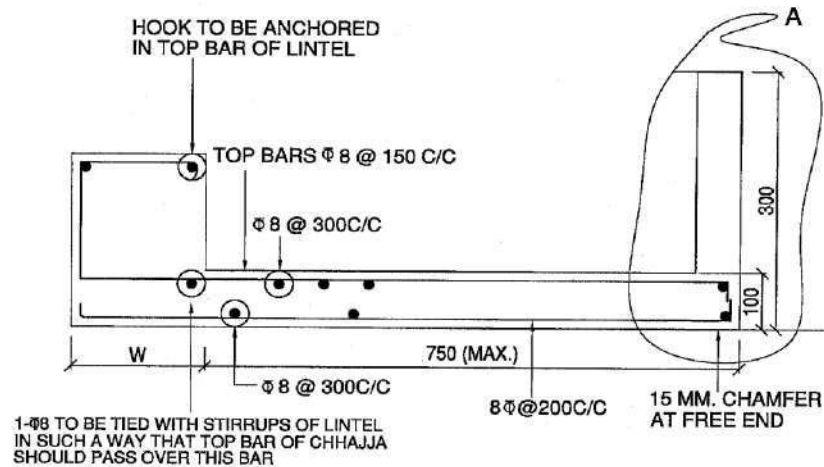
Sh. 3 of 3



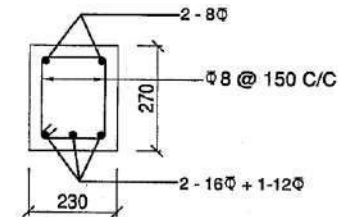
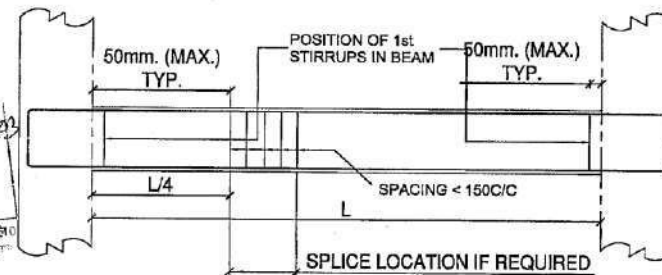




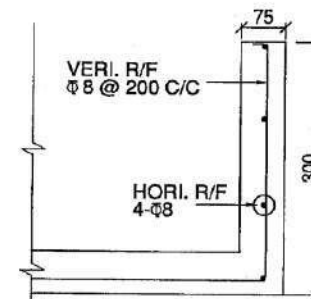
TYPICAL CHHAJJA DETAIL UP TO 450mm PROJECTION



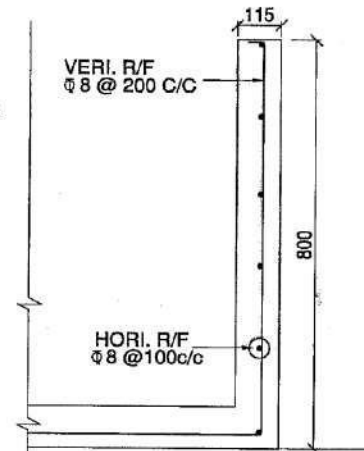
TYPICAL CHHAJJA DETAIL UP TO 750mm PROJECTION



TYP. SECTION FOR LINTEL



DETAIL A



DETAIL OF PARAPET

RELEASED FOR CONSTRUCTION.

**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)

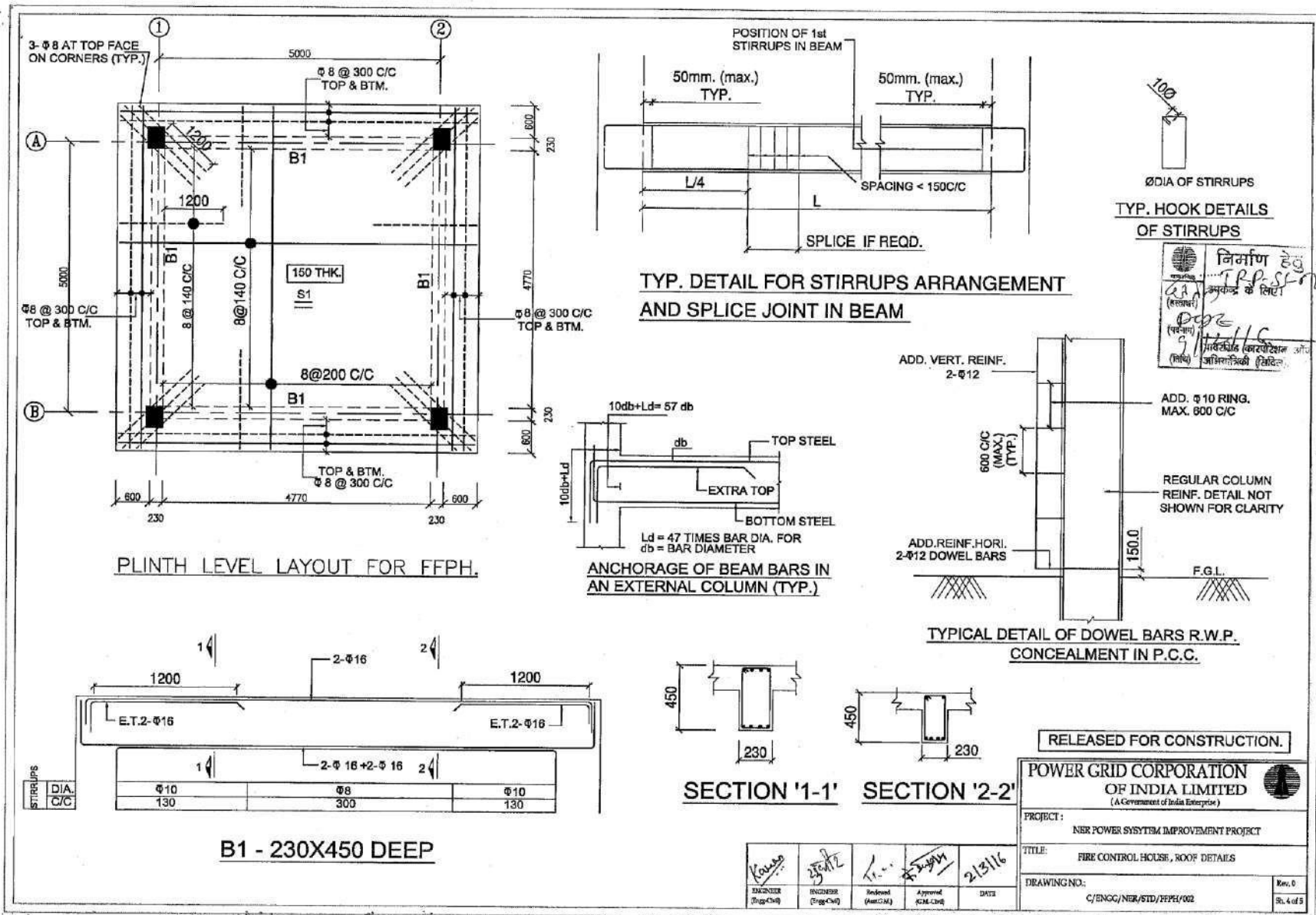
PROJECT: NER POWER SYSTEM IMPROVEMENT PROJECT

TITLE: FIRE CONTROL HOUSE, LINTEL DETAILS

DRAWING NO: C/ENGG/NER/STD/FEPL/002

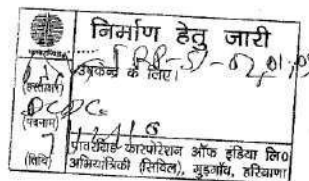
Rev. 0
Sh. 3 of 5

2/3/116	2/3/116	2/3/116	2/3/116	2/3/116
DESIGNED (Engg. Clk)	ENGINEER (Engg. Clk)	REVIEWED (Asst. Engg. Clk)	APPROVED (Asst. Engg. Clk)	DATE



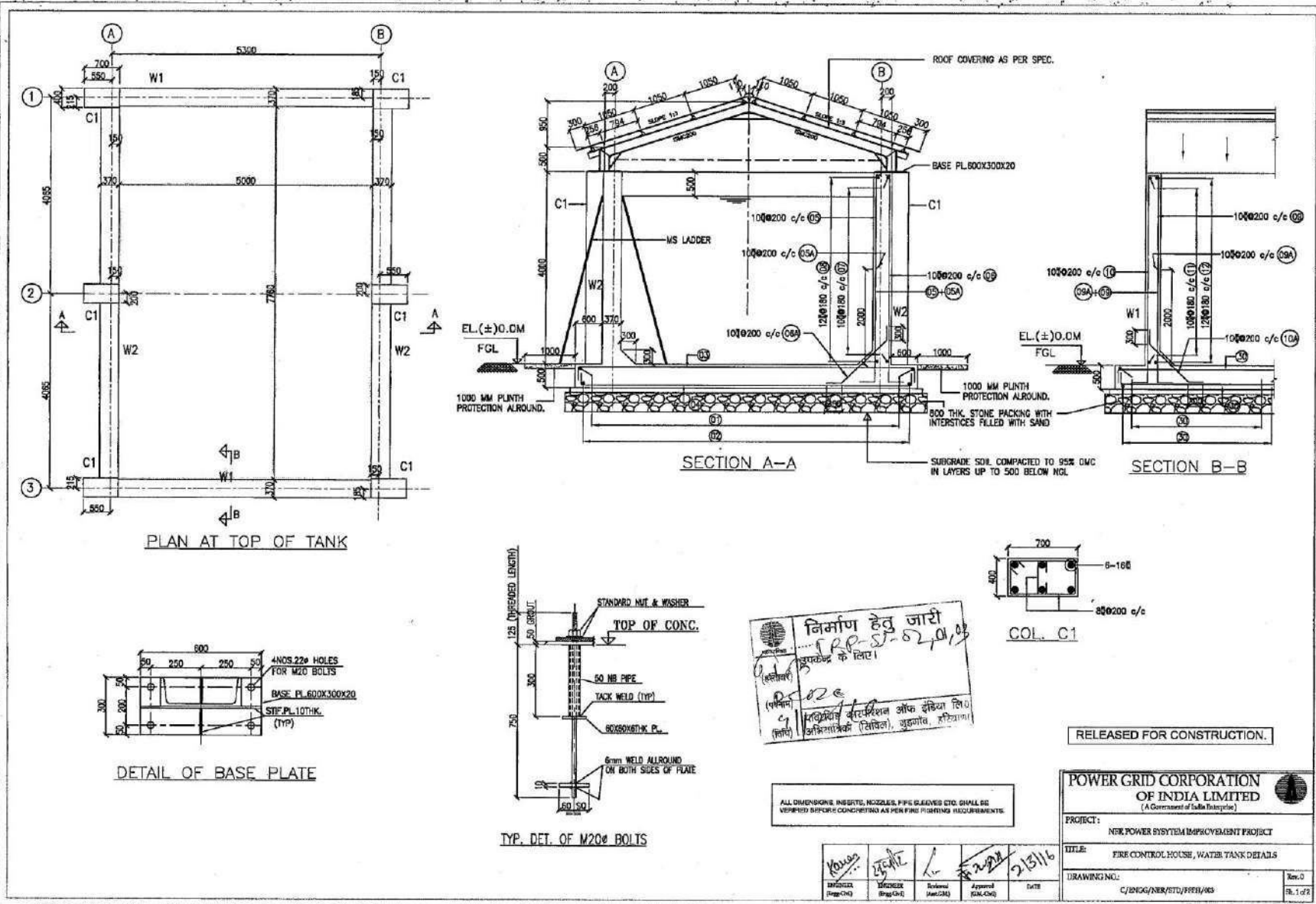
GENERAL NOTES:-

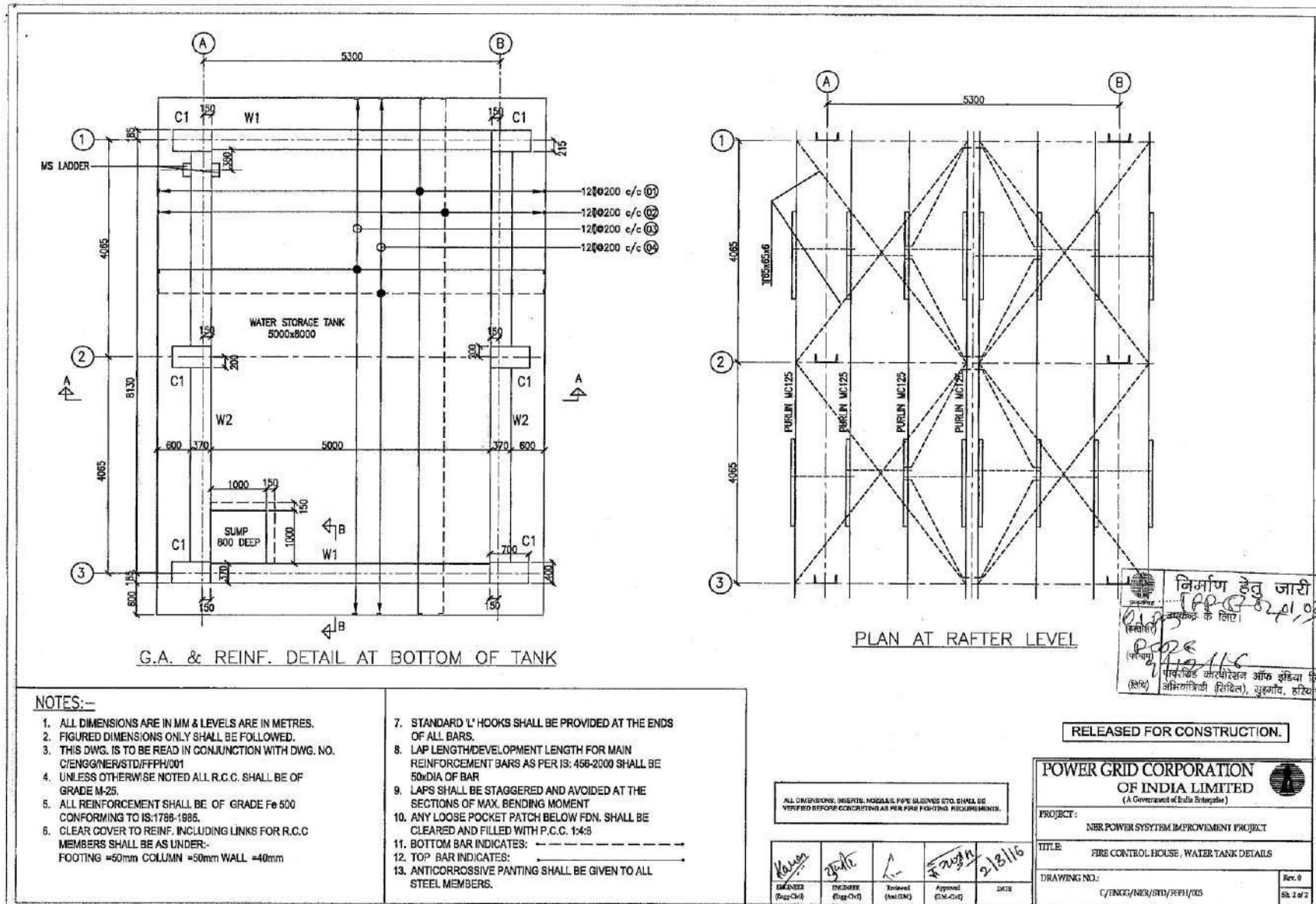
- (1) ALL DIMENSIONS ARE IN MM AND LEVEL IN METERS.
- (2) DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
- (3) UNLESS OTHERWISE NOTED ALL R.C.C. SHALL BE OF GRADE M-25.
- (4) ALL LEAN CONCRETE SHALL BE 1:4.8 (1 CEMENT ,4 COARSE SAND 8 GRADED STONE AGGREGATE 40 MM NOMINAL SIZE).A SLIDING LAYER OF BITUMEN PAPER OR CRAFT PAPER SHALL BE PROVIDED BETWEEN BASE SLAB
- (5) ALL REINFORCEMENT SHALL BE OF GRADE Fe 500 CONFORMING TO IS:1786-1985.
- (6) CLEAR COVER TO REINFORCEMENT SHALL BE AS UNDER
 - * BOTTOM AND SIDES OF FOUNDATION - 50 MM
 - * FOR COLUMN - 40 MM
 - * FOR BEAMS - 25 MM
 - * FOR LINTELS, CHAJJAS & SLABS - 20 MM
- 7 PROVIDE CLEAR COVER TO REINFORCEMENT FOR WATER TANK AS GIVEN BELOW..
25 mm FOR FACE IN CONTACT WITH WATER
50 mm FOR FACE IN CONTACT WITH SOIL
- 8 ALL LAPS SHALL BE STAGGERED AND LAP LENGTH SHALL BE 50 TIMES THE BAR DIA.
- 9 CONSTRUCTION JOINT BE IN CONSULTATION WITH SITE INCHARGE TO SUIT CONCRETING PROGRAMME/FORM WORK.
- 10 WATER NOT TO BE FILLED IN TANK UNTIL TOP LIFT HAS BEEN CAST & CURED
- 11 INTEGRAL WATER PROOFING COMPOUND SHALL BE ADDED WHILE CONCRETING AS PER Manufacturer's RECOMMENDATIONS
- 12 ALL INSERTS, NOZZLES, PIPE SLEEVES ETC. SHALL BE PLACED IN POSITION BEFORE CONCRETING AS PER FIRE FIGHTING REQUIREMENTS.
- 13 DIMENSIONS OF EQUIPMENT FOUNDATIONS SHALL BE AS PER F.F.SYSTEM REQUIREMENTS.
- 14 PURL INS SHALL BE MANUFACTURED AFTER EXACT MEASUREMENT AT SITE.
- 15 COLOUR SCHEME MATCHING WITH CR BUILDING SHALL BE DECIDED AT SITE
- 16 ALL EXTERNAL WALLS ARE 230 THICK
- 17 WATER PROOFING SHALL BE DONE AS PER SPECIFICATION
- 18 ALL EXTERNAL SURFACES SHALL HAVE 18 MM THK CEMENT PLASTER AS PER SPECIFICATION.
- 19 ALL INTERNAL SURFACES SHALL HAVE 12 MM THK CEMENT PLASTER ON SMOOTH SURFACE OF BRICK WALL & 15mm THK. CEMENT PLASTER ON ROUGH SIDE OF BRICK WALL AS PER SPECIFICATION.
- 20 CEILINGS SHALL HAVE 6MM THK CEMENT PLASTER AS PER SPECIFICATION .
- 21 OUTSIDE AND INSIDE SURFACES OF FIRE WATER TANK SHALL BE UNPLASTERED AND PROVIDED WITH A NEAT COAT OF CEMENT WASH
- 22 FOUNDATION HAS BEEN DESIGNED FOR A BEARING CAPACITY OF 9.0 MT/SQM
- 23 LEVELS OF PLINTH BEAM SHALL BE VERIFIED AS PER CABLE ENTRY DETAILS.



DRG. NO.	ENGINEER	Reviewed	Approved	DATE
21/3/16				

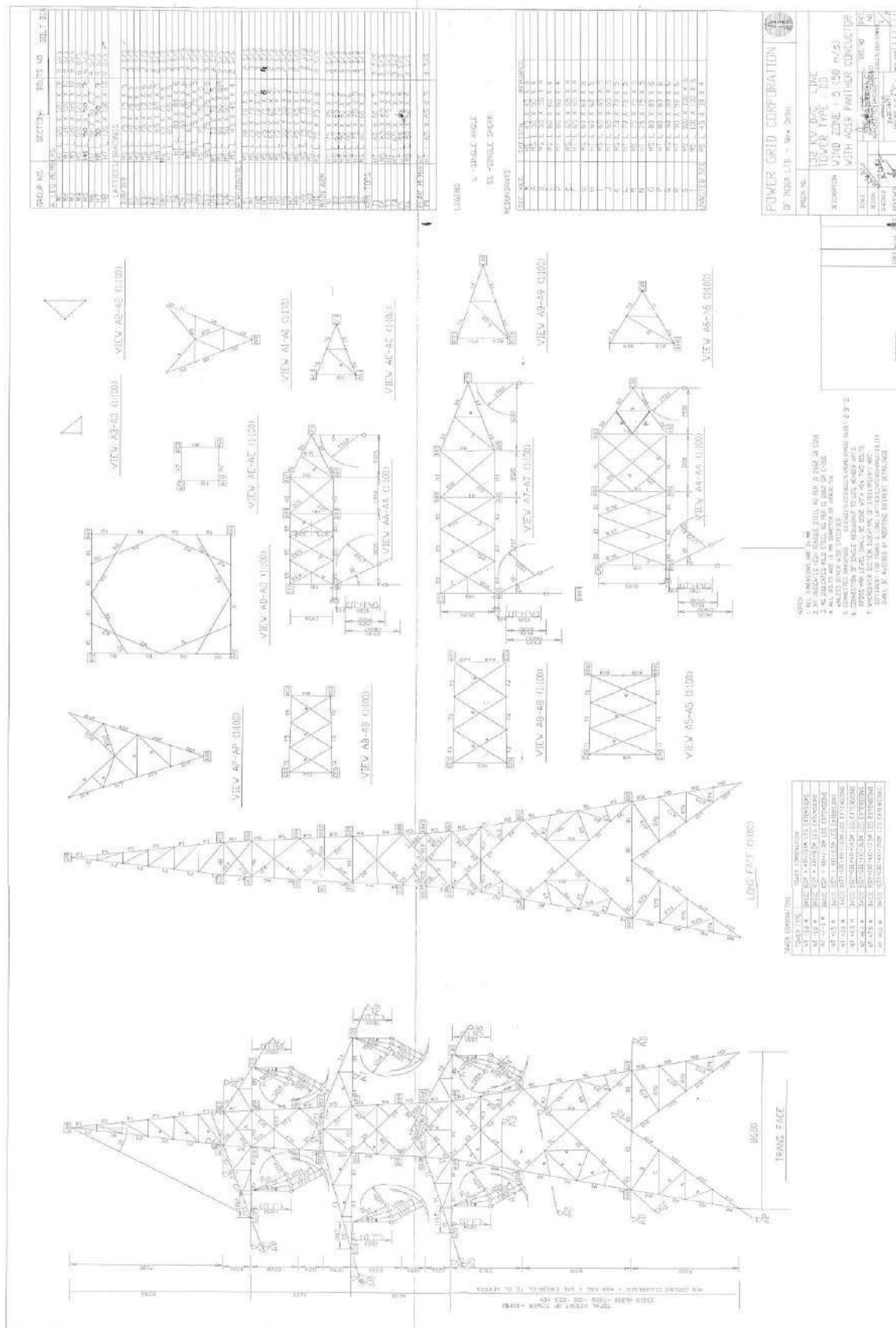
POWER GRID CORPORATION OF INDIA LIMITED (A Government of India Enterprise)	
PROJECT: NER POWER SYSTEM IMPROVEMENT PROJECT	
TITLE: FIRE CONTROL HOUSE, GENERAL NOTES	
DRAWING NO: C/ENG/NIS/STD/HPH/02	Rev. 0 Sh. 5 of 5

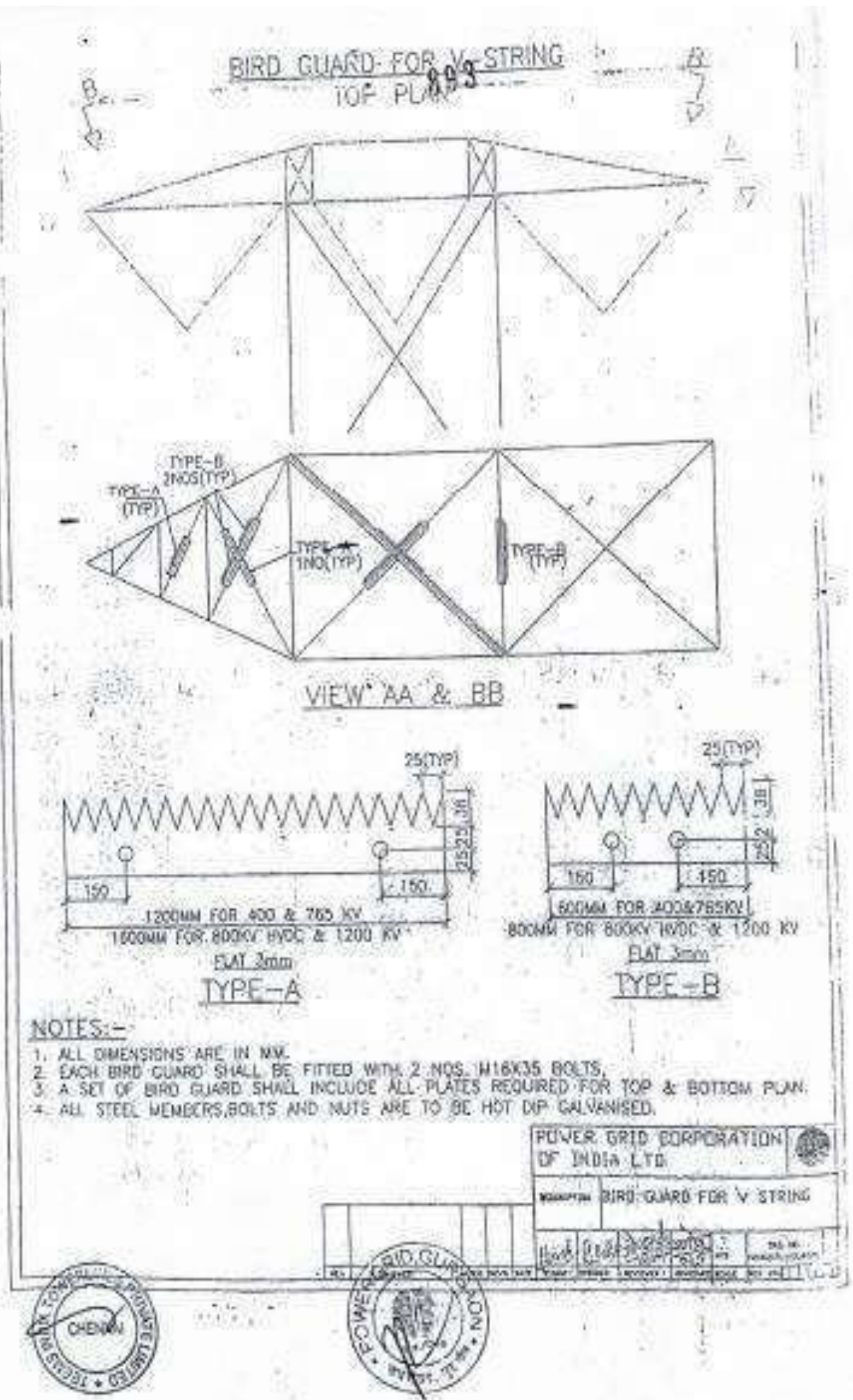


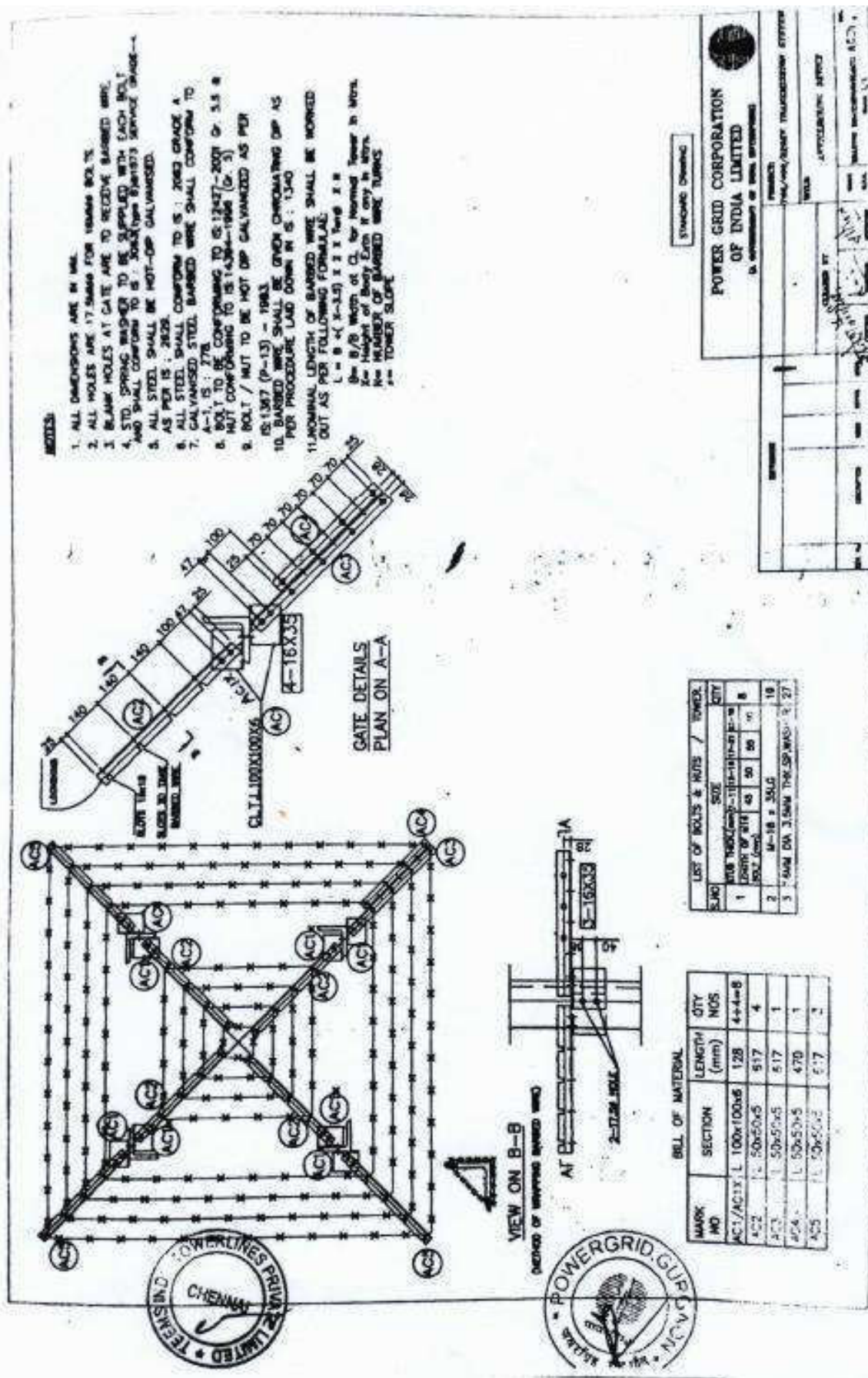


Annexure 14

Tower Design and Bird Guard and Anti-Perch Device



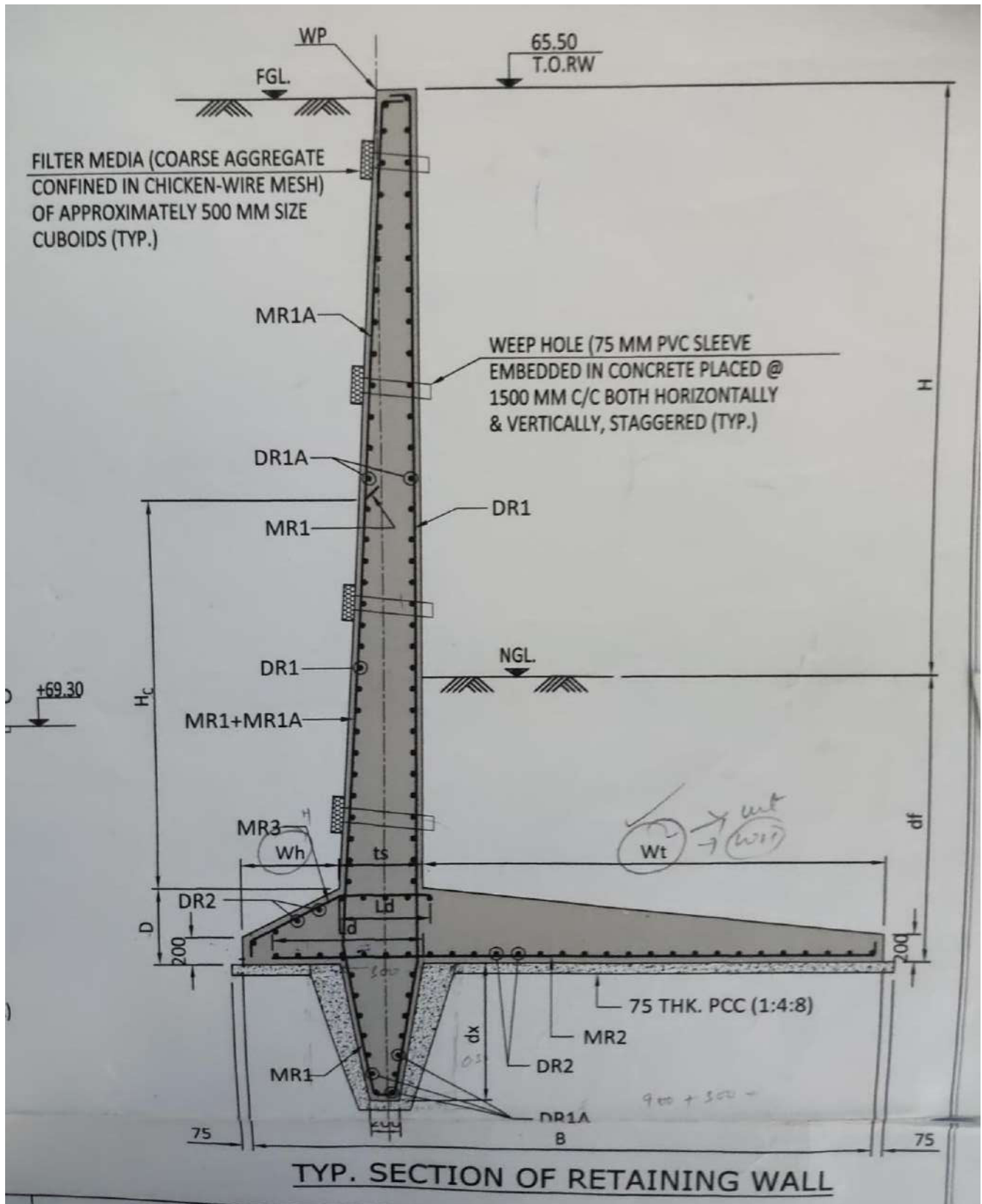


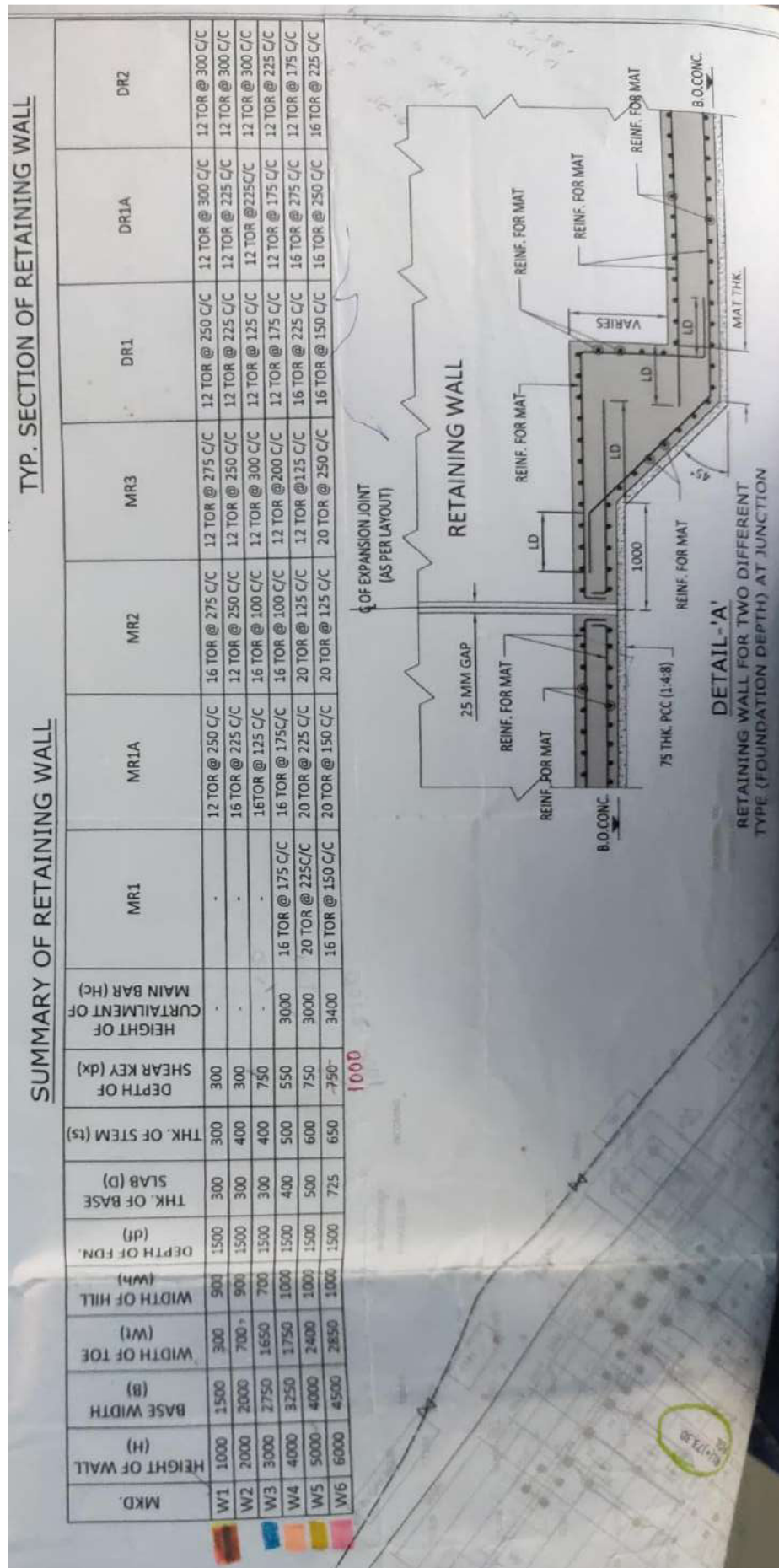


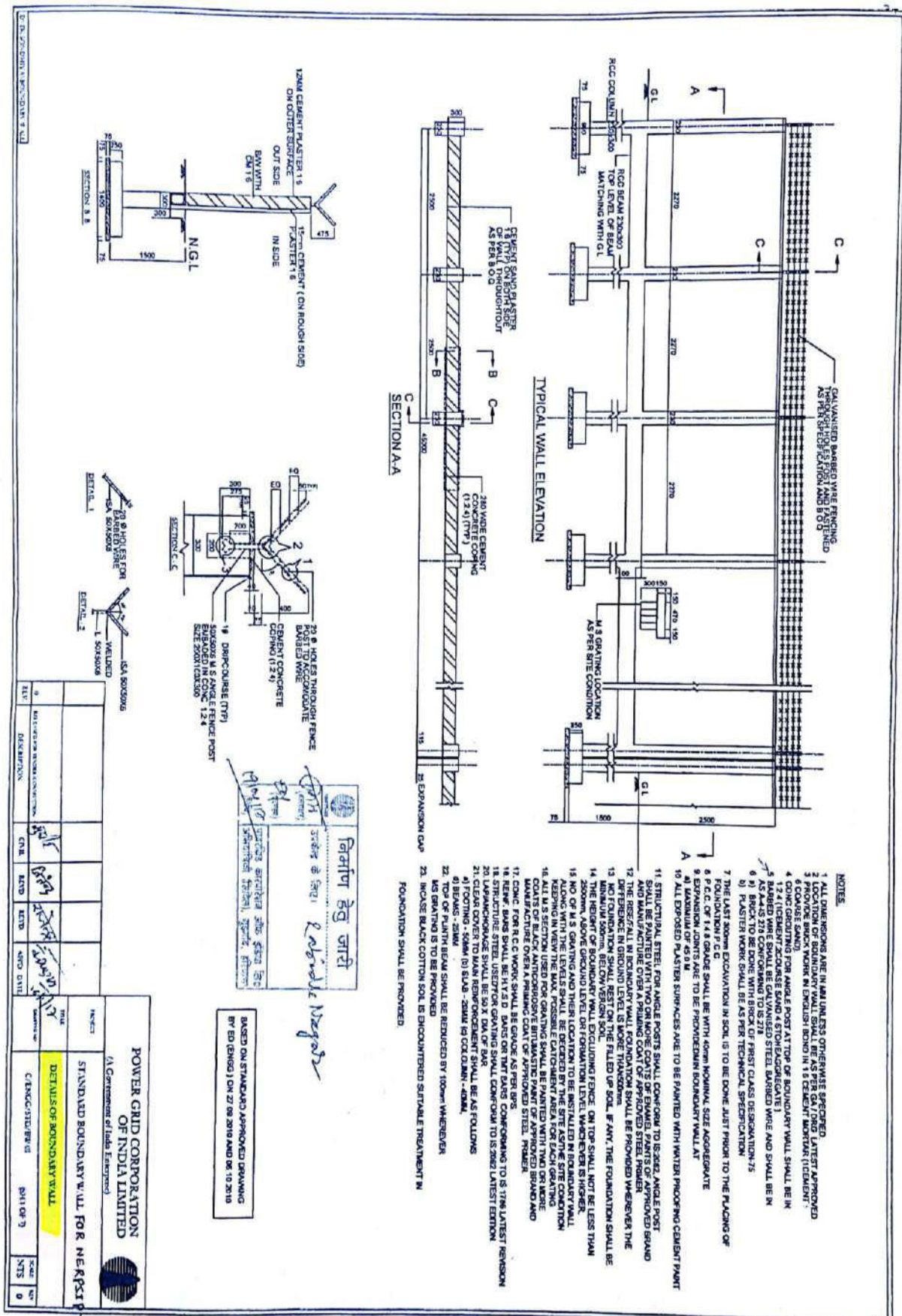
Annexure 15

Drawings of RRM Wall / Pretension Wall / Boundary Wall

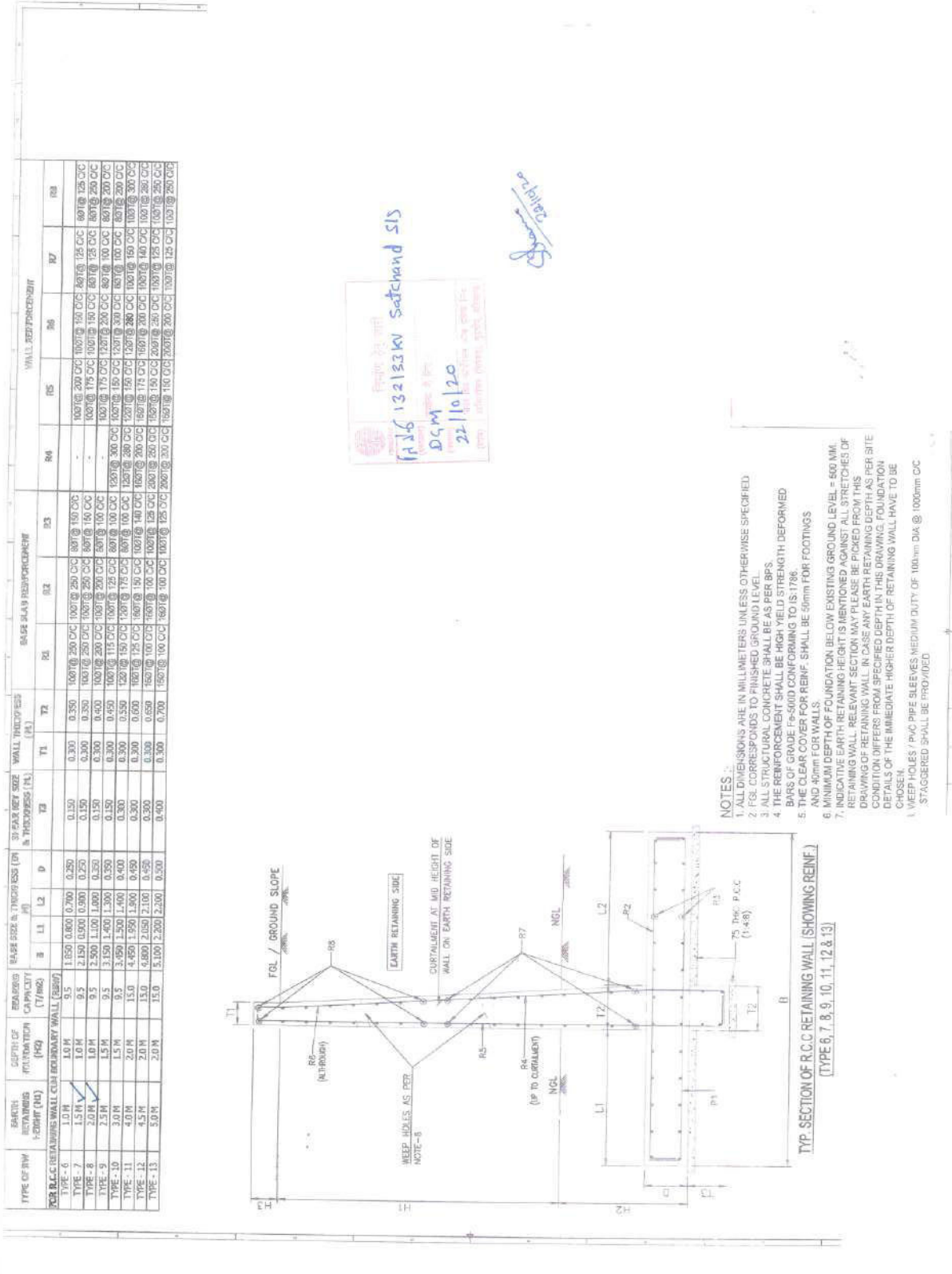
Drawing of Retention Wall



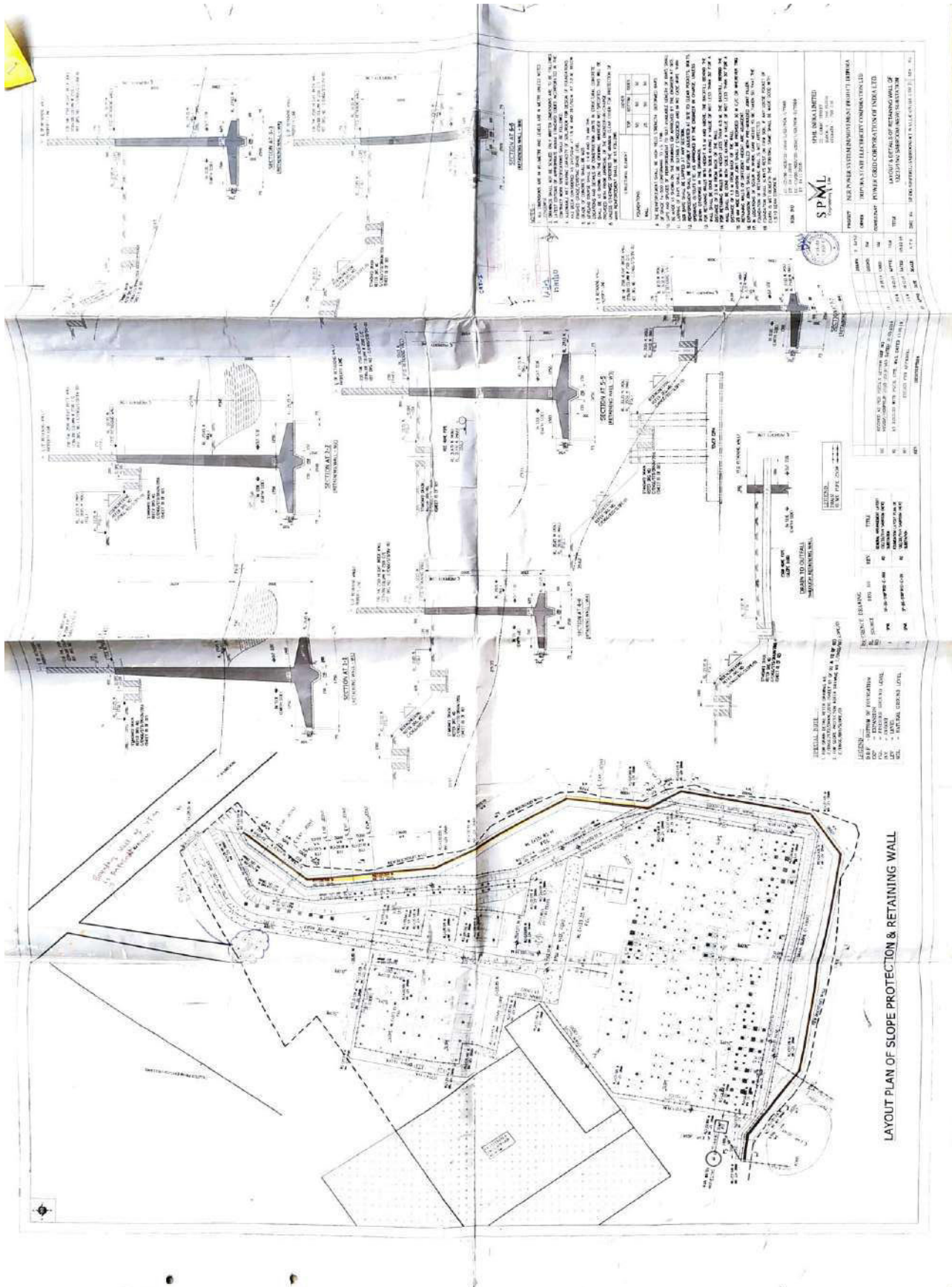




Approved Drawing of Retaining Wall at Satchand S/S



Approved Drawing of Retaining Wall at Sabroom S/S



Annexure 16

Safety Conditions in Contract Agreement

POWER GRID CORPORATION OF INDIA LTD.**NERPSIP :: AGARTALA**

Ref: NEAGT/NERPSIP-600/2018-19/

Dated: 12.05.2018

**Sub: - Proposal for approval of Safety Plan for Tower Package TW-01, TW-02, TW-03 for
Tripura associated to NERPSIP being awarded to M/s. EMC Limited.**

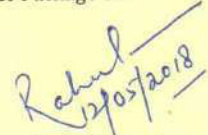
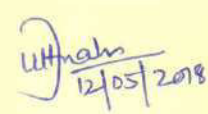
Ref: - CC-CS/86-NER/TW-3612/1/G4/NOA-II/7337 dtd. 12.06.2017

CC-CS/86-NER/TW-3613/1/G4/NOA-II/7339 dtd. 12.06.2017

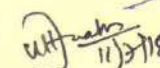
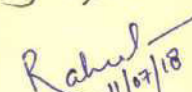
CC-CS/86-NER/TW-3614/1/G4/NOA-II/7341 dtd. 12.06.2017

1. Tower package TW-01, TW-02, TW-03 for Tripura associated to NERPSIP is awarded to M/s. EMC Limited. Under the above said package there are total 08 No. 132kV New Transmission Lines, 03 No. Interconnection portions and 03 No. LILOs with total of 238 km line length. The scope of work also includes 260 km and 171 km OPGW stringing in 14 No. 132kV New and 09 No. 132kV Existing Transmission Lines, respectively.
2. As per the contract agreement Volume B, Section IX. PCC 22.4.3.26, the contractor has to submit the Safety Plan as per Section IX: Contract Forms, Part-3 of bidding document.
3. M/s. EMC Limited vide their letter reference EMC/Tripura/Safety/2018/48 dated 18.01.2018; EMC/Tripura/TW-02/Safety/26; EMC/Tripura/TW03/2017-18/29 dated 04.04.2018 has requested for approval of the Safety Plan to in line with contract agreement guidelines for implementation during the construction of 132kV New Transmission Lines under Tower package TW-01, TW-02, TW-03. The Safety Plan is enclosed for kind perusal.
4. The documents and enclosures submitted by M/s. EMC Limited has been checked and found in order as per requirement of LOA.
5. In view of above it is recommended to approve the Safety Plan for the Tower Package TW-01, TW-02, TW-03 as submitted by M/s. EMC Limited.

Put up for kind approval please.

Dy. Manager (NERPSIP)/ Agartala
(Rahul Misra)
FO (ESM), Agartala
→ DGM (NERPSIP) / Agartala
Uthman Sheikh, Dy. Mgr.
R. Misra, FO (ESM)

Approved as proposed.


11/05/18
11/07/18



अभिप्रेत पश्चिम बंगाल WEST BENGAL

22AA 264826

SAFETY PLAN

THIS SAFETY PLAN is made this 7th day of August 2017 by EMC LIMITED, a Company registered under the Companies Act, 1956 concern having its Registered Office at Constantia Office Complex, 11, Dr U N Brahmachari Street, 8th Floor, South Block, Kolkata-700017 (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of M/s Power Grid Corporation of India Limited., a company incorporated under the Companies Act, 1956 having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 for its Contract for Tower Package TW-01 associated with NER Power System Improvement Project (Intra-State: Tripura) (Specification No CC-CS/86-NER/TW-3612/1/G4)

WHEREAS POWERGRID has awarded to the Contractor the aforesaid Contract vide its Notification of Award No. CC-CS/86-NER/TW-3612/1/G4/NOA-I/7336 & NOA-II/7337 dated 12.06.2017 for construction of Tower Package : TW-01 associated with NER Power System Improvement Project (Intra-State : Tripura) – Specification NO. CC-CS/86-NER/TW-3612/1/G4 (hereinafter called the "Contract") in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the POWERGRID within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.

For EMC Limited.
Rakesh Kumar
Rakesh Kumar
Safety Officer.

For EMC Limited.
Mithu Dutta
Mithu Dutta
(Project Manager)





पश्चिम बंगाल WEST BENGAL

22AA 264827

SAFETY PLAN

THIS SAFETY PLAN is made this 7th day of August 2017 by EMC LIMITED, a Company registered under the Companies Act, 1956 concern having its Registered Office at Constantia Office Complex, 11, Dr U.N Brahmachari Street, 8th Floor, South Block, Kolkata-700017 (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of M/s Power Grid Corporation of India Limited., a company incorporated under the Companies Act, 1956 having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 for its Contract for Tower Package TW02 associated with NER Power System Improvement Project (Intra-State: Tripura) (Specification No CC-CS/86-NER/TW-3612/1/G4)

WHEREAS POWERGRID has awarded to the Contractor the aforesaid Contract vide its Notification of Award No. CC-CS/86-NER/TW-3613/1/G4/NOA-I/7338 & CA-II/7339 dated 12.06.2017 for Construction of Tower Package : TW-02 associated with NER Power System Improvement Project (Inter-State : Tripura) – Specification No. CC-CS/86-NER/TW-3613/1/G4 (hereinafter called the "Contract") in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the POWERGRID within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.





पश्चिम बंगाल पश्चिम बंगाल WEST BENGAL

22AA 264828

SAFETY PLAN

THIS SAFETY PLAN is made this 7th day of August 2017 by EMC LIMITED, a Company registered under the Companies Act, 1956 concern having its Registered Office at Constantia Office Complex, 11, Dr U N Brahmachari Street, 8th Floor, South Block, Kolkata-700017 (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of M/s Power Grid Corporation of India Limited., a company incorporated under the Companies Act, 1956 having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 for its Contract for Tower Package TW03 associated with NER Power System Improvement Project (Intra-State: Tripura) (Specification No CC-CS/86-NER/TW-3612/1/G4)

WHEREAS POWERGRID has awarded to the Contractor the aforesaid Contract vide its Notification of Award No. CC-CS/86-NER/TW-3614/1/G4/NOA-I/7340 & CA-II/7341 dated 12.06.2017 for Construction of Tower Package-TW-03 associated with NER Power System Improvement Project (Inter-State : Tripura – Specification No. CC-CS/86-NER/TW-3614/1/G4 (hereinafter called the "Contract") in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the POWERGRID within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.



THE CONTRACTOR shall incorporate modifications/changes in this 'Safety Plan' necessitated on the basis of review/comments of the Engineer In-Charge/Project Manager within fourteen (14) days of receipt of review/comments and on final approval of the Engineer In-Charge/Project Manager of this 'Safety Plan', the Contractor shall execute the works under the Contract as per approved 'Safety Plan'. Further, the Contractor has also noted that the first progressive payment towards Services Contract shall be made on submission of 'Safety Plan' alongwith all requisite documents and approval of the same by the Engineer In-Charge/Project Manager.

IN WITNESS WHEREOF, the Contractor has hereunto set its hand through its authorised representative under the common seal of the Company, the day, month and year first above mentioned.



For and on behalf of
EMC Limited

Manoj Toshniwal
Name : **MANOJ TOSHWAL**

Designation : Managing Director

(Common Seal)

WITNESS

1. Signature

Name :

Address :

2. Signature

Name :

Address :

✓ *Manoj Toshniwal*

ordered by the Employer consistent with the requirements of the Contract.

PC 21.4 Replace the word 'materials' in line no. 2 with 'Plant and Equipment'.

Add the word 'including liabilities for port charges if any' after the word 'clearance' in line no. 3.

Addition of Sub-Clauses (PC22.2.3.1, PC22.2.3.2, PC22.2.3.3, PC 22.2.3.4) of GC 22.2.3

PC 22.2.3.1 Compliance with Labour Regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all applicable existing labour enactments and rules made thereunder, regulations notifications and byelaws of the State or Central Government or local authority and any other labour law (including rules), regulations bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. The employees of the Contractor and the Sub-contractor in no case shall be treated as the employees of the Employer at any point of time.

PC 22.2.3.2 The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made thereunder, regulations or notifications including amendments.

PC 22.2.3.3 If the Employer is caused to pay under any law as principal employer such amounts as may be necessary to cause or observe, or for non observance of the provisions stipulated in the notifications/ byelaws/Acts/ Rules/regulations including amendments, if any, on the part of the Contractor, the Employer shall have the right to deduct any money due to the Contractor under this contract or any other contract with the employer including his amount of performance security for adjusting the aforesaid payment. The Employer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

PC 22.2.3.4 Salient features of some major laws applicable to establishments engaged in building and other construction works are indicated at **Appendix-I** to PC.

Addition of New Sub-Clauses (PC22.4.1 to 22.4.3 including its sub-clauses) of GC 22.4

PC 22.4.1 **Protection of Environment**

The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other

causes arising as consequence of his methods of operation.

During continuance of the Contract, the Contractor and his Sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

Salient features of some of the major laws that are applicable are given below:

The Water (Prevention and Control of Pollution) Act, 1974, This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

The Air (Prevention and Control of Pollution) Act, 1981, This provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

The Environment (Protection) Act, 1986, This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

The Public Liability Insurance Act, 1991, This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under Environment (Protection) Act, 1986, and exceeding such quantity as may be specified by notification by the Central Government.

PC 22.4.2

- (i) The Contractor shall (a) establish an operational system of managing environmental impacts, (b) carry out all the monitoring and mitigation measures set forth in the environment management plan attached to the Particular Conditions as Appendix-I, and (c) allocate the budget required

to ensure that such measures are carried out. The Contractor shall submit to the Employer (quarterly) semi-annual) reports on the carrying out of such measures.

- (ii) The Contractor shall adequately record the conditions of roads, agricultural land and other infrastructure prior to transport of material and construction commencement, and shall fully reinstate pathways, other local infrastructure and agricultural land to atleast their pre-project condition upon construction completion.
- (iii) The Contractor shall undertake detailed survey of the affected persons during transmission line alignment finalization under the Project, where applicable. and
- (iv) The Contractor shall conduct health and safety programme for workers employed under the Contract and shall include information on the risk of sexually transmitted diseases, including HIV/AIDS in such programs.

PC 22.4.3 Safety Precautions

PC 22.4.3.1 The Contractor shall observe all applicable regulations regarding safety on the Site.

Unless otherwise agreed, the Contractor shall, from the commencement of work on Site until taking over, provide:

- a) fencing, lighting, guarding and watching of the Works wherever required, and
- b) temporary roadways, footways, guards and fences which may be necessary for the accommodation and protection of Employer / his representatives and occupiers of adjacent property, the public and others.

PC 22.4.3.2 The Contractor shall ensure proper safety of all the workmen, materials, plant and equipment belonging to him or to THE EMPLOYER or to others, working at the Site. The Contractor shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislations and the Engineer, as he may deem necessary.

PC 22.4.3.3 The Contractor will notify well in advance to the Engineer of his intention to bring to the Site any container filled with liquid or gaseous fuel or explosive or petroleum substance or such chemicals which may involve hazards. The Engineer shall have the right to prescribe the conditions, under which such container is to be stored, handled and used during the performance of the works and the Contractor shall strictly adhere to and comply with such

Section VIII, Particular Conditions

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instructions. The Engineer shall have the right at his sole discretion to inspect any such container or such construction, plant/equipment for which material in the container is required to be used and if in his opinion, its use is not safe, he may forbid its use. No claim due to such prohibition shall be entertained by the Owner and the Owner shall not entertain any claim of the Contractor towards additional safety provisions/conditions to be provided for/constructed as per the Engineer's instructions.

Further, any such decision of the Engineer shall not, in any way, absolve the Contractor of his responsibilities and in case, use of such a container or entry thereof into the Site area is forbidden by the Engineer, the Contractor shall use alternative methods with the approval of the Engineer without any cost implication to THE EMPLOYER or extension of work schedule.

- PC 22.4.3.4 Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosives, the Contractor shall be responsible for carrying-out such provision and/or storage in accordance with the rules and regulations laid down in Petroleum Act 1934, Explosives Act, 1948 and Petroleum and Carbide of Calcium Manual published by the Chief Inspector of Explosives of India. All such storage shall have prior approval of the Engineer. In case, any approvals are necessary from the Chief Inspector (Explosives) or any statutory authorities, the Contractor shall be responsible for obtaining the same.
- PC 22.4.3.5 All equipment used in construction and erection by Contractor shall meet Indian/International Standards and where such standards do not exist, the Contractor shall ensure these to be absolutely safe. All equipment shall be strictly operated and maintained by the Contractor in accordance with manufacturer's Operation Manual and safety instructions and as per Guidelines/rules of THE EMPLOYER in this regard.
- PC 22.4.3.6 Periodical examinations and all tests for all lifting/hoisting equipment & tackles shall be carried-out in accordance with the relevant provisions of Factories Act 1948, Indian Electricity Act 1910 and associated Laws/Rules in force from time to time. A register of such examinations and tests shall be properly maintained by the Contractor and will be promptly produced as and when desired by the Engineer or by the person authorised by him.
- PC 22.4.3.7 The Contractor shall be fully responsible for the safe storage of his and his Sub-Contractor's radioactive sources in accordance with BARC/DAE Rules and other applicable provisions. All precautionary measures stipulated by

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Section VIII, Particular Conditions

BARC/DAE in connection with use, storage and handling of such material will be taken by the Contractor.

PC 22.4.3.8 The Contractor shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need, as may be directed by the Engineer who will also have right to examine these safety equipment to determine their suitability, reliability, acceptability and adaptability.

PC 22.4.3.9 Where explosives are to be used, the same shall be used under the direct control and supervision of an expert, experienced, qualified and competent person strictly in accordance with the Code of Practice/Rules framed under Indian Explosives Act pertaining to handling, storage and use of explosives.

PC 22.4.3.10 The Contractor shall provide safe working conditions to all workmen and employees at the Site including safe means of access, railings, stairs, ladders, scaffoldings etc. The scaffoldings shall be erected under the control and supervision of an experienced and competent person. For erection, good and standard quality of material only shall be used by the Contractor.

PC 22.4.3.11 The Contractor shall not interfere or disturb electric fuses, wiring and other electrical equipment belonging to the Owner or other Contractors under any circumstances, whatsoever, unless expressly permitted in writing by THE EMPLOYER to handle such fuses, wiring, or electrical equipment

PC 22.4.3.12 Before the Contractor connects any electrical appliances to any plug or socket belonging to the other Contractor or Owner, he shall:

- Satisfy the Engineer that the appliance is in good working condition;
- Inform the Engineer of the maximum current rating, voltage and phases of the appliances;
- Obtain permission of the Engineer detailing the sockets to which the appliances may be connected.

PC 22.4.3.13 The Engineer will not grant permission to connect until he is satisfied that:

- The appliance is in good condition and is fitted with suitable plug;
- The appliance is fitted with a suitable cable having two earth conductors, one of which shall be an

Power Packages ASM-TW01 & ASM-TW02 for Assam associated with NER Power System Improvement Project.

Section VIII, Particular Conditions

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earthed metal sheath surrounding the cores.

PC 22.4.3.14 No electric cable in use by the Contractor/Owner will be disturbed without prior permission. No weight of any description will be imposed on any cable and no ladder or similar equipment will rest against or attached to it.

PC 22.4.3.15 No repair work shall be carried out on any live equipment. The equipment must be declared safe by the Engineer and a permit to work shall be issued by the Engineer before any repair work is carried out by the Contractor. While working on electric lines/equipment, whether live or dead, suitable type and sufficient quantity of tools will have to be provided by the Contractor to electricians/workmen/officers.

PC 22.4.3.16 The Contractor shall employ necessary number of qualified, full time electricians/electrical supervisors to maintain his temporary electrical installation.

PC 22.4.3.17 The Contractor employing more than 250 workmen whether temporary, casual, probationer, regular or permanent or on contract, shall employ at least one full time officer exclusively as safety officer to supervise safety aspects of the equipment and workmen, who will coordinate with the Project Safety Officer. In case of work being carried out through Sub-Contractors, the Sub-Contractor's workmen/employees will also be considered as the Contractor's employees/workmen for the above purpose.

The name and address of such Safety Officers of the Contractor will be promptly informed in writing to Engineer with a copy to Safety Officer-In charge before he starts work or immediately after any change of the incumbent is made during currency of the Contract.

PC 22.4.3.18 In case any accident occurs during the construction/erection or other associated activities undertaken by the Contractor thereby causing any minor or major or fatal injury to his employees due to any reason, whatsoever, it shall be the responsibility of the Contractor to promptly inform the same to the Engineer in prescribed form and also to all the authorities envisaged under the applicable laws.

PC 22.4.3.19 The Engineer shall have the right at his sole discretion to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the Contractor shall be informed in writing about the nature of hazards and

Tower Packages-ASM-TW01 & ASM-TW02 for Assam-associated with NER Power System Improvement Project

possible injury/accident and he shall comply to remove shortcomings promptly. The Contractor after stopping the specific work can, if felt necessary, appeal against the order of stoppage of work to the Engineer within 3 days of such stoppage of work and decision of the Engineer in this respect shall be conclusive and binding on the Contractor.

PC 22.4.3.20 The Contractor shall not be entitled for any damages/compensation for stoppage of work due to safety reasons as provided in para GCC 22.4.3.19 above and the period of such stoppage of work will not be taken as an extension of time for completion of work and will not be the ground for waiver of levy of liquidated damages.

PC 22.4.3.21 It is mandatory for the Contractor to observe during the execution of the works, requirements of Safety Rules which would generally include but not limited to following:

Safety Rules.

- a) Each employee shall be provided with initial indoctrination regarding safety by the Contractor, so as to enable him to conduct his work in a safe manner.
- b) No employee shall be given a new assignment of work unfamiliar to him without proper introduction as to the hazards incident thereto, both to himself and his fellow employees.
- c) Under no circumstances shall an employee hurry or take unnecessary chance when working under hazardous conditions.
- d) Employees must not leave naked fires unattended. Smoking shall not be permitted around fire prone areas and adequate fire fighting equipment shall be provided at crucial location.
- e) Employees under the influence of any intoxicating beverage, even to the slightest degree shall not be permitted to remain at work.
- f) There shall be a suitable arrangement at every work site for rendering prompt and sufficient first aid to the injured.
- g) The staircases and passageways shall be adequately lighted.
- h) The employees when working around moving machinery, must not be permitted to wear loose

Section VIII: Particular Conditions

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EMPLOYER employees or any other person who are at Site or adjacent thereto, then the Contractor shall be responsible for payment of a sum as indicated below to be deposited with THE EMPLOYER, which will be passed on by THE EMPLOYER to such person or next to kith and kin of the deceased:

a.	Fatal injury or accident causing death	Rs. 1,000,000/- per person
b.	Major injuries or accident causing 25% or more permanent disablement	Rs. 100,000/- per person

Permanent disablement shall have same meaning as indicated in Workmen's Compensation Act. The amount to be deposited with THE EMPLOYER and passed on to the person mentioned above shall be in addition to the compensation payable under the relevant provisions of the Workmen's Compensation Act and rules framed there under or any other applicable laws as applicable from time to time. In case the Contractor does not deposit the above mentioned amount with THE EMPLOYER, such amount shall be recovered by THE EMPLOYER from any monies due or becoming due to the Contractor under the contract or any other on-going contract.

PC22.4.3.25

If the Contractor observes all the Safety Rules and Codes, Statutory Laws and Rules during the currency of Contract awarded by the Owner and no accident occurs then THE EMPLOYER may consider the performance of the Contractor and award suitable 'ACCIDENT FREE SAFETY MERITORIOUS AWARD' as per scheme as may be announced separately from time to time.

PC22.4.3.26

The Contractor shall also submit 'Safety Plan' as per proforma specified in Section IX: Contract Forms, Part-3 of Bidding Documents alongwith all the requisite documents mentioned therein and as per check-list contained therein to the Engineer In-Charge for its approval within 60 days of award of Contract.

Further, one of the conditions for release of first progressive payment / subsequent payment towards Services Contract shall be submission of 'Safety Plan' alongwith all requisite documents and approval of the same by the Engineer In-Charge.

Section VIII. Particular Conditions

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PC 22.6 Emergency Work (GC Clause 22.6)

Replace the words "Otherwise" with "In case such work is not in the scope of the Contractor", in the second last line of second paragraph of GC clause 22.6.

PC 23.3 Supplementing sub-clause GC 23.3

For notification of testing, four weeks shall be deemed as reasonable advance notice.

PC 23.7 Test and Inspection (GC Clause 23.7)

Replace the words "GC Sub-Clause 6.1" with "GC Sub-Clause 46.1", in the last line of GC clause 23.7.

PC 24 Replace the marginal words/headings 'Completion of the Facilities' with 'Pre Commissioning'

PC 24.5 Replace sub clause GC 24.5 with the following:

The Project Manager shall, within fourteen (14) days after receipt of the Contractor's notice under sub clause GC 24.4, notify the Contractor in writing of any defects and/or deficiencies.

If the Project Manager notifies the Contractor of any defects and/or deficiencies, the Contractor shall then correct such defects and/or deficiencies, and shall repeat the procedure described in sub clause GC 24.4. If the Project Manager is satisfied that the Facilities or that part thereof have passed Pre-commissioning, the Project Manager shall, within fourteen (14) days after receipt of the Contractor's notice/ seven (7) days after receipt of the Contractor's repeated notice, advise the Contractor to proceed with the Commissioning of the Facilities or that part thereof. If the Project Manager is not so satisfied, then it shall notify the Contractor in writing of any defects and/or deficiencies within seven (7) days after receipt of the Contractor's repeated notice, and the above procedure shall be repeated.

PC 24.6 Replacing Sub-Clause GC 24.6

If the Project Manager fails to advise the Contractor to proceed with the Commissioning of the Facilities or the relevant part thereof or inform the Contractor of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's notice under GC Sub-Clause 24.4 or within seven (7) days after receipt of the Contractor's repeated notice under GC Sub-Clause 24.5, then the Facilities or that part thereof shall be deemed to have passed Precommissioning, as of the date of the Contractor's notice or repeated notice, as the case may be.

PC 24.7 Replace the word 'Completion' with 'Pre-commissioning' in the 1st line of sub clause GC 24.7

Tower Packages ASM-TW01 & ASM-TW02 for Assam associated with NER Power System Improvement Project

Annexure 17

Safety Plan

SAFETY PLAN

13. FORM OF SAFETY PLAN TO BE SUBMITTED BY THE CONTRACTOR WITHIN SIXTY DAYS OF AWARD OF CONTRACT

[TO BE EXECUTED ON A NON JUDICIAL STAMP PAPER WORTH RS. TWENTY ONLY]

SAFETY PLAN

THIS SAFETY PLAN is made this..... day of 20..... by a Company registered under the Companies Act, 1956/Partnership firm/proprietary concern having its Registered Office at[to be modified suitably for JV Contractor] (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of(insert name of the Employer)....., a company incorporated under the Companies Act, 1956 having its Registered Office at (Insert registered address of the Employer)..... for its Contract for (Insert package name, project name along with Specification number of the Contract)..... WHEREAS..... (Abbreviated name of the Employer)..... has awarded to the Contractor the aforesaid Contract vide its Notification of Award/Contract No. datedand Amendment No. (Applicable when amendments have been issued(hereinafter called the "Contract")) in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the Employer within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.
2. THAT the Contractor shall execute the works in a well-planned manner from the commencement of Contract as per agreed mile stones of work completion schedule so that planning and execution of construction works goes smoothly and consistently throughout the contract duration without handling pressure in last quarter of the financial year/last months of the Contract and the shall be finalized in association with EMPLOYER Engineer In-charge/Project Manager from time to time as required.
3. THAT the Contractor has prepared the safe work procedure for each activity i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. to be executed at site, which is

enclosed at **Annexure – 1A (SP)** for acceptance and approval of Engineer In-charge/Project Manager. The Contractor shall ensure that on approval of the same from Engineer In-charge/Project Manager , the approved copies will be circulated to Employer’s personnel at site [Supervisor(s)/Executive(s)] and Contractor’s personnel at site [Gang leader, supervisor(s) etc.] in their local language / language understood by gang.

4. THAT the Contractor has prepared minimum manpower deployment plan, activity wise as stated above, which is enclosed at **Annexure – 1B (SP)** for approval of Engineer In- charge/Project Manager.

5. THAT the Contractor shall ensure while executing works that they will deploy minimum 25% of their own experienced work force who are on the permanent roll of the company and balance 75% can be a suitable mixed with the hired gangs / local workers / casual workers if required. The above balance 75% work force should be provided with at least 10 days training by the construction agencies at sites and shall be issued with a certificate. No worker shall be engaged without a valid certificate. Hired gang workers shall also follow safe working procedures and safety norms as is being followed by company’s workmen. It should also be ensured by the contractor that certified fitters who are climbing towers / doing stringing operations can be easily identifiable with a system like issue of Badge / Identification cards (ID cards) etc. Color identification batches should be worn by the workers. Contractor has to ensure that inexperience workers / unskilled workers should not be deployed for skilled job.

6. THAT the Contractor’s Gang leader / Supervisor / Senior most member available at every construction site shall brief to each worker daily before start of work about safety requirement and warn about imminent dangers and precautions to be taken against the imminent dangers (Daily Safety Drill). This is to be ensured without fail by Contractor and maintain record of each gang about daily safety instructions issued to workers and put up to EMPLOYER site In-charge for his review and record.

7. THAT the Contractor shall ensure that working Gangs at site should not be left at the discretion of their Gang Leaders who are generally hired and having little knowledge about safety. Gang leader should be experienced and well versed with the safe working procedures applicable for transmission line/ Sub Station works. In case gang is having Gang leader not on permanent roll of the company then additional Supervisor from company’s own roll having thorough knowledge about the works would be deployed so as to percolate safety instructions up to the grass root level in healthy spirits. Contractor has to ensure close supervision while executing critical locations of transmission lines / sub stations and ensures that all safety instructions are in place and are being followed.

8. THAT the Contractor shall maintain in healthy and working condition all kind of Equipments / Machineries / Lifting tools / Lifting tackles / Lifting gears / All kind of Ropes including wire ropes / Polypropylene ropes etc. used for Lifting purpose during

execution of the project and get them periodically examined and load tested for safe working load in accordance with relevant provisions and requirement of Building & other construction workers Regulation of Employment and Conditions of Services Act and Central Rule 1998, Factories Act 1948, Indian Electricity Act 2003 before start of the project. A register of such examinations and tests shall be properly maintained by the contractor and will be promptly produced as and when desired by the Engineer In-charge/Project Manager or by the person authorised by him. The Contractor has to ensure to give special attention on the formation / condition of eye splices of wire rope slings as per requirement of IS 2762 Specification for wire rope slings and sling legs.

9. THAT the Contractor has prepared a list of all Lifting machines, lifting Tools / Lifting Tackles / Lifting Gears etc. / All types of ropes and Slings which are subject to safe working load is **enclosed at Annexure – 2 (SP)** for review and approval of Engineer In-charge/Project Manager.

10. THAT the Contractor has to procure sufficient quantity of Personal Protective Equipment (PPE) conforming to Indian / International standards and provide these equipment to every workman at site as per need and to the satisfaction of Engineer-in-charge/Project Manager of EMPLOYER. The Contractor's Site Supervisor/ Project Manager has to ensure that all workmen must use Personal Protective Equipment at site. The Contractor shall also ensure that Industrial Safety helmets are being used by all workmen at site irrespective of their working (at height or on ground). The Contractor shall further ensure use of safety shoes by all ground level workers and canvas shoes for all workers working at height, Rubber Gum Boots for workers working in rainy season and concreting job, Use of Twin Lanyard Full body Safety Harness with attachment of light weight such as aluminum alloy etc. and having features of automatic locking arrangement of snap hook, by all workers working at height for more than three meters and also for horizontal movement on tower shall be ensured by contractor. The Contractor shall not use ordinary half body safety harness at site. The Contractor has to ensure use of Retractable type fall arrestors by workers for ascending / descending on suspension insulator string and other similar works etc., Use of Mobile fall arrestor for ascending / descending from tower by all workers. The contractor has to provide cotton / leather hand gloves as per requirement, Electrical Resistance Hand gloves for operating electrical installations / switches, Face shield for protecting eyes while doing welding works and Dust masks to workers as per requirement. The Contractor will have to take action against the workers not using Personal Protective Equipment at site and those workers shall be asked to rest for that day and also their Salary be deducted for that day. EMPLOYER may issue warning letter to Project Manager of contractor in violation of above norms.

11. THAT the Contractor shall prepare a detailed list of PPEs, activity wise, to commensurate with manpower deployed, which is enclosed at **Annexure – 3 (SP)** for

review and approval of Engineer In-charge/Project Manager. It shall also be ensured that the sample of these equipment shall be got approved from EMPLOYER supervisory staff before being distributed to workers. The contractor shall submit relevant test certificates as per IS / International Standard as applicable to PPEs used during execution of work. All the PPE's to be distributed to the workers shall be checked by EMPLOYER supervisory staff before its usage.

12. The Contractor also agrees for addition / modification to the list of PPE, if any, as advised by Engineer In-Charge/Project Manager.

13. THAT the Contractor shall procure, if required sufficient quantity of Earthing Equipment / Earthing Devices complying with requirements of relevant IEC standards (Generally IECs standards for Earthing Equipments / Earthing Devices are – 855, 1230, 1235 etc.) and to the satisfaction of Engineer In-Charge/ Project Manager and contractor to ensures to maintained them in healthy condition.

14. THAT the Contractor has prepared / worked out minimum number of healthy Earthing Equipments with Earthing lead confirming to relevant IS / European standards per gang wise during stringing activity/as per requirement, which is enclosed herewith at **Annexure – 4** (SP) for review and acceptance of Engineer In-Charge/ Project Manager prior to execution of work.

15. THAT the Contractor shall provide communication facilities i.e. Walky – Talkie / Mobile Phone, Display of Flags / whistles for easy communication among workers during Tower erection / stringing activity, as per requirement.

16. THAT the Contractor undertakes to deploy qualified safety personnel responsible for safety as per requirements of Employer/Statutory Authorities.

17. THAT the Contractor employing more than 250 workmen whether temporary, casual, probationer, regular or permanent or on contract, shall employ at least one full time officer exclusively as qualified safety officer having diploma in safety to supervise safety aspects of the equipment and workmen who will coordinate with Engineer In-charge /Project Manager/Safety Coordinator of the Employer. In case of work being carried out through sub-contractors the sub – contractor's workmen / employees will also be considered as the contractor's employees / workmen for the above purpose. If the number of workers are less than 250 then one qualified safety officer is to be deployed for each contract. He will report directly to his head of organization and not the Project Manager of contractor He shall also not be assigned any other work except assigning the work of safety. The curriculum vitae of such person shall be got cleared from EMPLOYER Project Manager / Construction staff.

18. The name and address of such safety officers of contractor will be promptly informed in writing to Engineer In-charge with a copy to safety officer - In-charge before start of work or immediately after any change of the incumbent is made during the

currency of the contract. The list is enclosed at **Annexure – 5A (SP)**.

19. THAT the Contractor has also prepared a list including details of Explosive Operator (if required), Safety officer / Safety supervisor / nominated person for safety for each erection

20. / stringing gang, list of personnel trained in First Aid Techniques as well as copy of organization structure of the Contractor in regard to safety. The list is enclosed at **Annexure – 5B (SP)**.

21. The Project Manager shall have the right at his sole discretion to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the Contractor shall be informed in writing about the nature of hazards and possible injury/accident and he shall comply to remove shortcomings promptly. The Contractor after stopping the specific work can, if felt necessary, appeal against the order of stoppage of work to the Project Manager within 3 days of such stoppage of work and decision of the Project Manager in this respect shall be conclusive and binding on the Contractor.

22. THAT, if, any Employer's Engineer/ supervisor at site observes that the Contractor is failing to provide safe working environment at site as per agreed Safety Plan / EMPLOYER Safety Rule/ Safety Instructions / Statutory safety requirement and creates hazardous conditions at site and there is possibility of an accident to workmen or workmen of the other contractor or public or the work is being carried out in an un safe manner or he continues to work even after being instructed to stop the work by Engineer / Supervisor at site / RHQ / Corp. Centre, the Contractor shall be bound to pay a penalty of Rs. 10,000/- per incident per day till the instructions are complied and as certified by Engineer/ Supervisor of Employer at site. The work will remain suspended and no activity will take place without compliance and obtaining clearance / certification of the Site Engineer / Supervisor of the Employer to start the work.

23. THAT, if the investigation committee of Employer observes any accident or the Engineer In-charge/Project Manager of the Employer based on the report of the Engineer/Supervisor of the Employer at site observes any failure on the Contractor's part to comply with safety requirement / safety rules/ safety standards/ safety instruction as prescribed by the Employer or as prescribed under the applicable law for the safety of the equipment, plant and personnel and the Contractor does not take adequate steps to prevent hazardous conditions which may cause injury to its own Contractor's employees or employee of any other Contractors or Employer or any other person at site or adjacent thereto, or public involvement because of the Contractor's negligence of safety norms, the Contractor shall be liable to pay a compensation of Rs. 10,00,000/- (Rupees Ten Lakh only) per person affected causing death and Rs. 1,00,000/- (Rupees One Lakh only) per person for serious injuries / 25% or more permanent disability to the Employer for further disbursement to the deceased family/ Injured persons. The permanent disability

has the same meaning as indicated in Workmen's Compensation Act 1923. The above stipulations is in addition to all other compensation payable to sufferer as per workmen compensation Act / Rules

24. THAT as per the Employer's instructions, the Contractor agrees that this amount shall be deducted from their running bill(s) immediately after the accident, That the Contractor understands that this amount shall be over and above the compensation amount liable to be paid as per the Workmen's Compensation Act /other statutory requirement/ provisions of the Bidding Documents.

25. THAT the Contractor shall submit Near-Miss-Accident report along with action plan for avoidance such incidence /accidents to Engineer – In-charge/ Project Manager. Contractor shall also submit Monthly Safety Activities report to Engineer – In-charge/ Project Manager and copy of the Monthly Safety Activities report also to be sent to Safety In-charge at RHQ of the Employer for his review record and instructions.

26. THAT the Contractor is submitting a copy of Safety Policy/ Safety Documents of its Company which is enclosed at Annexure – 6 (SP) and ensure that the safety Policy and safety documents are implemented in healthy spirit.

27. THAT the Contractor shall make available of First Aid Box [Contents of which shall be as per Building & other construction workers (Regulation of Employment and Conditions of Services Act and Central Rule 1998 / EMPLOYER Guidelines)] to the satisfaction of Engineer In-Charge/ Project Manager with each gang at site and not at camp and ensures that trained persons in First Aid Techniques with each gang before execution of work.

28. THAT the Contractor shall submit an 'Emergency Preparedness Plan' for different incidences i.e. Fall from height, Electrocution, Sun Stroke, Collapse of pit, Collapse of Tower, Snake bite, Fire in camp / Store, Flood, Storm, Earthquake, Militancy etc. while carrying out different activities under execution i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. which is enclosed at Annexure – 7 (SP) for approval of the Engineer In-Charge/ Project Manager before start of work.

29. THAT the Contractor shall organize Safety Training Programs on Safety, Health and Environment and for safe execution of different activities of works i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. . For their own employees including sub-contractor workers on regular basis.

30. The Contractor, therefore, submits copy of the module of training program, enclosed at **Annexure – 9 (SP)**, to Engineer In-charge/Project Manager for its acceptance and approval and records maintained.

31. THAT the Contractor shall conduct safety audit, as per Safety Audit Check Lists

enclosed **at Annexure – 8 (SP)**, by his Safety Officer(s) every month during construction of Transmission Lines / Sub Stations / any other work and copy of the safety audit report will be forwarded to the Employer’s Engineer In-charge / Site In-charge/Project Manager for his comments and feedback. During safety audit, healthiness of all Personal Protective Equipments (PPEs) shall be checked individually by safety officer of contractor and issue a certificate of its healthiness or rejection of faulty PPEs and contractor has to ensure that all faulty PPEs and all faulty lifting tools and tackles should be destroyed in the presence of EMPLOYER construction staff. Contractor has to ensure that each gang be safety audited at least once in two months. During safety audit by the contractor, Safety officer’s feedback from EMPLOYER concerned shall be taken and recorded. The Employer’s site officials shall also conduct safety audit at their own from time to time when construction activities are under progress. Apart from above, the Employer may also conduct surveillance safety audits. The Employer may take action against the person / persons as deemed fit under various statutory acts/provisions under the Contract for any violation of safety norms / safety standards.

32. THAT the Contractor shall develop and display Safety Posters of construction activity at site and also at camp where workers are generally residing.

33. THAT the Contractor shall ensure to provide potable and safe drinking water for workers at site / at camp.

34. THAT the Contractor shall do health check up of all workers from competent agencies and reports will be submitted to Engineer In-Charge within fifteen (15) days of health check up of workers as per statutory requirement.

35. THAT the Contractor shall submit information along with documentary evidences in regard to compliance to various statutory requirements as applicable which are enclosed at **Annexure – 10A (SP)**.

36. The Contractor shall also submit details of Insurance Policies taken by the Contractor for insurance coverage against accident for all employees are enclosed at Annexure – 10B (SP).

37. THAT a check-list in respect of aforesaid enclosures along with the Contractor’s remarks, wherever required, is attached as Annexure – Check List herewith.

38. THE CONTRACTOR shall incorporate modifications/changes in this ‘Safety Plan’ necessitated on the basis of review/comments of the Engineer In-Charge/Project Manager within fourteen

39. (14) Days of receipt of review/comments and on final approval of the Engineer In-Charge/Project Manager of this ‘Safety Plan’, the Contractor shall execute the works under the Contract as per approved ‘Safety Plan’. Further, the Contractor has also noted that the first progressive payment towards Services Contract shall be made on submission of ‘Safety Plan’ along with all requisite documents and approval of the same

by the Engineer In-Charge/Project Manager.

40. IN WITNESS WHEREOF, the Contractor has hereunto set its hand through its authorized representative under the common seal of the Company, the day, month and year first above mentioned.

For and on behalf of

M/s.....

WITNESS

1.

Signature.....

Signature.....

Name.....

Name.....

2.

Signature.....

Authorized representative

Name.....

(Common Seal)

Address.....

(In case of Company)

Note:

All the annexure referred to in this “Safety Plan” are required to be enclosed by the contractor as per the attached “Check List “

Safety Plan is to be executed by the authorized person and (i) in case of contracting Company under common seal of the Company or (ii) having the power of attorney issued under common seal of the company with authority to execute such contract documents etc., (iii) In case of (ii), the original Power of Attorney if it is specifically for this Contract or a Photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to this Safety Plan.

For all safety monitoring/ documentation, Engineer In-charge / Regional In-charge of safety at RHQ will be the nodal Officers for communication.

Annexure 18

Sample Labor License

M/s EMC Limited



GOVERNMENT OF INDIA
MINISTRY OF LABOUR & EMPLOYMENT
OFFICE OF THE ASSISTANT LABOUR COMMISSIONER (CENTRAL)
KENDRIYA SADAN
CHIRUKANDI ROAD, RAMNAGAR, TARAPUR, SILCHAR-788 003, ASSAM
E-mail alc.sil-as@gov.in
TELEPHONE NO. 03842-268330

File / Online Licence No. CLRA/ALC SILCHER/2019/L-175

Dated - 08.07.2020

To

M/s EMC LIMITED

POWER GRID CORPORATION OF INDIA LIMITED CONTRACTOR
51, CANAL EAST ROAD, BELIAGHATA
KOLKATA-700085

REPRESENTED THROUGH: - SHRI MANOJ TOSHNIWAL, DIRECTOR
E. mail - pnair@emcpower.com / Mobile No. 09163317444.

Subject: Contract Labour (Regulation and Abolition) Act, 1970 and its Central Rules, 1971 -
Renewal of Licence No. CLRA/ALCSILCHER/2019/L-175 dated-22.07.2019.

Dear Sir,

Please refer to your Application No. Nil dated-21.07.2020 (received at this office on 21.07.2020) for Renewal of Licence along with Rs. 100/- (Rupees ONE HUNDRED) only deposited through online towards Renewal fee of the above noted Licence.

In this connection, please find enclosed herewith the original Licence duly **RENEWED UP TO 21. 07. 2021** under the provision of Section-13 (3) of the Contract Labour (Regulation and Abolition) Act, 1970 read with Rule-29 of its Central Rules, 1971.

Please acknowledge the receipt of the same.

Encls: 1



Yours faithfully,

(CHIRANJEEV SAIKIA)

Regional Labour Commissioner (Central)
DIBRUGARH

And Additional Charge of Assistant Labour Commissioner (Central)
Government of India

SILCHAR Chiranjeev Saikia

Regional Labour Commissioner (C)

& Registering / Licensing Officer

Under the Contract Labour Act, 1970

Copy forwarded to:

- (1) The Labour Enforcement Officer (Central), AGARTALA. A copy of the Form-II is enclosed.
- (2) The Deputy General Manager (NERPSIP), Power Grid Corporation of India Limited, House of Shri Utpal Dutta (Ground Floor), Ramanagar Road No.6, 3rd Crossing, Agartala-799002, Tripura (West) for information.

Regional Labour Commissioner (Central)
DIBRUGARH

And Additional Charge of Assistant Labour Commissioner (Central)
Government of India
SILCHAR



Form VI

**(Under Rule 25(1) of the Contract Labour (Regulation and Abolition) Central
Rules, 1971)****Government of India
Office of the Licensing Officer
LICENCE**Licence No: **CLRA/ALCSILCHER/2019/L-175**Date: **22-Jul-2019**

1. Licence is hereby granted to **M/s EMC LIMITED, 51, CANAL EAST ROAD, BELIAGHATA, Kolkata - 700085**, through **MANOJ TOSHNIWAL / DIRECTOR** under sub-section (1) of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) subject to the conditions specified in the Annexure.
2. Name and Location of work **Tower Package TW01 associated with NER Power System Improvement Project (Intra-State: Tripura) vide Contract Agreement No. CC-CS/86-NER/TW-3612/1/G4/CA-I/7336 DATED- 30.06.2017 & No. CC-CS/86-NER/TW-3612/G4/CA-II/7337 dated. 30.06.2017**, for **BAGAFA , BELONIA , UDAIPUR, SABROOM and SATCHAND, 78, NEW TOWN ROAD, RADHA KRISHNAPUR, UDAIPUR, South Tripura, Tripura - 799120**
3. Name of the principal employer: **S.I.SINGH / DY.GENERAL MANAGER, NERPSIP OFFICE, RAMNAGAR-06, 3RD CROSSING, AGARTALA, West Tripura, Tripura - 799002**
4. Registration Certificate no. **A-REG 07/2010-S/A** and date of **22-Jun-2010** of the principal employer.
5. The licence shall remain in force till **21-Jul-2020** (date to be indicated).
6. Maximum number of contract labour to be employed on a single day under the licence: **100**
7. Fee Paid Rs **INR 75** (Transaction Id : **1907190005123**)
8. Security Deposit **INR 9000** (Transaction Id : **1907190005222**)
9. Remarks by Licencing Officer: **Licence is granted**

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Licensing Officer.

10. A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
11. The contractor shall comply with all the provisions of the Act and these Rules.
12. The licensee shall, within fifteen days of the commencement and completion of each contract work, submit a return to the Inspector appointed under section 28 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) intimating the actual date of the commencement or, as the case may be, completion of such contract work in Form - VII.

eSign/DSC of Licensing Officer

Hari Om Gautam (ALC(C))

ALC SILCHER (ALCSILCHER)

alc.ghy-as@gov.in

Note: This is an online application summary applied on Shram Suvidha Portal.

Validity unknown

Digitally signed by User
Date: 2019.07.22 14:55:23 IST


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Licence No. CLRA/ALCSILCHER/2019/L-175

Dated-22.07.2019

RENEWAL

(Rule-29)

Date of Renewal	Fee paid for Renewal	Date of Expiry	Signature and Seal of Licensing Officer and Date
08-09-2020	Rs. 100/-	21. 07. 2021	

M/s SPML Infra – South Tripura Region

GOVERNMENT OF INDIA
MINISTRY OF LABOUR & EMPLOYMENT
OFFICE OF THE ASSISTANT LABOUR COMMISSIONER (CENTRAL)
KENDRIYA SADAN
CHIRUKANDI ROAD, RAMNAGAR, TARAPUR, SILCHAR-788 003, ASSAM
E-mail alc.sil-as@gov.in
TELEPHONE NO. 03842-268330

No. 46 (26)/2017 – S / A

Dated – 14. 02. 2020

To

M/s SPML INFRA LIMITED

P. G. C. I. L. CONTRACTOR

REPRESENTED THROUGH:

- (1) Mr. ANIL KUMAR SETHI, DIRECTOR
S/O SHRI PUNAM CHAND SETHI
- (2) Mr. SUSHIL KUMAR SETHI, DIRECTOR
S/O SHRI PUNAM CHAND SETHI

C/O PINKI SAHA, RAMNAGAR-5, NEAR MUKTISANGHA
P.O. RAMNAGAR, AGARTALA – 799002, TRIPURA (WEST)
E-mail ID – tripuragm@spml.co.in / Mobile No. 9485022162.

Subject:

Contract Labour (Regulation and Abolition) Act, 1970 and its Central Rules, 1971 -
Renewal of Licence No. CLA / 25 / 2017 – S / A dated-10.02.2017.

Dear Sir,

Please refer to your Application No. Nil dated-Nil (received at this office on 06.02.2020)
for Renewal of Licence along with Rs. 100/- (Rupees ONE HUNDRED) only deposited through
bharatkosh.gov.in towards Renewal fee of the above noted Licence.

In this connection, please find enclosed herewith the original Licence duly
RENEWED UP TO 09. 02. 2021 under the provision of Section-13 (3) of the Contract
Labour (Regulation and Abolition) Act, 1970 read with Rule-29 of its Central Rules, 1971.

Please acknowledge the receipt of the same.

✓ Enclo: 1 (ONE) LICENCE.



Yours faithfully,

Assistant Labour Commissioner (Central)
Government of India

SILCHAR
Silchar & Registering/ Licensing Officer
Under C.L. (R&A) Act. 1970

Copy forwarded to:

- (1) The Labour Enforcement Officer (Central), AGARTALA. A copy of the Form-II is enclosed.
- (2) The Manager (RD), Power Grid Corporation of India Limited, Near Housing Board, Chanban, P.O. R.K. Pur, Udaipur-799120, Tripura (South) for information.

Assistant Labour Commissioner (Central)
Government of India
SILCHAR

FORM-VI
(SEE RULE- 25(1))
GOVERNMENT OF INDIA
MINISTRY OF LABOUR & EMPLOYMENT
OFFICE OF THE LICENSING OFFICER
AND ASSISTANT LABOUR COMMISSIONER (CENTRAL)
COLLEGE ROAD, SILCHAR-788004, DIST. CACHAR, ASSAM

LICENCE NO. CLA/25/2017-S/A
DATE: 10.02.2017

LICENCE FEE PAID	Rs.150.00 (RUPEES ONE HUNDRED FIFTY) ONLY	DEMAND DRAFT No. 425542 Dated - 08.02.2017 STATE BANK OF INDIA, AGARTALA BRANCH
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L I C E N C E




1. Licence is hereby granted to **M/s SPML INFRA LIMITED, P. G. C. I. L. CONTRACTOR, REPRESENTED THROUGH: (1) Mr. ANIL KUMAR SETHI, DIRECTOR, S/O SHRI PUNAM CHAND SETHI (2) Mr. SUSHIL KUMAR SETHI, DIRECTOR, S/O SHRI PUNAM CHAND SETHI, C/O PINKI SAHA, RAMNAGAR-5, NEAR MUKTISANGHA, P.O. RAMNAGAR, AGARTALA - 799002, TRIPURA (WEST)** under Section 12(1) of the Contract Labour (Regulation and Abolition) Act, 1970 subject to the conditions specified in the ANNEXURE.

2. The Licence is for doing the work - **"Construction of Sub-Station Package TRP-SS-02 for Tripura, associated with NER Power System Improvement Project vide Contract Agreement Ref. No. CC-CS/86-NER/SS-2651/1/G1/NOA-I/7070 dated-04.11.2016 and CC-CS/86-NER/SS-2651/1/G1/NOA-II/7071 dated-04.11.2016"** in the establishment of **Manager (RD), Power Grid Corporation of India Limited, Near Housing Board, Chanban, P.O. R.K. Pur, Udaipur-799120, Tripura (South).**

3. The Licence shall remain in force **TILL 09.02.2018**

Date: 10.02.2017
Signature and Seal of Licensing Officer


RENEWAL (Rule-29)

Date of Renewal	Fee paid for Renewal	Date of Expiry	Signature and Seal of Licensing Officer and Date
01-02-2018	Rs-100/-	09-02-2019	 ALC(C) SILCHAR
11-02-2019	Rs-100/-	09-02-2020	 ALC(C) SILCHAR
14-02-2020	Rs-100/-	09-02-2021	 ALC(C) SILCHAR

M/s Technofab Engineering Limited – Gomati Region



Form VI

(Under Rule 25(1) of the Contract Labour (Regulation and Abolition) Central Rules, 1971)

Government of India
Office of the Licensing Officer
LICENCE

Licence No: **CLRA/ALCSILCHER/2021/L-57**

Date: **18-Mar-2021**

1. Licence is hereby granted to **M/s. TECHNOFAB ENGINEERING LIMITED, 507 EROS APARTMENT, 56 NEHRU PLACE, New Delhi - 110019**, through **ARJUN GUPTA / MANAGING DIRECTOR** under sub-section (1) of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) subject to the conditions specified in the Annexure.
2. Name and Location of work **Service Contract for DMS Package for TRI-DMS / 3 associated with NER Power System Improvement Project Vide Notification of Award No-CC-CS/86-NER/REW-2986/1/G2/NOA-II/7169 DATED-22.02.2017 & Specification No.CC-CS/86-NER/REW-2986/1/G2. Dated-22.02.2017.**, for **POWERGRID CORPORATION OF INDIA LTD, NEAR HOUSING BOARD, CHANBAN, P.O-R.K.PUR, UDAIPUR, Gomati, Tripura - 799120**
3. Name of the principal employer **S. I. SINGH / SR. GENERAL MANAGER, RAMNAGAR-06, 3RD CROSSING, AGARTALA, West Tripura, Tripura - 799002**
4. Registration Certificate no. **A-REG/02/2002-S/A** and date of **04-Feb-2002** of the principal employer.
5. The licence shall remain in force till **17-Mar-2022** (date to be indicated).
6. Maximum number of contract labour to be employed on a single day under the licence: **100**
7. Fee Paid Rs **INR 75** (Transaction Id : **2402210003925**)
8. Security Deposit **INR 9000** (Transaction Id : **2402210003991**)
9. Remarks by Licensing Officer: **License is granted**

ANNEXURE

1. The licence shall be non-transferable.
2. The numbers of workmen employed as contract labour in the establishment shall not, on any day, exceed the maximum number specified in the licence.
3. Except as provided in the rules, the fees paid for the grant or, as the case may be, for renewal of the licence shall be non-refundable.
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the Scheduled Employment under the Minimum Wages Act, 1948 (11 of 1948), where applicable, and where the rates have been fixed by agreement, settlement, award, or by the appropriate Government, not less than the rates so fixed.
5. (a). In case where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the principal employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of the contractor shall be the same as applicable to the workmen directly employed by the principal employer of the establishment on the same or similar kind of work; provided that in the case of any disagreement with regard to the type of work the same shall be decided by the Deputy Chief Labour Commissioner (Central) whose decision shall be final.
(b). In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
6. Every contract labour shall be entitled to allowances, benefits, facilities etc, as prescribed in the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and rules made there under.
7. In every establishment where 20 or more women are ordinarily employed as there shall be provided 2 rooms of reasonable dimension for the use of their children under the age of six years. One of such rooms would be used as a play room for the children and the other as bed room for the children. For this purpose the contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping room. The standard of construction and maintenance of the crèches may be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
8. No women shall be employed by any contractor before 6 a.m. or after 7 p.m.: Provided that this clause shall not apply to the employment of women in pit head baths, crèches and canteens and as mid-wives and nurses in hospitals and dispensaries.
9. The licensee shall notify any change in the number of workmen or the conditions of work to the

Licensing Officer.

10. A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
11. The contractor shall comply with all the provisions of the Act and these Rules.
12. The licensee shall, within fifteen days of the commencement and completion of each contract work, submit a return to the Inspector appointed under section 28 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) intimating the actual date of the commencement or, as the case may be, completion of such contract work in Form - VII.

eSign/DSC of Licensing Officer
Sudhir Kumar Chakma (ALC(C))
ALC SILCHER (ALCSILCHER)
alc.ghy-as@gov.in

Note: This is an online application summary applied on Shram Suvidha Portal.

Signature Not Verified

Digitally signed by User
Date: 2021.03.18 20:32:45 IST



M/s Technofab Engineering Limited – South Tripura Region



Form VI

**(Under Rule 25(1) of the Contract Labour (Regulation and Abolition) Central
Rules, 1971)**

**Government of India
Office of the Licensing Officer
LICENCE**

Licence No: **CLRA/ALCSILCHER/2021/L-58**

Date: **18-Mar-2021**

1. Licence is hereby granted to **M/s. TECHNOFAB ENGINEERING LIMITED, 507 EROS APRATMEN, 56 NEHRU PLACE, New Delhi - 110019**, through **ARJUN GUPTA / MANAGING DIRECTOR** under sub-section (1) of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) subject to the conditions specified in the Annexure.
2. Name and Location of work **Service Contract for DMS Package for TRI-DMS /2 associated with NER Power System Improvement Project Vide Notification of Award No-CC-CS/86-NER/REW-2985/1/G2/NOA-II/7146 DATED-20.01.2017 & Specification No.CC-CS/86-NER/REW-2985/1/G2. Dated-20.01.2017., for POWERGRID CORPORATION OF INDIA LTD, NEAR BANDHAN BANK, 3RD FLOOR AMAR BHAWAN, South Tripura, Tripura - 799155**
3. Name of the principal employer **S. I. SINGH / SR. GENERAL MANAGER, POWERGRID CORPORATION OF INDIA LTD, RAMNAGAR-06, 3RD CROSSING , AGARTALA, West Tripura, Tripura - 799002**
4. Registration Certificate no. **A-REG/02/2002-S/A** and date of **04-Feb-2002** of the principal employer.
5. The licence shall remain in force till **17-Mar-2022** (date to be indicated).
6. Maximum number of contract labour to be employed on a single day under the licence: **100**
7. Fee Paid Rs **INR 75** (Transaction Id : **2502210000350**)
8. Security Deposit **INR 9000** (Transaction Id : **2502210000362**)
9. Remarks by Licencing Officer: **License is granted**

ANNEXURE

1. The licence shall be non-transferable.
2. The numbers of workmen employed as contract labour in the establishment shall not, on any day, exceed the maximum number specified in the licence.
3. Except as provided in the rules, the fees paid for the grant or, as the case may be, for renewal of the licence shall be non-refundable.
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the Scheduled Employment under the Minimum Wages Act, 1948 (11 of 1948), where applicable, and where the rates have been fixed by agreement, settlement, award, or by the appropriate Government, not less than the rates so fixed.
5. (a). In case where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the principal employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of the contractor shall be the same as applicable to the workmen directly employed by the principal employer of the establishment on the same or similar kind of work; provided that in the case of any disagreement with regard to the type of work the same shall be decided by the Deputy Chief Labour Commissioner (Central) whose decision shall be final.
(b). In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
6. Every contract labour shall be entitled to allowances, benefits, facilities etc, as prescribed in the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and rules made there under.
7. In every establishment where 20 or more women are ordinarily employed as there shall be provided 2 rooms of reasonable dimension for the use of their children under the age of six years. One of such rooms would be used as a play room for the children and the other as bed room for the children. For this purpose the contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping room. The standard of construction and maintenance of the crèches may be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
8. No women shall be employed by any contractor before 6 a.m. or after 7 p.m.: Provided that this clause shall not apply to the employment of women in pit head baths, crèches and canteens and as mid-wives and nurses in hospitals and dispensaries.
9. The licensee shall notify any change in the number of workmen or the conditions of work to the

Licensing Officer.

10. A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
11. The contractor shall comply with all the provisions of the Act and these Rules.
12. The licensee shall, within fifteen days of the commencement and completion of each contract work, submit a return to the Inspector appointed under section 28 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) intimating the actual date of the commencement or, as the case may be, completion of such contract work in Form - VII.

eSign/DSC of Licensing Officer

Sudhir Kumar Chakma (ALC(C))

ALC SILCHER (ALCSILCHER)

alc.ghy-as@gov.in

Note: This is an online application summary applied on Shram Suvidha Portal.

Validity unknown

Digitally signed by ALC
Date: 2021.05.18 20:36:12 IST



Annexure 19

Checklist for Safety Plan

CHECK LIST FOR SAFETY PLAN

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
1.	Annexure – 1A (SP) Safe work procedure for each activity i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. to be executed at site.	Yes/No	
2.	Annexure – 1B (SP) Manpower deployment plan, activity wise foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc.	Yes/No	
3.	Annexure – 2 (SP) List of Lifting Machines i.e. Crane, Hoist, Triflor, Chain Pulley Blocks etc. and Lifting Tools and Tackles i.e. D shackle, Pulleys, come along clamps, wire rope slings etc. and all types of ropes i.e. Wire ropes, Poly propylene Rope etc. used for lifting purposes along with test certificates.	Yes/No	
4.	Annexure – 3 (SP) List of Personal Protective Equipment (PPE), activity wise including the following along with test certificate of each as applicable: <ol style="list-style-type: none"> 1. Industrial Safety Helmet to all workmen at site. (EN 397 / IS 2825) with chin strap and back stay arrangement. 2. Safety shoes without steel toe to all ground level workers and canvas shoes for workers working on tower. 3. Rubber Gum Boot to workers working in rainy season / concreting job. 4. Twin lanyard Full Body Safety harness with shock absorber and leg strap arrangement 	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	<p>for all workers working at height for more than three meters. Safety Harness should be with attachments of light weight such as of aluminium alloy etc. and having a feature of automatic locking arrangement of snap hook and comply with EN 361 / IS 3521 standards.</p> <p>5. Mobile fall arrestors for safety of workers during their ascending / descending from tower / on tower. EN 353 -2 (Guided type fall arresters on a flexible anchorage line.)</p> <p>6. Retractable type fall arrestor (EN380: 2002) for ascending / descending on suspension insulator string etc.</p> <p>7. Providing of good quality cotton hand gloves / leather hand gloves for workers engaged in handling of tower parts or as per requirement at site.</p> <p>8. Electrical Resistance hand gloves to workers for handling electrical equipment / Electrical connections. IS : 4770</p> <p>9. Dust masks to workers handling cement as per requirement.</p> <p>10. Face shield for welder and Grinders. IS : 1179 / IS : 2553</p> <p>11. Other PPEs, if any, as per requirement etc.</p>		
5.	Annexure – 4 (SP) List of Earthing Equipment / Earthing devices with Earthing lead conforming to IECs for earthing equipments are – (855, 1230, 1235 etc.) gang wise for stringing activity/as per requirement	Yes/No	
6.	Annexure – 5A (SP) List of Qualified Safety Officer(s) along with their contact details	Yes/No	
7.	Annexure – 5B (SP) Details of Explosive Operator (if required), Safety officer / Safety supervisor for every erection / stringing gang, any other person nominated for safety, list of personnel trained in First Aid as well as brief information about safety set up by the	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	Contractor alongwith copy of organisation of the Contractor in regard to safety		
8.	Annexure – 6 (SP) Copy of Safety Policy/ Safety Document of the Contractor's company	Yes/No	
9.	Annexure – 7 (SP) 'Emergency Preparedness Plan' for different incidences i.e. Fall from height, Electrocution, Sun Stroke, Collapse of pit, Collapse of Tower, Snake bite, Fire in camp / Store, Flood, Storm, Earthquake, Militancy etc. while carrying out different activities under execution i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc.	Yes/No	
10.	Annexure – 8 (SP) Safety Audit Check Lists (Formats to be enclosed)	Yes/No	
11.	Annexure – 9 (SP) Copy of the module of Safety Training Programs on Safety, Health and Environment, safe execution of different activities of works for Contractor's own employees on regular basis and sub contractor employees.	Yes/No	
12.	Annexure – 10A (SP) Information along with documentary evidences in regard to the Contractor's compliance to various statutory requirements including the following:		
(i)	Electricity Act 2003 <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(ii)	Factories Act 1948	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	<u>[Name of Documentary evidence in support of compliance]</u>		
(iii)	Building & other construction workers (Regulation of Employment and Conditions of Services Act and Central Act 1996) and Welfare Cess Act 1996 with Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(iv)	Workmen Compensation Act 1923 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(v)	Public Insurance Liabilities Act 1991 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(vi)	Indian Explosive Act 1948 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(vii)	Indian Petroleum Act 1934 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(viii)	License under the contract Labour (Regulation & Abolition) Act 1970 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(ix)	Indian Electricity Rule 1956 and amendments if	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	any, from time to time. [Name of Documentary evidence in support of compliance]		
(x)	The Environment (Protection) Act 1986 and Rules. [Name of Documentary evidence in support of compliance]	Yes/No	
(xi)	Child Labour (Prohibition & Regulation) Act 1986. [Name of Documentary evidence in support of compliance]	Yes/No	
(xii)	National Building Code of India 2005 (NBC 2005). [Name of Documentary evidence in support of compliance]	Yes/No	
(xiii)	Indian standards for construction of Low/ Medium/ High/ Extra High Voltage Transmission Line [Name of Documentary evidence in support of compliance]	Yes/No	
(iv)	Any other statutory requirement(s) [please specify] [Name of Documentary evidence in support of compliance]	Yes/No	
13.	Annexure – 10B (SP) Details of Insurance Policies alongwith documentary evidences taken by the Contractor for the insurance coverage against accident for all employees as below:		

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
(i)	Under Workmen Compensation Act 1923 and Rules. <u>[Name of Documentary evidence in support of insurance taken]</u>	Yes/No	
(ii)	Public Insurance Liabilities Act 1991 <u>[Name of Documentary evidence in support of insurance taken]</u>	Yes/No	
(iii)	Any Other Insurance Policies <u>[Name of Documentary evidence in support of insurance taken]</u>	Yes/No	

EMPLOYER

SAMPLE COPY OF FILLED CHECKLIST

Safety Check List TL Const – 03, Revision-1(May, 2014)

**POWER GRID CORPORATION OF INDIA LTD.,
(CORPORATE OPERATION SERVICES)**

SITE SAFETY INSPECTION / AUDIT CHECK LIST

TOWER ERECTION

DATE OF INSPECTION: 27.02.2021 **NAME OF THE LINE:** Uderi Purto Amero Por T/L

LOCATION NO: 38/0 **CLASSIFICATION OF SOIL & TYPE OF TOWER:** Dct 0

NAME OF THE AGENCY: Teems India Towers Lines Pvt. Ltd.

SITE ENGINEER / SUPERVISOR OF THE AGENCY: Mrs. Agnino Holain

SAFETY OFFICER OF THE AGENCY: Suman Jena.

S.NO:	CHECK LIST	YES / NO	REMARKS, IF ANY
1	Check List to be verified by the Agency's Site supervisor / Gang leader is available at Site and updated.	Yes	
2	Safe Work Procedures / Instructions in the language understood by the workers available with Site supervisor / Gang leader and workers are aware of the safe work procedures.	Yes	
3	Pep talk on safety issues (importance of safety, inspection of T&P and PPEs, proper use of PPEs, safe tower erection practices, safe shut down practices / safe material handling / house keeping, etc.) to the workers being done by the Safety Stewards / Supervisor / Engineer / Safety Officer of the Agency.	Yes	
4	Adequate warning / protection to public / children moving nearby ensured (RED FLAGS / CAUTION TAPE / ROPE / BOARDS).	Yes	
5	Appropriate safety messages / warnings are displayed at site to caution the workers.	Yes	
6	Back filling of soil completed before taking up tower erection.	Yes	
7	All the workers are provided with good quality SAFETY HELMETS confirming to BIS Standard IS:2925.	Yes	Brand: Kemeim
8	The workers engaged in Tower Erection work at height are provided with good quality FULL BODY DOUBLE LANYARD SAFETY BELTS confirming to BIS Standard IS: 3521 / EN 361.	Yes	Brand: Kemeim odyogi
9	Other PPEs provided to the workers: SAFETY SHOES / COTTON HAND GLOVES for material handling / ELECTRICAL SAFETY GLOVES for S/D works	Yes	
10	The workers engaged in Tower Erection work at height are provided with FALL PROTECTION SYSTEMS like Rope Grab Mobile Fall Arrestor for ascending / descending the Tower / Retractable Fall Arrestor (for vertical movement) / Horizontal Life Line Rope for moving from one member to another member (Horizontal movement within the Tower).	Yes	
11	The fitters working on the tower have been trained on safety for work at height before deployment for tower erection works and Training Records maintained.	Yes	
12	The workers engaged in Tower Erection work at height are anchoring the LIFE LINE Rope / Lanyard of the Safety Belts to rigid support.	Yes	

Contd..2..

- 2 -			
13	(a) First aid box with listed items as per BOCW Act, 1996 available. (b) Number of First Aid Trained persons and their names. (c) First Aid Register is available at site. (d) Nearby medical facilities for use during exigencies identified (Location / Phone No.).	Yes	
14	Shutdown of state EB Power Lines, wherever required, are taken, and no short cut methods used and chances taken.	N/A	Not-Required
15	All tie members / diagonal members and all bolts are fixed as the tower is erected progressively upwards to avoid uneven transmission of loads.	Yes	
16	All the nuts and bolts of STUB have been properly tightened.	Yes	
17	All step bolts have been properly tightnd.	Yes	
18	Adequate guying arrangement provided at different levels to ensure proper stability of the tower being erected progressively.	Yes	
19	Atleast one vehicle (four wheeler) is available for use in case of emergencies.	Yes	
20	(a) Condition of derricks, pulleys and other load bearing T & Ps are found to be sound and free from any defect. (b) Whether all lifting T&P have been tested for safe working load and valid test certificates available and checked?	Yes	
21	The polypropylene / wire ropes are of adequate strength & free from any damage. The damaged / discarded ropes and steel wires are removed and not kept along with the other usable T&P, to prevent their use.	Yes	
22	The pulleys are of adequate strength / proper size (diameter). In open type pulleys, the locking arrangement and the safety pin are found to be healthy and fool proof.	Yes	
23	The derricks are provided with adequate guys and are properly tied to the tower main leg to prevent from slipping.	Yes	3 guys.
24	In case erection of tower is done with central derrick / Gin pole, adequate precautions are taken for guying / anchoring arrangement	Yes	
25	Adequate no. of fitters / ground helpers are deployed for the Tower Erection work.	Yes	
26	Whether the persons working in the ground are sufficiently away from the tower when erection is in progress?	Yes	
27	Whether adequate precautions are taken when working near Road / Rail / River / adjoining Power Line?	Yes	

SIGNATURE / NAME / DESIGNATION
OF POWERGRID REPRESENTATIVE

Copy To: ले. उदयपुर / NER, UDAIPUR

- (1) Regional In-charge / POWERGRID / _____
 (2) Projects In-charge (Region) / POWERGRID / _____
 (3) Site Incharge / POWERGRID / _____
 (4) Project Incharge / AGENCY / Zashub

SIGNATURE / NAME / DESIGNATION
OF AGENCY'S REPRESENTATIVE





Safety Check List TL Const – 04, Revision-1(May, 2014)

**POWER GRID CORPORATION OF INDIA LTD.,
(CORPORATE OPERATION SERVICES)**

SITE SAFETY INSPECTION / AUDIT CHECK LIST

STRINGING

DATE OF INSPECTION: 13.04.21 **NAME OF THE LINE:** Udeni Pur to Ameno Pur

REACH / LOCATION NO: AP-1810-18AP-18101

NAME OF THE AGENCY: Teem & India Towerline Pvt. Ltd.

SITE ENGINEER / SUPERVISOR OF THE AGENCY: M.K. Sanny

SAFETY OFFICER OF THE AGENCY: Luman Jana.

S.NO:	CHECK LIST	YES / NO	REMARKS, IF ANY
1	Check List to be verified by the Agency's Site supervisor / Gang leader is available at Site and updated.	YES	
2	Safe Work Procedures / Instructions in the language understood by the workers available with Site supervisor / Gang leader and workers are aware of the safe work procedures.	YES	
3	Pep talk on safety issues (importance of safety, inspection of T&P and PPEs, proper use of PPEs, safe stringing practices, safe shut down practices, safe material handling / house keeping , safety to public / children, etc.) to the workers being done by the Safety Stewards / Supervisor / Engineer / Safety Officer of the Agency.	YES	
4	Adequate warning / protection to public / children moving nearby ensured (RED FLAGS / CAUTION TAPE / ROPE / BOARDS).	YES	
5	Flag men are posted at all the intermediate Spans / Towers with proper SIGNALING FLAGS AND COMMUNICATION GADGETS and they are keeping watch over the movement of general public / children and warning them when they come close.	YES	
6	Number of walkie Talkie available at Site & their healthiness.	NO	Not Available
7	All the workers are provided with good quality SAFETY HELMETS confirming to BIS Standard, IS:2925.	YES	Brand: Karoam
8	The workers engaged in Tower Erection work at height are provided with good quality FULL BODY DOUBLE LANYARD SAFETY BELTS confirming to BIS Standard IS:3521 / EN 361.	YES	Brand: Karoam
9	Other PPEs provided to the workers: SAFETY SHOES / COTTON HAND GLOVES for material handling / ELECTRICAL SAFETY GLOVES for S/D works	YES	As per Life Requirement
10	The workers engaged in work at height are provided with FALL PROTECTION SYSTEMS like Rope Grab Mobile Fall Arrestor for ascending / descending the Tower / Retractable Fall Arrestor (for vertical movement from cross arm to conductor / roller) / Horizontal Life Line Rope for moving from one member to another member (Horizontal movement within tower).	YES	
11	The fitters working on the tower have been trained on safety for work at height before deployment for tower erection works and Training Records maintained.	YES	
12	Life Line Rope / Lanyard of the Safety Belts are properly anchored / looped while the person is working at height / moving along the insulator string / conductor.	YES	
13	Whether the Towers have been permanently earthed?	YES	

Contd..2..

- 2 -			
14	(a) First aid box with listed items as per BOCW Act, 1996 available. (b) Number of First Aid Trained persons and their names. (c) First Aid Register is available at site. (d) Nearby medical facilities for use during exigencies identified (Location / Phone No.).	Yes	
15	Before commencing stringing activity, all Tower Members and Bolt & Nuts are fixed and the Bolts properly tightened. WRITTEN CLEARANCE to take up stringing obtained.	Yes	
16	Before commencing stringing activity, it is ensured that all missing Tower Members and Bolt & Nuts are replaced. RECORDS OF CONFIRMATION OF LIQUIDATION OF DEFECTS MAINTAINED.	Yes	
17	Proper fixing of split pins and their verification before hoisting the Insulator String is being ensured.	Yes	
18	Adequate number of BACK STAYS, depending on type of conductors (TWIN / QUAD / HEXA), are provided for all the cross arms of the end Tower, and are properly fixed to the deadman before taking up Tensioning.	Yes	
19	Shutdown of state EB power lines, wherever required, are taken with PTW, and no short cut methods used and chances taken.	N/A	Not Required
20	(a) Adequate capacity local earths suitable for appropriate voltage power lines are used to prevent any electric shock while working on or near charged EB Lines / Power Line crossings. These earths are properly fixed to ensure proper contact with the conductors. Healthiness of discharge rods / cables found OK. (b) Whether a person is stationed near EB Power Line isolating points, especially in LT Lines, to prevent inadvertent charging before return of PTW. (c) Name of the Engineer / Supervisor available / responsible at Site for ensuring proper fixing of local earths and their removal during power line shut downs & normalising.	N/A	as in
21	Atleast one vehicle (four wheeler) is available for use in case of emergencies.	Yes	
22	The polypropylene / wire ropes are of adequate strength & free from any damage. The damaged / discarded ropes and steel wires are removed and not kept along with the other usable T&P, to prevent their use.	Yes	
23	(a) Condition of Load bearing links such as D-shackles, Come-along clamps, steel ropes, pulleys, etc., are found to be sound and free from any defect. (b) Whether all lifting T&P have been tested for safe working load and valid test certificates available and checked?	Yes	
24	The Stringing M/C / Tensioner / Puller are properly anchored and also properly earthed to prevent any electric shock due to induction / lightning to the operators.	Yes	
25	Whether Braking arrangement of TSE Machines / conductor drum stand / E/W Turn table is proper?	Yes	
27	Proper scaffolding arrangements are made during stringing of conductor at Road crossings and Railway crossings.	N/A	Not Required
28	Whether FINAL SAG operation is being done by WINCH M/C.		

SIGNATURE / NAME / DESIGNATION
OF POWERGRID REPRESENTATIVE

Copy To:

- (1) Regional In-charge / POWERGRID / _____
- (2) Projects In-charge (Region) / POWERGRID / _____
- (3) Site Incharge / POWERGRID / _____
- (4) Project In-charge / AGENCY / Zashaf

SIGNATURE / NAME / DESIGNATION
OF AGENCY'S REPRESENTATIVE

(Signature)
Rajendra Kumar
17-1-2018

Annexure 20

Sample Site Inspection Report

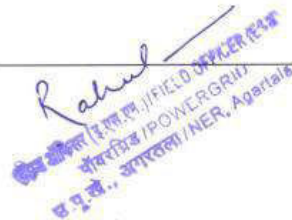
132kV Bagafa S/S

SITE INSPECTION REPORT

SUBSTATION	PACKAGE	EXECUTING AGENCY	DATE OF INSPECTION
132/33kV Bagafa Substation	TRP-SS-01	M/s. SPML Infra Limited	18 th March, 2020

S.I. NO.	OBSERVATIONS
1.	No recent Medical Health Check-up conducted. However, Medical Health Check-up Record of 02 No. site workers conducted earlier on 28/01/2020 available at site. <i>(Sample Medical Health Check-up Record of site worker enclosed)</i>
2.	Induction Training & Daily Tool Box Meeting record of workers maintained. <i>(Sample Record of Induction Training & Daily Tool Box Meeting enclosed)</i>
3.	01 No. Sand Filter for workers & staffs/ third party drinking water portability test report of water from Sand Filter available at site. <i>(Photograph of Sand Filter & Water Test Report enclosed)</i>
4.	Separate Toilet facility each for Gents & Ladies available at site. However, the contractor has been instructed to sanitize & clear the bushes around the toilet facility immediately. <i>(Photograph of Toilet Facility at site enclosed)</i>
5.	First Aid Box with necessary medicines available at site. <i>(Photograph of First Aid Box at site enclosed)</i>
6.	First-Aid/ Incidence & Accident Register available at site. <i>(Photograph of First Aid/ Incidence & Accident Register at site enclosed)</i>
7.	Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site. <i>(Photographs of Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site enclosed)</i>
8.	Record of workers deployed, along with their self attested copies of ID proofs available at site. <i>(Photograph of Register & Sample Self-attested ID proof of Worker enclosed)</i>
9.	01 No. Fire Extinguisher & 02 No. Fire Buckets installed at site. <i>(Photograph of Fire Extinguisher at site enclosed)</i>
10.	Grievance Register & Complain Box available at site. However, GRC Banner not displayed at site. Contractor has been instructed to prepare & display the GRC Banner as soon as possible. <i>(Photograph of Grievance Register enclosed)</i>
11.	01 No. Dustbin available at site. <i>(Photograph of Dustbin at site enclosed)</i>


RAKESH MISHRA

SPML

Rahul
 जिला प्रमुख, क्षेत्र-1, POWERGRID
 नॉर्थ ईस्ट, अगारवाला / NER, Agartala

12.	01 No. Ladder of sufficient height available at site. <i>(Photograph of Ladders at site enclosed)</i>
13.	<u>Statutory Documents</u> a. Labor License expired on 09/02/2020. However, M/s. SPML has already applied & renewal waited from Labor Department. b. Registration against BOCW found valid. c. Marine In-land & Erection All Risk policy found valid as on date. However, installments which were due on 17/02/2020 had been paid by M/s. SPML on 26/02/2020. Therefore, the Gap of 08 days between the due date of installment & the date of payment has been observed.

Rakesh
RATNESH MISHRA

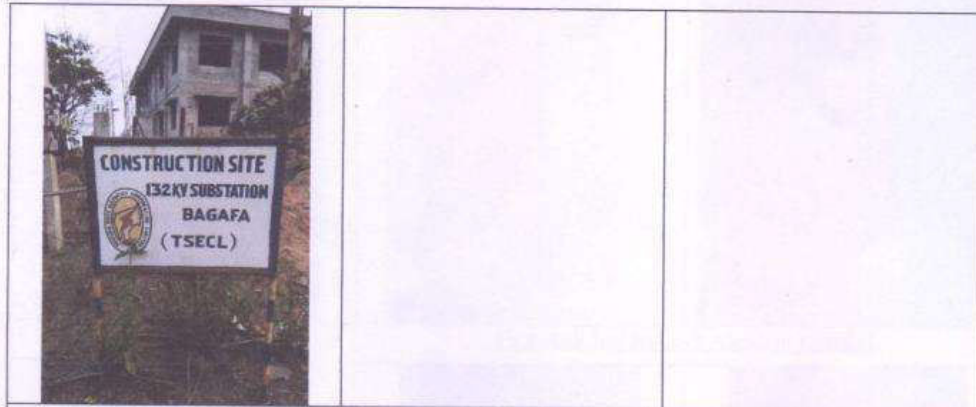


Rash



Rahul
रजनीश कुमार / रजनीश कुमार / POWERGRID
महोदय, अणुसंधान / NER, Agartala

ANNEXURE



Medical Health Check-up Record

<p>Page 1 of 3</p> <p>132KV SUBSTATION BAGAF (TSECL)</p> <p>Medical Health Check-up Record</p> <p>Page 1 of 3</p>	<p>Page 2 of 3</p> <p>Medical Health Check-up Record</p> <p>Page 2 of 3</p>	<p>Page 3 of 3</p> <p>Medical Health Check-up Record</p> <p>Page 3 of 3</p>
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Induction Training/ Daily Tool Box Meeting Record







<p>Page 1 of 3</p> <p>Induction Training/ Daily Tool Box Meeting Record</p> <p>Page 1 of 3</p>	<p>Page 2 of 3</p> <p>Induction Training/ Daily Tool Box Meeting Record</p> <p>Page 2 of 3</p>	<p>Page 3 of 3</p> <p>Induction Training/ Daily Tool Box Meeting Record</p> <p>Page 3 of 3</p>
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Rahul
SPML INFRA LTD.
TRIPURA



Rahul

Rahul
SPML INFRA LTD. / POWERGRID
P.O. Box, Agartala / NER, Agartala



Emergency Contact Numbers		Labor Wage Banner																									
 <table border="1"> <thead> <tr> <th>Sl no.</th> <th>Contact Person</th> <th>Contact Number</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Site In-charge</td> <td>7320837473/7640999793</td> </tr> <tr> <td>2</td> <td>HR & Admin Dept.</td> <td>8837410576/908906668</td> </tr> <tr> <td>3</td> <td>Safety Dept.</td> <td>7874399415</td> </tr> <tr> <td>4</td> <td>Security</td> <td>03823362248</td> </tr> <tr> <td>5</td> <td>Hospital / Ambulance</td> <td>03823362231</td> </tr> <tr> <td>6</td> <td>Police</td> <td>03823362244</td> </tr> <tr> <td>7</td> <td>Fire</td> <td></td> </tr> </tbody> </table>		Sl no.	Contact Person	Contact Number	1	Site In-charge	7320837473/7640999793	2	HR & Admin Dept.	8837410576/908906668	3	Safety Dept.	7874399415	4	Security	03823362248	5	Hospital / Ambulance	03823362231	6	Police	03823362244	7	Fire			
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Workmen Details Register/ Sample Self attested ID Proof of Worker		Fire Extinguisher																									
																											
Grievance Register/ Complain Box																											
																											



<p><u>Dustbin</u></p> 	<p><u>Ladder</u></p> 	<p><u>HOD Visit Register</u></p> 
<p><u>Statutory Documents</u></p>		
<p><u>Safety Plan</u></p>  	<p><u>Labor License</u></p> 	<p><u>BOCW</u></p> 
<p><u>Marine Policy</u></p> 	<p><u>Erection All Risk Policy</u></p> 	<p><u>WC Policy</u></p> 

Stamp: INFRATECH TRIPURA
Signature: [Signature]
Date: 24/05/2024

Stamp: INFRATECH TRIPURA
Signature: [Signature]

Stamp: INFRATECH TRIPURA
Signature: [Signature]
Date: 24/05/2024

Site Inspection Report – 132kV Satchand S/S

SITE INSPECTION REPORT

SUBSTATION	PACKAGE	EXECUTING AGENCY	DATE OF INSPECTION
132/33kV Satchand Substation	TRP-SS-01	M/s. SPML Infra Limited	18 th February, 2020

S.I. NO.	OBSERVATIONS
1.	Medical Health Check-up of 05 (five) No. site workers conducted on 01/02/2020. Records available at site. <i>(Sample Medical Health Check-up Record of site worker enclosed)</i>
2.	Induction Training & Daily Tool Box Meeting record of workers maintained. <i>(Sample Record of Daily Tool Box Meeting enclosed)</i>
3.	01 No. Sand Filter for workers & staffs/ third party drinking water portability test report of water from Sand Filter available at site. <i>(Photograph of Sand Filter & Water Test Report enclosed)</i>
4.	Toilet facility unavailable at site. Contractor has been instructed to construct Toilet separately for Gents & Ladies on priority basis.
5.	First Aid Box with necessary medicines available at site. <i>(Photograph of First Aid Box at site enclosed)</i>
6.	First-Aid/ Incidence & Accident Register available at site. <i>(Photograph of First Aid/ Incidence & Accident Register at site enclosed)</i>
7.	Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site. <i>(Photographs of Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site enclosed)</i>
8.	Record of workers deployed, along with their self attested copies of ID proofs available at site. <i>(Photograph of Register & Sample Self-attested ID proof of Worker enclosed)</i>
9.	01 No. Fire Extinguisher available at site. <i>(Photograph of Fire Extinguisher at site enclosed)</i>
10.	Sufficient PPEs for workers available at site. <i>(Photograph of PPE Issue Register & Stock of PPEs in Site Store enclosed)</i>
11.	Grievance Register available at site. However, GRC Banner not displayed at site. Contractor has been instructed to prepare & display the GRC Banner as soon as possible. <i>(Photograph of Grievance Register enclosed)</i>
12.	01 No. Dustbin available at site. <i>(Photograph of Dustbin at site enclosed)</i>



Rahul
 क्षेत्र अधिकारी (T&D) / FIELD OFFICER (T&D)
 पावरग्रिड / POWERGRID
 उ.प्र.दे., अमरकान्तक / NER, Agartala.

13.	02 No. Ladders of sufficient height available at site. <i>(Photograph of Ladders at site enclosed)</i>
14.	<u>Statutory Documents</u> a. Labor License expired on 09/02/2020. However, M/s. SPML has already applied & renewal waited from Labor Department. b. Registration against BOCW found valid. c. Marine In-land & Erection All Risk policy found valid as on date. However, installments which were due on 17/02/2020 have still not been paid by M/s. SPML. M/s. SPML has been instructed to immediately pay the installment premium & submit the copy of receipt to NERPSIP, POWERGRID, Agartala Office.




Rahul
FIELD OFFICER (E&E)
POWERGRID / NERPSIP, Agartala

[illegible]









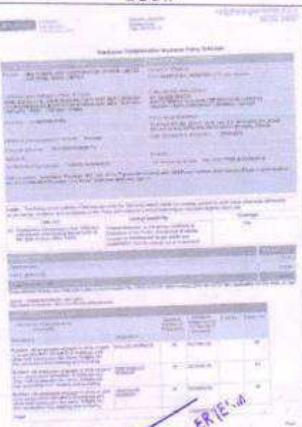


<p>Emergency Contact Numbers</p> 	<p>Labor Wage Banner</p> 	
<p>Workmen Details Register/ Sample Self attested ID Proof of Worker</p> 		<p>Fire Extinguisher</p> 
<p>PPE Issue Register/ Stock of PPEs in Site Store</p> 		<p>Grievance Register</p> 

Chitra
SPML INFRA
TRIPURA

[Signature]
SPML INFRA
TRIPURA

Rajesh
SPML INFRA
TRIPURA
POWERGRID
NERPSIP
असम/असम/असम

Dustbin	Ladder	Stacking of Material
		
Statutory Documents		
		
Safety Plan	Labor License	BOCW
		
Marine Policy	Erection All Risk Policy	



Rahul W. Patra
 मेन्बर ऑफिस (इ.ए.ए.)/I.E. डायरेक्टर
 पावरग्रिड/POWERGRID
 स.प.वे. अंगारतला/NER, Agartala

Annexure 21

HSE Audit

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
Donglieh, Lower Nongrah, Lapalng, (Shillong)-793006
Phone: (0364) 2536178, Fax: (0364) 2536397, Email: nerts_os@yahoo.in

उत्तर-पूर्वी क्षेत्रीय मुख्यालय: प्रचालन सेवा; NERTS RHQ: Operation Services

Date. 06.01.2021

REF: NESH/Safety/Audit/113/2020/

To,
The General Manager (Projects)
M/s SPML Infra Limited,
Ramnagar- 05 (Near Mukti Sangha Club)
Agartala, Tripura West,
Tripura - 799002

Sub: Safety Check / Audit.

Dear Sir,

Under signed has visited construction work of 132/33kV Gokul Nagar & 132/33kV Udaypur Sub-station Construction Site (Package-II) as on 02nd January'2021. The Safety check / Audit has been carried out along with your safety officer / site engineers. During the Safety Check / Audit, some lapses pertaining to safety related aspects have been observed.

The observations are mentioned as under:

1. During audit it has been observed that the Safety Officer against the package-II is not available since 01st Jan.'2019. As per terms & conditions of contract, Safety Officer shall be deputed against each contract. Site shall take the actions as per the terms & conditions of the contract.
2. It has been observed that Excavated pit at construction site kept open & without barricading, which shall be properly barricaded.
3. Caution tape / Safety posters / Entry restriction board not displayed at construction site, which shall be displayed for visual safety awareness.
4. During audit it has been observed that the stock of PPEs is very less. Adequate PPEs shall be procured.
5. 'Emergency Contact Numbers' not displayed at construction site, which shall be displayed.
6. Height pass for working at height has not been issued to new fitters, which shall be issued after medical health checkup/fitness and induction training. The record of the same shall be maintained at site.

You are requested to look in to the matter seriously and comply the observations immediately. Failing of which, action shall be taken as per terms and condition of contract. The compliance report shall be submitted to the Regional Safety, Shillong through concern site in-charge /site engineer of POWERGRID. Further, it is requested to ensure the implementation of proper safety measures at working site to avoid any untoward incidence.

Thanking you,

(Pulakesh Roy)

Regional Safety officer, Shillong.

Copy to:

1. CGM (NERPSIP), Guwahati- For kind information
2. Sr. GM (NERPSIP), Agartala- For kind information
3. GM (FQA & Safety), Guwahati- For kind information
4. Sr. DGM(NERPSIP), Udaypur- For kind information



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. No. NEAGT/NERPSIP-500/2020-21/43A

Date: 06.01.2021

To,

SPML Infra Limited,
22, Camac Street, Block-A
3rd Floor, Kolkata-700016

Kind Attention: Sh. M.K. Chakraborty, Executive V.P.
Sh. D.B. Dandapat, DGM (Projects)

Sub: Deployment of Permanent Safety Officer for Substation Package TRP-SS-02 – Reg.

CC-CS/86-NER/SS-2651/I/GI/NOA-I/7070 dated 04.11.2016

NOA No. CC-CS/86-NER/SS-2651/I/GI/NOA-II/7071 dated 04.11.2016

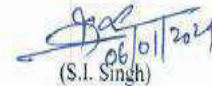
Sir,

It is to bring to your kind notice that there is no permanent Safety Officer for package TRP-SS-02 since 01.01.2019. M/s. SPML in the Safety meeting held at POWERGRID Agartala office on 30.04.2019 agreed to deploy Safety Officer for package TRP-SS-02 & intimate POWERGRID latest by 31.05.2019. However, even after several reminders, M/s. SPML has not taken necessary action to depute permanent Safety Officer for package TRP-SS-02. Construction work of 132/33kV substations of package TRP-SS-02 is already going on. Such negligence of M/s. SPML and non-availability of Safety Officer may lead to major safety lapses at sites and this cannot be permitted by POWERGRID. The matter was also pointed out by our Regional Safety Officer vide letter ref. no. NESH/Safety/Audit/113/2020/ dated 06.01.2021.

In view of above you are once again requested to deploy independent Safety Officer for package TRP-SS-02 immediately failing which contractual action/ recovery as deemed fit will be taken against M/s. SPML Infra Limited as per the contract agreement.

Thanking you,

Yours faithfully,



Sr. General Manager (NERPSIP)
POWERGRID, Agartala

Copy to:

1. CGM (NERPSIP), POWERGRID, Guwahati for kind information please
2. Sr. GM (PESM), POWERGRID, Guwahati for kind information please
3. GM (Projects), SPML, Agartala for kind information & necessary action
4. Sr. DGM (NERPSIP), POWERGRID, Udaipur for kind information
5. Chief Manager (NERPSIP), POWERGRID, Agartala for kind information
6. Sr. Manager, SPML, Udaipur for kind information & necessary action

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्घम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Dongtich, Lower Nongrah, Lapalng, (Shillong)-793006
Phone: (0364) 2536178, Fax: (0364) 2536397, Email: nerts_os@yahoo.in

उत्तर-पूर्वी क्षेत्रीय मुख्यालय: प्रचालन सेवा; NERTS RHQ: Operation Services

REF: NESH/Safety/Audit/113/2020/

Date: 06.01.2021

To,

The Project Manager

M/s Teams India Towerlines Pvt. Ltd.,
Ground Floor, 9, Purba Para Ward no.-9,
Santir Bazaar, South Tripura,
Tripura- 799144

Sub: Safety Check / Audit.

Dear Sir,

Under signed has visited construction work of Udaypur-Amarpur TL Construction Site {Loc. 18/0 (DD+6)} of as on 02nd January'2021. The Safety check / Audit has been carried out along with your safety officer / site engineers. During the Safety Check / Audit, some lapses pertaining to safety related aspects have been observed. The observations are as follows:

The observations are mentioned as under:


1. During audit it has been observed that the excavated soil kept just near to pits, which shall be kept at appropriate distance (at least half of the depth of the pit) from the edge of the pit.
2. Concrete mixer machine not place at appropriate distance from the pit. It shall be placed at minimum distance equal to 'Half of Depth of the Pit' and if site constraints do not permit then proper back stay to mixer machine shall be provided.

The following pts shall be taken care prior to start 'Tower Erections/Stringing works -

1. Third Party Load Testing of all the 'Tools & Plants (T&Ps)' shall be carried out prior to be utilized at construction site.
2. Prior to engage the fitters to work at height it shall be ensured that height pass has been issued by the agency after medical health checkup/fitness and induction training. The record of same shall be maintained at site.
3. Safety Steward shall be deputed for strict safety supervision at construction site.
4. Availability of fall arresters like Free fall arrester, Retractable type fall arrester, Horizontal life line, Full body safety harness with double lanyard etc. shall be ensured.
5. Section wise tower erection procedure shall be ensured.
6. Availability of sufficient nos. of Discharge rods & Earthing leads shall be ensured.
7. Rope grab fall arrester lock shall be provided to each individual fitters for safe ascending / descending the towers.
8. First aid box shall be made available in each working location & labour camp area.
9. Snake repellent / Carbolic acid shall be made available & ensured that same is sprayed regularly in & around the labour camp area.

You are requested to look in to the matter seriously and comply the observations immediately. Failing of which, action shall be taken as per terms and condition of contract. The compliance report shall be submitted to the Regional Safety, Shillong through concern site in-charge /site engineer of POWERGRID. Further, it is requested to ensure the implementation of proper safety measures at working site to avoid any untoward incidence.

Thanking you,


(Pulakesh Roy)
Regional Safety officer, Shillong.

Copy to:

1. CGM (NERPSIP), Guwahati- For kind information
2. Sr. GM (NERPSIP), Agartala- For kind information
3. GM (FQA & Safety), Guwahati- For kind information
4. Sr. DGM(NERPSIP), Agartala- For kind information

पावर ग्रिड कारपोरेशन ऑफ़ इंडिया लिमिटेड
उ. पू. क्षेत्र. पा. प्र., अगरतला



अंतर कार्यालय ज्ञापन

प्रेषक : Sr. GM (NERPSIP), Agartala सेना में : Sh. Pulakesh Roy, Chief Manager (Safety); RHQ Shillong

सन्दर्भ : NEAGT/NERPSIP-350/ 2020-21/ **62**

दिनांक : 25/01/2021

विषय : Forwarding the Safety Audit Compliance Report of M/s. TEEMS.

With reference to your observations vide letter ref. no. NESH/Safety/Audit/113/2020/ dated 06/01/2021 please find enclosed herewith the Safety Audit Compliance Report submitted by M/s. TEEMS. The Safety Audit Compliance Report has been checked and found in order. M/s. TEEMS has been advised to comply strictly the Safety norms in future construction activities.

This is for your kind information and necessary action at your end.


(S.I. Singh)



Teems India Towerlines Pvt Ltd (TITPL)
Compliance Report of Power Grid Safety Audit

Letter Ref. No. : NESH / Safety / Audit / 113 / 2020

Name of The site/Project : Udaypur - Amarapur TL, Tripura


Date of site visit : 02 / 01 / 2021

Location : Location: 18 / 0, DD + 6, (Foundation) - Tripura

Audit Team : Mr. Pulakesh Roy, Regional- EHS (PGCIL), Shillong,
: Mr Rahul Mishra (Safety Officer, EHS - PGCIL, Mr D P Singh (Manager - PGCIL)

Name of Site Safety Officer : Mr. Suman Jana - Teems India (TITPL)

➤ **Findings/observations:**

Sr No	Observations by PGCIL - EHS - Shillong	Photographic evidence	Compliance by Teems India - EHS
01	During audit it has been observed that the excavated soil kept just near to pits, which shall be kept at appropriate distance (at least half of the depth of the pit) from the edge of the pit		<p>Excavated soil of the four sides dumped 1.5 m away from the edges of pit.</p> <p>We are doing Excavation work by using JCB machine which is placed in a safe distance and maintaining 1.5 MTRs distance from the pit.</p>

Ujjal Roy Chowdhury
UJJAL ROY CHOWDHURY
ASST. ENGINEER
TEEMS INDIA

Rahul
राहुल मिश्रा/RAHUL MISRA
क्षेत्रीय अधिकारी (उ. पू. क्षेत्र) / REGIONAL OFFICER (ESM)
पावरग्रिड / POWERGRID
उ. पू. क्षेत्र, अगरतला / NER AGARTALA

Ranjit Sarkar
रजित सारकर / RANJIT SARKAR
उप प्रबंधक / Dy. MANAGER
पावरग्रिड / POWERGRID
उ. पू. क्षेत्र, उदयपुर / NER UDAIPUR

02	Concrete mixer machine not place at appropriate distance from the pit. It shall be placed at minimum distance equal to "Half of Depth of the Pit" and if site constraints do not permit then proper back stay to mixture machine to be provided.	<p>Concrete Mixer Machine Safe distance Maintain from the PIT</p> 	Concrete Mixture machine is placed at safe distance from the Pit.

NOTE:- The Same Observation Will be maintain in each & every location.












M. R. KASHYAP
 Sr. Manager-Projects
 TEEMS. INDIA.


UJJAL ROY CHOWDHURY
 ASST. ENGINEER
 TEEMS INDIA



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. No. NEAGT/NERPSIP-700/2020-21/ **72**

Date: 04/02/2021

To,

1. Technofab Engineering Limited
Plot No. 5, Sector 27C, Mathura Road
Faridabad-121003 (NCR), Haryana, India

2. Supreme & Co. (P) Ltd.
53, Justice Chandra Madhav Road
Kolkata-700020, West Bengal, India

Kind Attn: Sh. Suresh Kumar; COO

Kind Attn: Sh. Harish Agarwal; MD
Sh. Kapil Singhal; VP

Sub: Safety Officers for DMS Packages TRI-DMS-01, TRI-DMS-02, TRI-DMS-03, TRI-DMS-04 & TRI-DMS-05.

Sir,

The construction activity of DMS substations & lines has already been started since November, 2020. However, the package Safety Officers has not reported till date.

In view of above you are hereby requested to forward us the names of package wise Safety Officers along with the copy of their relevant qualification certificates & instruct them to report at POWERGRID, Agartala office for further instructions regarding the implementation of Safety norms at the construction sites.

Thanking you,

Yours faithfully,


(S.I. Singh)

Sr. General Manager (NERPSIP)
POWERGRID, Agartala

Copy to:-

1. Sr. General Manager (PESM), POWERGRID, Guwahati for kind information
2. General Manager, Supreme, Agartala for kind information
3. Manager (Projects), Technofab, Agartala for kind information

NERPSIP Office, Ramnagar-06 (Middle), 3rd Crossing, Agartala- 799002, Tripura (West)
Tel: 0381-2330045



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. No. NEAGT/NERPSIP-500/2020-21/74

Date: 04/02/2021

To,

SPML Infra Limited,
22, Camac Street, Bloack-A
3rd Floor, Kolkata-700016

Kind Attention: Sh. M.K. Chakraborty; Executive VP

Sub: Safety Officer for Substation Package TRP-SS-01 & TRP-SS-02 – Reg.

CC-CS/86-NER/SS-2650/1/G1/NOA-I/7068 dated 04/11/2016
CC-CS/86-NER/SS-2650/1/G1/NOA-II/7069 dated 04/11/2016
NOA No. CC-CS/86-NER/SS-2651/1/G1/NOA-I/7070 dated 04.11.2016
CC-CS/86-NER/SS-2651/1/G1/NOA-II/7071 dated 04.11.2016

Sir,

It is to bring to your kind notice that the Safety officer for package TRP-SS-01 is unavailable to give his services since November, 2020. On further enquiry it is learnt that the Safety officer for package TRP-SS-01 has recently resigned. Also, the Safety officer for package TRP-SS-02 is unavailable since January, 2019 & no replacement has been given by M/s. SPML till date. The same was already pointed out by our Regional Safety Officer who visited Tripura in the month of January, 2020 & a letter was issued to M/s. SPML vide letter ref. no. NESH/Safety/Audit/113/2020/ dated 06/01/2021. The construction activity of 132kV Substations is going on in full swing & the non-availability of Safety officer may lead to major safety lapses at sites which cannot be permitted by POWERGRID.

In view of above you are requested to deploy Safety Officer for package TRP-SS-01 & TRP-SS-02 immediately failing which contractual action/ recovery as deemed fit will be taken against M/s. SPML Infra Limited as per the contract agreement.

Necessary action may be taken accordingly.

Thanking you,

Yours faithfully,


(S.I. Singh)

Sr. General Manager (NERPSIP)
POWERGRID, Agartala

Copy to:

1. Sr. GM (PESM), POWERGRID, Guwahati for kind information
2. GM (Projects), SPML, Agartala for kind information please
3. Sr. DGM (NERPSIP), POWERGRID, Udaipur for kind information

NERPSIP Office, Ramnagar-06 (Middle), 3rd Crossing, Agartala- 799002, Tripura (West)
Tel: 0381-2330045

Annexure 22

GRC Details

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



No. F. 5(85) / TSECL/2016-17/ 3308-40

dated, Agartala, the 27th February, 2017

To
The General Manager (NERPSIP)
Power Grid Corporation of India Ltd.
Royal Centre Flat No. 102
G.S. Road, Ulubari
Guwahati - 781007.

Sub : - Constitution of Site Level Grievance Redressal Committee (GRC) for NER Power
System Improvement Project (NERPSIP) : Tripura

Ref : - NEAGT/NERPSIP / Grievance / 313, dated 19.01.2017.

Sir,

In inviting reference to the letter above, Site Level Grievance Redressal Committee (GRC) has been constituted and attached herewith in line with the State Specific ESPPF adopted by TSECL for the work covered under Tranche - I of ongoing World Bank aided NER Power System Improvement Project (NERPSIP) pertaining to the State of Tripura, to provide a trusted way to resolve environmental and social concerns of the Project and also to effectively address person / community / stake holder complaints arising out of the project implementation.

Yours faithfully,

(S.G. Choudhuri)

Director (Finance) & Company Secretary,
TSECL, Agartala.

Copy to :-

- 1) The P.S. to the CMD, TSECL, Agartala.
- 2) The GM (Technical), TSECL, Agartala.
- 3) The AGM (Transmission), TSECL, Agartala.
- 4-10) The AGM, EC - Gomati / Belonia / Sepahijala / II, Agartala / Khowai / Dhalai / Unokoti.
- 11-13) The DGM, TD, Agartala / Udaipur / Kumarghat.
- 14-16) The DGM (Civil) / DGM (P-II) / DGM (P-III), Transmission Circle, Agartala.
- 17-32) The DGM, ED - Amarpur / Bagafa / Udaipur / Belonia / Sabroom, Jampuijala / Sonamura / Bishalgarh / Mohanpur / Teliamura / Jirania / Khowai / Ambassa / Manu / Kamalpur / Kailashahar.

Director (Finance) & Company Secretary

Bidyut Bhavan, North Banamalipur, Agartala - 799 001, Tripura
Phones: 0381-222-8001 / 232-5843 / 222-6613 FAX: 0381-2319427 / 222-5356

SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE

FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA

A. 132 KV sub-station :

Package No.	Sl. No.	Sub-station	Site Level Grievance Redressal Committee	
			Nominated Official of TSECL	Nominated Official of PowerGrid
SS01	1	Belonia	1) DGM, TD, Udaipur, 2) Mgr. Belonia S/S.	Dy. Mgr, PGCIL, Belonia
	2	Bagafa	1) DGM, TD, Udaipur, 2) Mgr. Bagafa S/S.	
	3	Sabroom	1) DGM, TD, Udaipur, 2) Mgr. Sabroom S/S.	Dy. Mgr, PGCIL, Satchand
	4	Satchand	1) DGM, TD, Udaipur, 2) Mgr. Satchand S/S.	
SS02	5	Rabindranagar	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr. Rabindranagar S/S	Manager, PGCIL, Udaipur
	6	Gokulnagar	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr. Gokulnagar S/S	Dy. Mgr, PGCIL, Agartala
	7	Jirania	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr. Mgr. Jirania S/S	
	8	Udaipur	1) DGM, TD, Udaipur, 2) Sr.Mgr. Udaipur S/S.	Manager, PGCIL, Udaipur
	9	Rokhia	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr. TSD, Agartala	Manager, PGCIL, Udaipur
SS03	10	Mohonpur	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala	Dy. Mgr, PGCIL, Agartala
	11	Amarpur	1) DGM, TD, Udaipur, 2) Mgr. Amarpur S/S	Manager, PGCIL, Udaipur
	12	Manu	1) DGM, TD, Kumarghat, 2) Sr.Mgr. Ambassa S/S	Asstt. GM, PGCIL, Kumarghat
	13	Ambassa		
	14	Dhalabil	1) DGM, TD, Agartala, 2) Sr.Mgr. Dhalabil S/SS/S	Dy. Mgr, PGCIL, Agartala
	15	Kailashahar	1) DGM, TD, Kumarghat, 2) Sr.Mgr. Kailashahar S/S	Asstt. GM, PGCIL, Kumarghat
	16	Dharmanagar	1) DGM, TD, Kumarghat, 2) Sr.Mgr. Dharmanagar S/S	



SITE LEVEL GRIEVANCE REDRESSEL COMMITTEE

FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE - I): TRIPURA

B. 132 KV line :

Package No.	Sl. No.	Line	Site Level Grievance Redressel Committee	
			Nominated Official of TSECL	Nominated Official of PowerGrid
TW01	1	Bagafa - Belonia	1) DGM, TD, Udaipur, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr, TSD, Agartala.	Dy. Mgr, PGCIL, Belonia
	2	Belonia - Sabroom		
	3	Bagafa - Satchand		
TW02	4	Rabindranagar - Rokhia	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr, Rabindranagar S/S	Manager, PGCIL, Udaipur
	5	Rabindranagar - Belonia	1) DGM, TD, Udaipur, 2) DGM(Civil),TC	
	6	Udaipur - Bagafa	3) Sr. Mgr, TSD, Agartala	
	7	LILO of Surjamaninagar – Rokhia at Gokulnagar	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr. Mgr, TSD,Agartala	Dy. Mgr, PGCIL, Agartala
TW03	8	Kailashahar - Dharmanagar	1) DGM, TD, Kumarghat, 2) Sr.Mgr, Dharmanagar S/S	Asstt GM, PGCIL, Kumarghat
	9	Udaipur - Amarpur	1) DGM, TD, Udaipur, 2) DGM(Civil),TC, Agartala 3) Sr.Mgr, TSD,Agartala	Manager, PGCIL, Udaipur
	10	LILo of Grid 79 Tilla - Dhalabil at Mohonpur	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr, TSD,Agartala	Dy. Mgr, PGCIL, Agartala
	11	LILo of Ambassa – P. K. Bari at Manu	1) DGM, TD, Kumarghat, 2) Sr.Mgr, Ambassa S/S	Asstt GM, PGCIL, Kumarghat



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE - I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS 01	1	Karbook	Rani	LILO of Tirthamukh - Silachari at Karbook	Jolaibari - Bagafa	1) DGM,ED-Amarpur 2) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
	2	Muhuripur	Jolaibari	LILO of Jolaibari - Bagafa at Muhuripur	Silachari - Tirthamukh	1) DGM,ED-Bagafa 2) DGM, ED - Amarpur 3) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Belonia
	3	Dalak (Chelagang)		Amarpur 132/33 KV S/S - Dalak		1) DGM,ED-Amarpur, 2) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
	4	Garjee		Jatanbari - Dalak		1) DGM, ED - Udaipur, 2) DGM,TD,Udaipur	
	5	Chittamara		Belonia Existing 33/11 kV S/s- Chittamara		1) DGM,TD,Udaipur, 2) DGM ED-Belonia	Dy. Mgr, PGCIL, Belonia
	6	Maharani		Garjee - Chittamara		1) DGM,ED-Udaipur, 2) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
	7	Chechua		Udaipur 132/33 kV s/s - Maharani		1) DGM,ED-Amarpur, 2) DGM, ED - Udaipur, 3) DGM,TD,Udaipur	
				Garjee - Maharani			
				Amarpur 132/33 KV S/S - Chechua		1) DGM,ED-Amarpur, 2) DGM,TD,Udaipur	
DMS 02	8	Ekinpur	Hrshyamu kh	Sabroom 132 KV S/s - Manughat	Belonia - Hrshyamukh	1) DGM,ED- Belonia 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Belonia
	9	Manughat	Rajnagar	Manughat - Srinagar	Belonia - Rajnagar		Dy. Mgr, PGCIL, Satchand
	10	Rupaichari		Satchand 132/33 KV S/S - Srinagar		1) DGM,ED- Sabroom 2) DGM,TD,Udaipur	
	11	Barpathari		Tapping point on existing Belonia - Hrshyamukh line - Srinagar		1) DGM,ED- Belonia 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Belonia
	12	Gabardi		Satchand 132/33 KV S/S - Rupaichari		1) DGM,ED- Jampuijala 2) DGM,TD,Agartala, 3) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala
	13	Srinagar		Rajnagar - Ekinpur		1) DGM,ED- Belonia 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Satchand
				LILO of existing Belonia - Rajnagar line at Barpathari Jolaibari - Silachari		1) DGM,ED-Sabroom 2) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
				Jolaibari - Proposed Satchand		1) DGM,ED-Sabroom 2) DGM,TD,Udaipur	
				Proposed Rupaichari - proposed Sabroom		1) DGM,ED-Sabroom 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Satchand
				LILO of existing Suraj Mani Nagar -Takarjala line at Gabardi		1) DGM,ED- Jampuijala 2) DGM,TD,Agartala, 3) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS03	14	Sekerkote	Madhupur	LILO of Badharghat - Jangalia line at Sekerkote	Badharghat - Jangalia	1) DGM,ED- Bishalgarh 2) DGM, ED - Sonamura 3) DGM,TD,Agartala, 4) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala
	15	Golaghati	Melaghar	Proposed Gokul Nagar - Golaghati	Rabindranagar - Kathalia		
	16	Durganagar	Kathalia	Takarjala - Golaghati	Rabindranagar - Melaghar		
	17	Nidaya	Takarjala	Proposed Gokul Nagar - Durganagar	Badharghat - SM Nagar	1) DGM,ED- Sonamura 2) DGM,TD,Agartala, 3) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Belonia
	18	Nalchar		Madhupur - Durganagar	SM Nagar - Takarjala		Manager, PGCIL, Udaipur
				Kathalia - Nidaya		1)DGM,ED- Sonamura 2) DGM,TD, Agartala, 3)DGM(Civil),TC, Agartala	
				Melaghar - Nalchar			
				Bishramganj - Nalchar			
				Proposed Gokul Nagar 132/33 KV S/S - Tapping at Madhupur- Jangalia line		1)DGM,ED- Bishalgarh 2)DGM,TD,Agartala, 3)DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala
				Bishramganj - Jangalia			
				Rajnagar - Nidaya		1)DGM,ED- Sonamura 2)DGM,TD,Agartala, 3)DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Belonia



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS04	19	Simna	Hezamara	Dhalabil –Khowai	Teliamura – Kalyanpur	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur	Dy. Mgr, PGCIL, Agartala
	20	Barkathal	Khayerpur	Ampura – Khowai	Dhalabil – Kalyanpur	1)DGM,TD,Agartala 2)DGM,ED-Mohanpur 3) DGM, ED-Teliamura	
	21	Bamutia		Hezamara -Simna	Mohonpur – Hezamara	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur	
	22	Champak -Nagar		Tapping point on Mohanpur - Hezamara line to Simna	Mohonpur – Agartala	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Jirania	
	23	Mungia -kami		Hezamara -Barkathal	Khayerpur – Jirania	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Jirania	
	24	Taidu		Proposed Mohanpur -Barkathal		1)DGM,TD,Udaipur, 2)DGM,ED-Amarpur 3)DGM, ED- Mohanpur	
	25	Lembu -cherra		Durjoyanagar – Bamutia		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur	
	26	Khowai		Lembucherra -Bamutia		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Khowai	
	27	ADC Head Qtr		LILO of existing Agartala - Mohanpur at Lembucherra		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM, ED – Jirania 4) DGM, ED – Mohanpur	
	28	Ranir -bazar		Jirania –Champaknagar			
				LILO of existing Khayerpur - Jirania line at Ranirbazaar		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Khowai	
				Jirania –ADC Hear Qtr			
				Champak Nagar –ADC		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Teliamura	
				Hezamara -Dhalabil			
			LILO of existing Ambassa - Teliamura at Mungiakami		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Teliamura		
			Teliamura –Taidu		1)DGM,TD,Udaipur 2)DGM,ED-Amarpur		
			Chechua – Taidu				



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS05	29	Tilla Bazar	Gandacherra	Ambassa - Jawhamagar	Ambassa - Teliamura	1)DGM, TD,Kumarghat, 2)DGM,ED-Kailashahar 3) DGM, ED-Ambassa	Asstt. GM, PGCIL, Kumarghat
	30	JawharNagar	Salema	LIFO of existing Chhamanu-Manu line at Chailengta		1)DGM, TD,Kumarghat, 2)DGM,ED- Ambassa 3) DGM, ED -Manu	
	31	Chailengta	Rangrung	Proposed Jawhar Nagar - Dhumacherra			
	32	Dhumachhera		Proposed Manu 132/33 KV S/S - Dhumacherra		1)DGM, TD,Kumarghat, 2)DGM,ED- Manu	
	33	82 mile		Proposed Manu 132/33 KV S/S - 82 mile			
	34	Durga Chowmohani		P K Bari - 82 mile		1)DGM, TD,Kumarghat, 2)DGM,ED- Manu, 3)DGM, ED -Kamalpur	
				Kalaisahar existing 132/33 kV s/s -Tillabazaar		1)DGM, TD,Kumarghat, 2) DGM,ED- Manu, 3) DGM, ED-Kailashahar	
				Proposed Manu 132/33 KV S/S- tapping at Chawmanu - Manu line			
				LIFO of existing Salema - Kamalpur Line		1)DGM, TD,Kumarghat, 2)DGM,ED- Manu, 3) DGM, ED -Kamalpur	



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

**POWER GRID CORPORATION
OF INDIA LIMITED**

(A Government of India Enterprise)



दुरभाष : (0381)2330045 (क)

NERPSIP Office,

Ramnagar 06(Middle); 3rd Crossing, Agartala - 799002.

उत्तर पूर्वीय क्षेत्र / NORTH EASTERN REGION

Ref. No. NEAGT/NERPSIP-102/2017-18/477

Date: 19.06.2017

To,

The AGM (Transmission)
Tripura State Electricity Corporation Limited
79 Tilla, Transmission Circle
Agartala-799006, Tripura (West)

Sub: Nominations from local administration, panchayat/ADC, affected persons etc. as local representative for site level Grievance Redressal Committee (GRC).

Reference: - No. F. 5(85) / TSECL/2016-17/3308-40, dated 27.02.2017

Dear Sir,

With reference to the subject cited above, you may be aware that site level Grievance Redressal Committee (GRC) with members from POWERGRID and TSECL has already been constituted (*copy enclosed*). However as per the requirement of World Bank, the nominations from local administration, panchayat/ADC, affected persons etc. as local representative is also mandatory. This has already been discussed with World Bank during the meeting held on 01st - 02nd March, 2017 at Guwahati (*copy of World Bank Aide-Memoire enclosed*).

In view of above, you are kindly requested to arrange to get the nominations from local administration, panchayat/ADC, affected persons etc. as local representative for site level GRC.

On receipt of nominations, compliance will be communicated to the World Bank.

Thanking you,

Encls: Asabove

Copy to:

E. GM (NERPSIP), POWERGRID, Guwahati for kind information please



Yours faithfully,


DGM (NERPSIP)
POWERGRID, Agartala

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)



दूरभाष : (0381)2330045 (क)
NERPSIP Office,
Ramnagar-06(Middle); 3rd Crossing,, Agartala - 799002.
उत्तर पूर्वीय क्षेत्र / NORTH EASTERN REGION

Ref. No. NEAGT/NERPSIP-102/2018-19/ 587

Date: 27.03.2019

To,

→ The AGM (Transmission)
Tripura State Electricity Corporation Limited
79 Tilla, Transmission Circle
Agartala-799006, Tripura (West)

Sub: Nominations from local administration, panchayat/ADC, affected persons etc. as local representative for
site level Grievance Redressal Committee (GRC) – Reminder-2

Reference: - No. F. 5(85) / TSECL/2016-17/3308-40, dated 27.02.2017

Dear Sir,

With reference to the subject cited above, you may be aware that site level Grievance Redressal Committee (GRC) with members from POWERGRID and TSECL has already been constituted (*copy enclosed*). However as per the requirement of World Bank, the nominations from local administration, panchayat/ADC, affected persons etc. as local representative is also mandatory. This has already been discussed with World Bank during the 5th Project Steering Committee meeting held on 12th November, 2018 at Guwahati (*copy of World Bank Aide-Memoire enclosed*).

In view of above, you are once again requested to arrange to get the nominations from local administration, panchayat/ADC, affected persons etc. as local representative for site level GRC.


On receipt of nominations, compliance will be communicated to the World Bank.

Thanking you,

Encl: As above



Yours faithfully,


Uttam Debnath
Manager (NERPSIP)
POWERGRID, Agartala

Copy to:

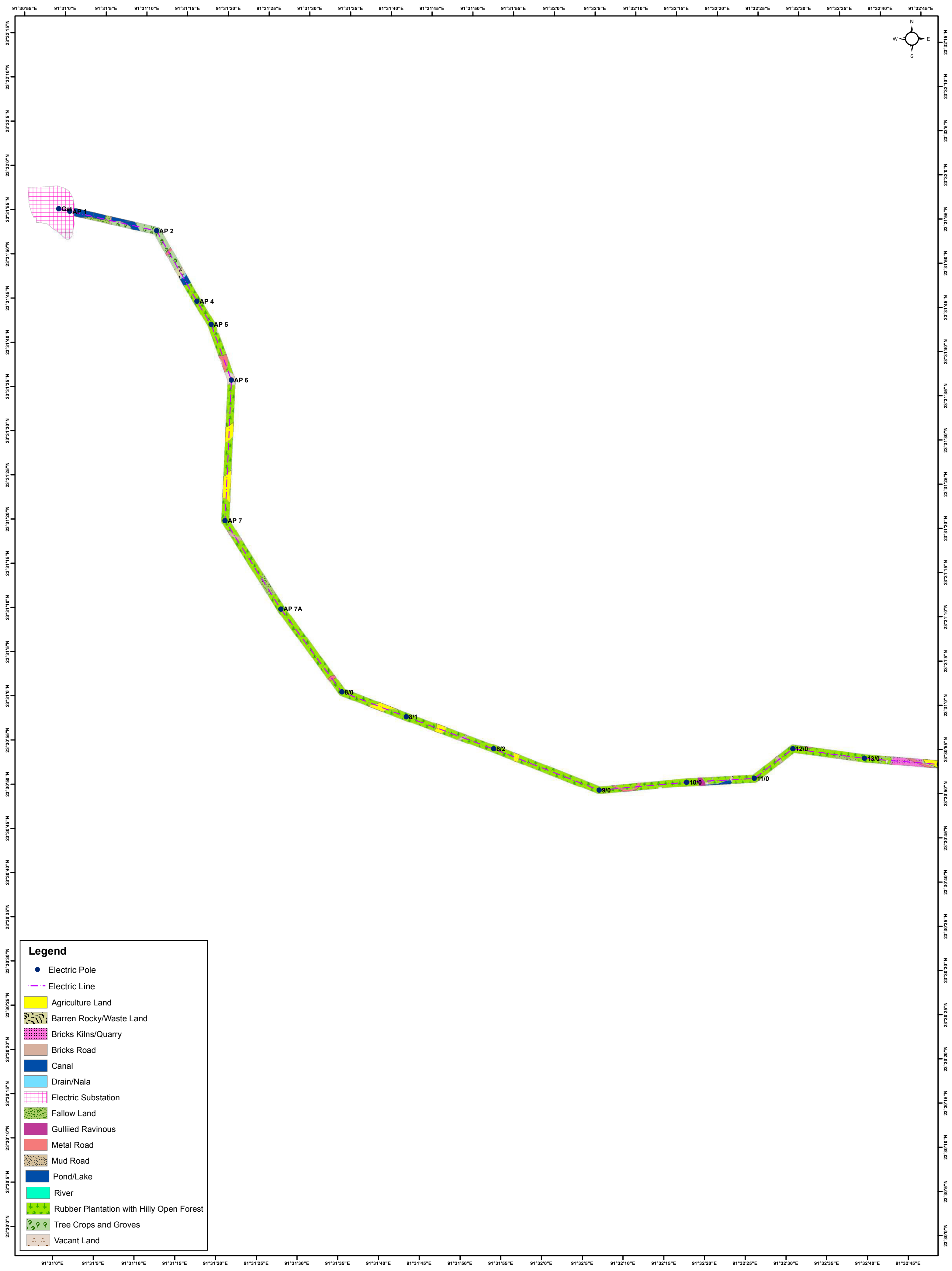
1. Sr. GM (NERPSIP), POWERGRID, Agartala for kind information please
2. CGM (NERPSIP), POWERGRID, Guwahati for kind information please

Annexure A and B

LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

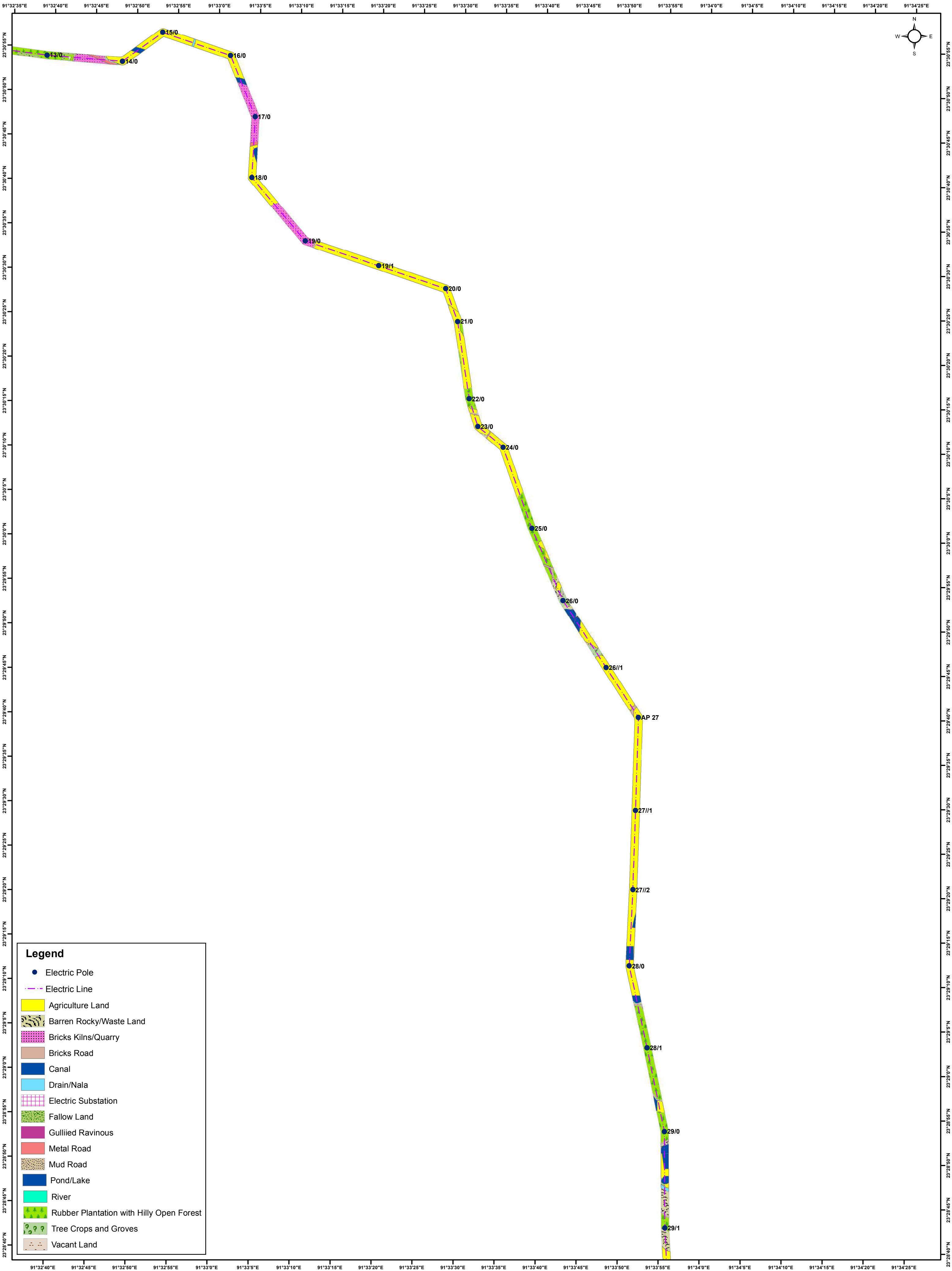
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

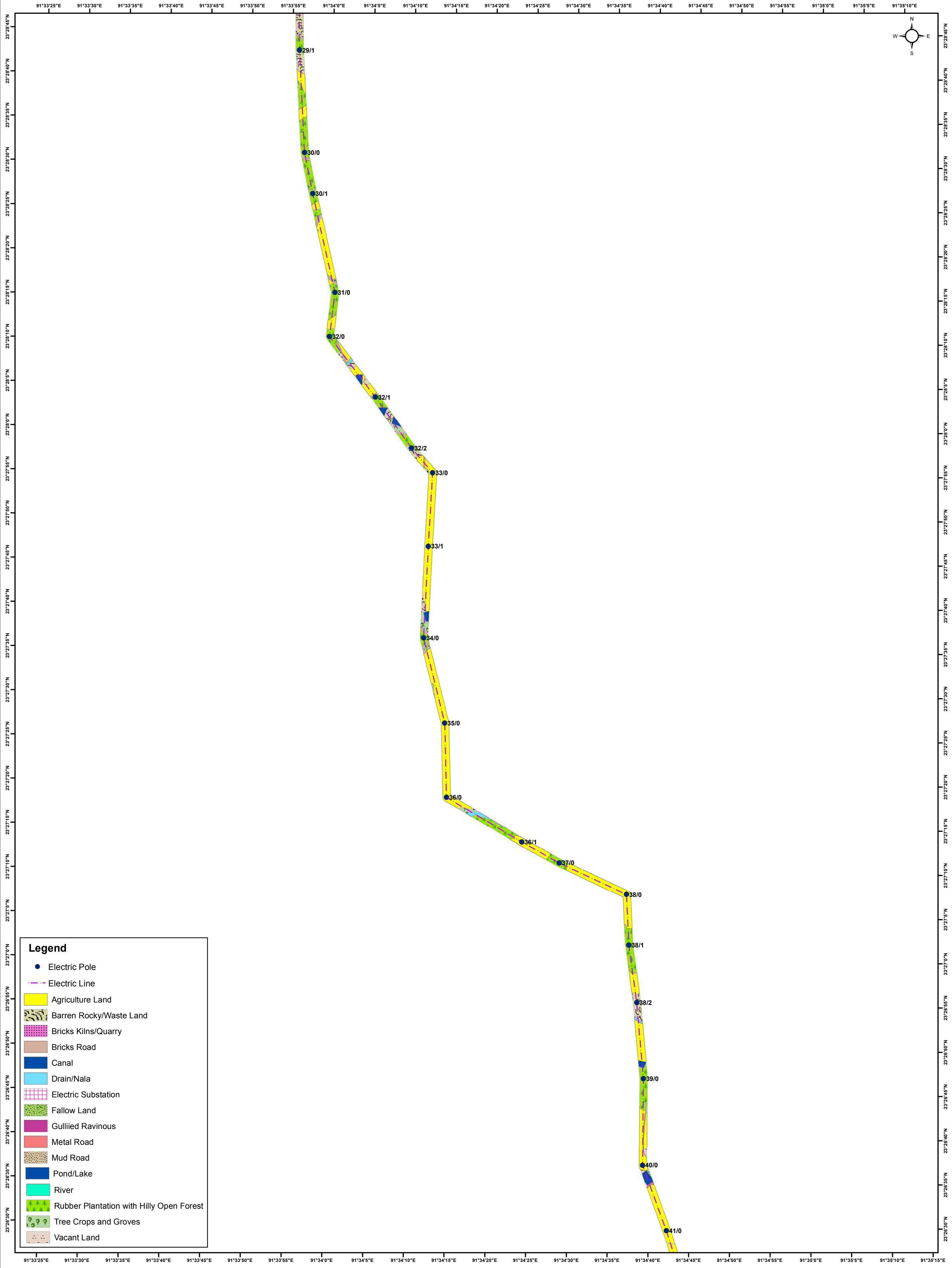
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

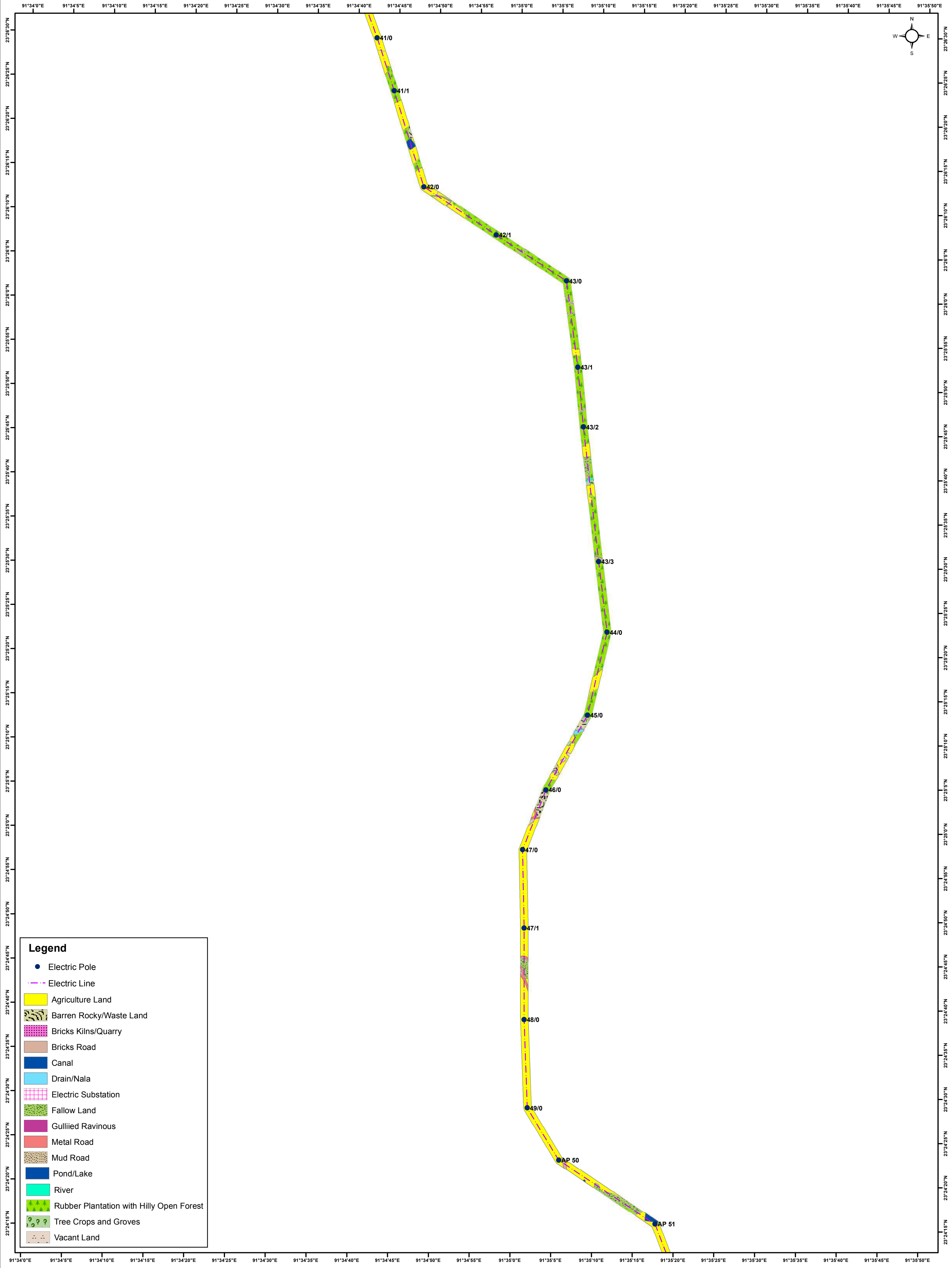
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

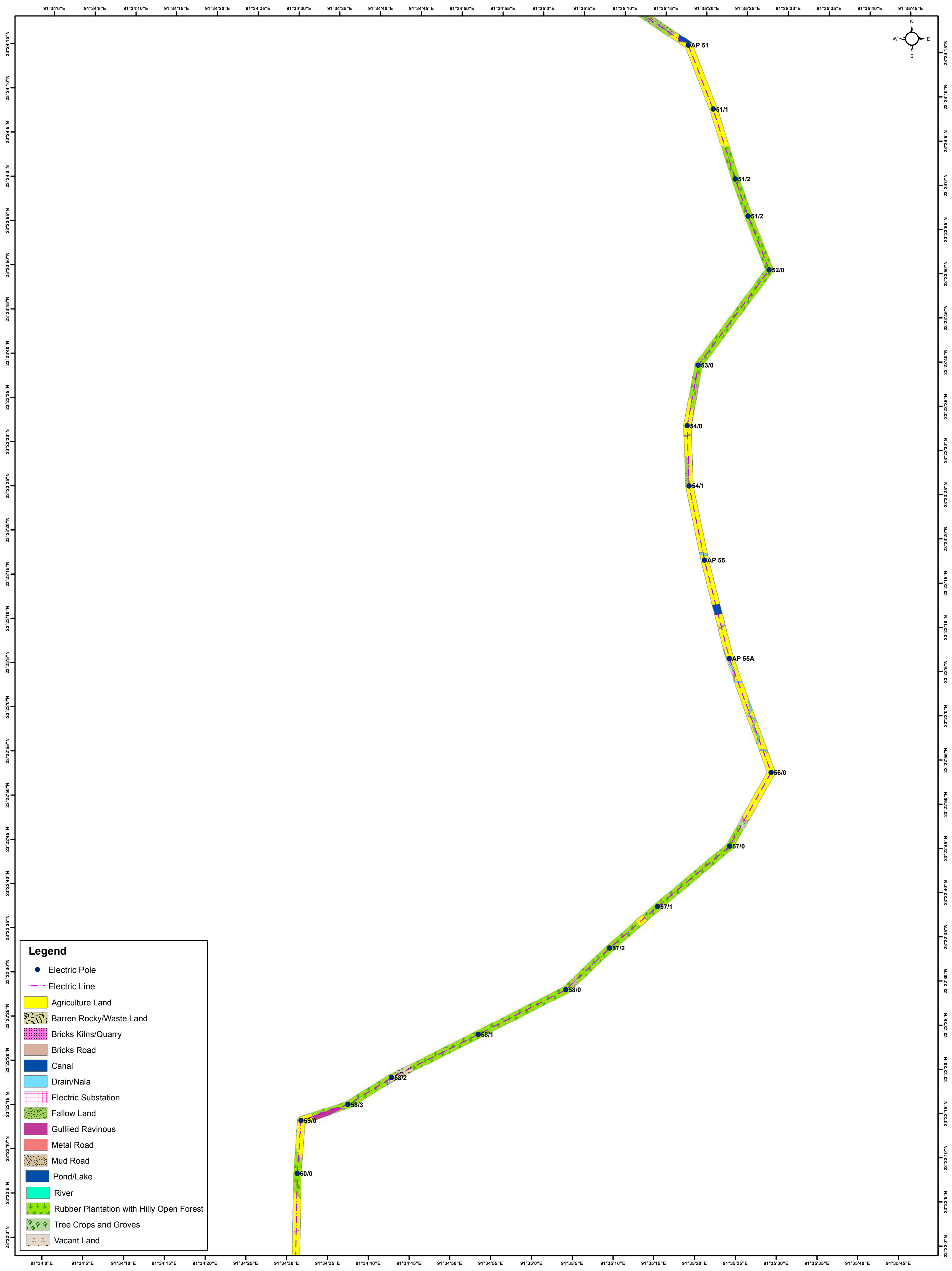
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

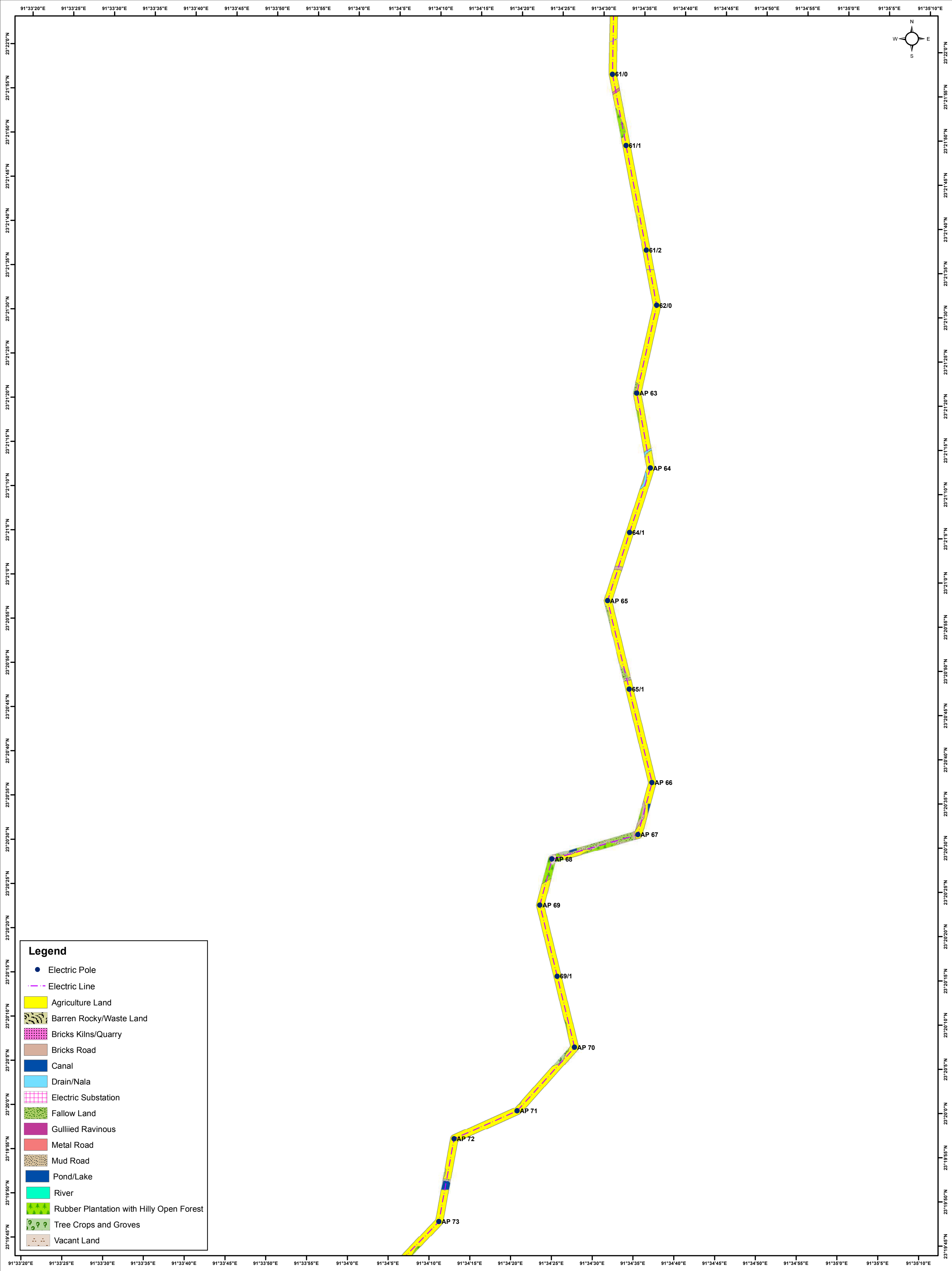
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

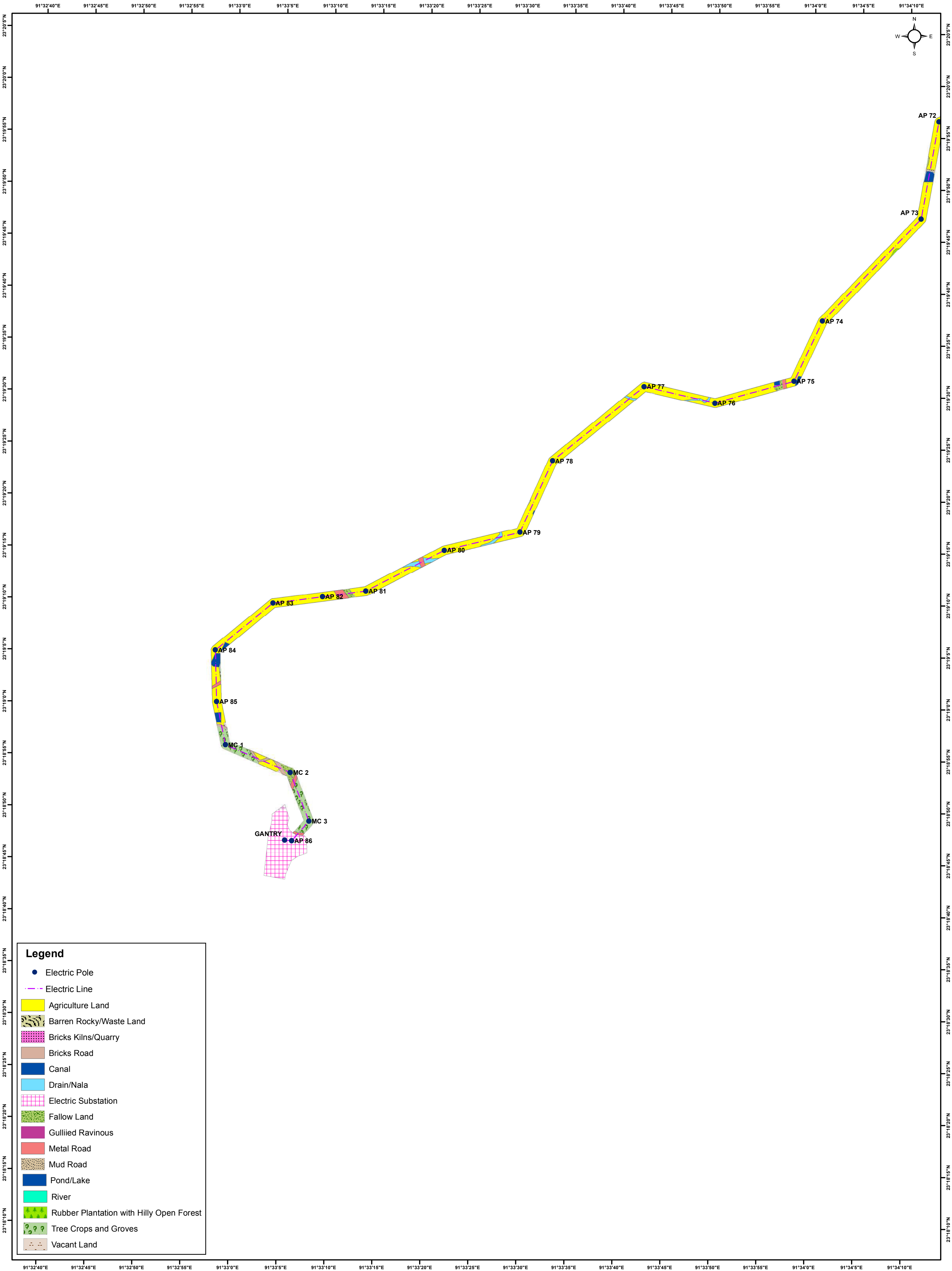
PREPARED BY GREEN CIRCLE INC,



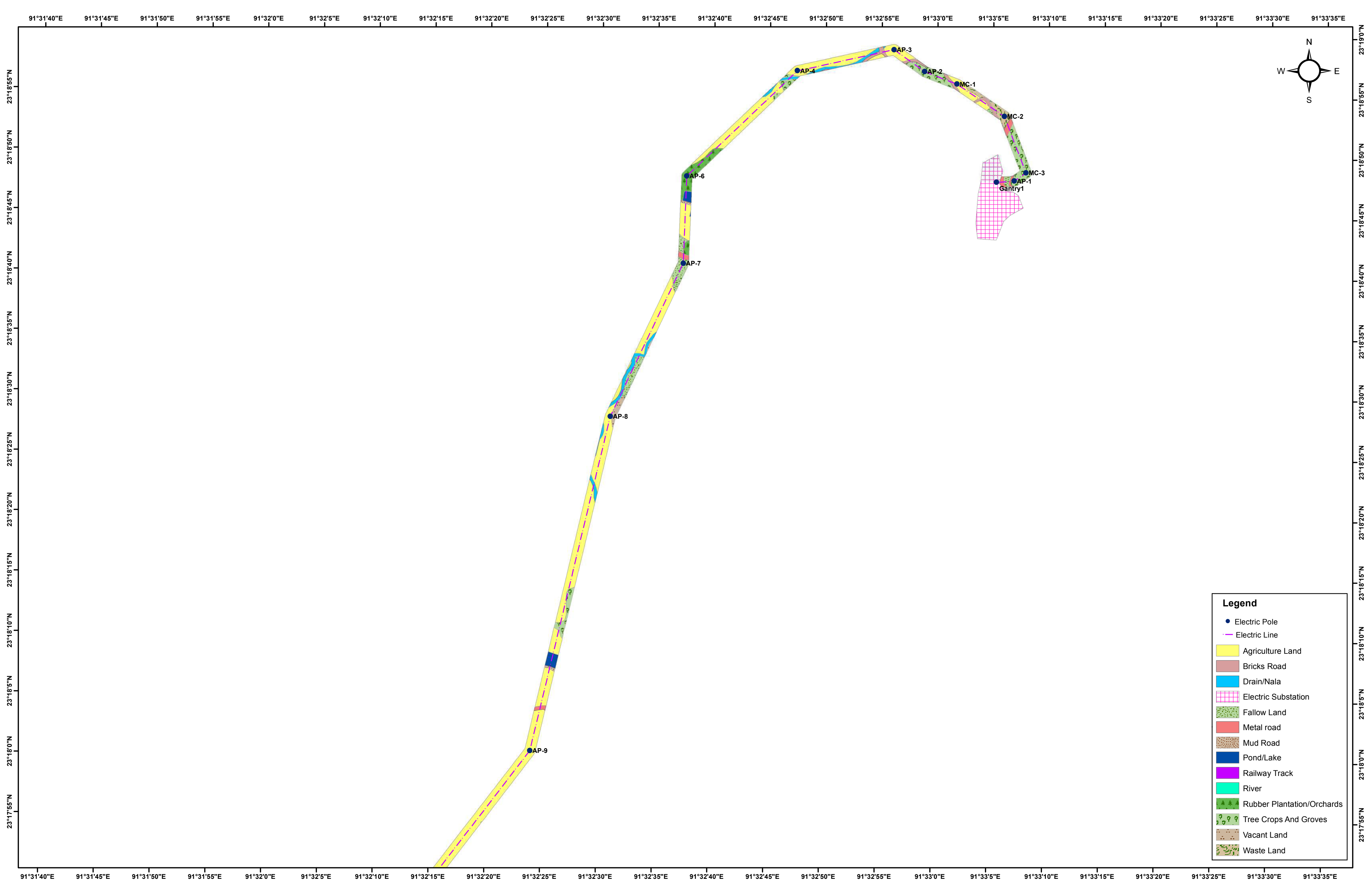
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

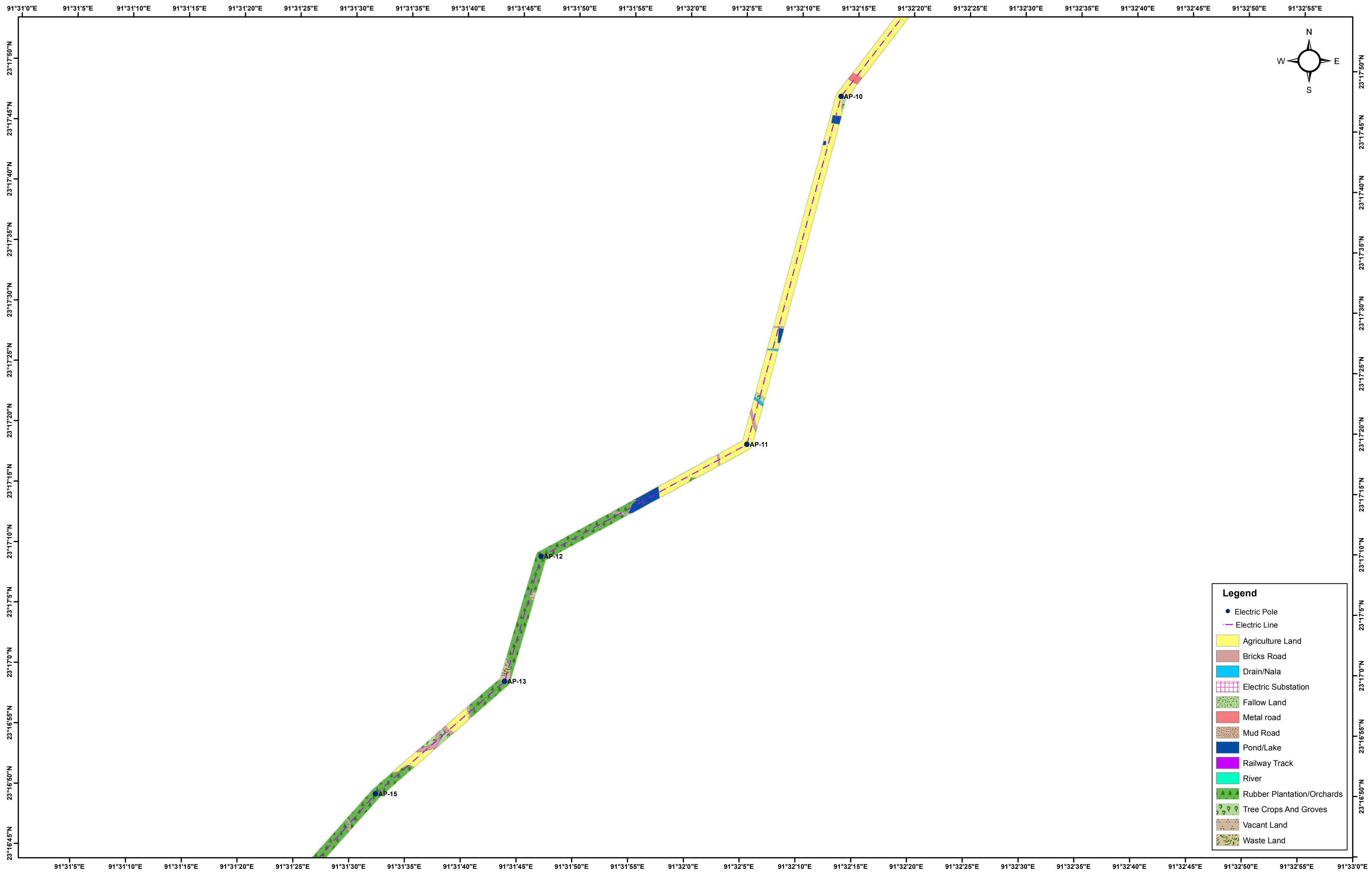
PREPARED BY GREEN CIRCLE INC,



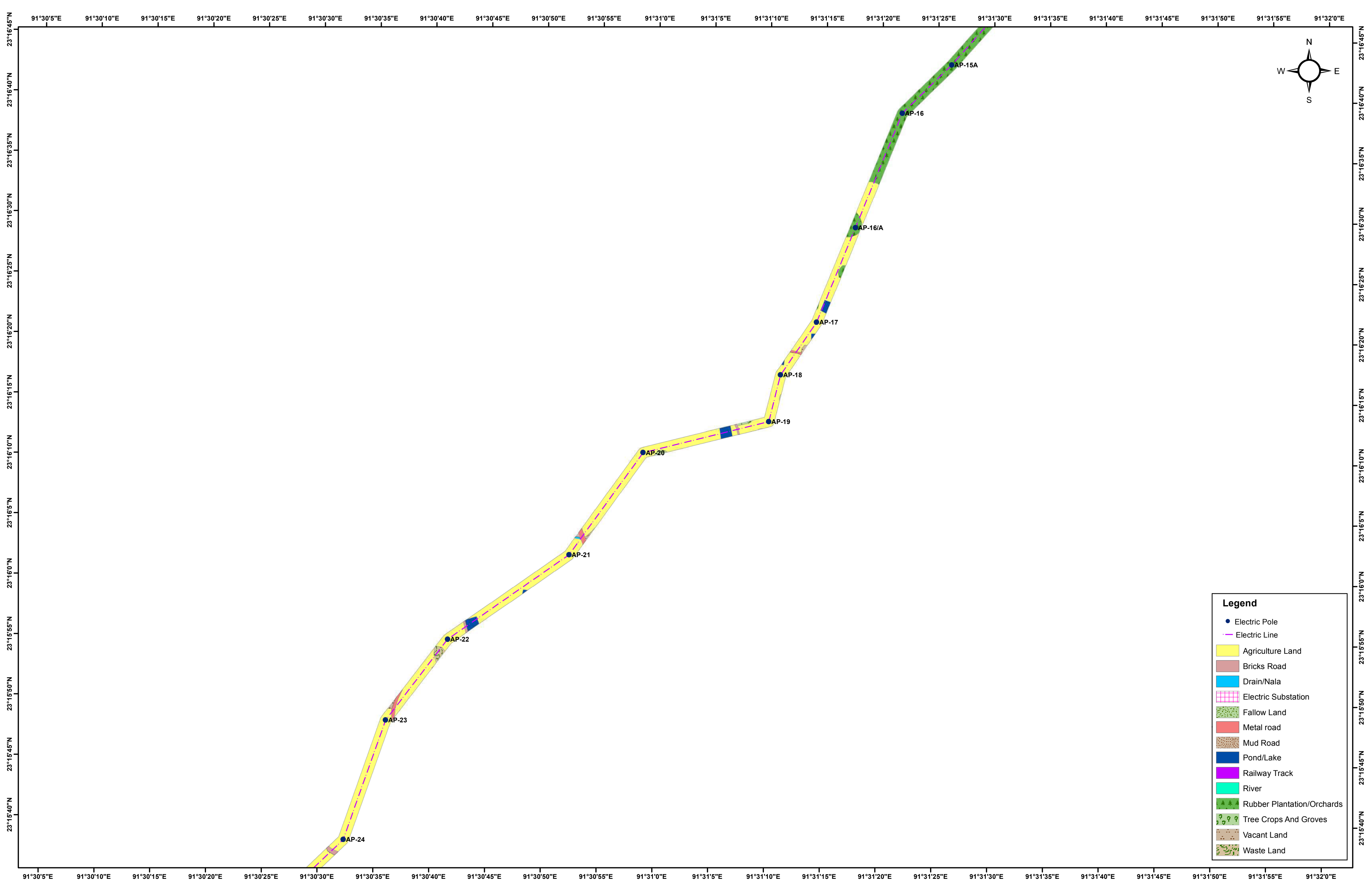
LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAF A - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



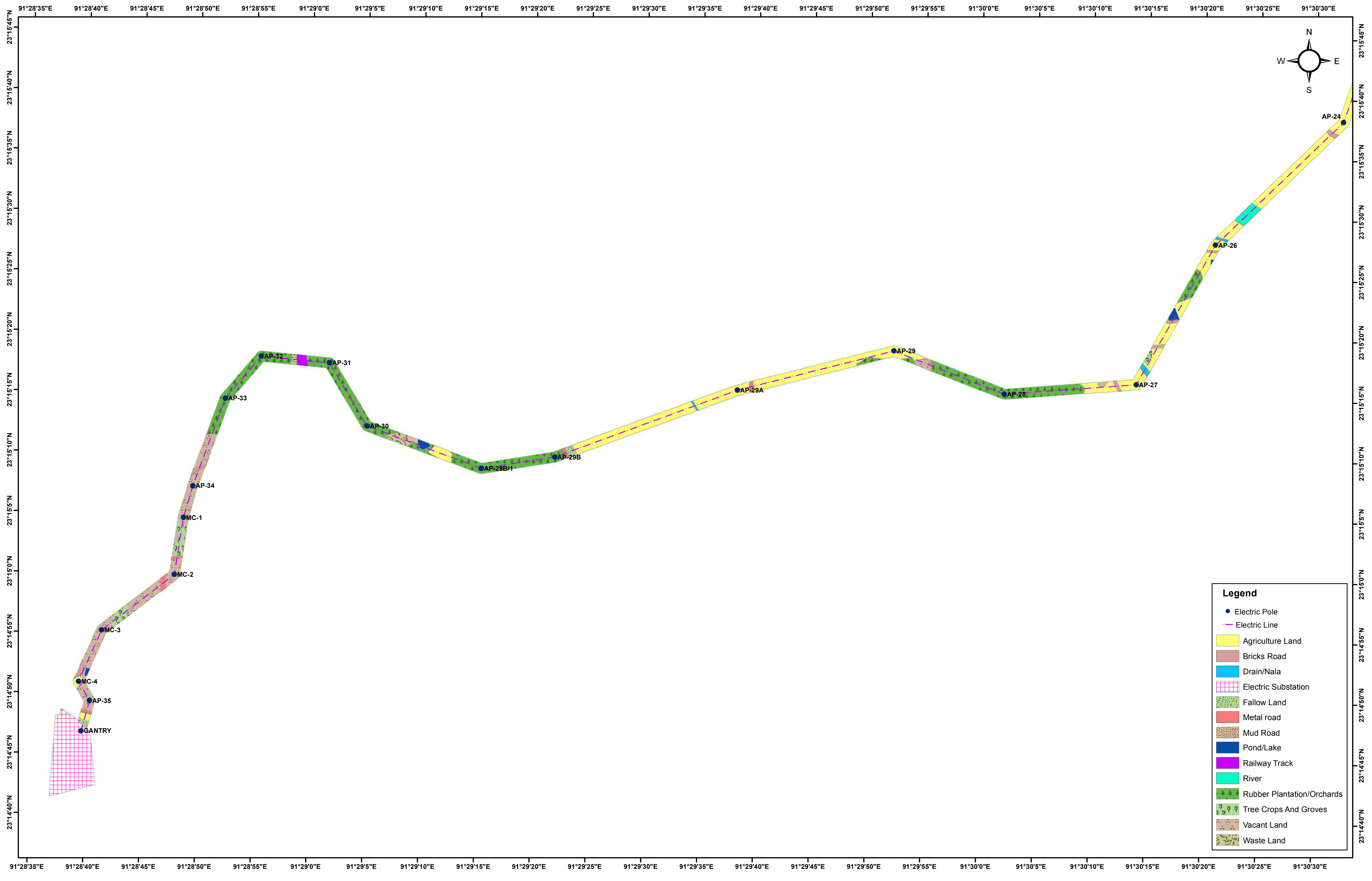
LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAF A - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAF A - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



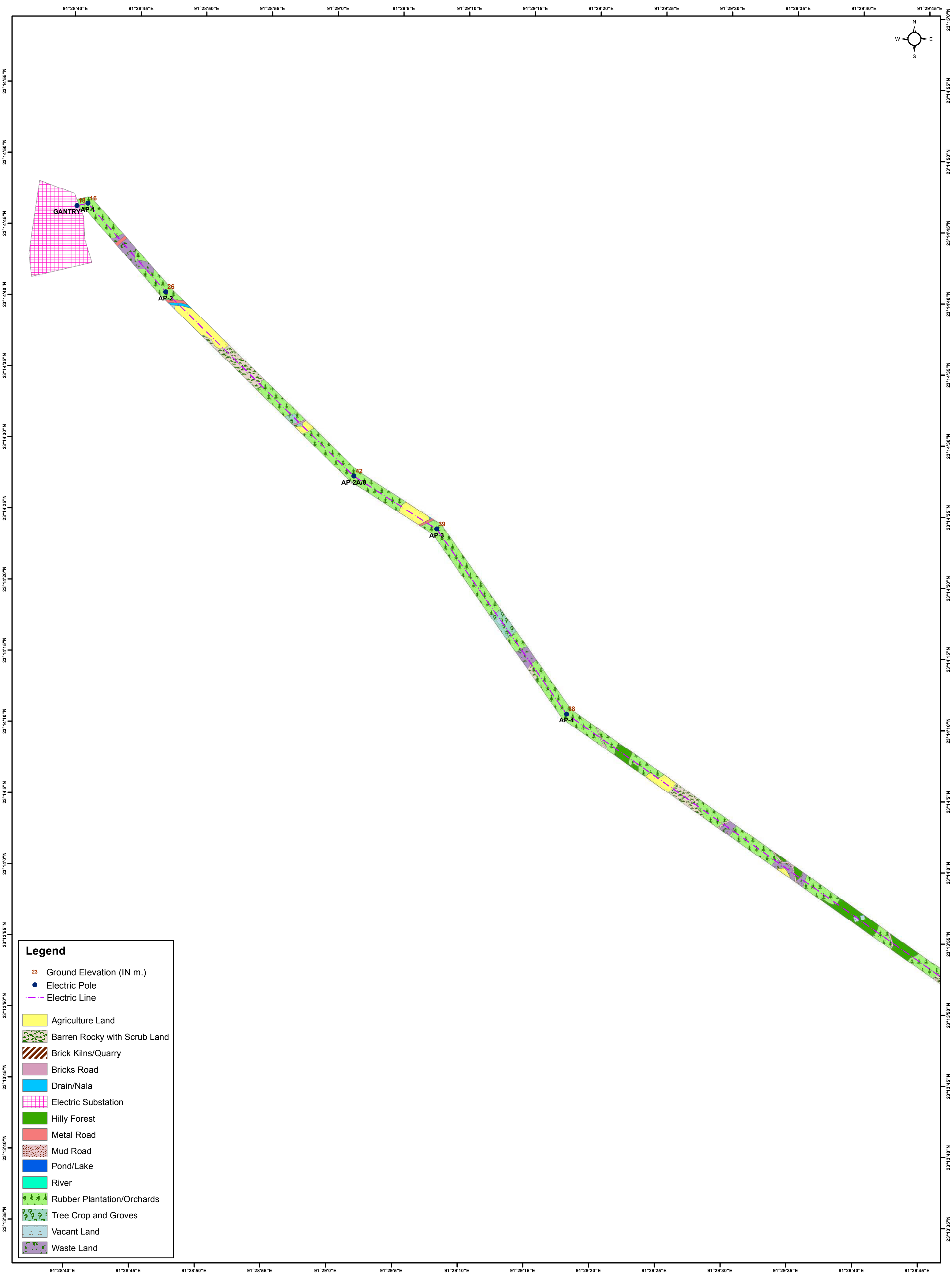
LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAF A - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

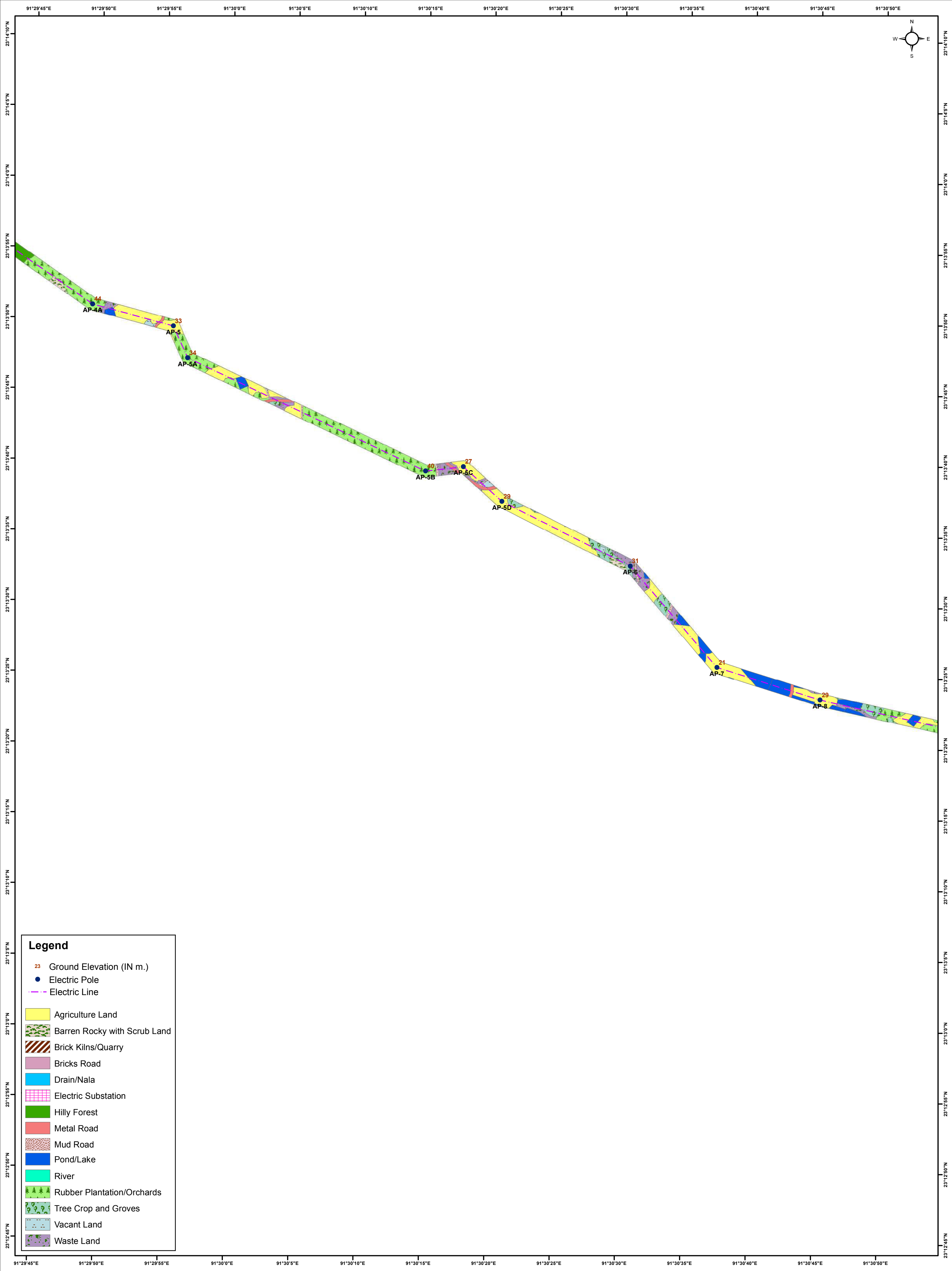
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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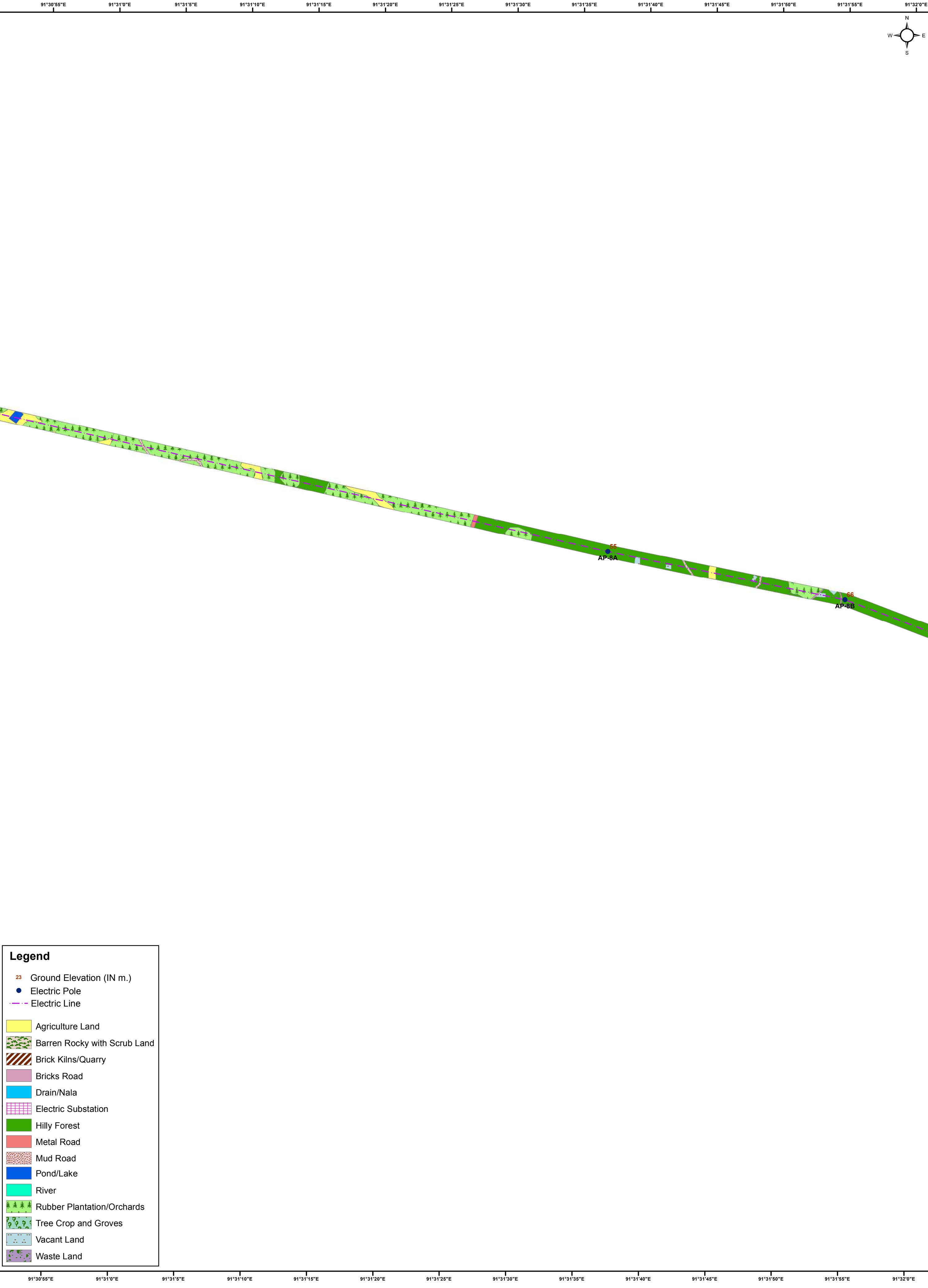
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

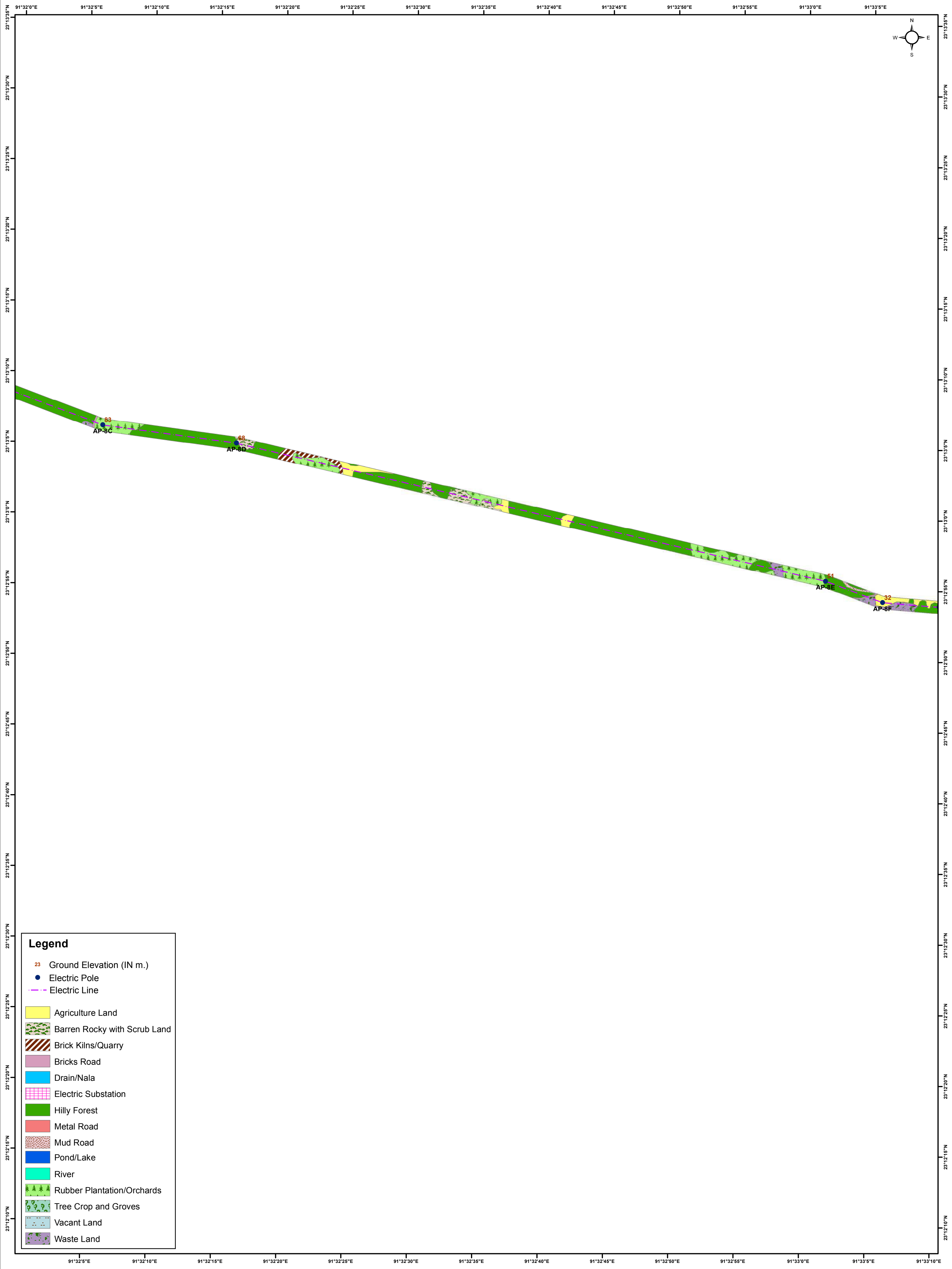
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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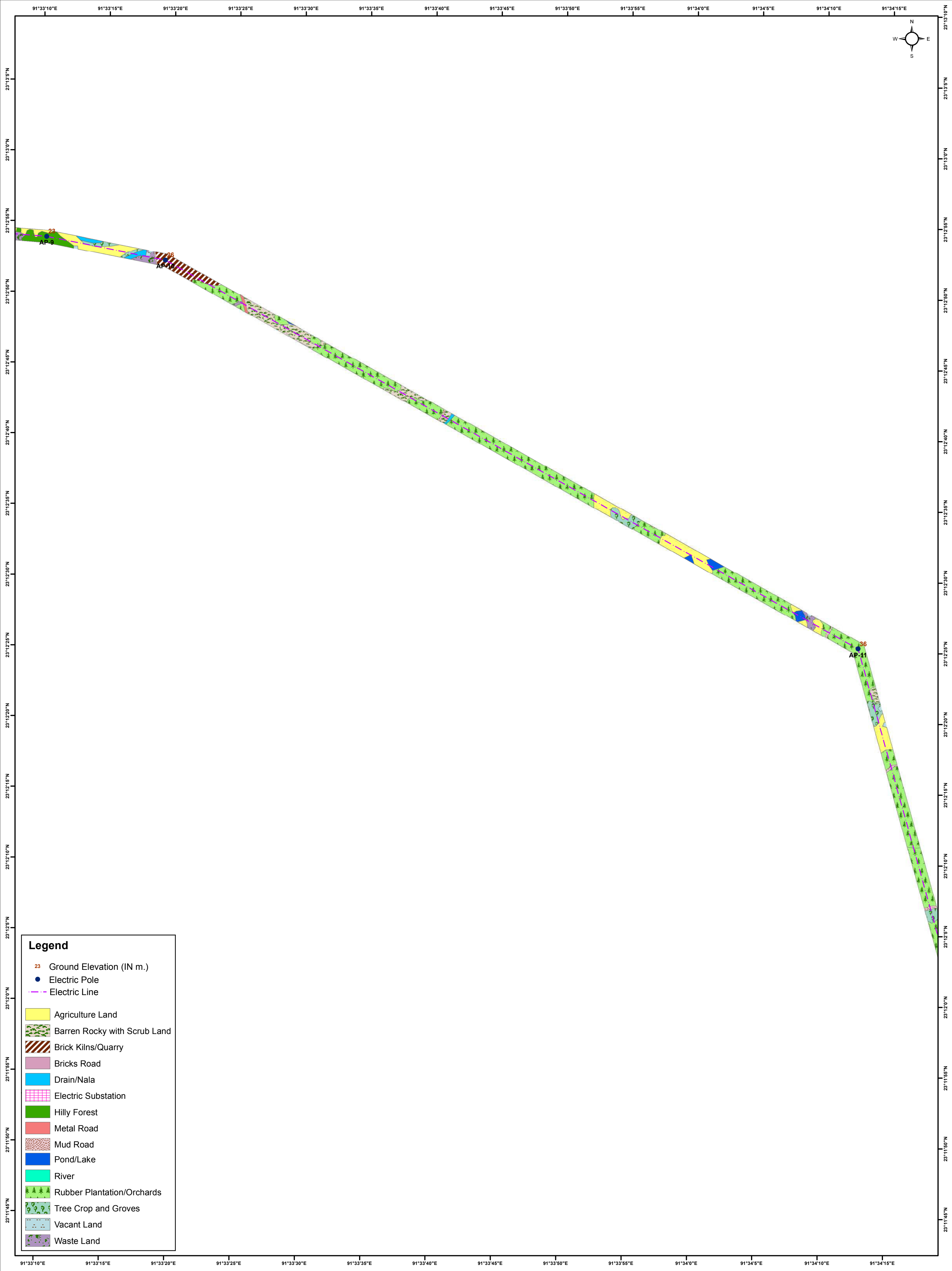
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

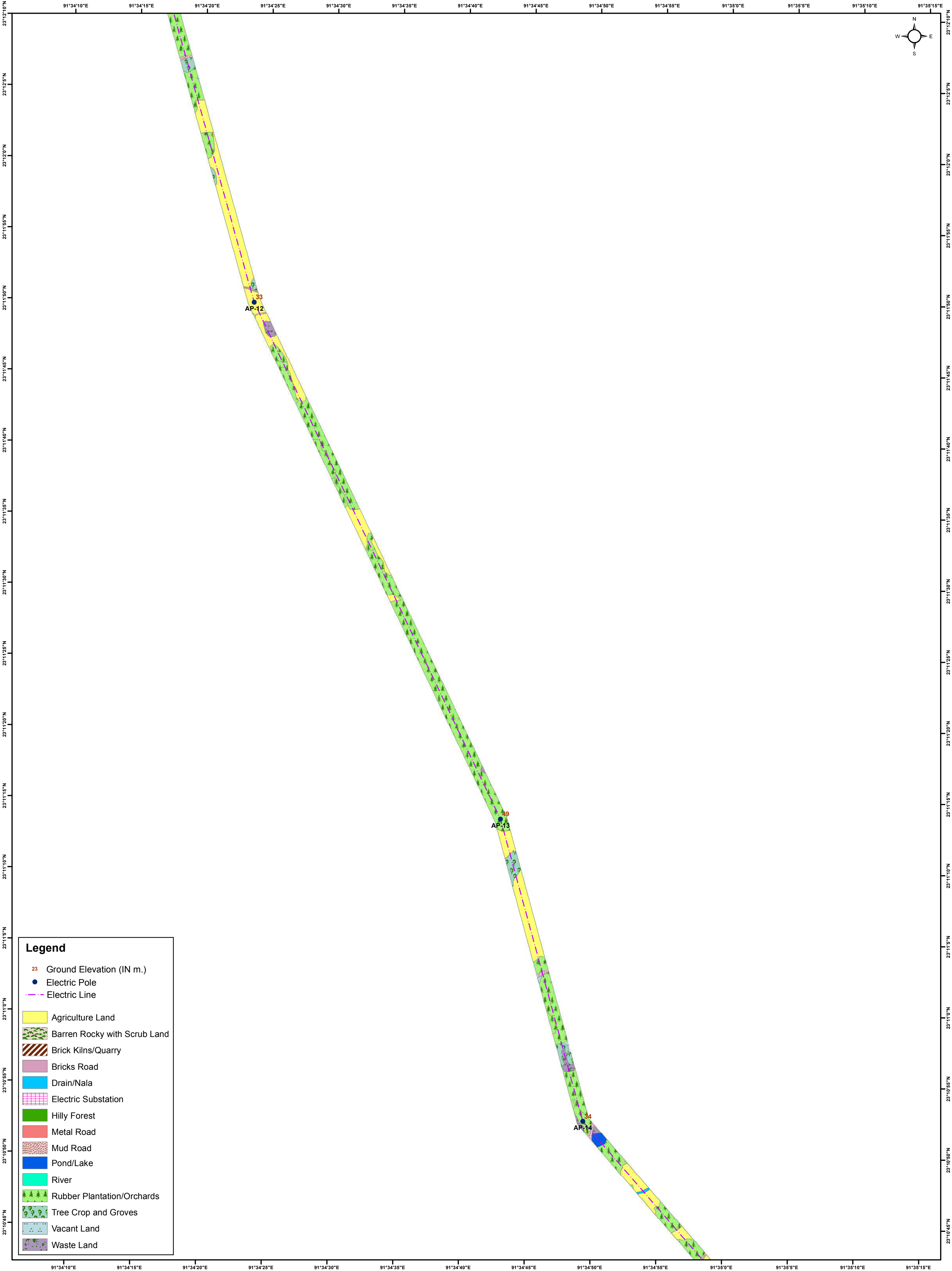
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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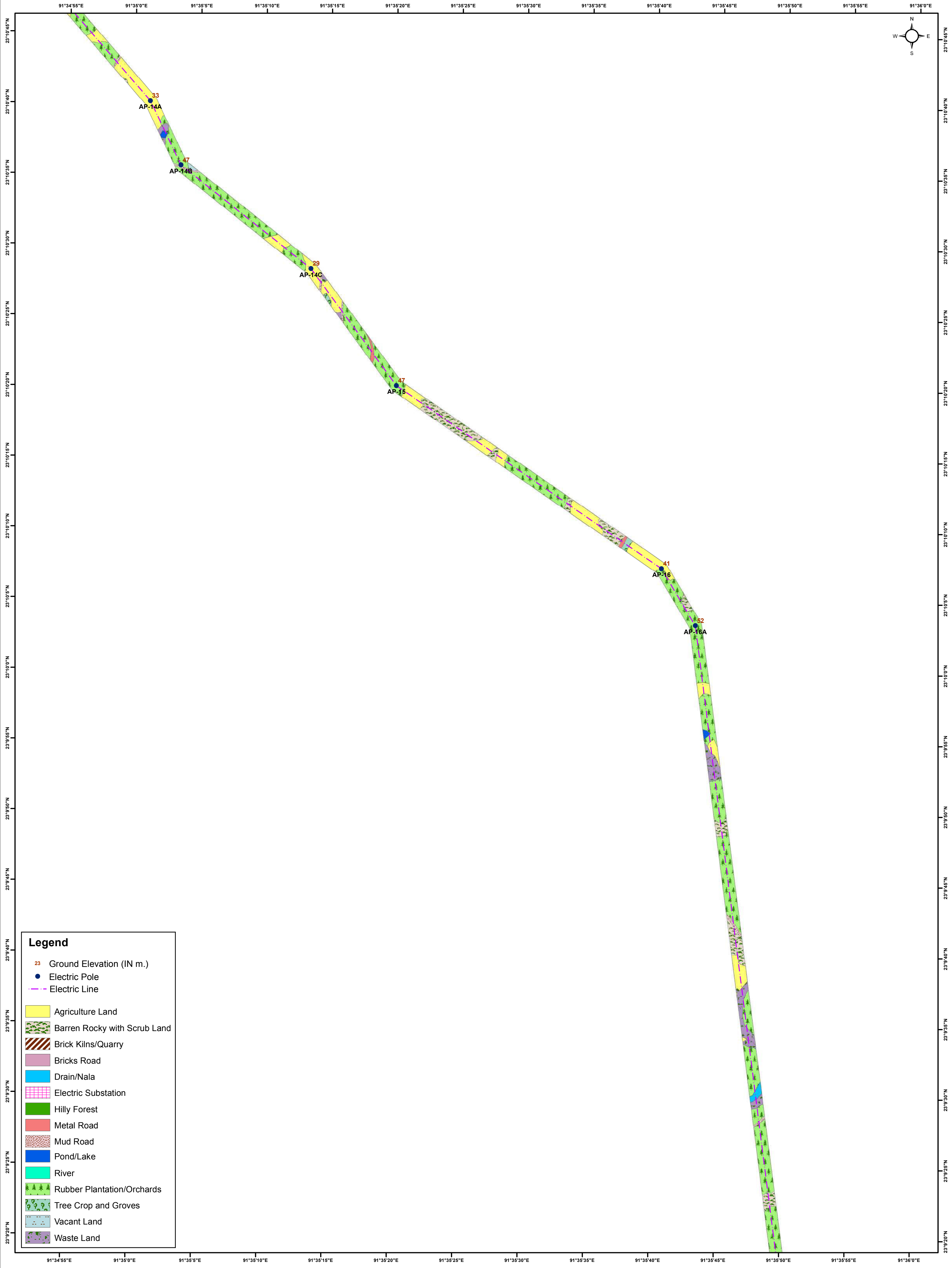
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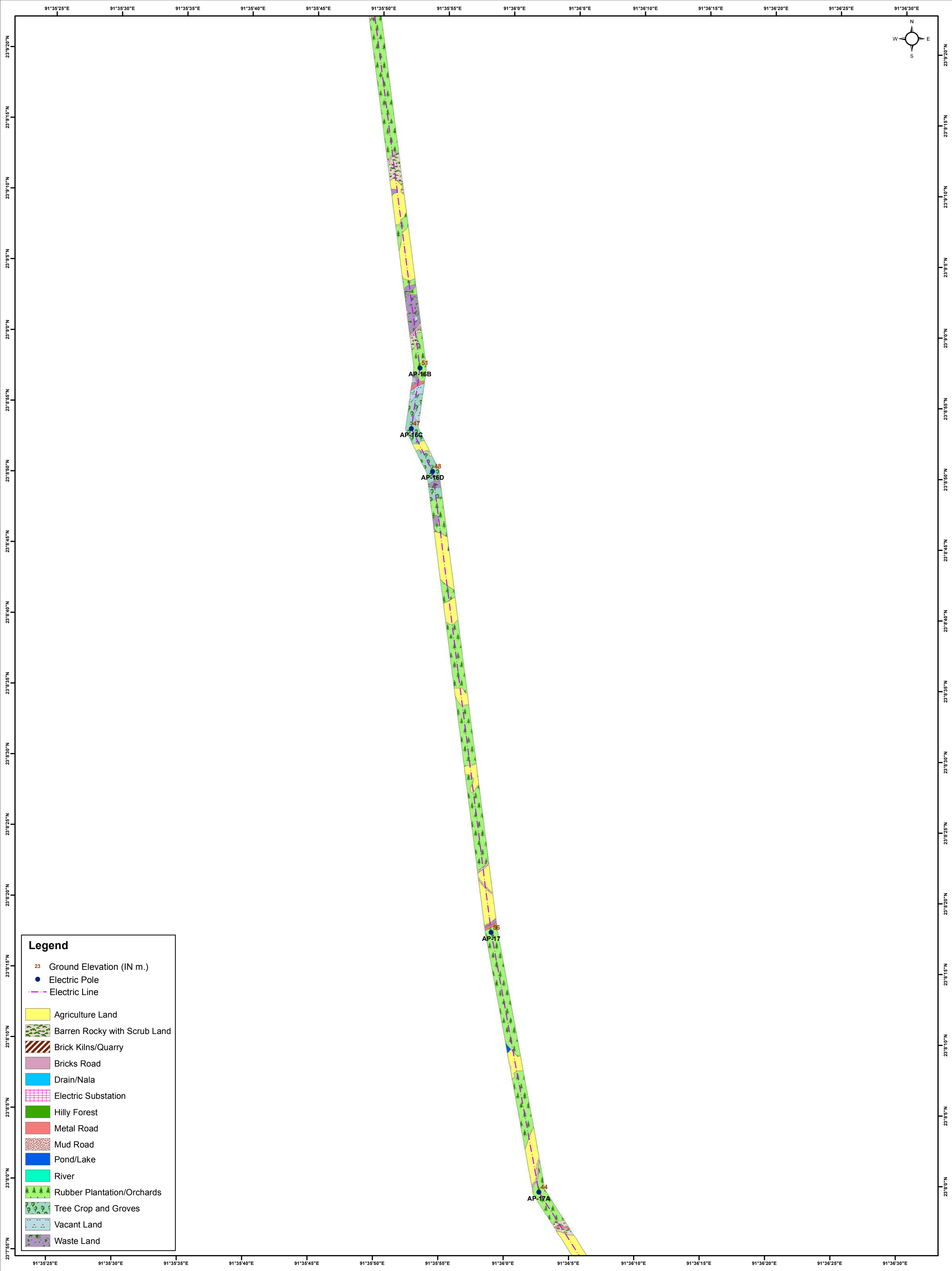
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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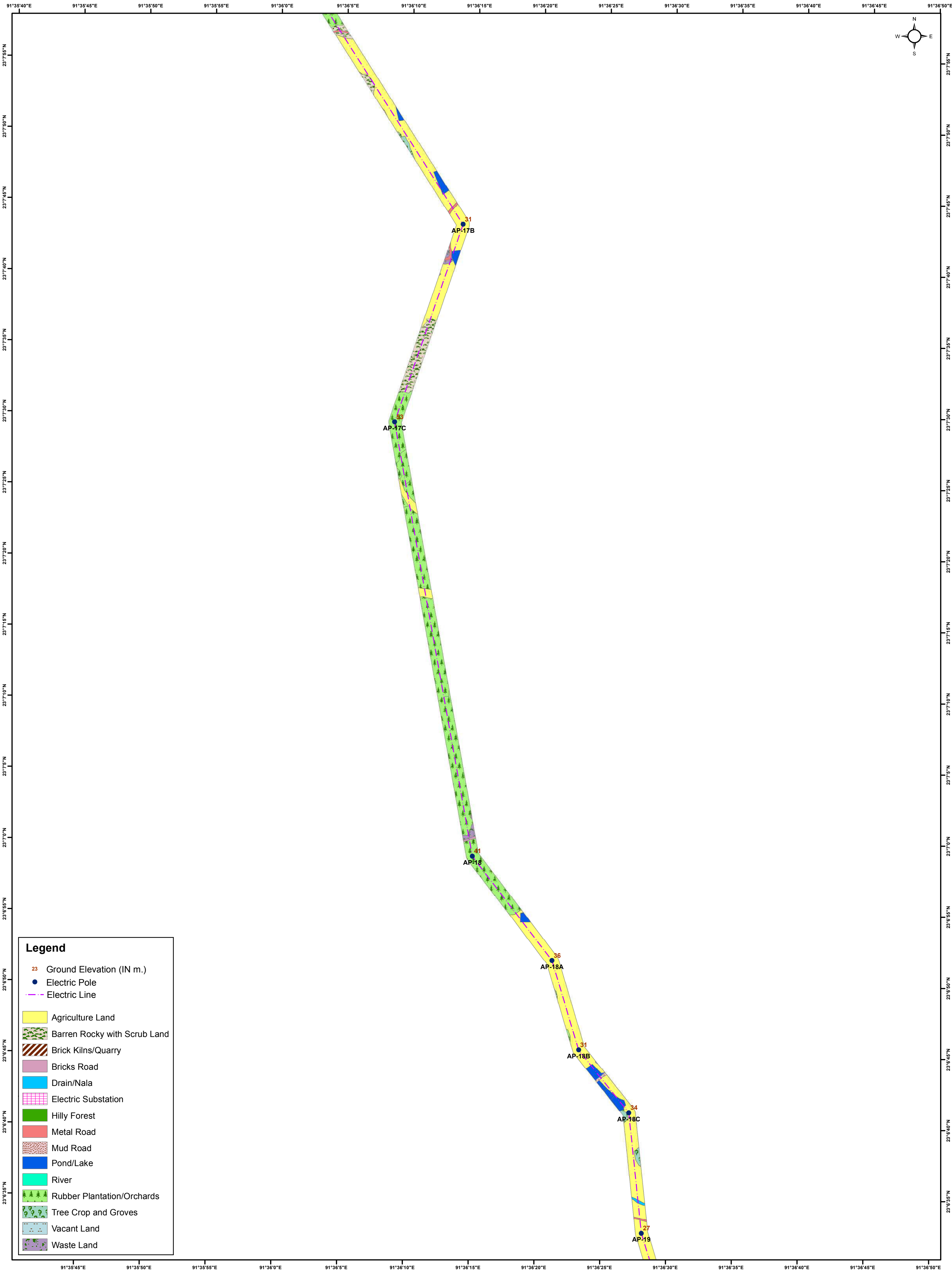
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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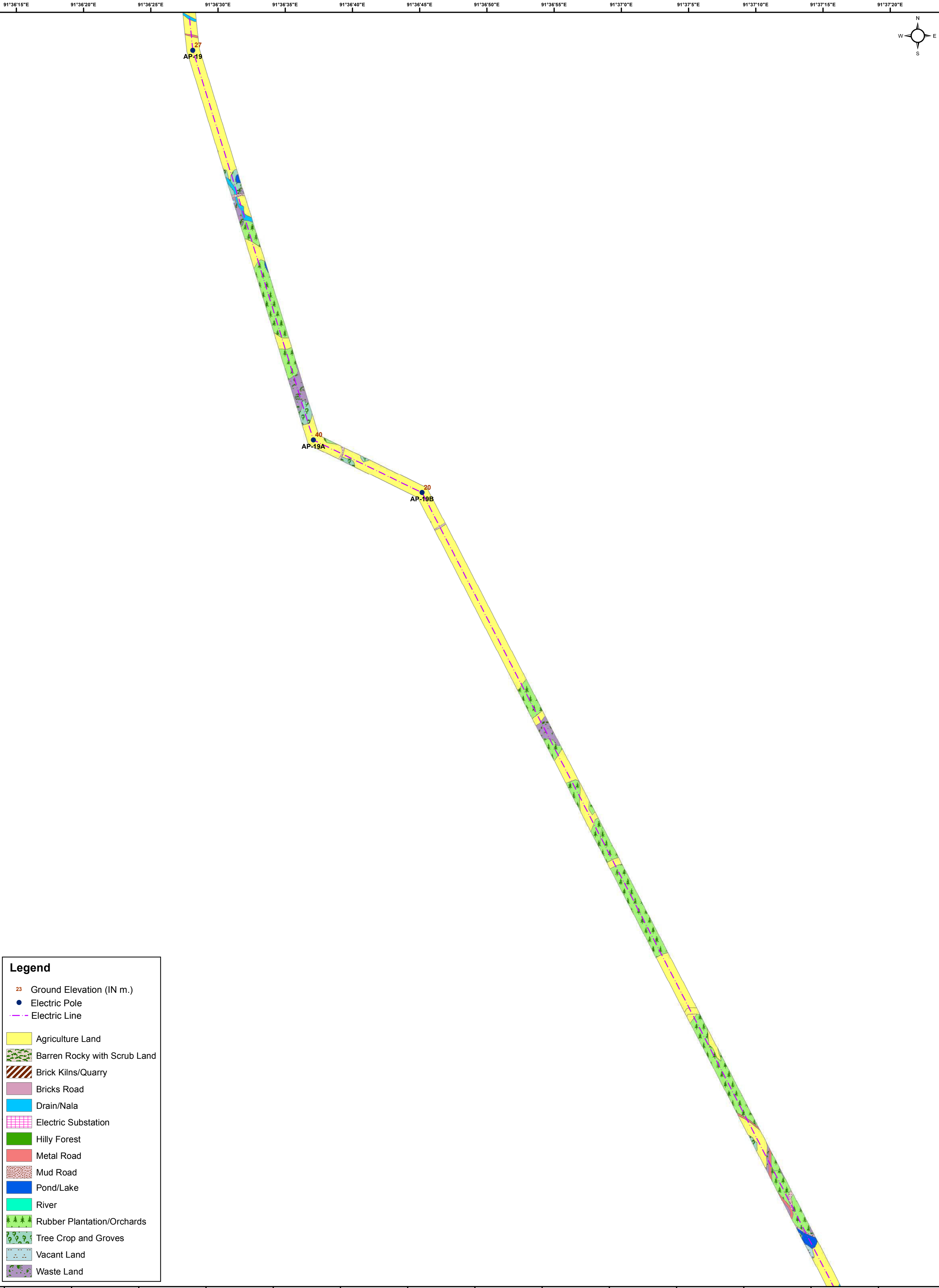
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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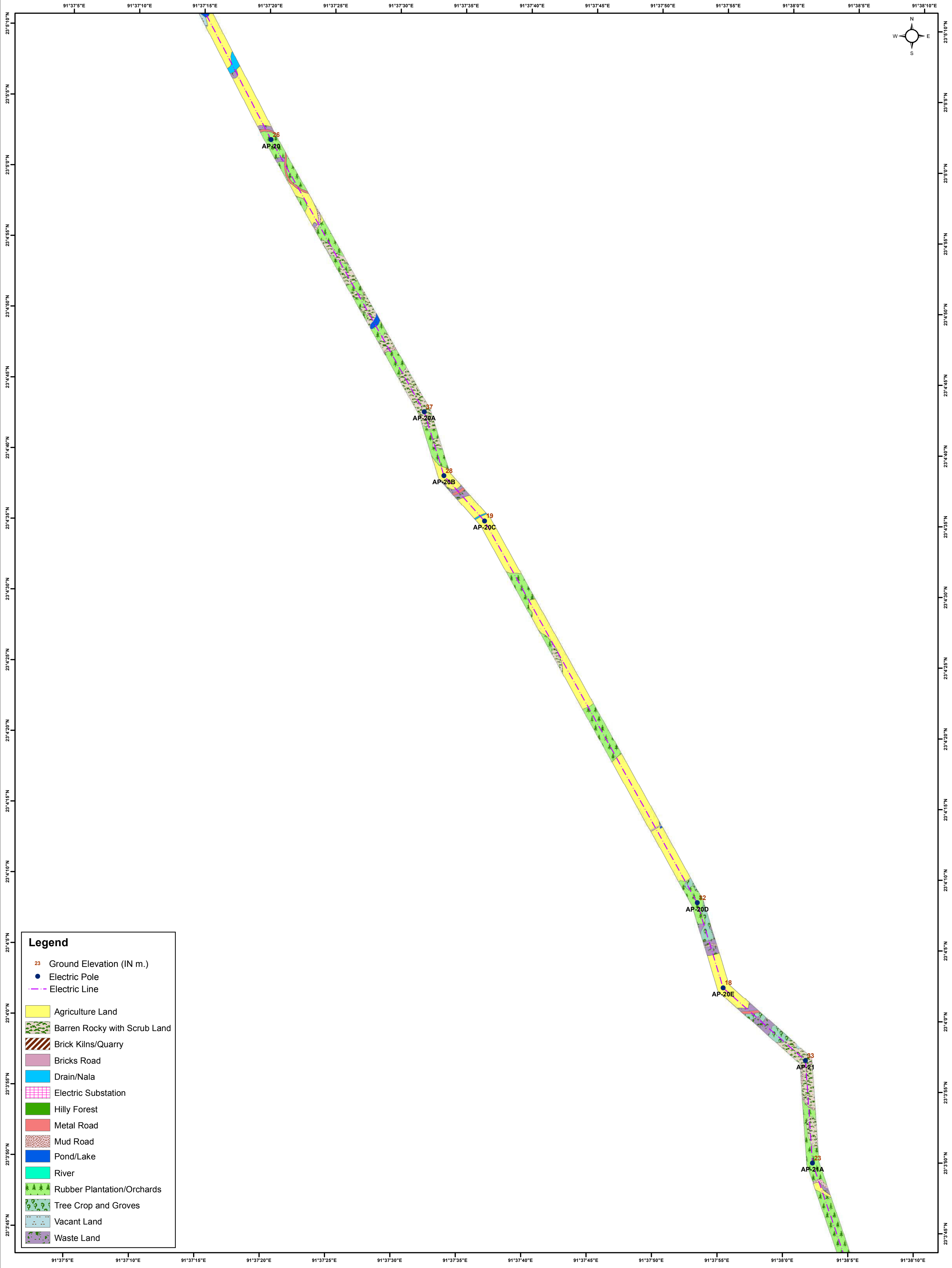
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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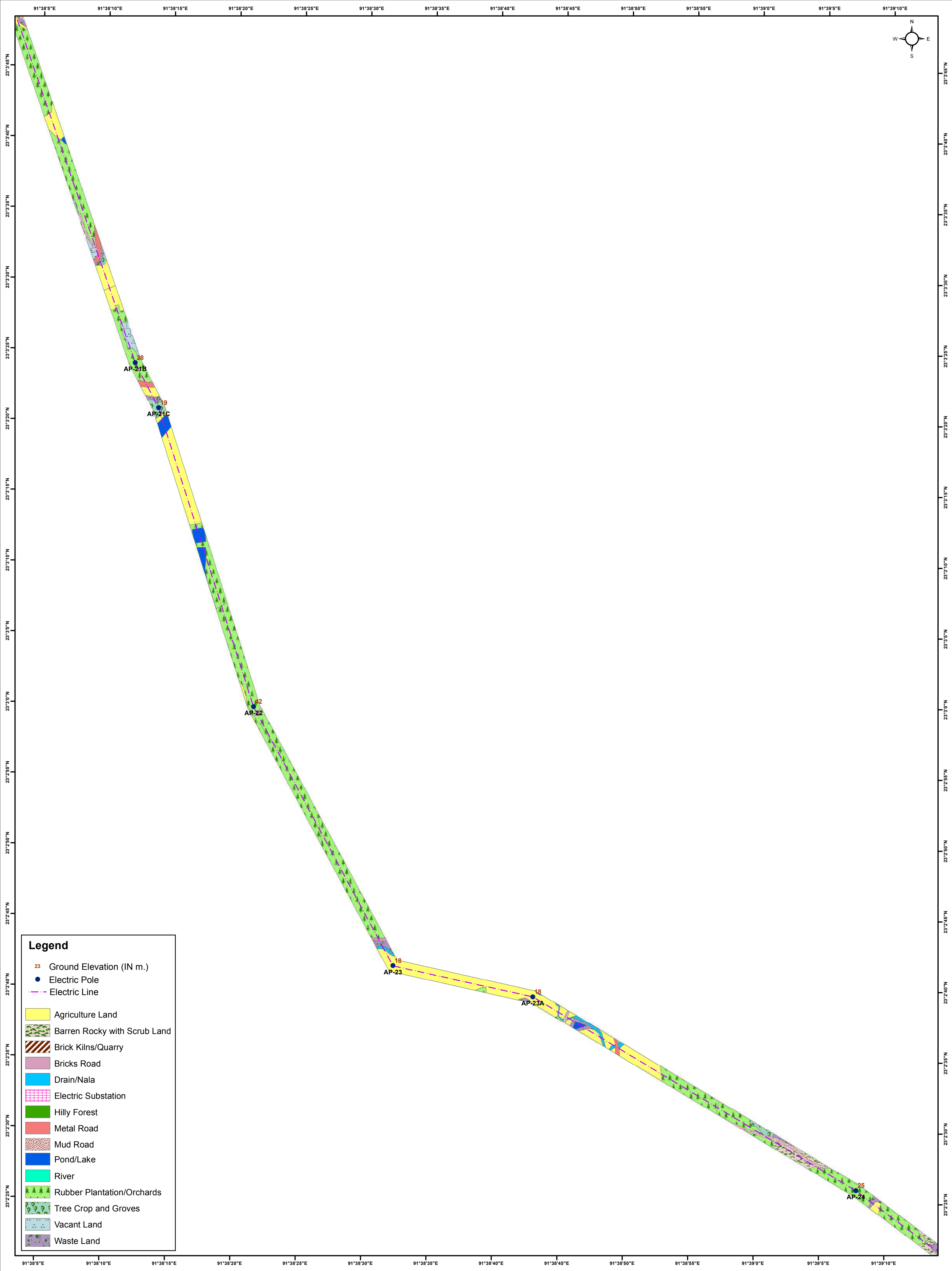
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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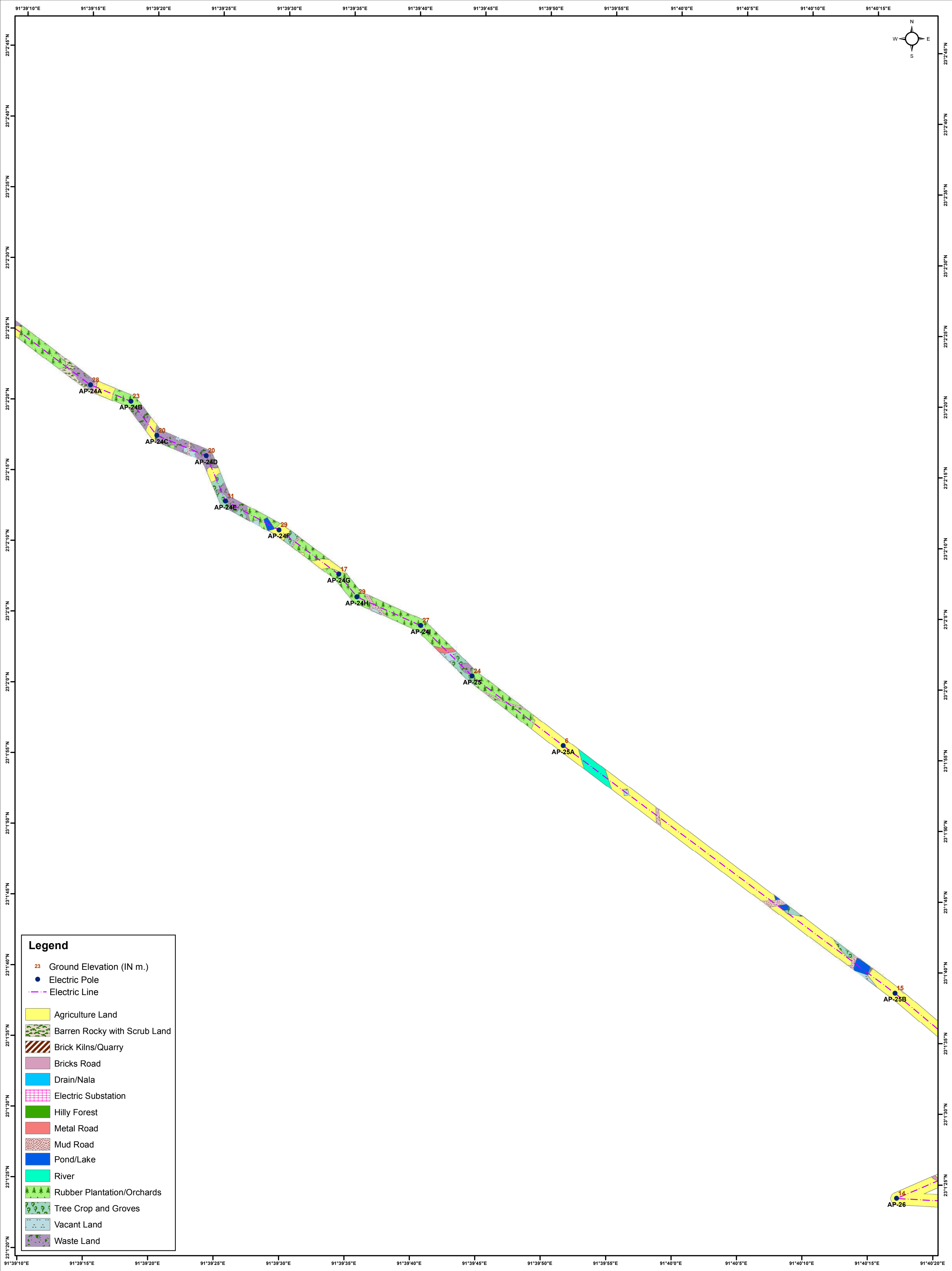
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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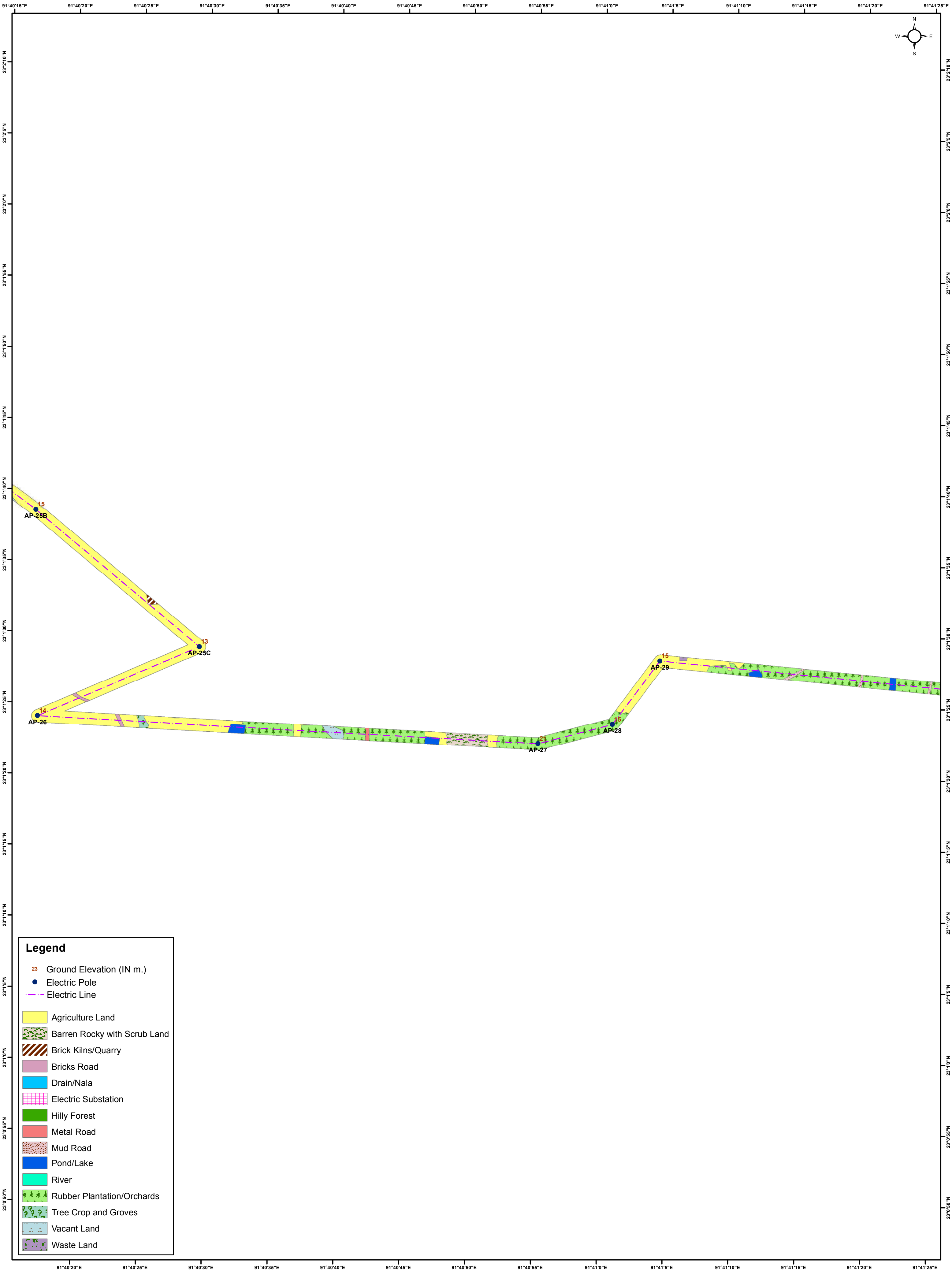
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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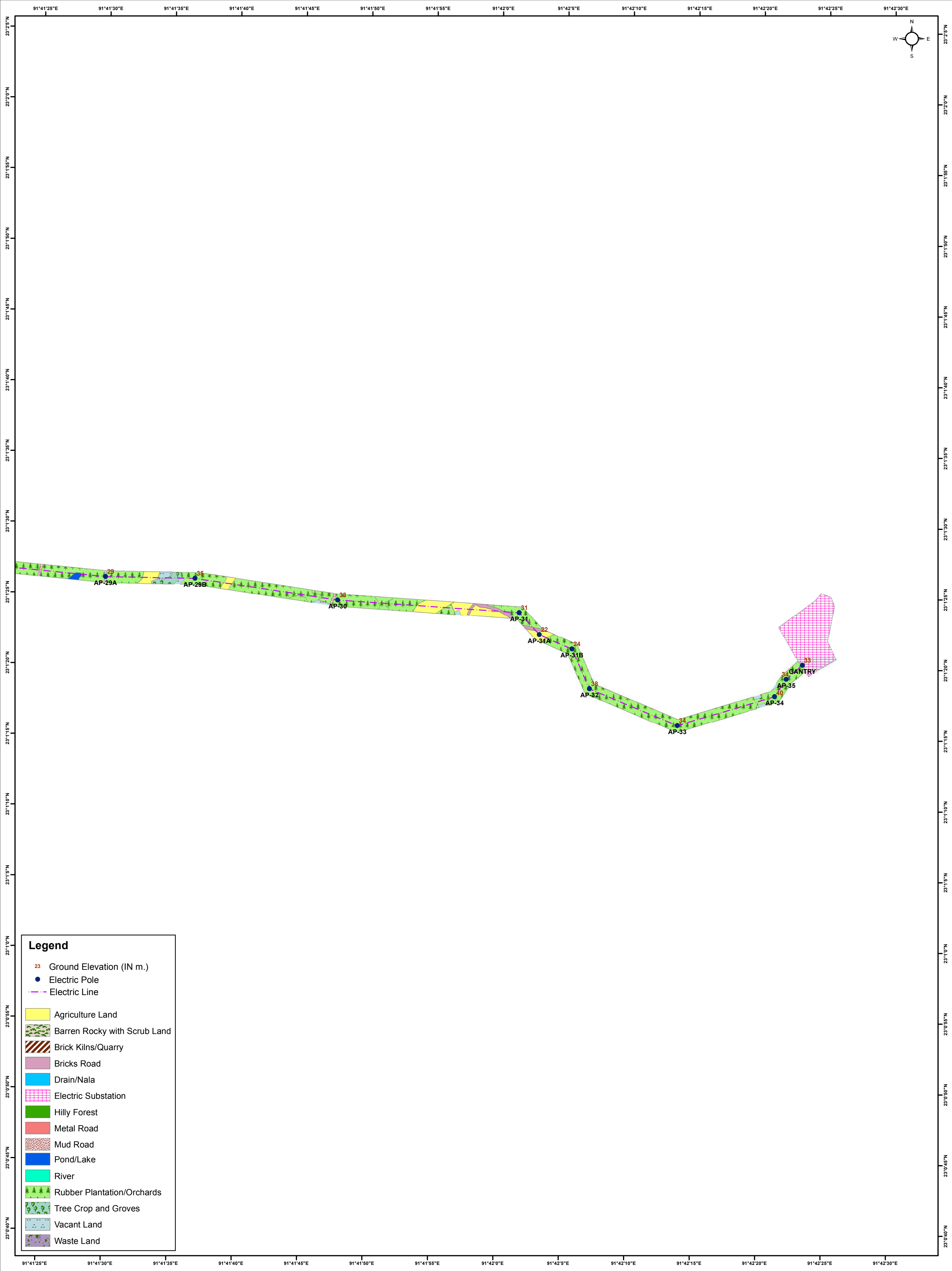
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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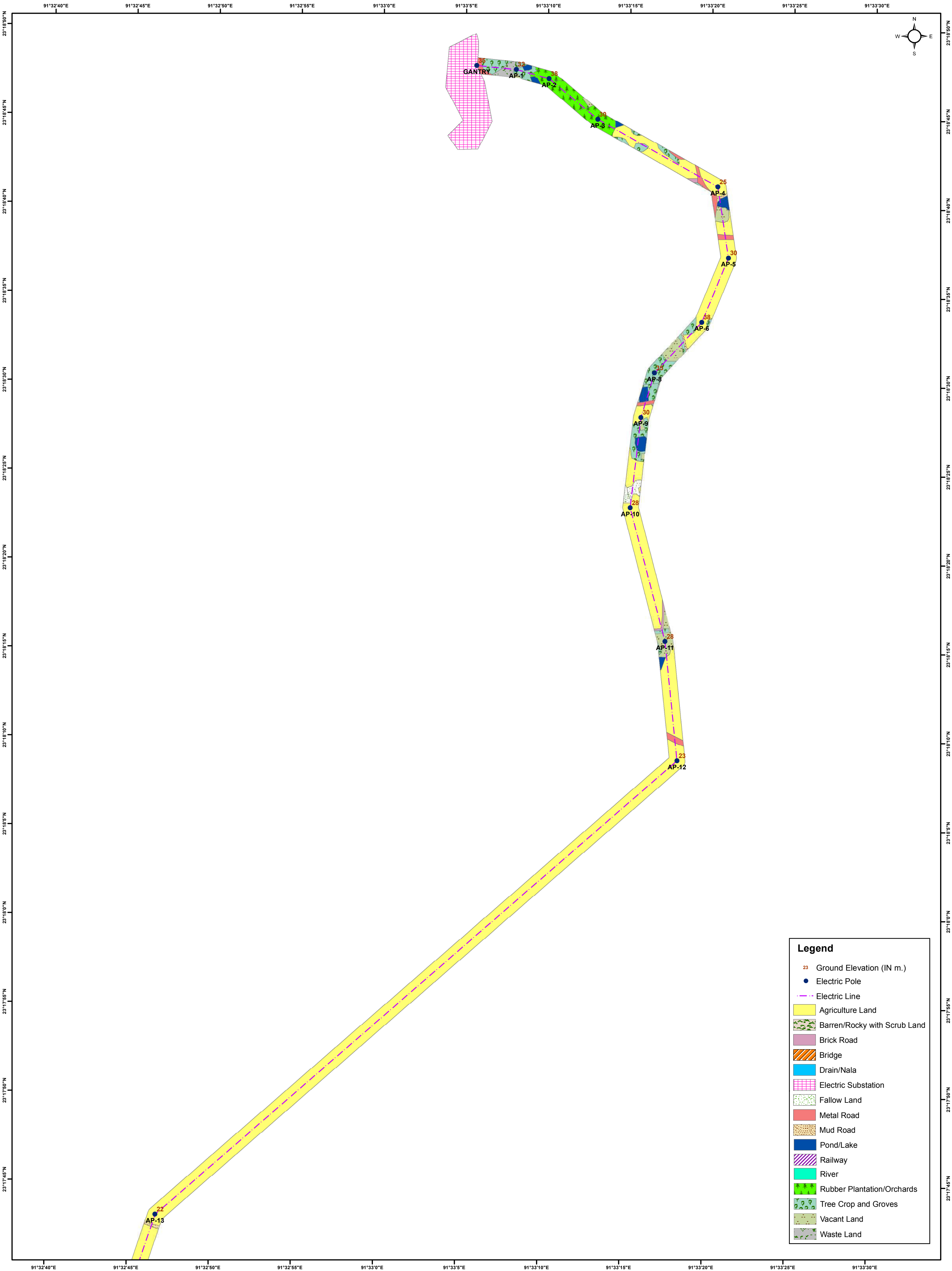
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

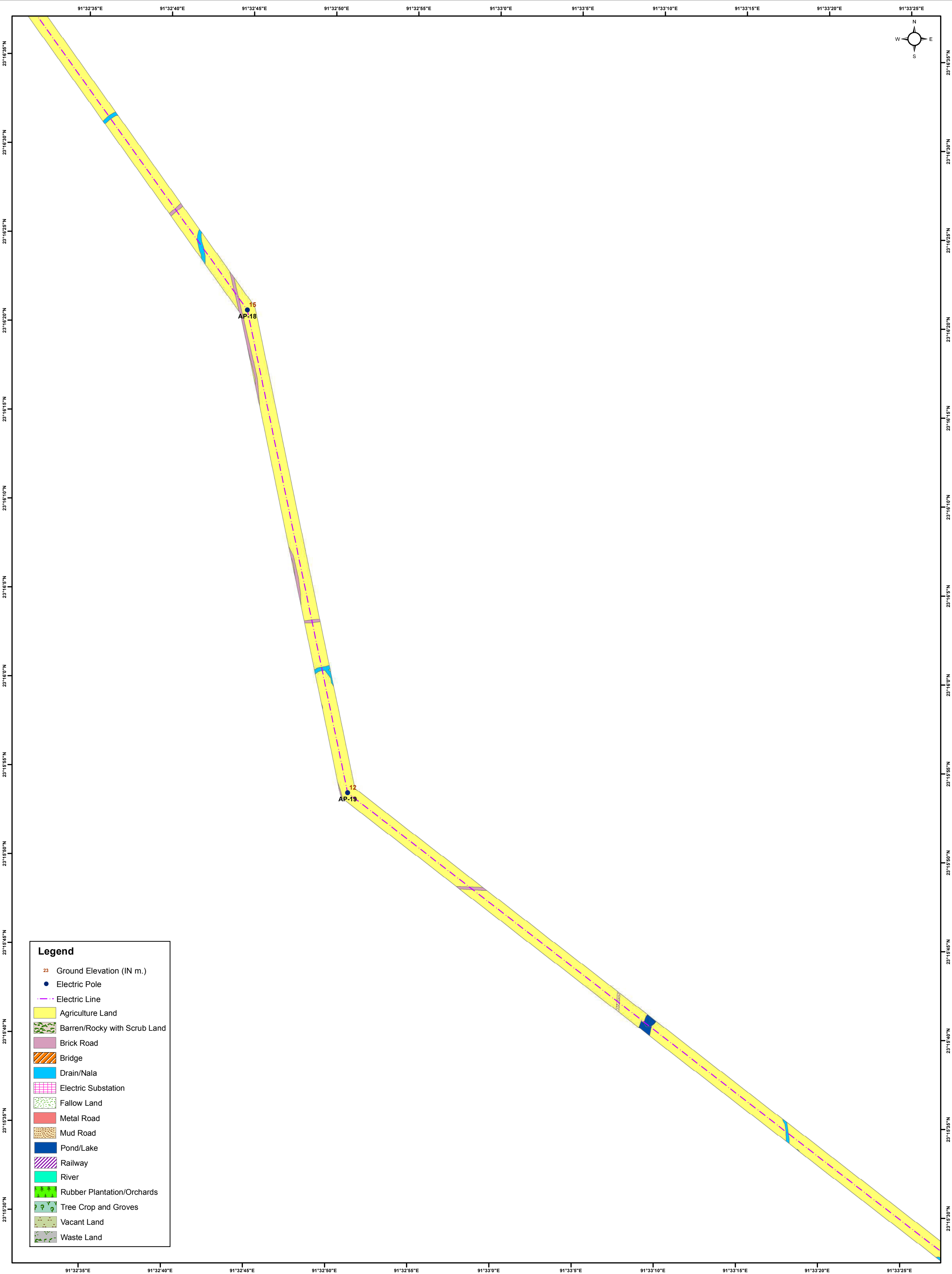
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

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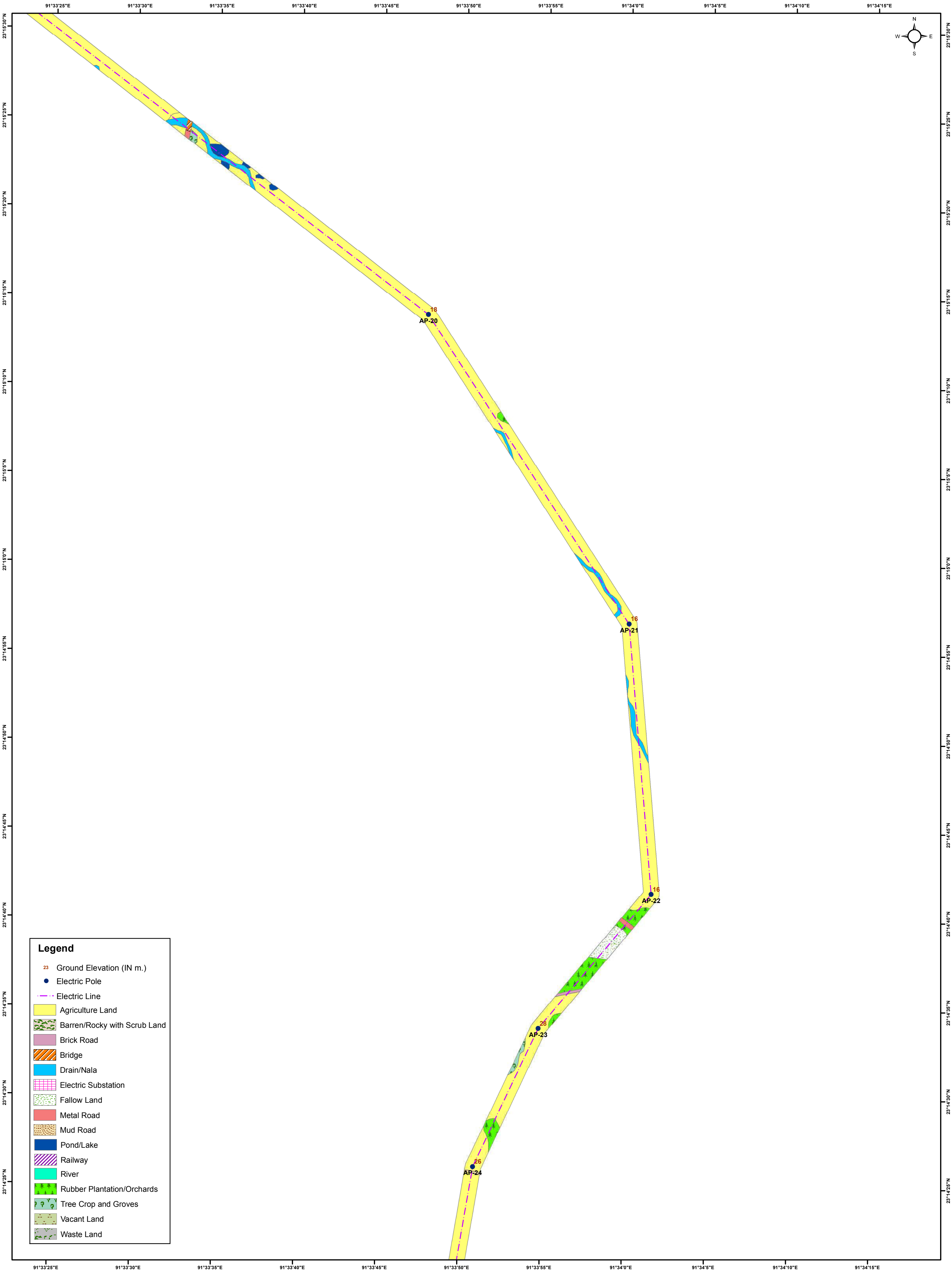
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

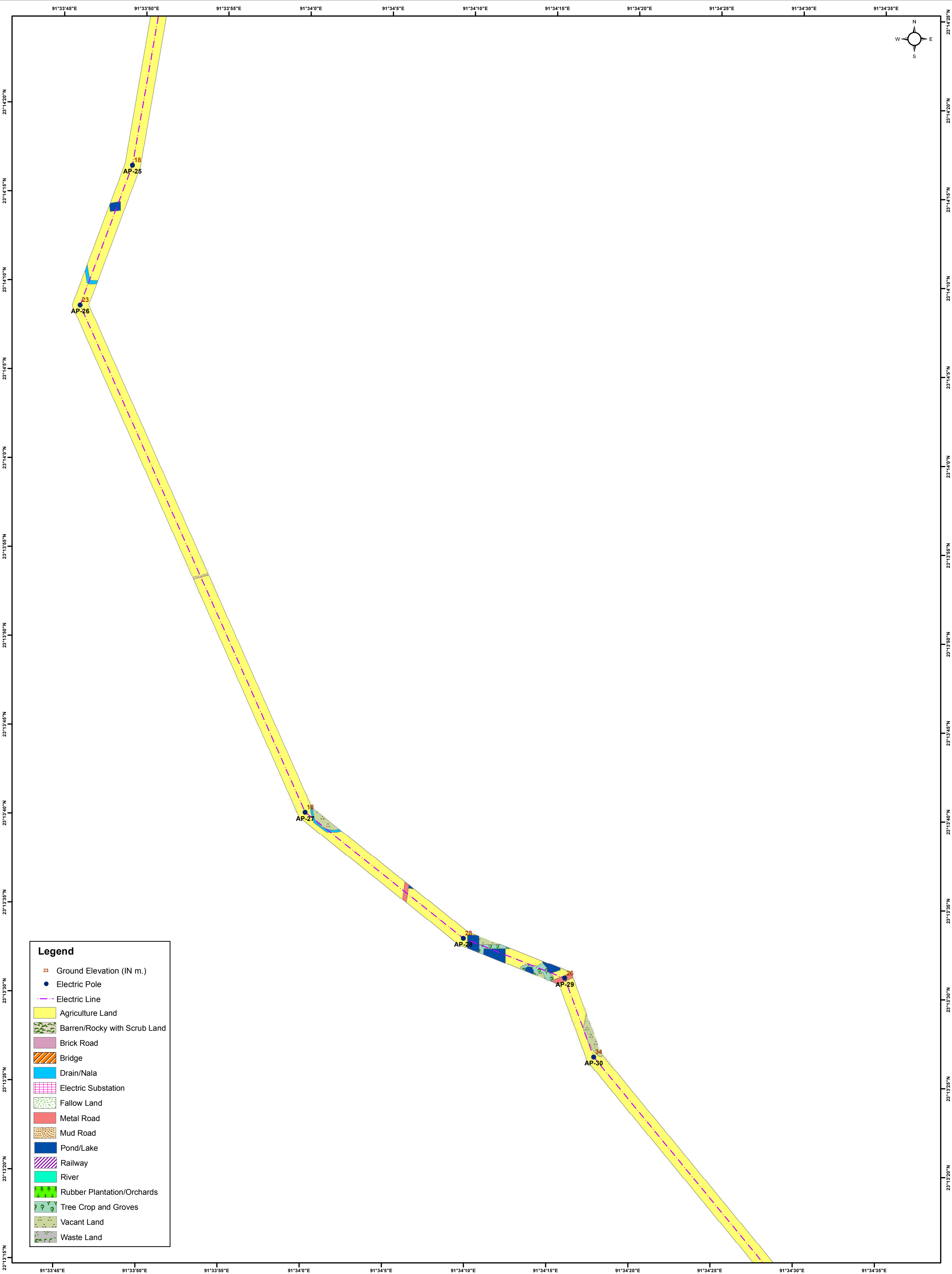
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

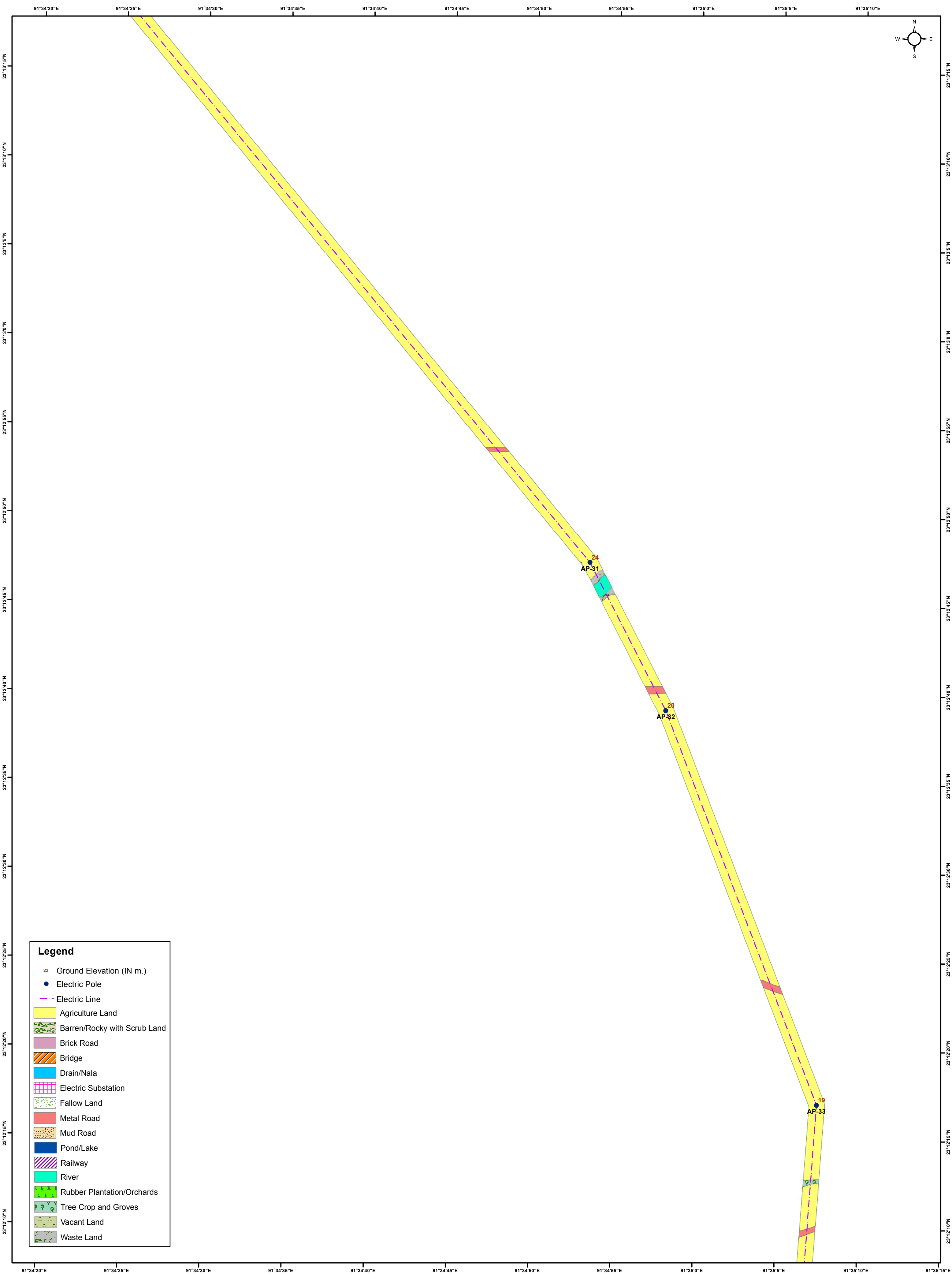
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

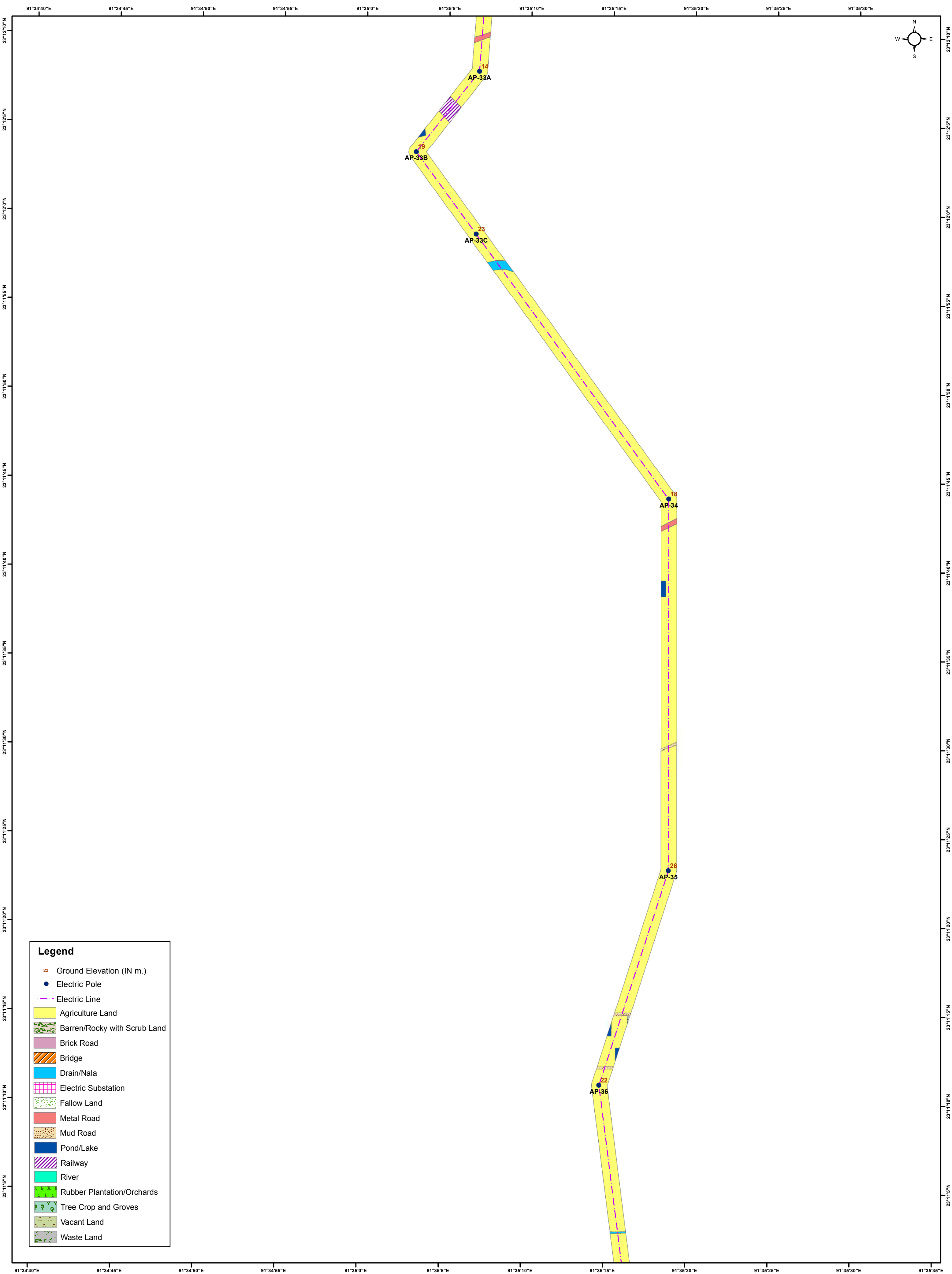
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

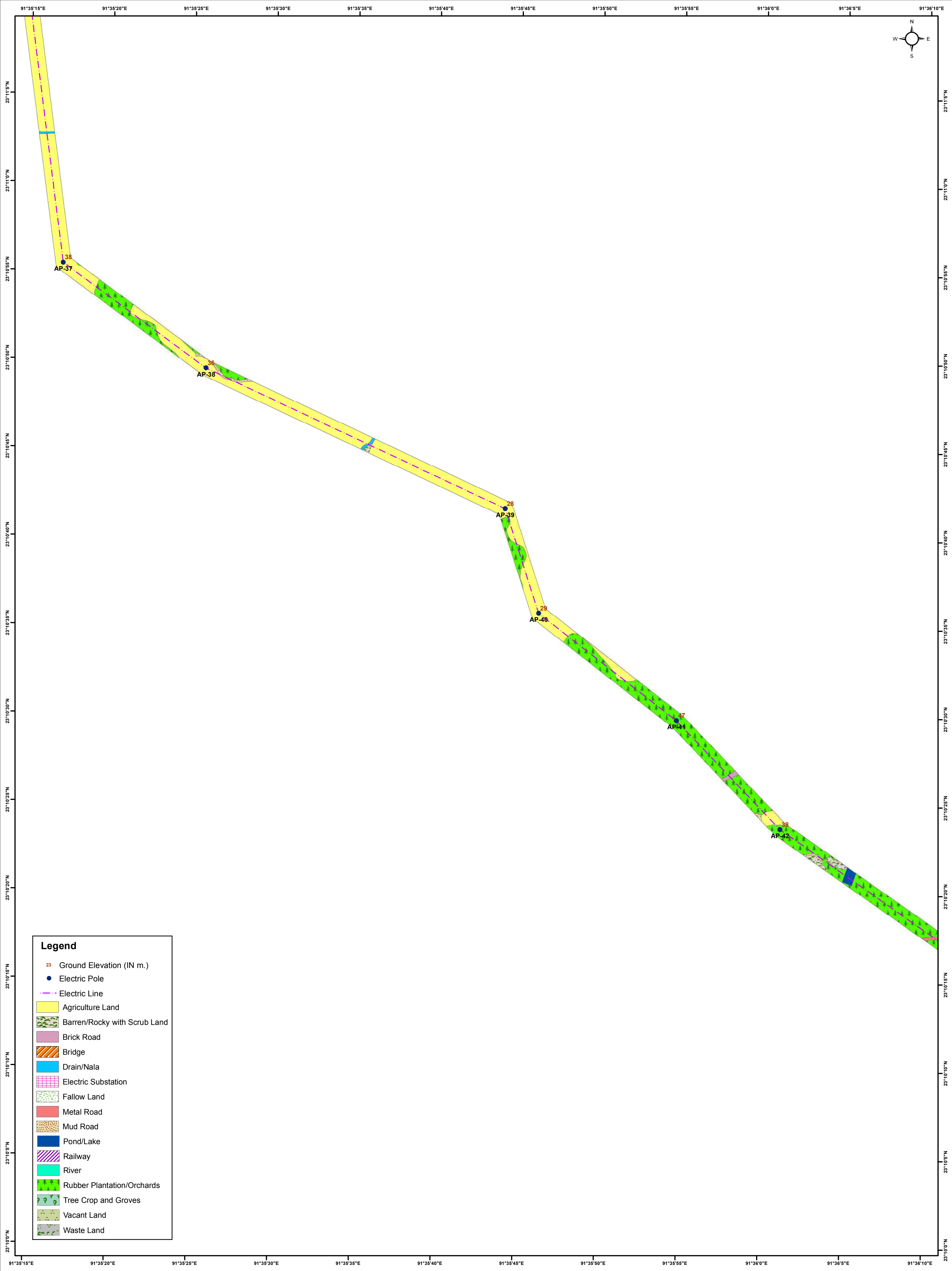
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

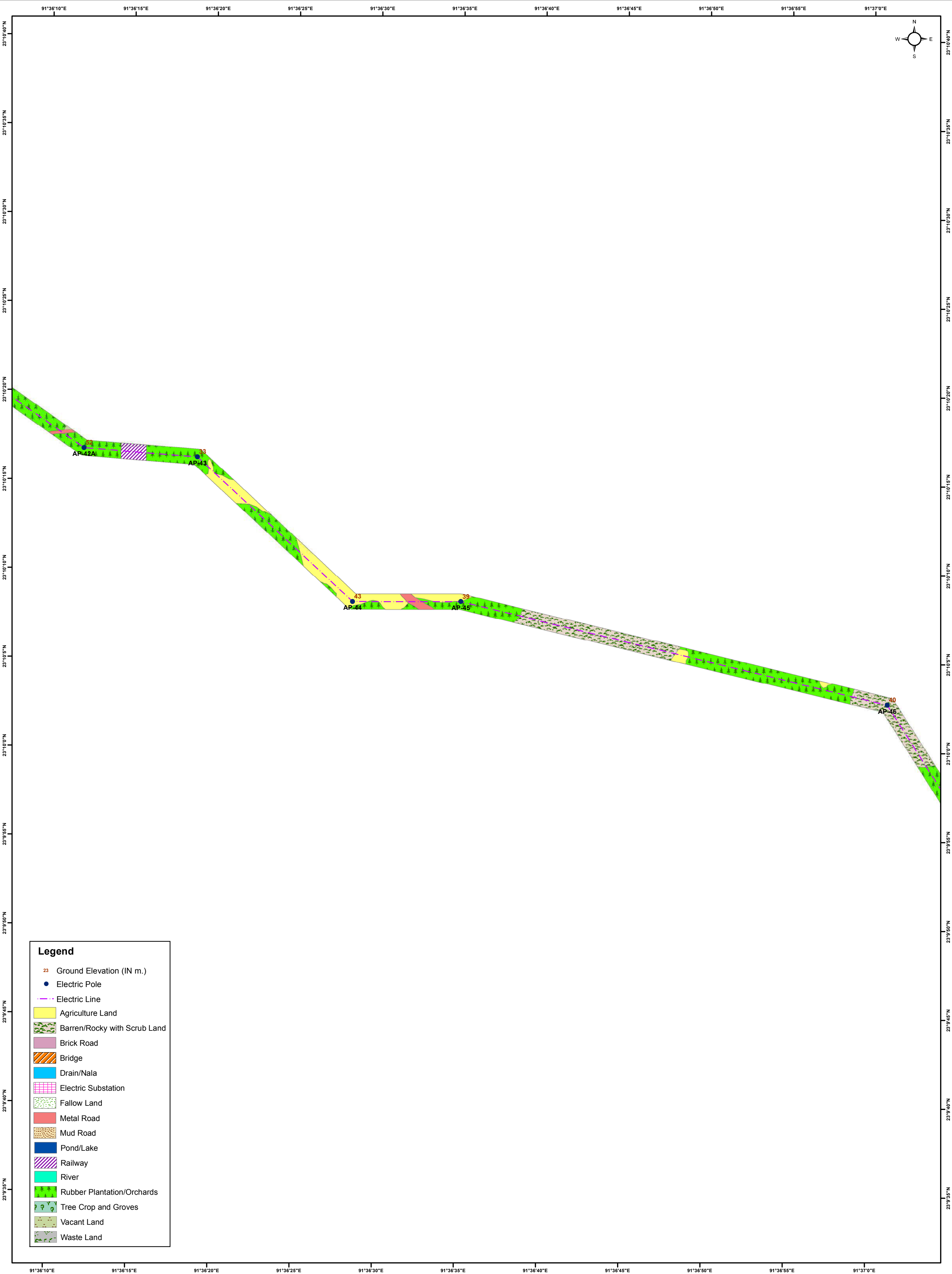
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

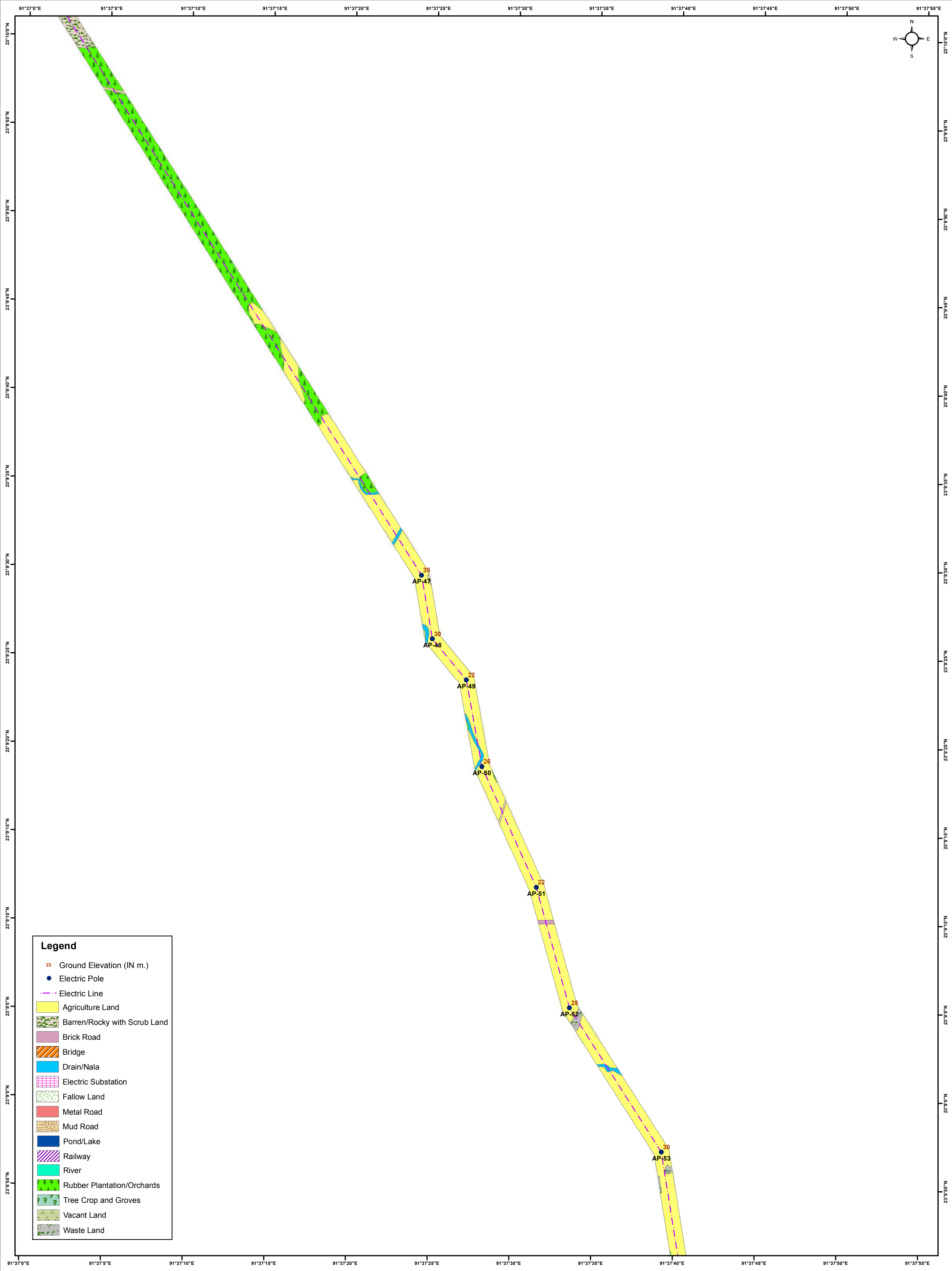
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

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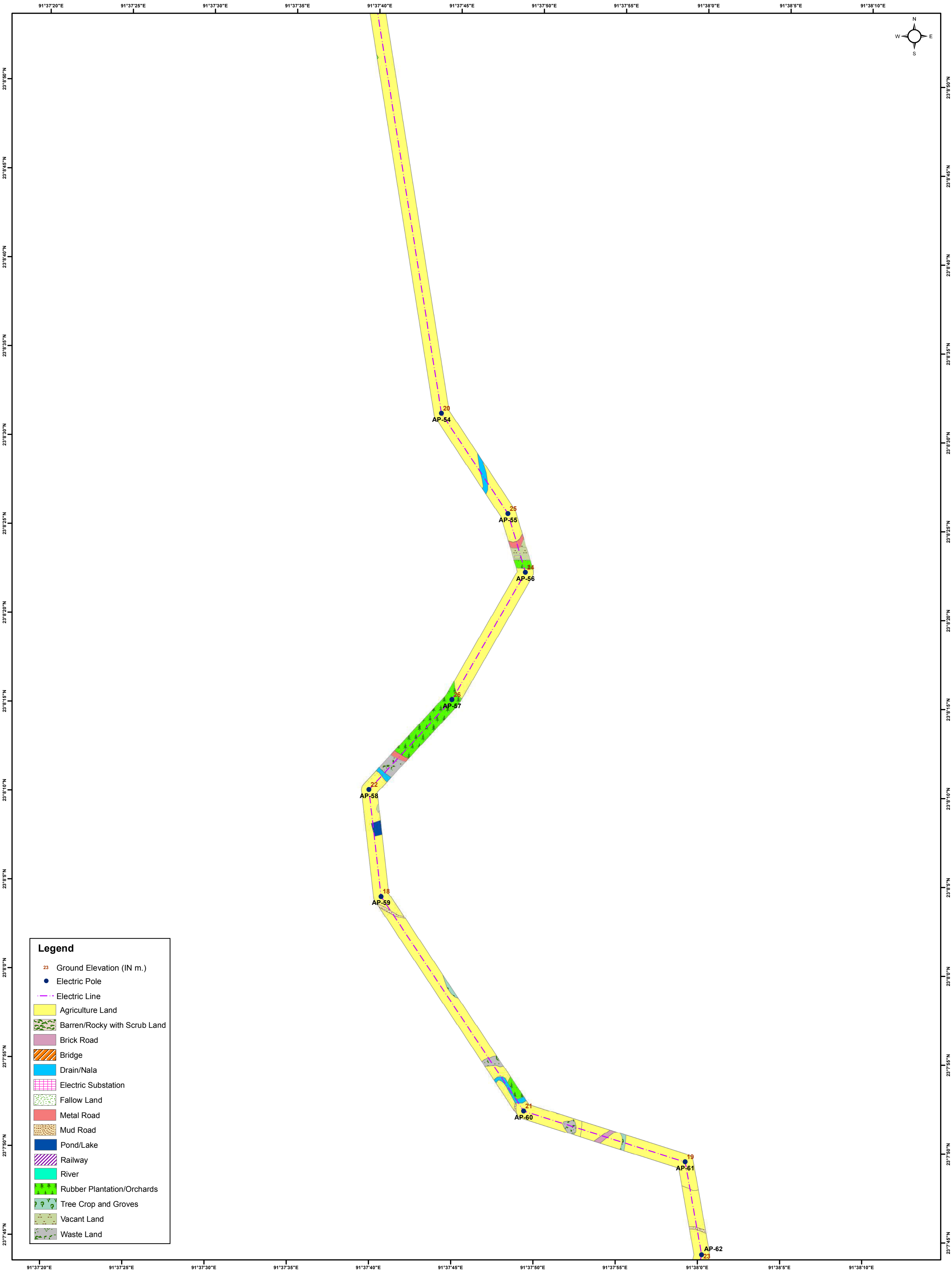
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

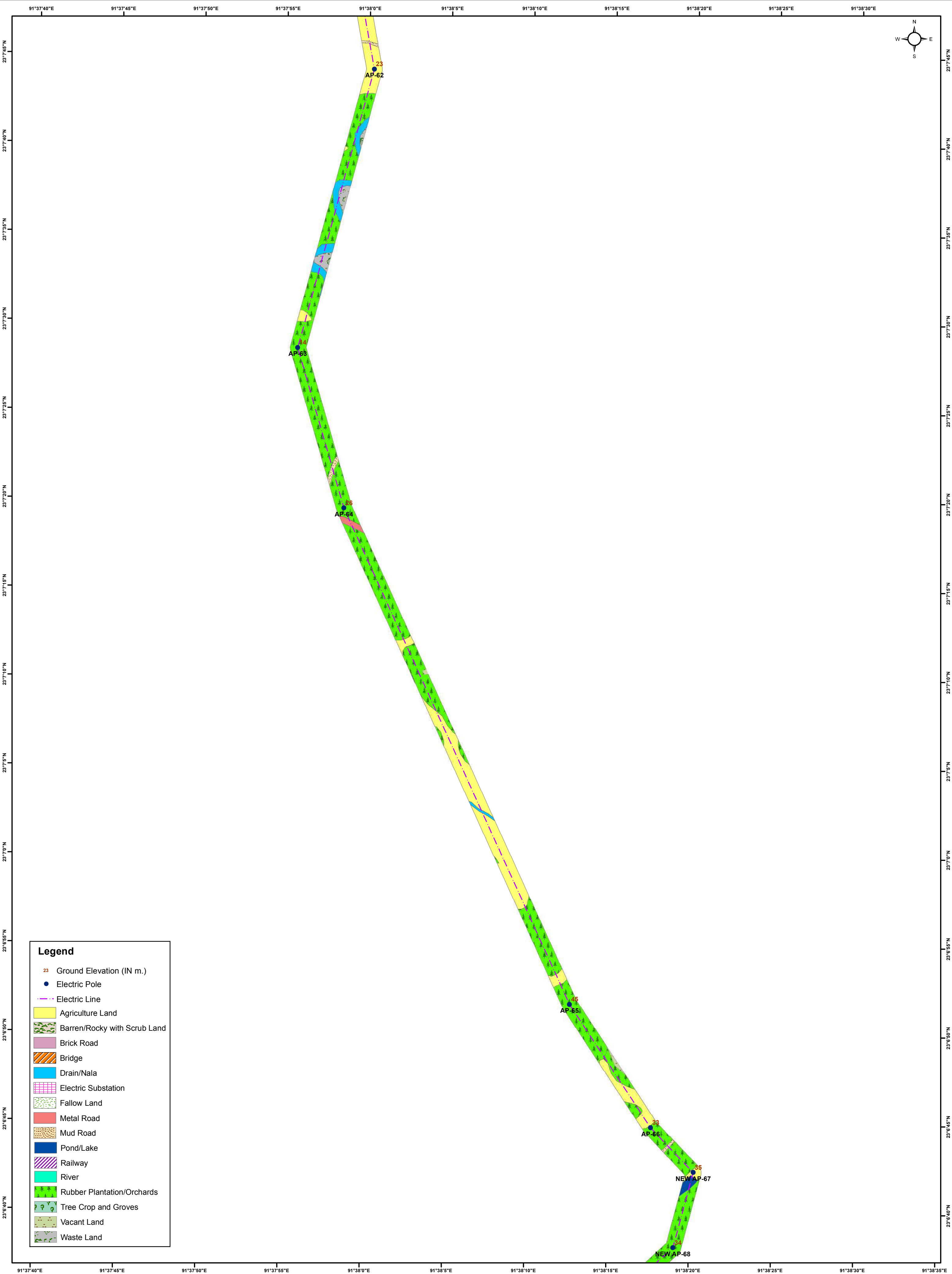
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAF-A-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

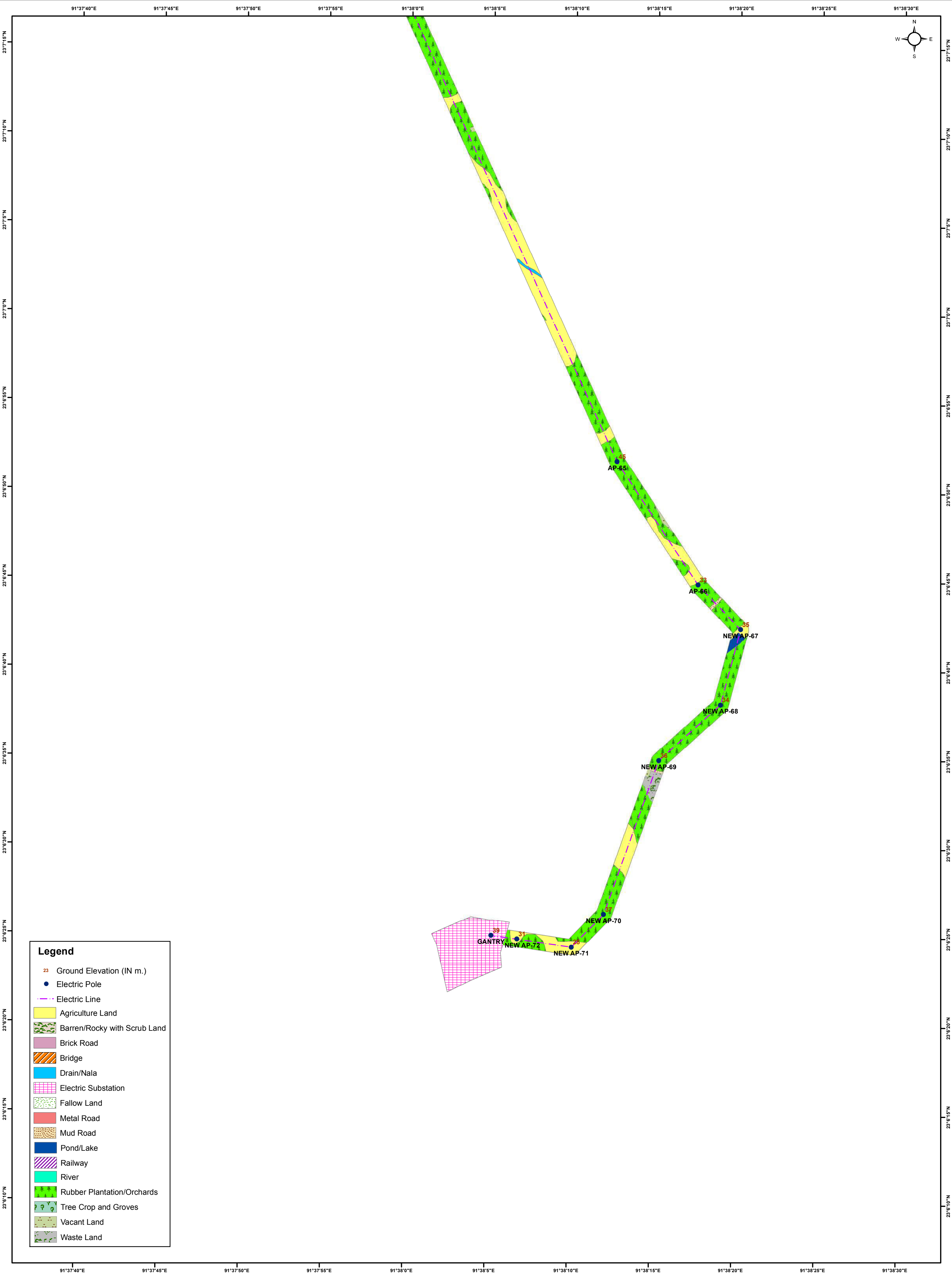
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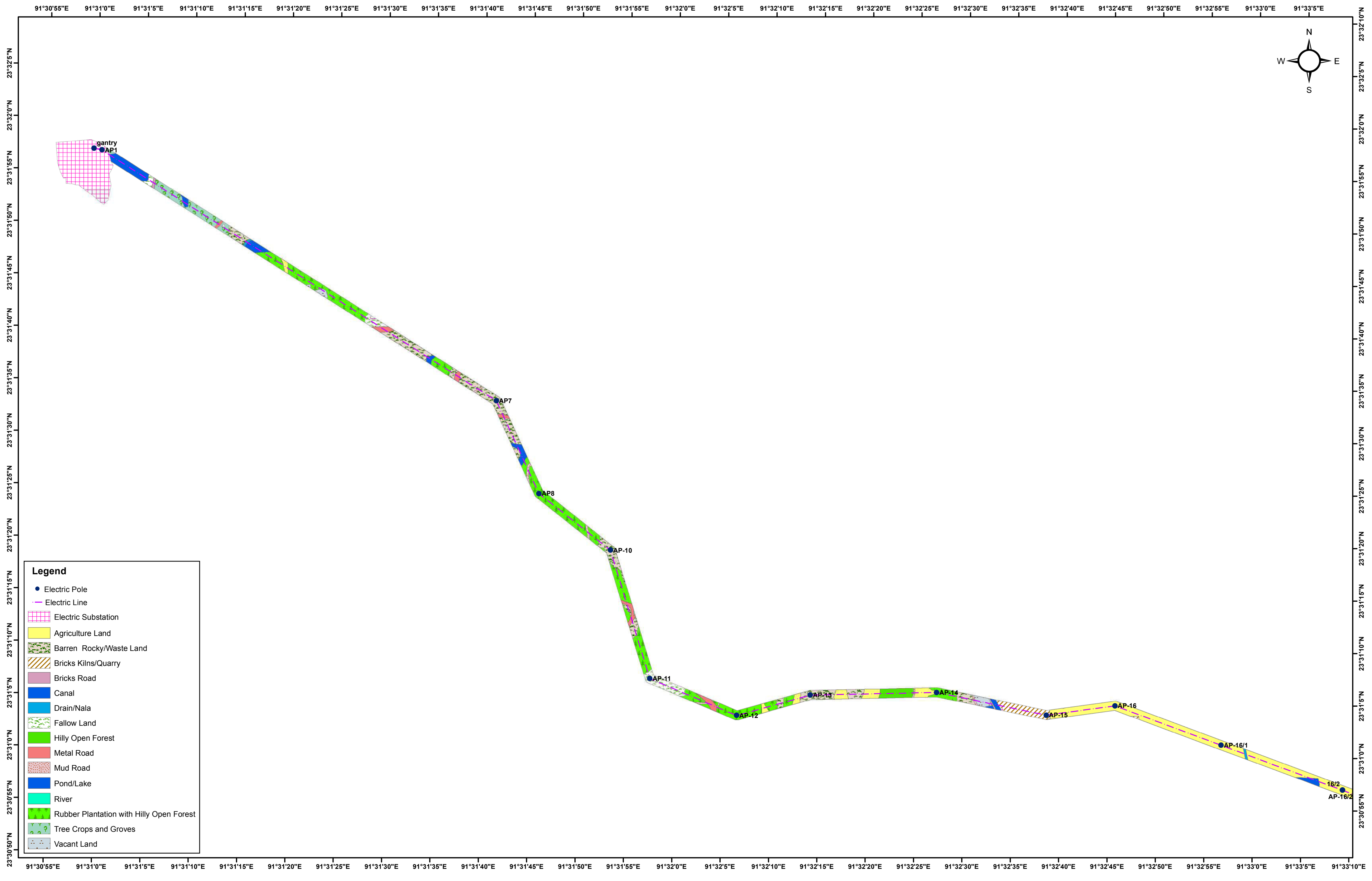
LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

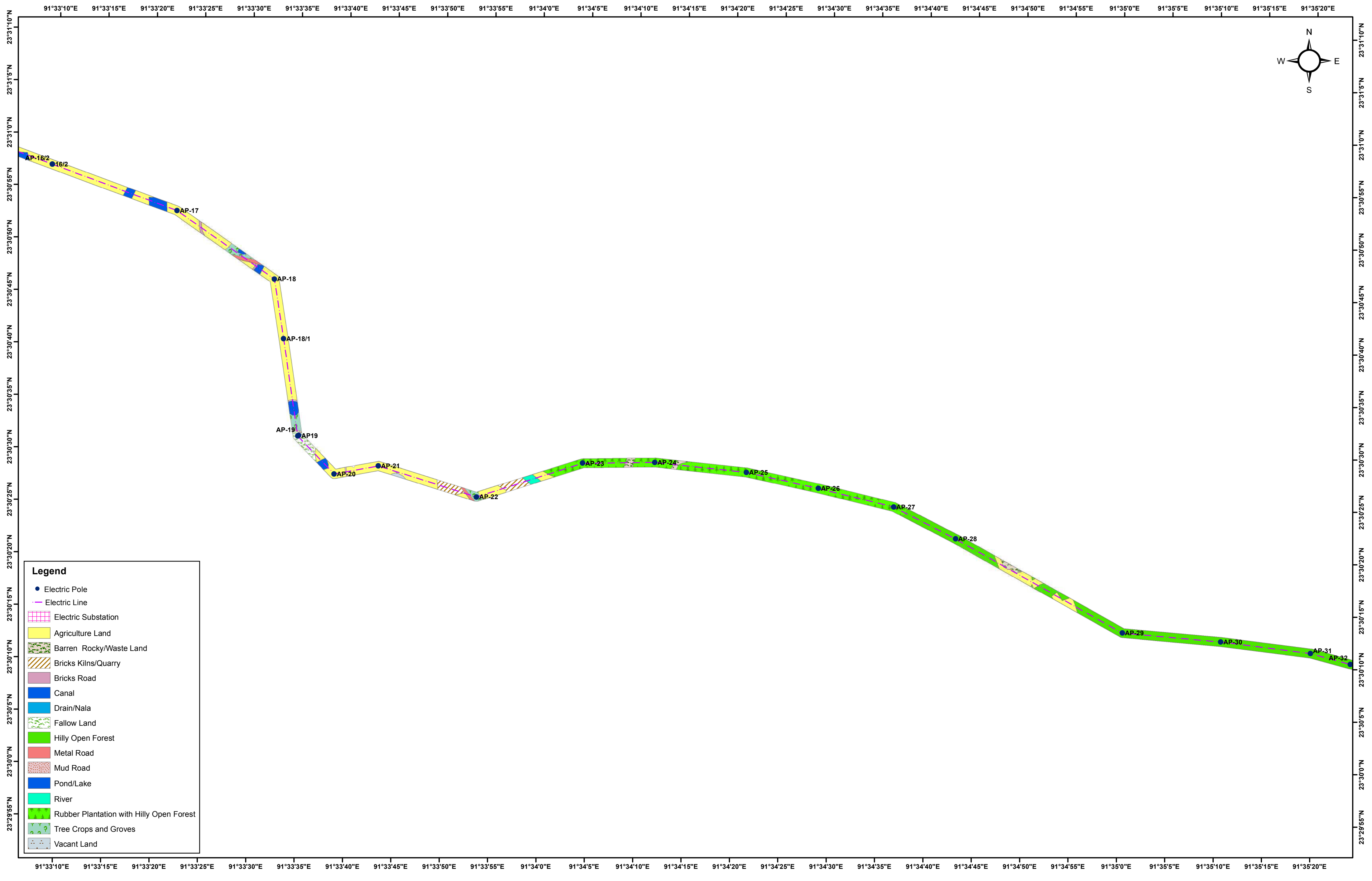
PREPARED BY GREEN CIRCLE INC,



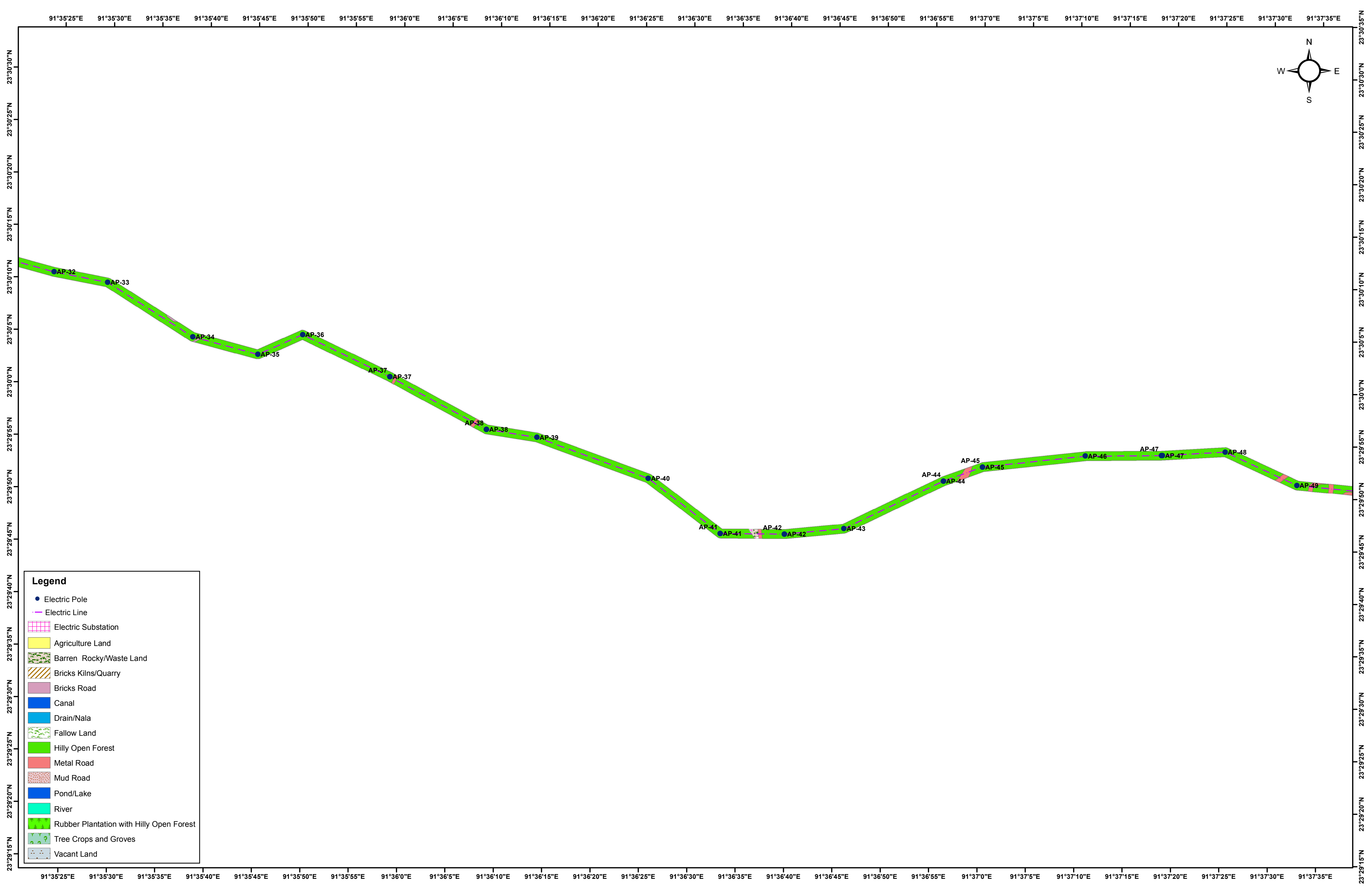
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



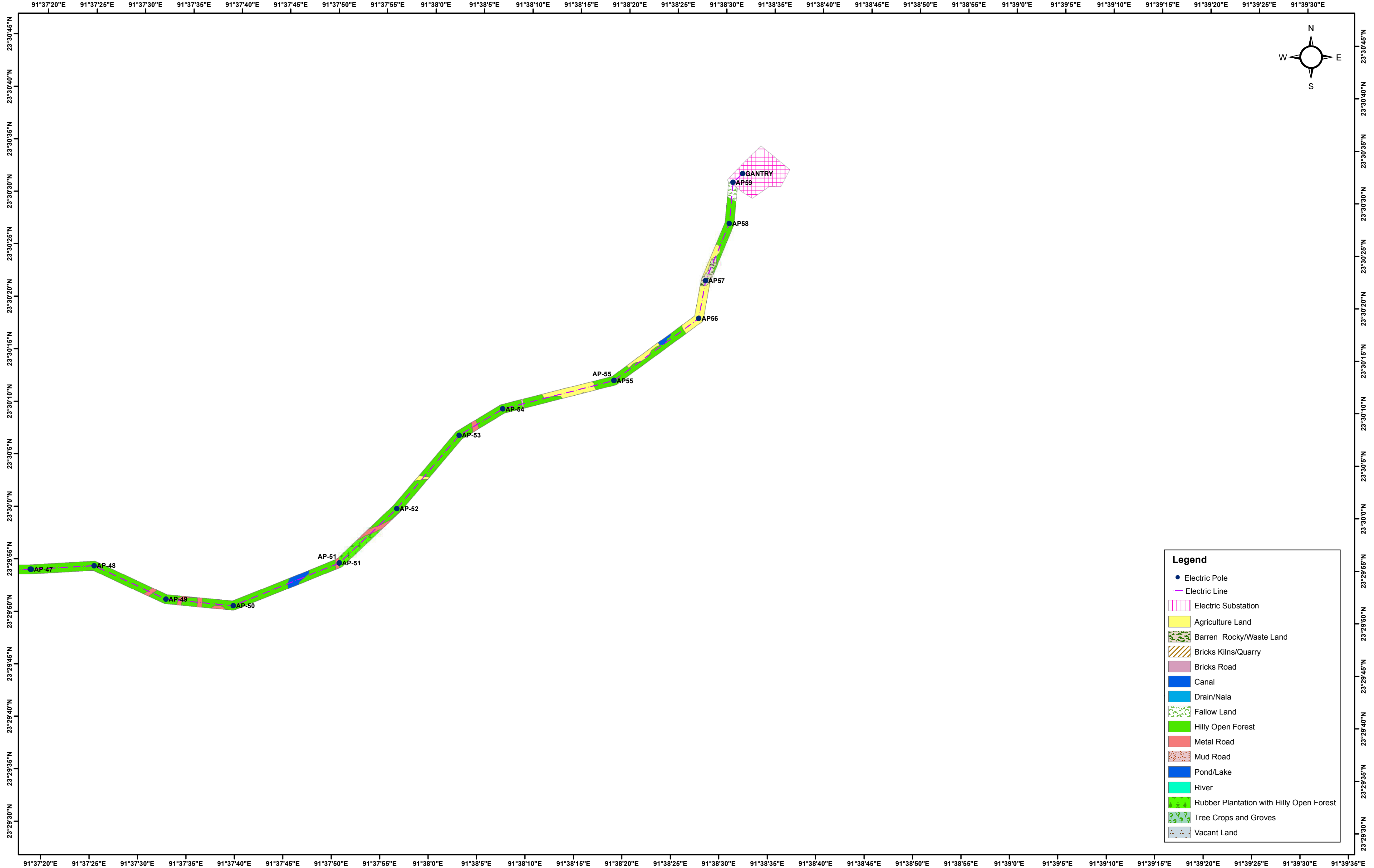
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
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LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
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LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
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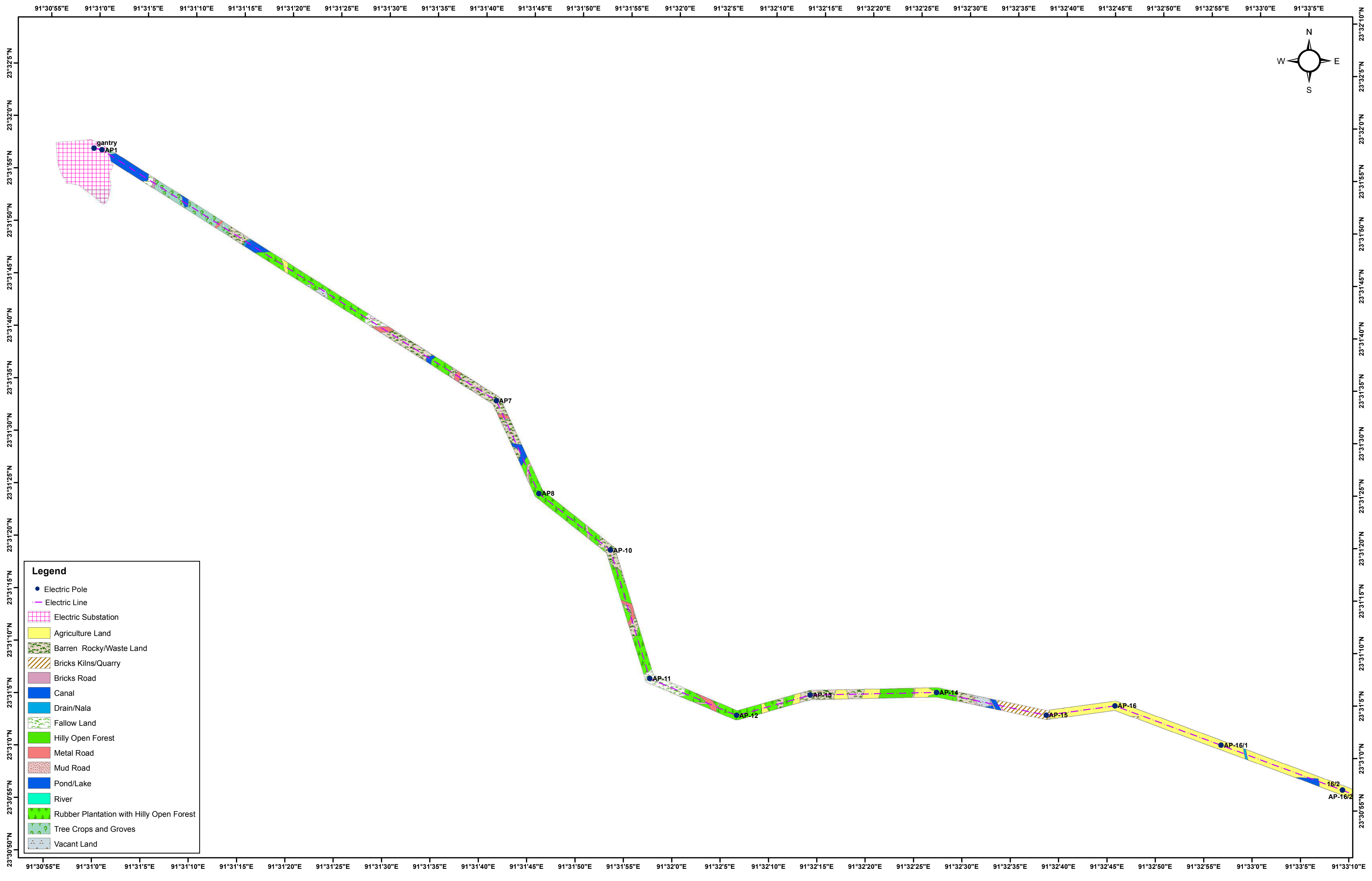
Annexure B1

[illegible]

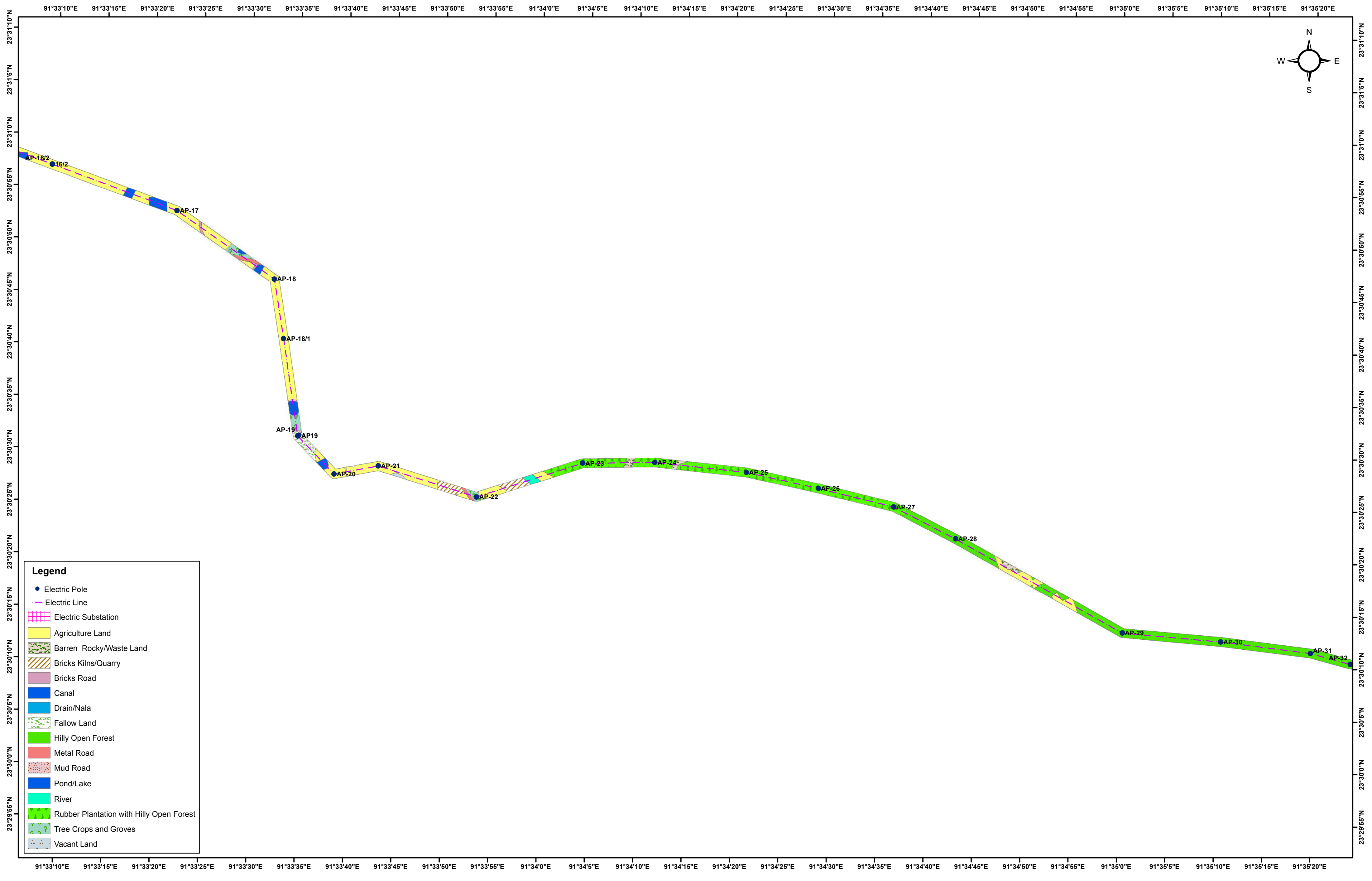
[illegible]

38/2	46 Barren Rocky/Waste Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
41/1	46 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
42/1	84 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
43/1	73 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
43/2	97 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
43/3	90 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
51/2	91 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
51/2	100 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
52/0	108 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
57/1	64 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
57/2	84 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
58/1	82 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
58/2	78 Barren Rocky/Waste Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
58/3	62 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
61/1	43 Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill → Shallow	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
61/2	32 Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill → Shallow	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
47/1	56 Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
48/0	44 Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
49/0	45 Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind

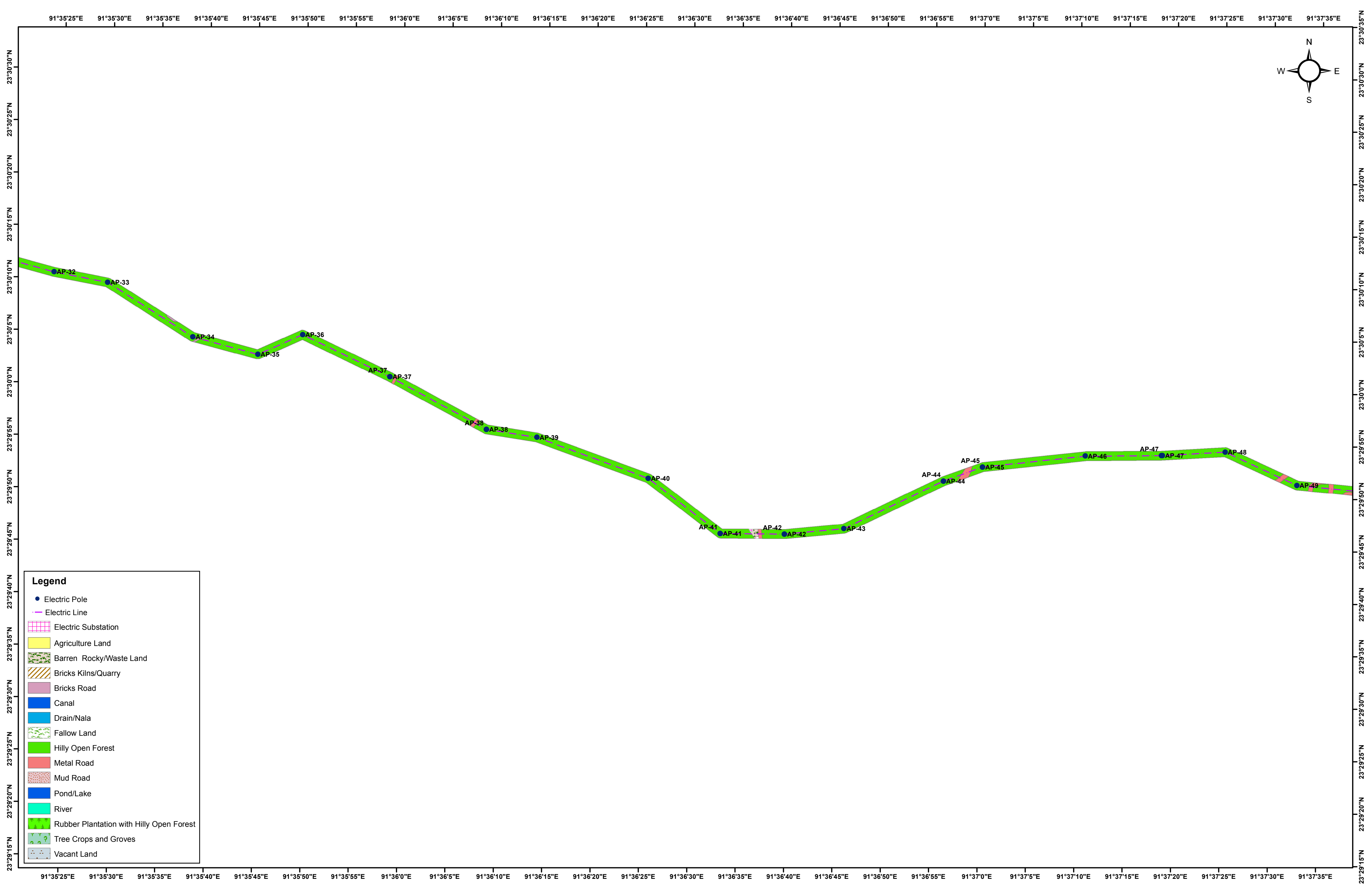
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



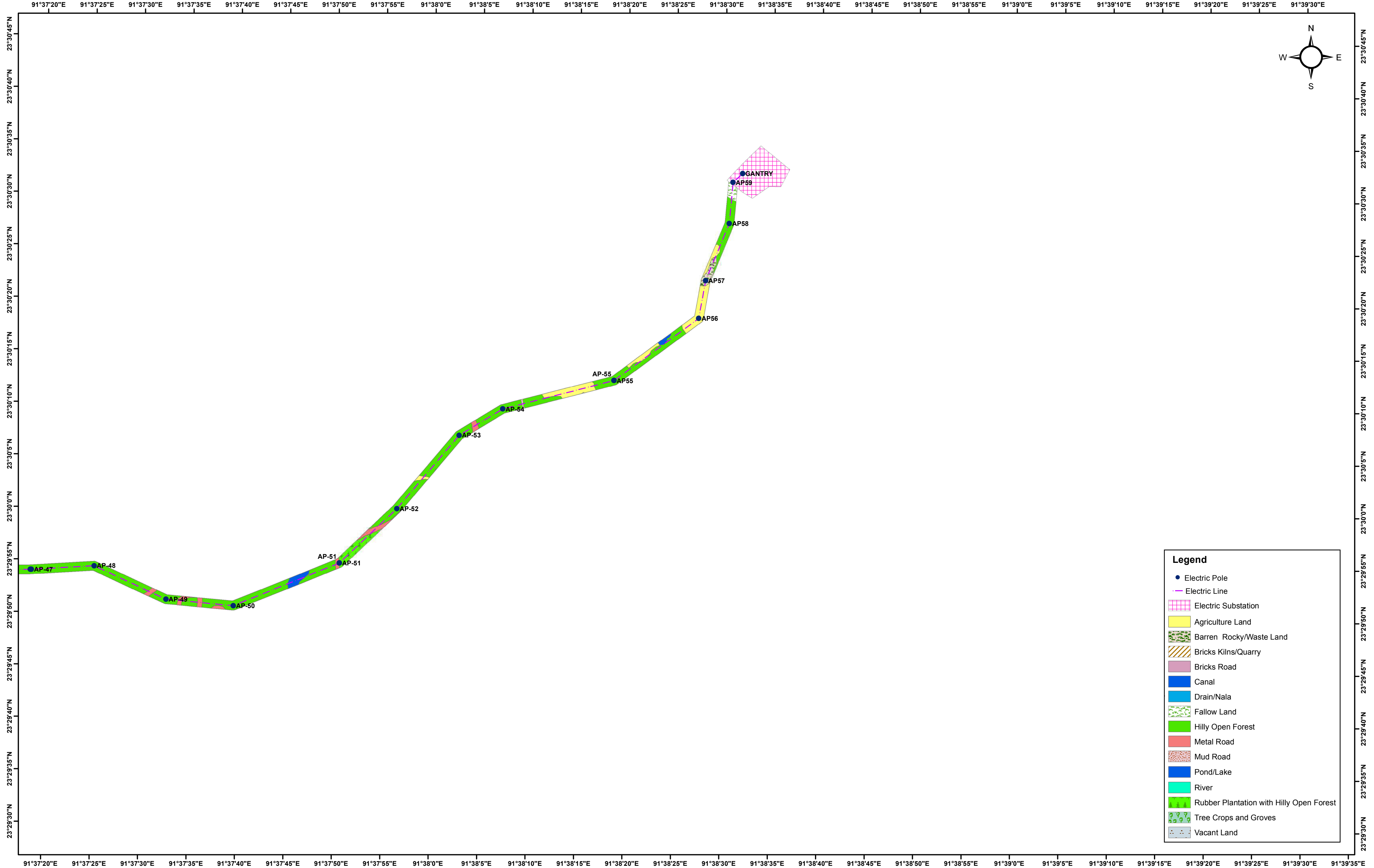
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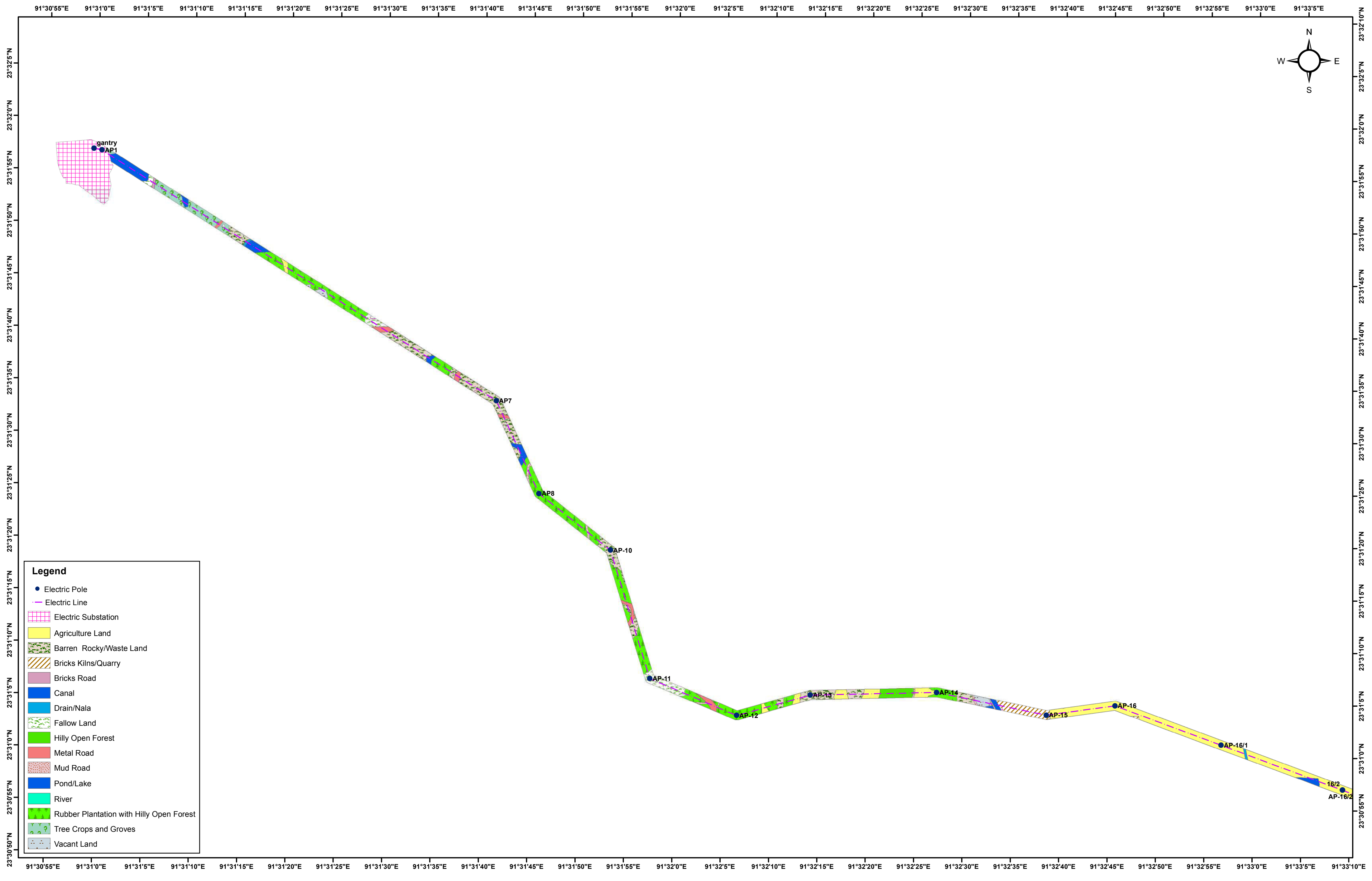
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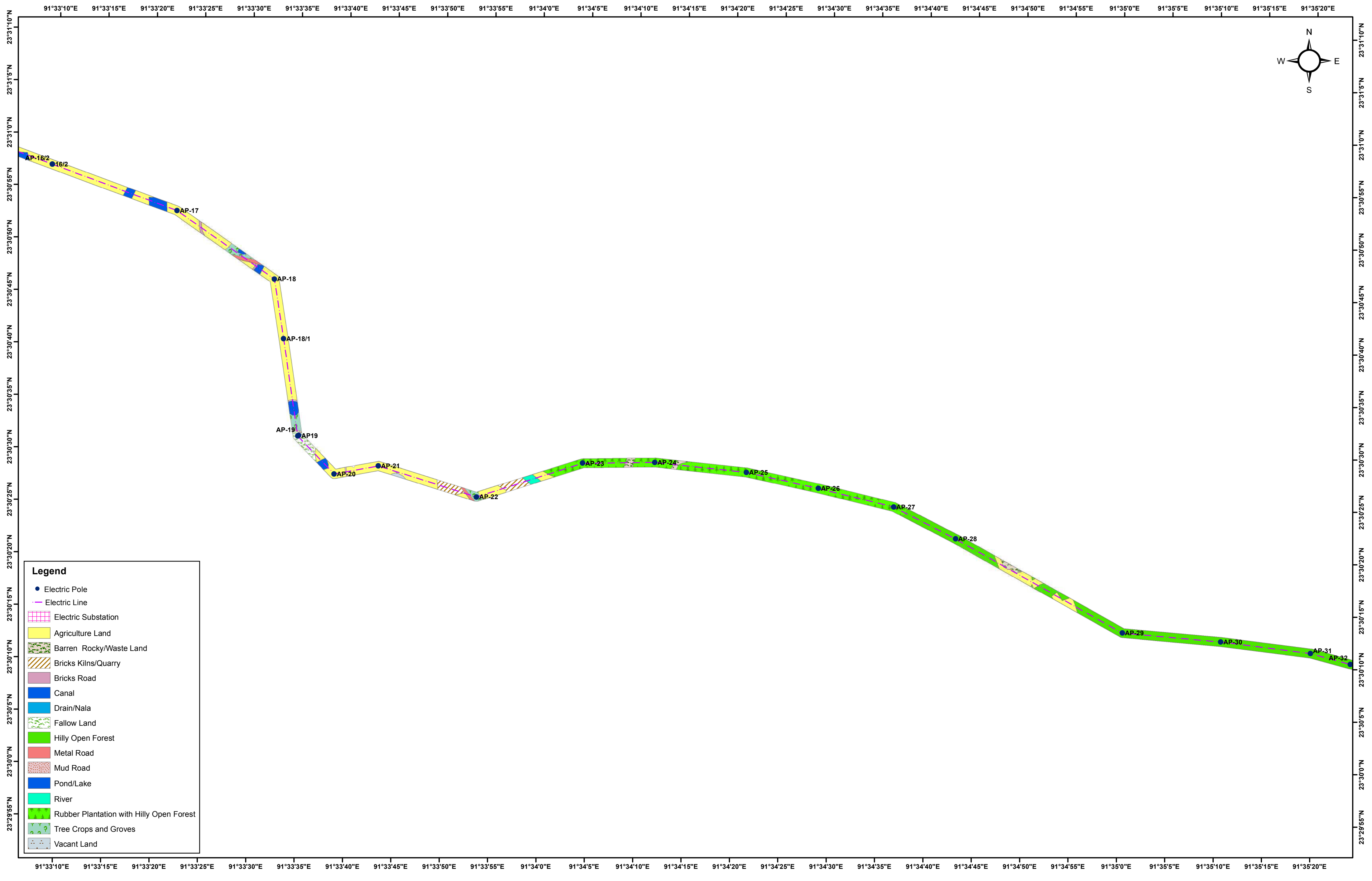
Annexure B2

AP_NO	Ground Elevation of EP	EP Fall in Feature	Rocks Type	Rock Structure	Landslide Study	Flodd Study	Type of Agend for Hazard
Gantry1	39	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-1	32	Tree Crops And Groves	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-3	37	Tree Crops And Groves	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-2	41	Waste Land	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-1	30	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-2	43	Tree Crops And Groves	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-3	29	Agriculture Land	Shaly Sandstone	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-4	22	Agriculture Land	Shaly Sandstone	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-6	38	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-7	30	Fallow Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-8	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-9	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-10	20	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-11	20	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-12	60	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-13	50	Waste Land	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-15	54	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-15A	64	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-16	58	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-16/A	36	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-17	28	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-18	33	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-19	25	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-20	36	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-21	28	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-22	20	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-23	23	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-24	17	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-26	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-27	15	Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-28	45	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Low Landslide	High Flood Prone	Earthquake, Low Flood & Wind
AP-29	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-29A	14	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-29B	23	Rubber Plantation/Orchards	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-29B/1	48	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-30	46	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-31	46	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-32	52	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-33	48	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-34	27	Playground	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-1	21	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-2	25	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-3	27	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-4	22	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-35	24	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
GANTRY	17	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind

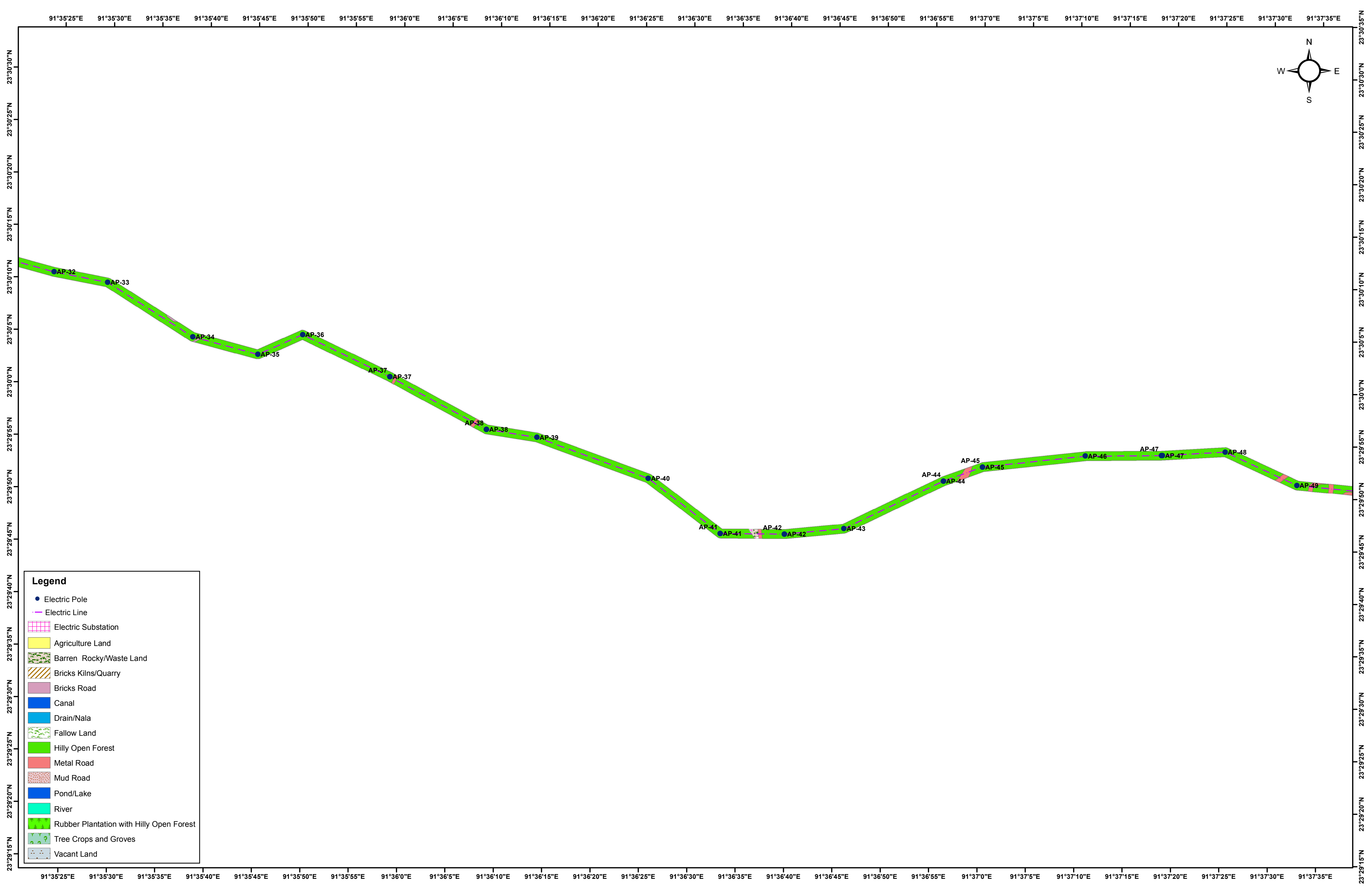
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



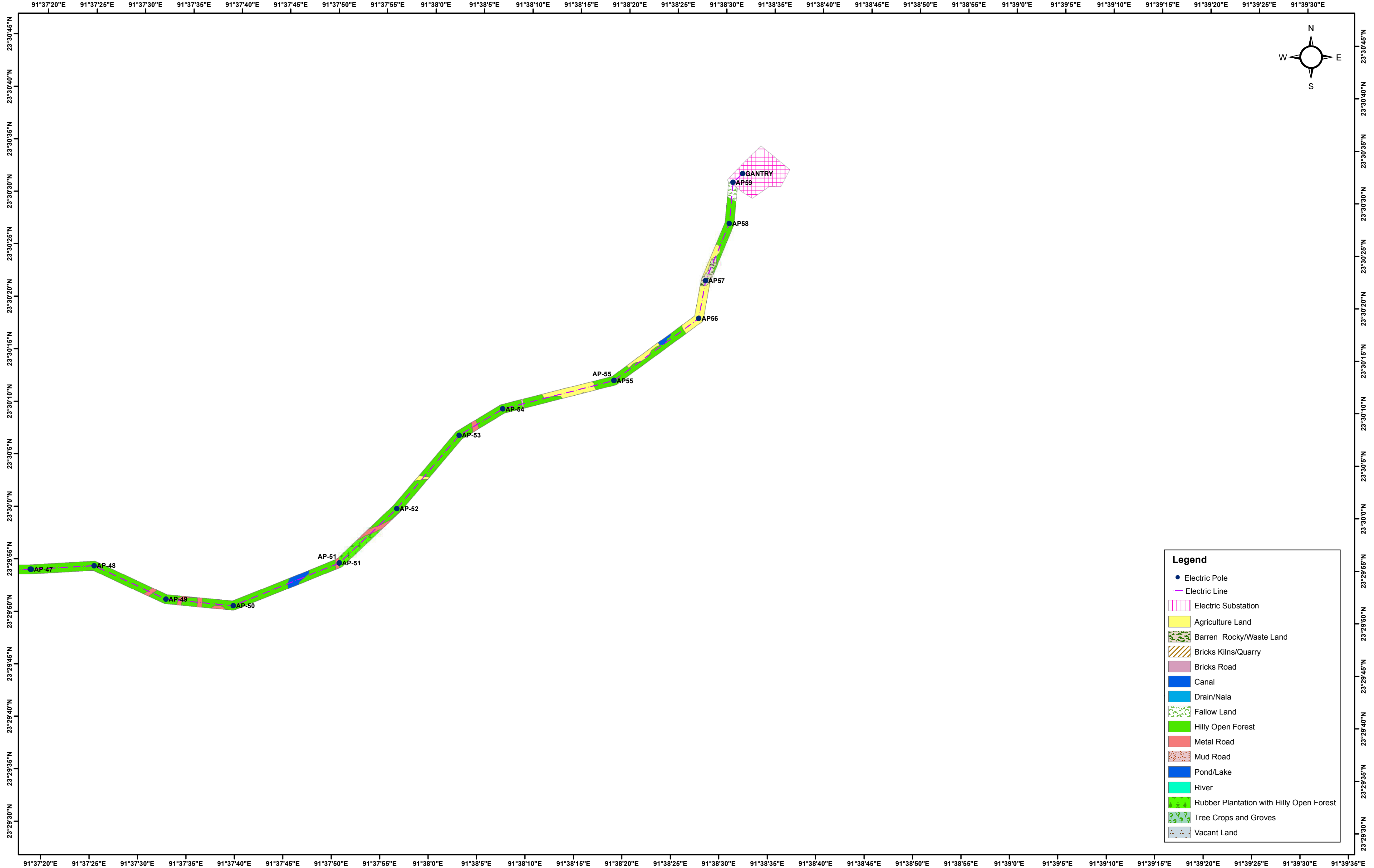
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
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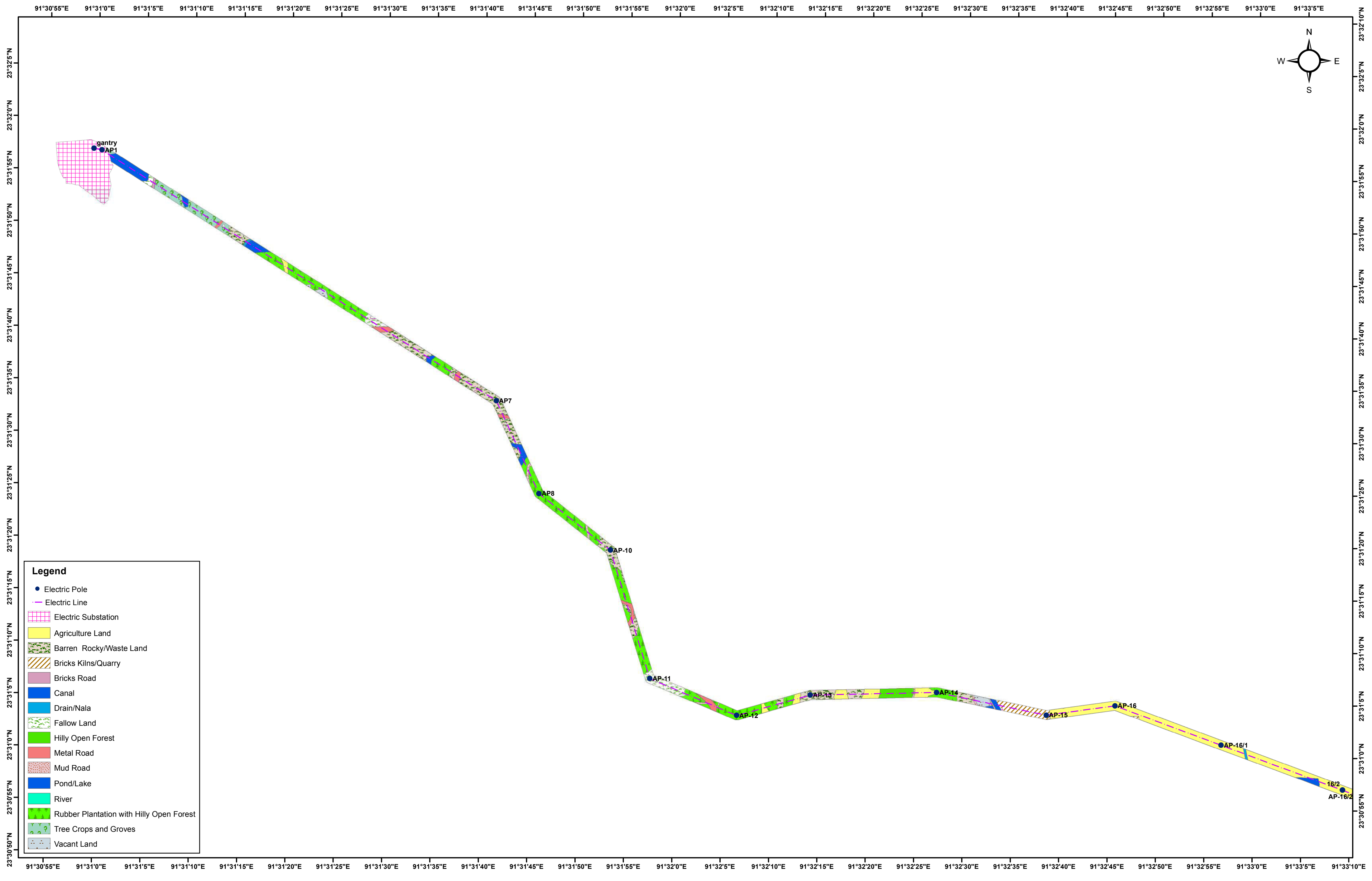


Annexure B3

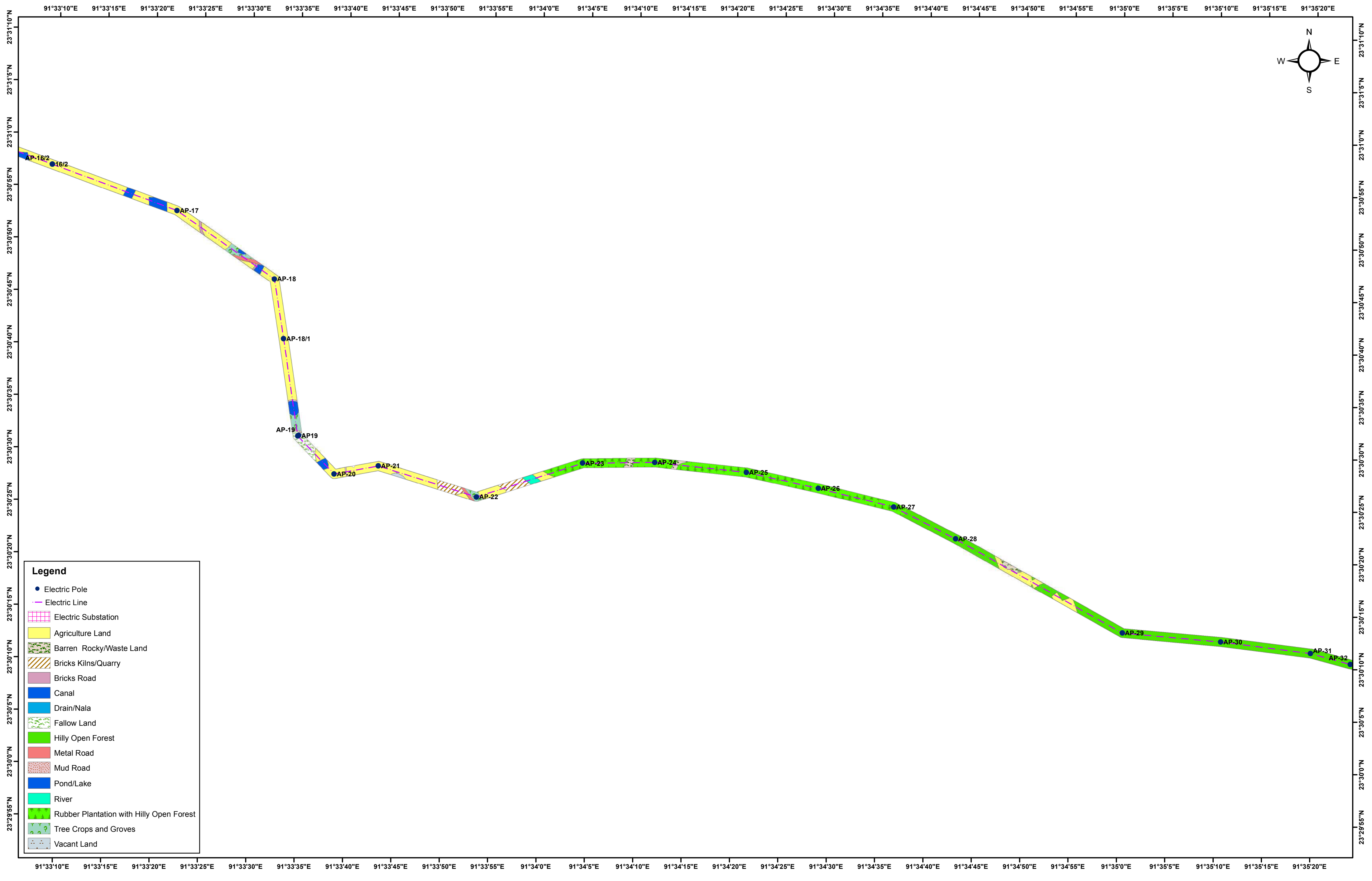
AP_No	Ground Elevation Of EP	EP Fall in Feature	Rock_Type	Rock_Type2	Landslide Study	Flood Study	Hazard Type
GANTRY	18	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-1	16	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-2	26	Rubber Plantation/Orchards	Shaly Sandstone	Fracture/Fault Line Valley	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-2A/0	42	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-3	39	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-4	38	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-4A	44	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-5	33	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-5A	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-5B	40	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-5C	27	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-5D	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-6	31	Waste Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	None	None	Earthquake, Wind Storm
AP-7	21	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-8	29	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-8A	55	Hilly Forest	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8B	66	Hilly Forest	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8C	83	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8D	68	Hilly Forest	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8E	51	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8F	32	Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-9	23	Hilly Forest	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-10	26	Brick Kilns/Quarry	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-11	36	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-12	33	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-13	49	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-14	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-14A	33	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-14B	47	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-14C	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-15	47	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16	41	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16A	52	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16B	51	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16C	47	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-16D	48	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-17	56	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-17A	44	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-17B	31	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-17C	53	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-18	41	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-18A	36	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-18B	31	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-18C	34	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-19	27	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-19A	40	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-19B	20	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-20	26	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-20A	37	Barren Rocky with Scrub Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-20B	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-20C	19	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-20D	32	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide

AP-20E	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήfCò Shallow	None	None	Earthquake, Wind Storm
AP-21	33	Barren Rocky with Scrub Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-21A	23	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-21B	28	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-21C	19	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-22	42	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-23	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήfCò Shallow	None	None	Earthquake, Wind Storm
AP-23A	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήfCò Shallow	None	None	Earthquake, Wind Storm
AP-24	25	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24A	28	Waste Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24B	23	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24C	20	Waste Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24D	20	Waste Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24E	31	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24F	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήfCò Shallow	None	None	Earthquake, Wind Storm
AP-24G	17	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24H	29	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24I	27	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-25	24	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-25A	6	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-25B	15	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-25C	13	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-26	14	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-27	21	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-28	15	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-29	15	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-29A	29	Mud Road	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-29B	35	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-30	33	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-31	31	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-31A	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-31B	24	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-32	38	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-33	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-34	40	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-35	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
GANTRY	33	Electric Substation	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide

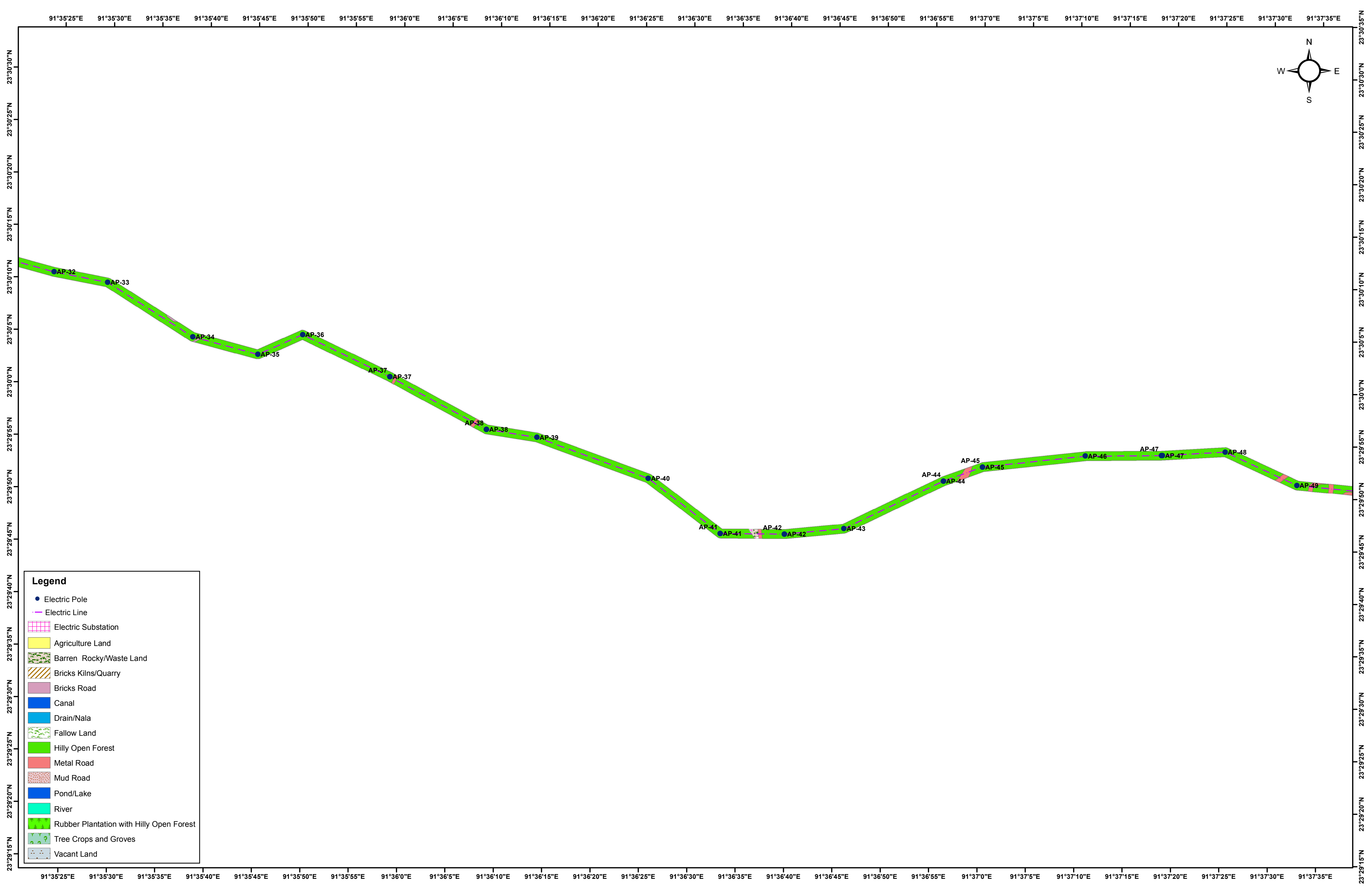
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
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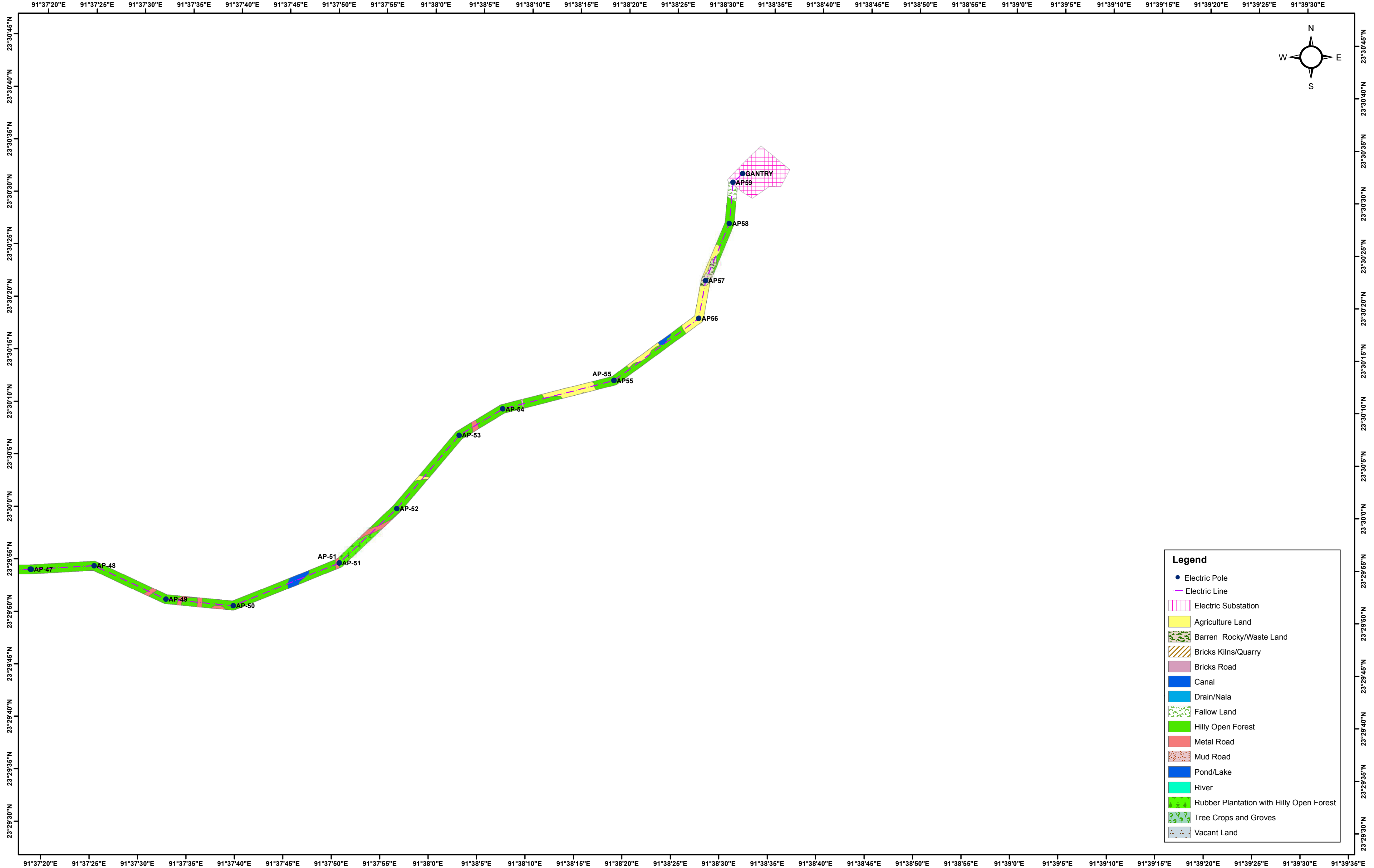
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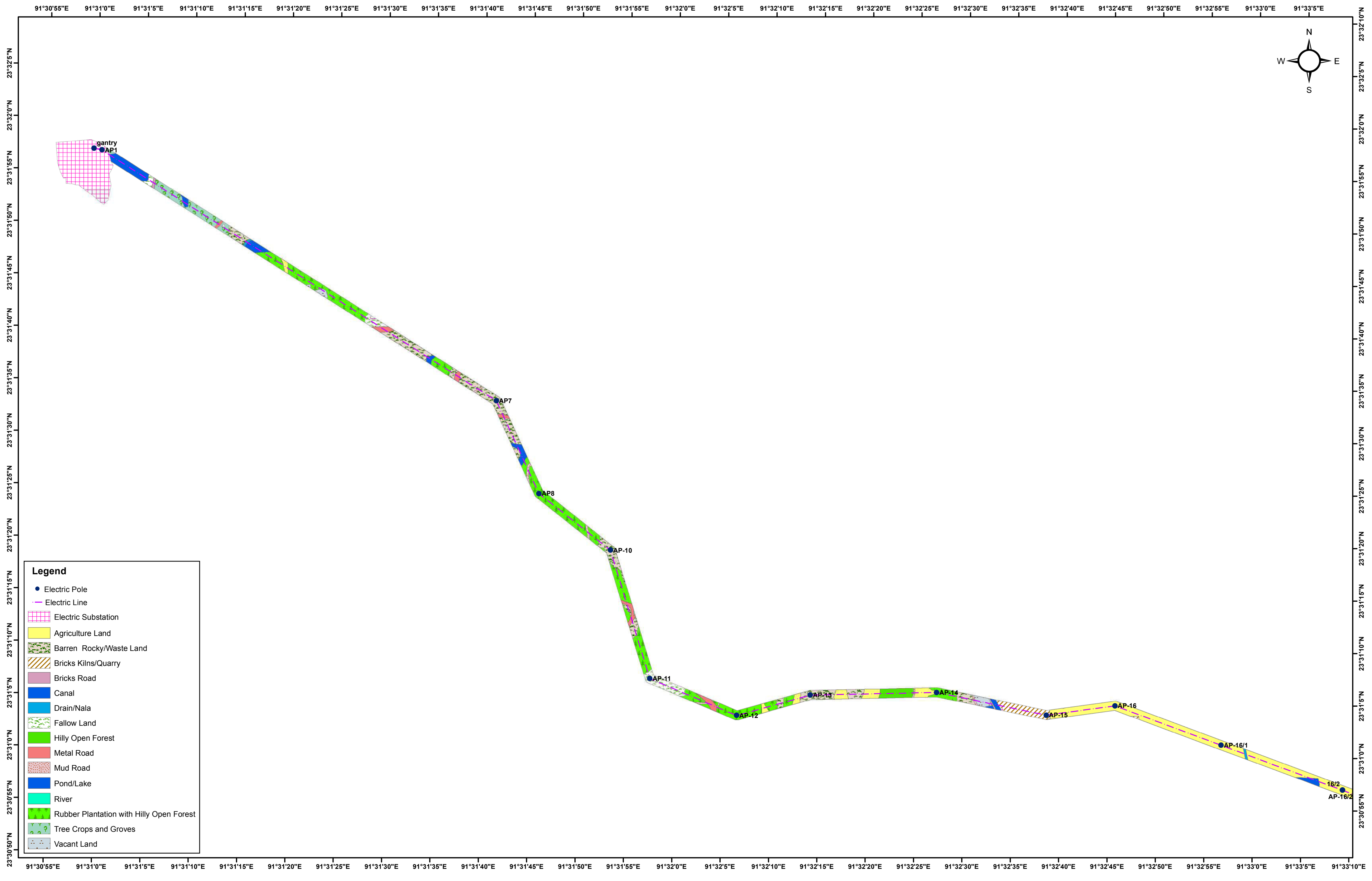


Annexure B4

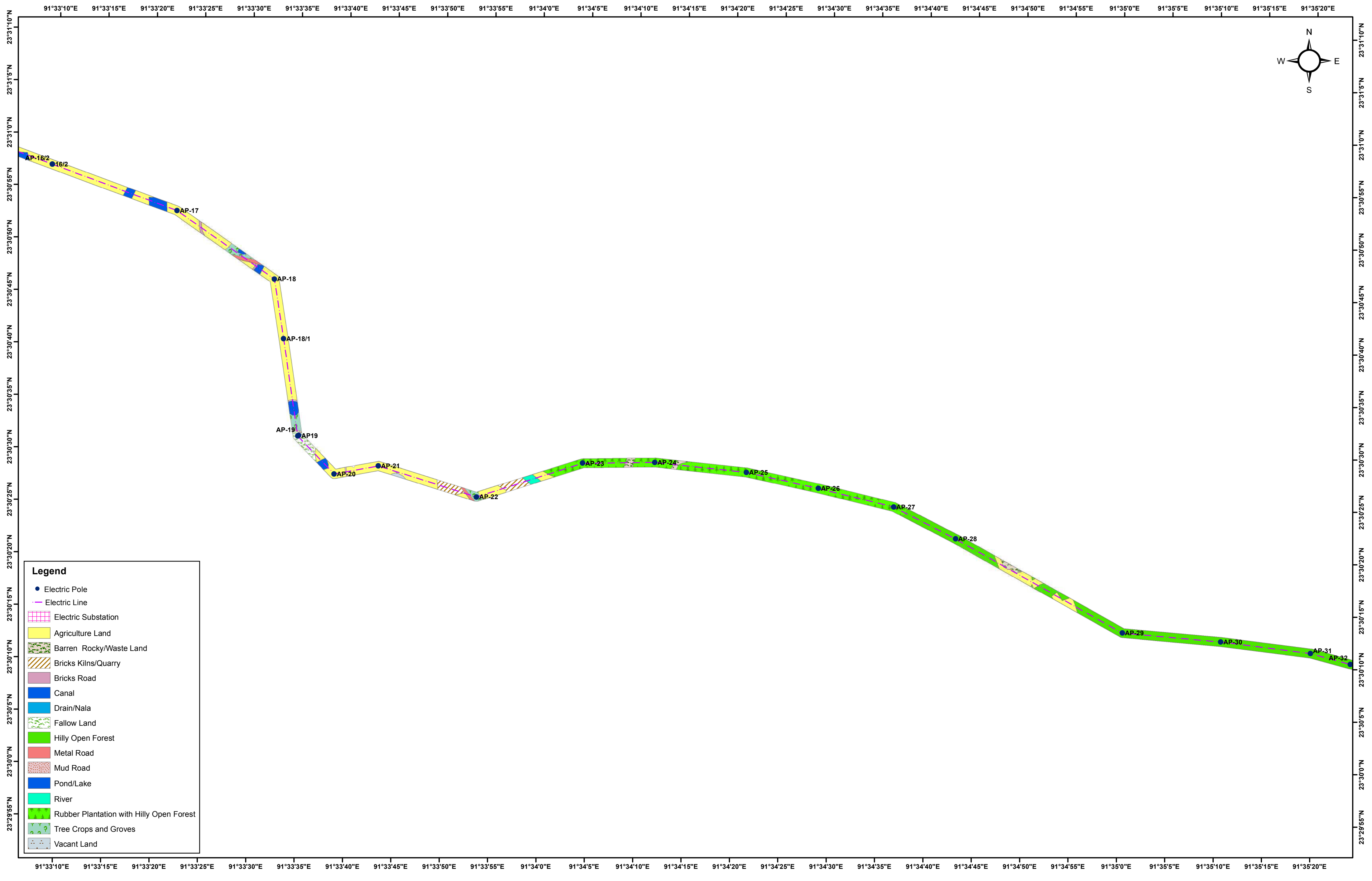
AP_No	Ground Elevation Of EP	EP Fall in Feature	Rock_Type	Rock_Type2	Landslide Study	Flood Study	Hazard Type
GANTRY	35	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-1	32	Tree Crop and Groves	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-2	38	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-3	30	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-4	25	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-5	30	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-6	38	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-8	35	Tree Crop and Groves	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-9	30	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-10	28	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	Moderate Flood	Wind Storm and Flood
AP-11	28	Vacant Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-12	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-13	22	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-14	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-15	21	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-16	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-17	20	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-18	15	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-19	12	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-20	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-21	16	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	High Flood	Wind Storm and Flood
AP-22	16	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-23	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-24	26	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-25	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-26	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-27	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-28	28	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-29	26	Metal Road	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-30	34	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-31	24	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-32	20	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-33	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-33A	14	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-33B	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-33C	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-34	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-35	26	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood	Wind Storm and Flood
AP-36	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood	Wind Storm and Flood
AP-37	38	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-38	36	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-39	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood	Wind Storm and Flood
AP-40	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-41	47	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-42	38	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-42A	52	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-43	33	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm

AP-44	43	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-45	39	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-46	40	Barren/Rocky with Scrub Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-47	35	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-48	30	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-49	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-50	26	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-51	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-52	25	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-53	30	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-54	20	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-55	25	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-56	24	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-57	26	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-58	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-59	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-60	21	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-61	19	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	None Earthquake and Wind Storm
AP-62	23	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	None Earthquake and Wind Storm
AP-63	14	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-64	26	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-65	45	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-66	33	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-67	35	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-68	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-69	36	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-70	37	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-71	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-72	31	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
GANTRY	39	Electric Substation	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm

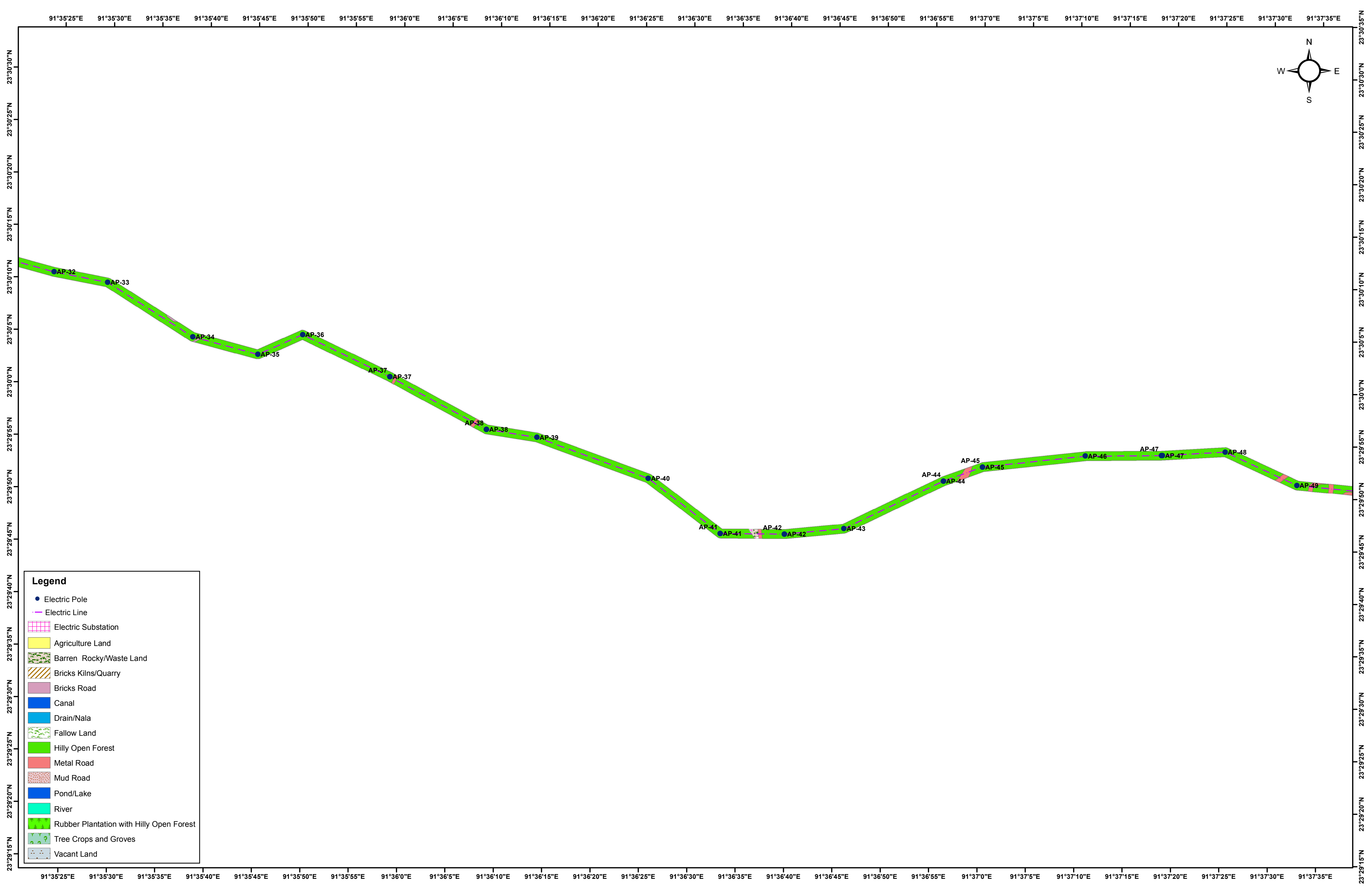
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



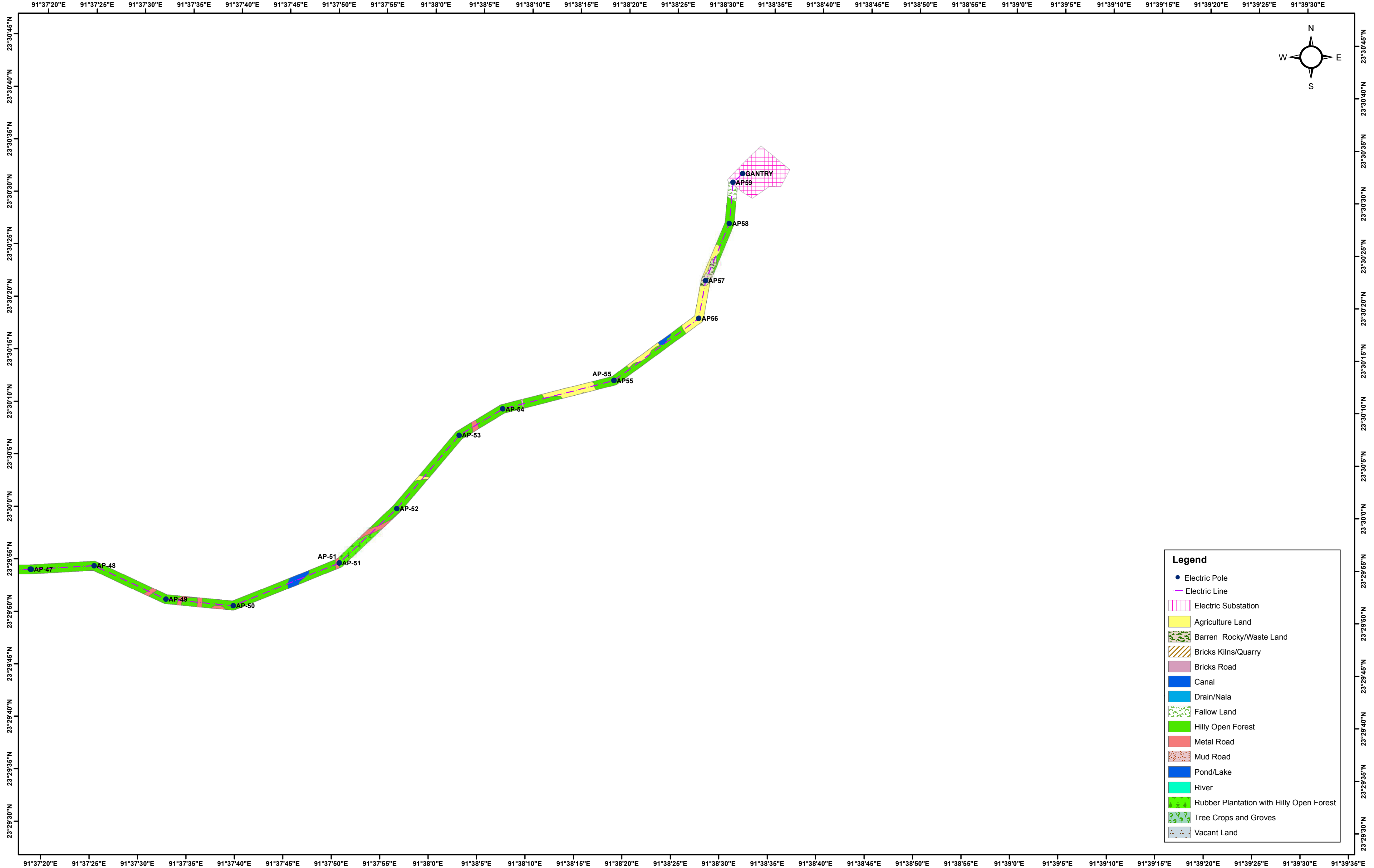
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
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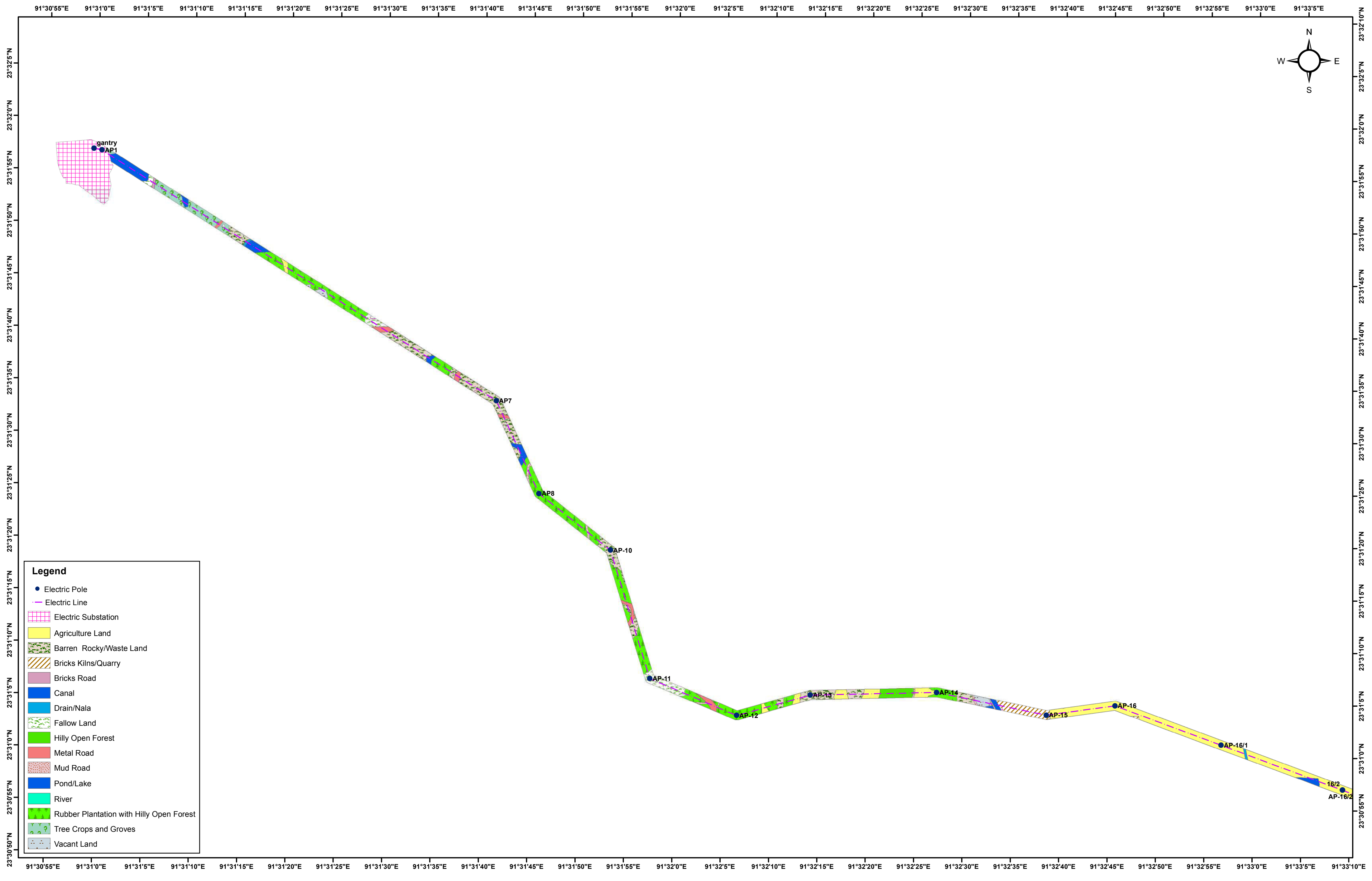


Annexure B5

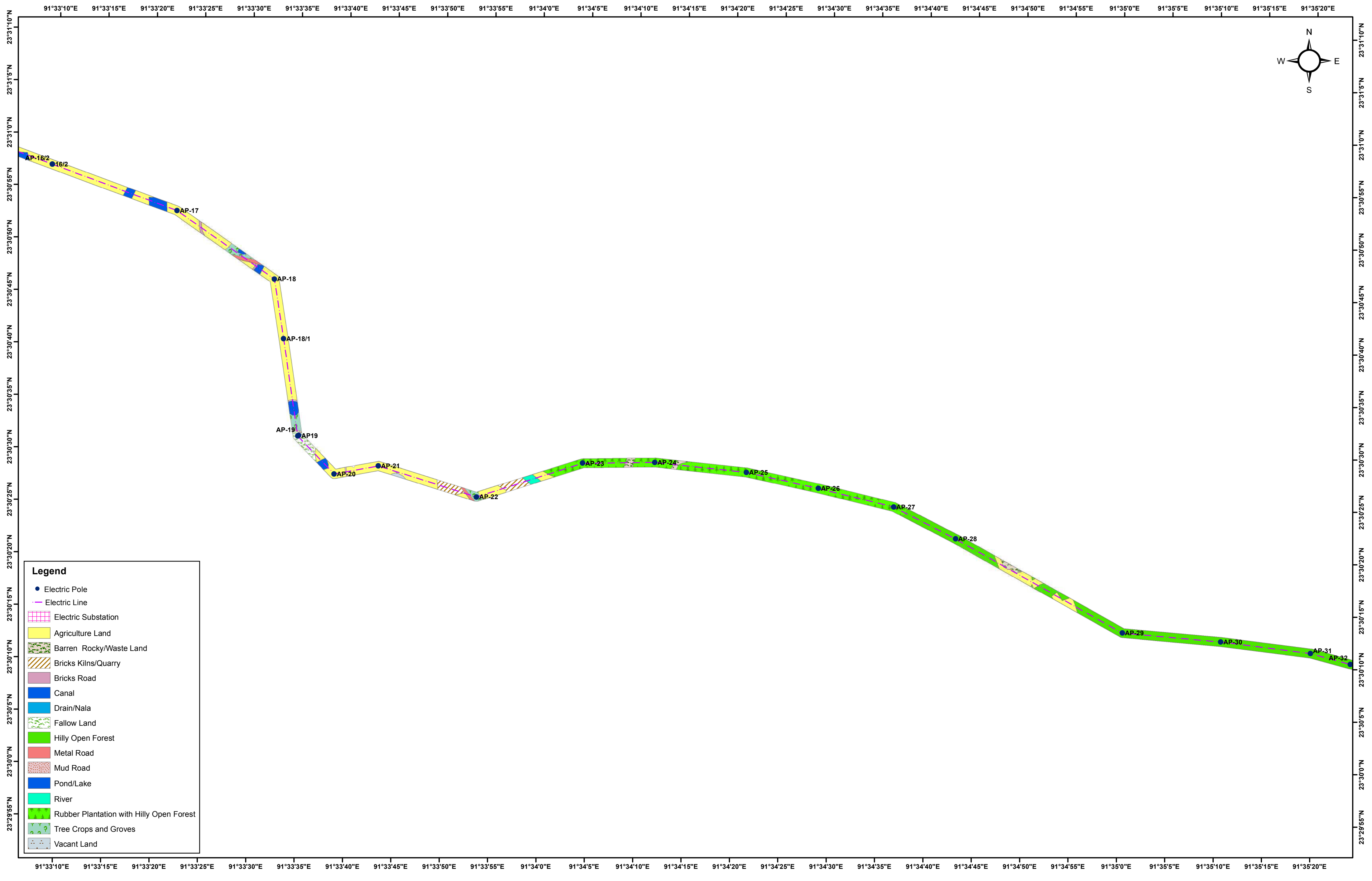
[illegible]

AP-31	122 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Low Landslide	Medium Flood Prone	Earthquake, Flood & Wind
AP-32	118 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Low Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-33	106 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Low Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-34	113 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-35	114 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-36	117 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-37	113 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-38	140 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-39	128 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-40	141 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-41	155 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-42	155 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-43	153 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-44	156 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-45	147 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-46	140 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-47	132 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind

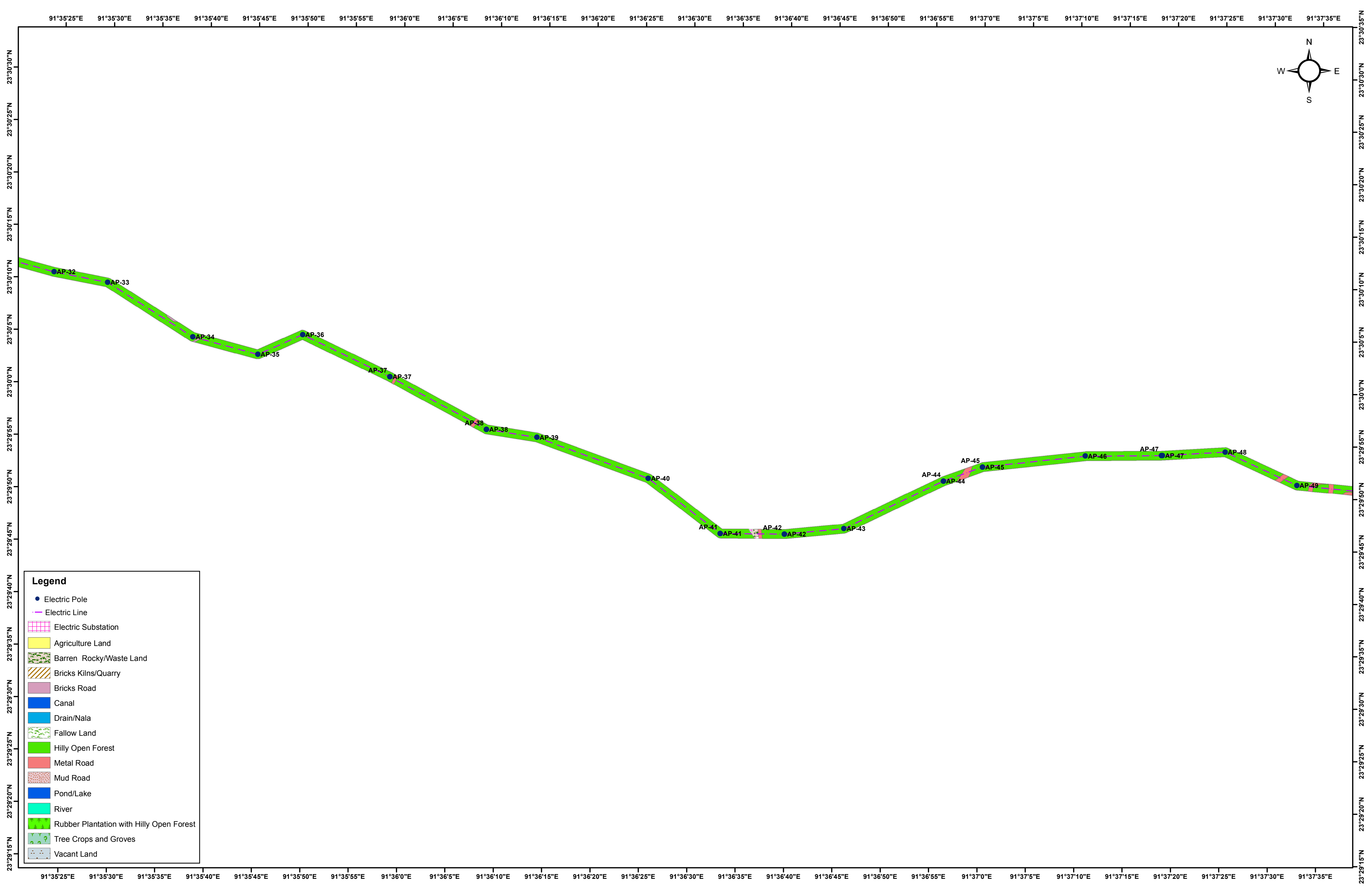
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



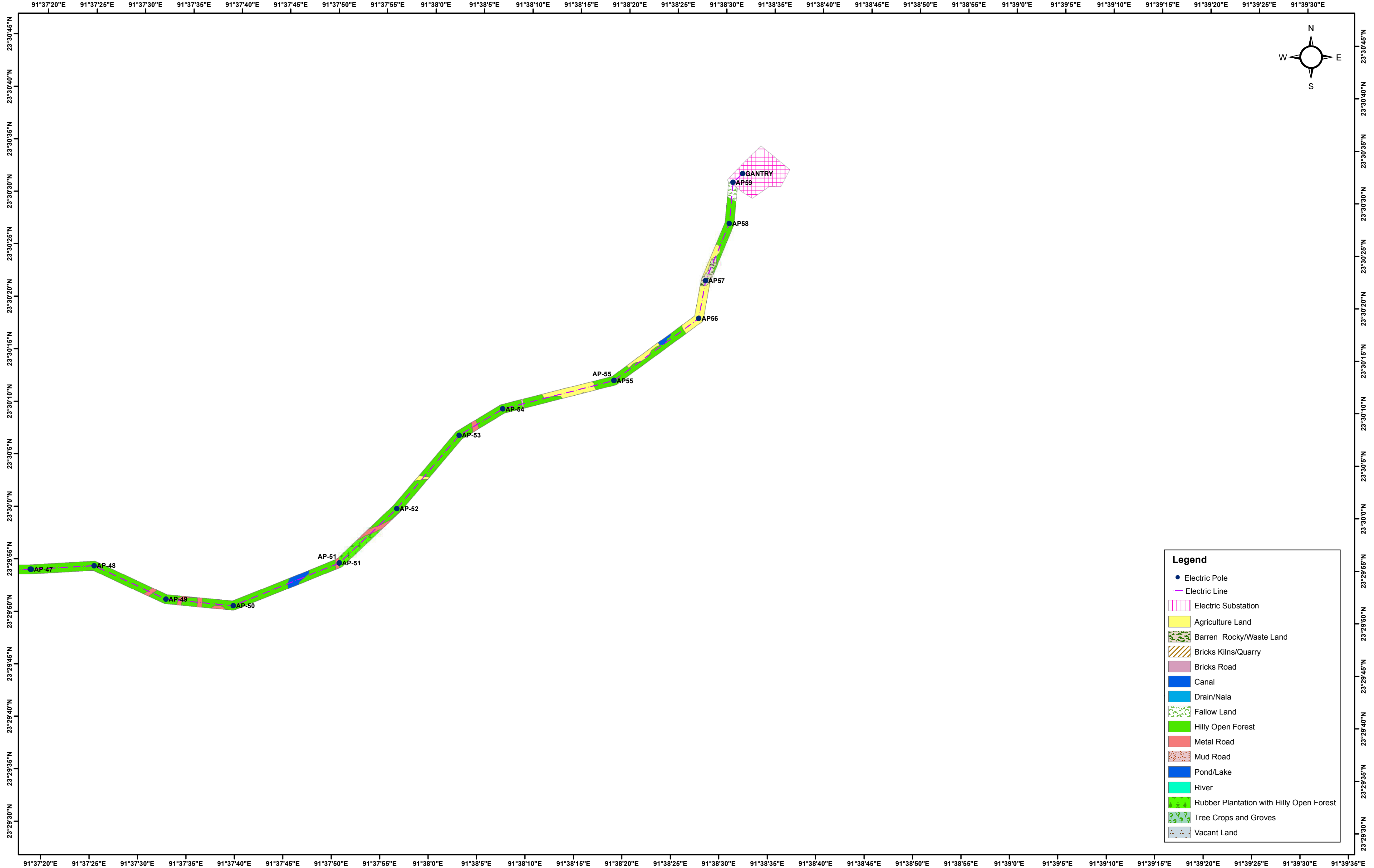
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CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
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CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



Appendix

Appendix A

Environmental Monitoring Reports

A. Water Quality Reports:

MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE

TEST RESULTS OF WATER SAMPLE (SATCHAND S/S)

Source : Work Site
Date of sampling : 08.01.18
I/Mark : NEAGT/NERPSIP-3000/water/2
Period of testing : 09.01.18 to 12.01.18

Physical Parameters:

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.7	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Unobjectionable	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	48 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	24 mg/l	-
7.	Dissolved solids	IS 3025 (Pt- 16)	25 mg/l	-

Chemical Parameters

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	43 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	32 mg/l as CaCO ₃	-
3	Chloride	IS 3025 (Pt - 32)	37 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	43 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.5 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.1 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.

----- End of report -----

Authorized Signatory
Authorized Signatory
Material Testing Laboratory &
Quality Management Centre

Testing Officer
Testing Officer
MTL & QMC

Page 3 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
Tel & Fax : 03842-224572 :: M : 9435503592 :: e-mail: ms.nikhileshpaul@rediffmail.com

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MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE
TEST RESULTS OF WATER SAMPLE (BELONIA S/S)

Source: Work site

I/Mark: NEAGT/NERPSIP-3000/water/1

Date of sampling: 08.01.18

Period of testing: 09.01.18 to 12.01.18

Physical Parameters:

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.4	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	44 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	24 mg/l	—
7.	Dissolved solids	IS 3025 (Pt- 16)	20 mg/l	—

Chemical Parameters

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	48 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	34 mg/l as CaCO ₃	—
3	Chloride	IS 3025 (Pt - 32)	42 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	45 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.2 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.12 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.

(Signature)
Testing Officer
Testing Officer
MTL & QMC

Page 2 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
Tel & Fax : 03842-224572 :: M : 9435503592 :: e-mail: ms.nikhileshpaul@rediffmail.com

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MATERIAL TESTING LABORATORY & QUALITY MANACEMENT CENTRE

TEST RESULTS OF WATER SAMPLE (BAGAF A S/S)

Source: Work site

I/Mark: NEAGT/NERPSIP-350/water/1

Date of sampling: 15.02.18

Period of testing: 16.02.18 to 20.02.18

Physical Parameters:

SL No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.6	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	42 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	20 mg/l	—
7.	Dissolved solids	IS 3025 (Pt- 16)	22 mg/l	—

Chemical Parameters

SL No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	46 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	36 mg/l as CaCO ₃	—
3	Chloride	IS 3025 (Pt - 32)	45 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	48 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.1 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.14 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.

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Testing Officer
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MTL & QMC

Page 2 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
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MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE

Format No. MTL/45

TEST RESULTS OF WATER SAMPLE (UDAIPUR EXTN. S/S)

Source: Work site

Sample supplied: 1 Sealed bottle

Date of sampling: 07.04.18

Period of testing: 08.04.18 to 12.04.18

I/Mark: NEAGT/NERPSIP-350/water/1

Physical Parameters:

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.7	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	46 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	24 mg/l	-
7.	Dissolved solids	IS 3025 (Pt- 16)	22 mg/l	-

Chemical Parameters

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	45 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	36 mg/l as CaCO ₃	-
3	Chloride	IS 3025 (Pt - 32)	48 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	46 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.1 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.13 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.


Testing Officer
 Testing Officer
 MTL & QMC

Page 2 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
 Tel & Fax : 03842-224572 :: M : 9435503592 :: e-mail: ms.nikhileshpaul@rediffmail.com

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MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE

TEST RESULTS OF WATER SAMPLE (SABROOM S/S)



Source : Work Site

Date of sampling : 23.06.18

I/Mark : NEAGT/NERPSIP-350/water/1

Period of testing : 25.06.18 to 27.06.18


Physical Parameters:

Sl No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.8	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	47 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	22 mg/l	-
7.	Dissolved solids	IS 3025 (Pt- 16)	25 mg/l	-

Chemical Parameters

Sl No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	41 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	34 mg/l as CaCO ₃	-
3	Chloride	IS 3025 (Pt - 32)	40 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	45 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.1 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.10 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.


Authorized Signatory
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Material Testing Laboratory &
Quality Management Centre

Page 2 of 2


Testing Officer
Testing Officer
MTL & QMC

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar,
Assam Tel & Fax : 03842-224572 :: e-mail: ms.nikhileshpaul@rediffmail.com

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Received S.I. No. 301
dt. 16/10/2018

REGISTERED OFFICE
507 Eros Apartments, 56 Nehru Place
New Delhi-110 019, India
Tel : +91-11-26411931, 26415961
Fax : + 91-11-26221521
Email : info@technofabengineering.com
CIN:L74210DL1971PLC005712

**TECHNOFAB
ENGINEERING LIMITED**

Letter Ref. no.: PGCIL/DMS04/Technofab/2018-19/

Date: Oct 16, 2018

To,
The Deputy General Manager,
Powergrid Corporation of India Limited
Rammagar-6 (3rd Crossing)
Agartala 799002

Kind Attn.: Shri S. I. Singh

NOA No.: CC-CS/86-NER/REW-2987/1/G2/NOA-I&II/7147&7148 DT: Feb.27.2017 (DMS 04)

Subject: Reason for not testing of drinking water supplied to the workers & staff at all sites

Dear Sir,

This is for your kind information that, we are purchasing 20 liter package drinking Water available in the market and supplying them to all worker and staff at the site. Therefore we are not testing the drinking water which is supplied to them. We are enclosing the bills of drinking water that is supplied to all the workers and staffs.

Thank you and assuring you the best service ever.

For Technofab Engineering Limited

M K Rai
16/10/18
M K RAI
(Astt. General Manager)

Rahul Misra
for H.K.

Ja
20/10/18

Rahul
24/10/2018

Encl.: The bills of the mineral water that is supplied to the workers and staffs in the sites.

B. Noise Monitoring – Jan to March 2020



Ref. No: SPML/0216/OC-242 TO 247/A-01/TRIPURA /UDP- 141

Date: 02/05/2020

To

SR. General Manager
Power Grid Corporation of India Ltd.,
Ramnagar – 6th Lane, 3rd Crossing,
Agartala, Tripura (West) – 799002

Ref. No.:
1. CC-CS/86-NER/SS-2651/1/G1/CA-I/7070 Dated: 02.12.2016
2. CC-CS/86-NER/SS-2651/1/G1/CA-II/7071, Dated: 02.12.2016
3. CC-CS/86-NER/SS-2652/1/G1/CA-I/7072, Dated: 02.12.2016
4. CC-CS/86-NER/SS-2652/1/G1/CA-II/7073, Dated: 02.12.2016

Subject: Submission of EHS Noise test Records of NERPSIP Sub-station Tripura.

Dear Sir,

With reference to the above subject, we are here by submitting documents related to EHS Noise test report as per safety plan the details of month mention below for respective site. This is for your acceptance.

Details of Noise report submission				
Sl. NO	NAME OF SUB-STATION	JAN-2020	FEB-2020	MARCH-2020
1	UDAIPUR	YES	YES	YES
2	AMARPUR	NO	NO	NO
3	BELONIA	YES	YES	YES
4	BAGAFI	YES	YES	NO
5	SABROOM	YES	YES	YES
6	SATCHAND	YES	YES	YES

Thanking you and assuring you our best services at all times.

Yours faithfully,



For SPML Infra Limited
(Authorized Signatory)

SPML INFRA LIMITED

CIN : L40108DL1981PLCO12228
22, Canal Street, Block - A, 3rd Floor, Kolkata - 700 016
Tel : 91-033-4099 1200, Fax No : 033- 4099 1303
E-mail : info@spml.co.in, Website : www.spml.co.in
Regd. Office : F-27/2, Okhla Industrial Area, Phase II,
New Delhi-110020



SPML Engineering Life

C/O: Power Grid Corporation of India Limited

Noise Test Report

(132/33/11KV Sub-Station:- UDAIPOK) Month:- 4th JAN-2020

Sl.No.	Noise Reading						Remarks
	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	-	-	-	-	-	-	The Noise level observed below allowable maximum limit which is 90 db for 8 hr shift work
2ND	41.07 41.02 39.08	40.09db	58.09 55.04 60.02	58.16db	-	-	
3RD	-	-	-	-	-	-	
4TH	39.02 42.01 42.02	41.34db	59.02 59.08 61.02	60.06db	-	-	Working Area

Reading Taken By: RATNESH MISHRA [SPML] Site Incharge: [Signature] Power Grid Engineer: [Signature]

(Stamps: SPML INFRATEL TRIPIURA, POWER GRID ENGINEER, NERPSIP, AGARTALA)

SPML Engineering Life

C/O: Power Grid Corporation of India Limited


Noise Test Report




(132/33/11KV Sub-Station:- BOLONIA) Month:- JAN. 2020


Sl.No.	Noise Reading						Remarks
	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	-	-	-	-	-	-	The Noise level observed below allow maximum limit which is 90 db for 8 hr shift work
2ND	41.04 40.02 39.09	40.05db	58.09 57.04 60.01	58.08db	-	-	
3RD	-	-	-	-	-	-	
4TH	-	-	-	-	-	-	Working Area




Reading Taken By: RATNESH MISHRA [SPML] Site Incharge: [Signature] Power Grid Engineer: [Signature]






(Stamps: SPML INFRATEL TRIPIURA, POWER GRID ENGINEER, NERPSIP, AGARTALA)






 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>Barpara</u>						Month:- <u>JAN-2020</u>	
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	41.02	42.66db	58.09	58.98db	—	—	This noise level observed below allowable maximum limit which is 90 db for 08 Hrs Safe Working Area.
	44.08		59.01		—		
	40.02		59.08		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	38.04	38.91db	57.04	58.05db	—	—	
	39.04		57.09		—		
	39.01		60.02		—		
Reading Taken By: <u>RAMESH MISHRA [SPML]</u>				Site Incharge		Power Grid Review	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>Subyotin</u>						Month:- <u>JAN-2020</u>	
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	This noise level observed below allow maximum limit which is 90 db for 08 Hrs working Area.
	—		—		—		
	—		—		—		
2ND	41.09	41.03db	59.09	61.08db	—	—	
	40.09		62.04		—		
	40.08		63.01		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	40.09	40.09db	62.02	61.96db	—	—	
	41.07		61.04		—		
	40.01		61.08		—		
Reading Taken By: <u>RAMESH MISHRA [SPML]</u>				Site Incharge		Power Grid Review	






 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11KV Sub-Station:- <u>Sakardand</u>)						Month:- <u>JAN-2020</u>	
S.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines		Total Average Reading
1ST	—	—	—	—	—	—	This Noise level observed is below allowable maximum limit which is 90 db for 8 hrs working area
2ND	49.09 50.02 50.04	50.15db	59.06 59.01 60.02	59.66db	—	—	
3RD	—	—	—	—	—	—	
4TH	40.07 38.04 41.03	40.15db	62.04 62.01 58.09	61.35db	—	—	 Reading Taken By: <u>RATNESH MEHRA</u>  Site Incharge: <u>[Signature]</u>  Power Grid Incharge: <u>[Signature]</u> 
	—	—	—	—	—	—	
	—	—	—	—	—	—	


 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/10KV Sub-Station:- <u>Udaipur</u>)						Month:- <u>FEB-2020</u>	
S.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines		Total Average Reading
1ST	—	—	—	—	—	—	This Noise level observed below allowable maximum limit which is 90 db for 8 hrs safe working area
2ND	42.06 39.08 39.07	40.05db	55.09 58.02 58.05	57.52db	—	—	
3RD	—	—	—	—	—	—	
4TH	—	—	—	—	—	—	 Reading Taken By: <u>RATNESH MEHRA (same)</u>  Site Incharge: <u>[Signature]</u>  Power Grid Incharge: <u>[Signature]</u> 
	—	—	—	—	—	—	
	—	—	—	—	—	—	


SPML Engineering Life							Remarks
C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- <u>Bokaria</u>						Month:- <u>Feb-2020</u>	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	40.04	40.03db	65.02	65.01db	—	—	This noise level observed below allowable maximum limit which is 90 db for 05 hrs safe working area
	41.03		66.08		—		
	39.02		64.03		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	39.03	39.03db	69.02	66.09db	—	—	
	40.03		65.08		—		
	39.07		65.07		—		
Reading Taken By: <u>RATNESH MISHRA [SPML]</u>			Site Incharge <u>[Signature]</u>		Power Grid Incharge <u>[Signature]</u>		









SPML Engineering Life							Remarks
C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- <u>132/33/11 KV Bagra</u>						Month:- <u>Feb-2020</u>	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	39.02	39.03db	52.04	54.76db	—	—	This noise level observed below allowable maximum limit which is 90 db for 05 hrs safe working area
	39.08		56.07		—		
	40.01		55.02		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	38.04	38.66db	60.03	60.46db	—	—	
	39.02		61.08		—		
	38.01		59.03		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken By: <u>RATNESH MISHRA [SPML]</u>			Site Incharge <u>[Signature]</u>		Power Grid Incharge <u>[Signature]</u>		









 S P M I Engineering Life							
C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- <u>Sakond</u>					Month:- <u>Feb-2020</u>		
Sl.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines		Total Average Reading
1ST	—	—	—	—	—	—	This noise limit observed below allow maximum limit which is 90 db for 08 Hrs working
2ND	—	—	—	—	—	—	
3RD	—	—	—	—	—	—	
4TH	41.08 40.02 40.01	40.09 db	60.09 60.04 62.07	62 db	—	—	 Reading Taken By: <u>RATNESH MISHRA (SPMI)</u>  Site Incharge: <u>[Signature]</u>  Power Grid Review: <u>[Signature]</u> 

 S P M I Engineering Life							
C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- <u>Sakond</u>					Month:- <u>Feb-2020</u>		
Sl.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines		Total Average Reading
1ST	—	—	—	—	—	—	This noise limit observed below allow maximum limit which is 90 db for 08 Hrs working Area.
2ND	—	—	—	—	—	—	
3RD	—	—	—	—	—	—	
4TH	38.04 39.01 39.04	38.98 db	60.04 61.08 60.06	60.09 db	—	—	 Reading Taken By: <u>RATNESH MISHRA (SPMI)</u>  Site Incharge: <u>[Signature]</u>  Power Grid Review: <u>[Signature]</u> 

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>KADAM Belong</u>						Month:- MARCH-20	
Sl.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	39.24	40.56 db	56.08	53.46 db	—	—	The noise level observed is below allowable maximum limit which is 90 db for 08 hrs safe working Area.
	40.04		56.02		—		
	41.04		59.04		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY: RATNESH MISHRA			Site Incharge RABIN DAS (SR. PM)			Power Grid Review Rahul Sr. Engineer in Charge District POWERGRID NERPSIP, Tripura	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>SADROOM</u>						Month:- MARCH-20	
Sl.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	This noise level observed attains maximum limit which is 90 db for 08 hrs working Area.
	—		—		—		
	—		—		—		
2ND	42.08	49.86 db	62.03	64.86 db	—	—	
	48.06		65.04		—		
	49.02		66.09		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY: RATNESH MISHRA			Site Incharge RABIN DAS (SR. PM)			Power Grid Review Rahul Sr. Engineer in Charge District POWERGRID NERPSIP, Tripura	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- UDAIPUR						Month:- MARCH-20	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	41.04	41.09 db	58.07	60.36 db	-	-	This Noise level observed below allowed maximum limit which is 90 db for 08 hrs working area. 
	41.09		59.08		-		
	42.04		62.04		-		
2ND	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
3RD	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
4TH	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
Reading Taken BY: RATNESH MISHRA				Site Incharge RABIN DAS (SR. PM)		Power Grid Review	
 				 		 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- MARCH-20	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	-	-	-	-	-	-	This Noise level observed below allowable maximum limit which is 90 db for 08 hrs working area. 
	-		-		-		
	-		-		-		
2ND	42.04	42.02 db	62.04	64.63 db	-	-	
	41.03		65.08		-		
	42.07		65.07		-		
3RD	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
4TH	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
Reading Taken BY: RATNESH MISHRA				Site Incharge RABIN DAS (SR. PM)		Power Grid Review	
 				 		 	

Noise Monitoring – Jan to March 2019

Received 13/04/19 488



Ref. No: SPML/0216/OC-242 TO 247/A-01/TRIPURA /UDP-

Date:-10-04-2019

To

General Manager
Power Grid Corporation of India Ltd.,
Ramnagar – 6th Lane, 3rd Crossing,
Agartala, Tripura (West) – 799002

Ref. No. :
1. CC-CS/86-NER/SS-2651/1/G1/CA-I/7070 Dated: 02.12.2016
2. CC-CS/86-NER/SS-2651/1/G1/CA-II/7071, Dated: 02.12.2016
3. CC-CS/86-NER/SS-2652/1/G1/CA-I/7072, Dated: 02.12.2016
4. CC-CS/86-NER/SS-2652/1/G1/CA-II/7073, Dated: 02.12.2016

Subject: Submission of EHS Noise test Records of NERPSIP Sub-station Tripura.

Dear Sir,

With reference to the above subject, we are here by submitting documents related to EHS Noise test report as per safety plan the details of month mention below for respective site. This is for your acceptance.

Details of Noise report submission

SL NO	NAME OF SUB-STATION	FEB-2019	MARCH-19
1	UDAIPUR	YES	YES
2	AMARPUR	YES	YES
3	BELONIA	YES	YES
4	BAGAFI	YES	YES
5	SABROOM	YES	YES
6	SATCHAND	YES	YES

Thanking you and assuring you our best services at all times.






Yours faithfully,







For SPML Infra Limited






SPML INFRA LIMITED


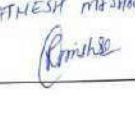
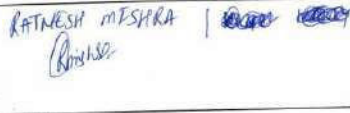
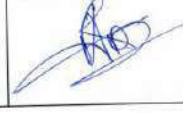
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22, Camac Street, Block - A, 3rd Floor, Kolkata - 700 016
Tel : 91-033-4009 1200, Fax No. : 033- 4009 1303
E-mail : info@spml.co.in, Website : www.spml.co.in
Regd. Office : F-27/2, Okhla Industrial Area, Phase-II
New Delhi-110020








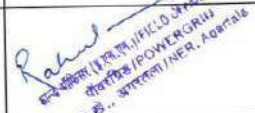
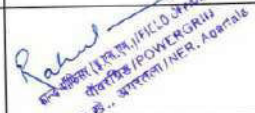





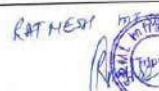





 C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- UDAIPUR						Month:- FEB-2019	
S.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines		Total Average Reading
1ST	39.4	39.73 db	45.4	47.16 db	—	—	This Noise level observed is below from allowable maximum limit which is 90 db for 8 hrs in the working area Ratnesh 
	39.7		48.3		—		
	40.1		47.8		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	40.3	39.2 db	48.7	47.66 db	—	—	
	38.4		48.9		—		
	38.9		45.4		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken By:			Site Incharge		Power Grid Review		
Ratnesh 					Ratnesh 		



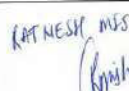



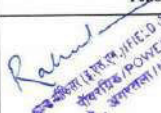

 C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- UDAIPUR						Month:- MARCH-2019	
S.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines		Total Average Reading
1ST	36.4	38.46 db	47.3	48.83 db	—	—	This Noise level observed is below from allowable maximum limit which is 90 db for 8 hrs in the working area RATNESH MISRA 
	39.7		49.9		—		
	39.3		49.3		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	40.1	40.7 db	48.3	47.66 db	—	—	
	40.4		45.3		—		
	41.6		49.4		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken By:			Site Incharge		Power Grid Review		
Ratnesh 					Ratnesh 		









 C/O: Power Grid Corporation of India Limited Noise Test Report									
(132/33/11)KV Sub-Station:- AMARPUR						Month:- MARCH-2019			
SNo.	Noise Reading					Remarks			
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines		Total Average Reading		
1ST	41.3	42.16db	48.9	49.76db	60.1	64.03db	The Noise level observed is below from allowable maximum limit which is 90 db for 08 hrs in the working Area. 		
	42.9		49.1		66.7				
	42.3		51.3		65.3				
2ND	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
3RD	39.2	39.96db	52.1	51.45	69.3	68.83db			
	42.7		50.7		68.3				
	37.9		50.2		68.9				
4TH	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
Reading Taken BY:			Site Incharge			Power Grid Review			
RATNESH MISHRA 						Ratnesh Mishra 33, 33, 11KV Sub-Station Gomati / POWERGRID Tripura, Agartala			







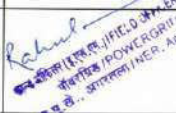

 C/O: Power Grid Corporation of India Limited Noise Test Report									
(132/33/11)KV Sub-Station:- AMARPUR						Month:- FEB-2019			
SNo.	Noise Reading					Remarks			
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines		Total Average Reading		
1ST	36.4	38.13db	50.9	51.43db	69.3	70.53db	This noise level observed is below from allowable maximum limit which 90 db for 08 hrs in the working Area. RATNESH MISHRA 		
	38.4		50.1		71.4				
	39.6		53.3		71.9				
2ND	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
3RD	37.4	40.43db	52.1	51.43db	68.3	70.86db			
	42.3		50.3		72.04				
	41.4		51.9		71.09				
4TH	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
Reading Taken BY:			Site Incharge			Power Grid Review			
RATNESH MISHRA 						Ratnesh Mishra 33, 33, 11KV Sub-Station Gomati / POWERGRID Tripura, Agartala			







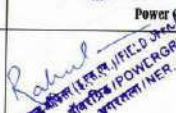

 SPML Engineering Life						
C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- BAGAJA						Month:- MARCH-2019
SLNo.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	
1ST	40.1	39.33 db	52.1	52.7 db	—	This Noise level observed is below from allowable maximum limit which is 90 db for 08 Hrs in the working Area.  
	38.1		52.04		—	
	39.8		52.6		—	
2ND	38.4	40.46 db	54.6	54.76 db	—	
	41.3		57.2		—	
	41.7		52.4		—	
3RD	—	—	—	—	—	
	—		—		—	
	—		—		—	
4TH	—	—	—	—	—	
	—		—		—	
	—		—		—	
Reading Taken BY:			Site Incharge		Power Grid Review	
 			 		 	









 SPML Engineering Life						
C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- BELONIA						Month:- MARCH-2019
SLNo.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	
1ST	—	—	—	—	—	This Noise level observed is below from allowable maximum limit which is 90 db for 08 Hrs working area.  
	—		—		—	
	—		—		—	
2ND	—	—	—	—	—	
	—		—		—	
	—		—		—	
3RD	—	—	—	—	—	
	—		—		—	
	—		—		—	
4TH	38.1	38.7 db	49.3	51.16 db	—	
	38.7		52.4		—	
	39.3		51.0		—	
Reading Taken BY:			Site Incharge		Power Grid Review	
 			 		 	









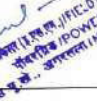
 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- BELONIA						Month:- FEB-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	38.1	38.6 db	51.3	50.43 db	—	—	This Noise Level observed is below from allowable maximum limit i.e. 90 db for 8 Hrs in the working Area 
	38.4		49.8		—		
	39.3		50.2		—		
2ND	38.9	38.53 db	47.9	50.33 db	—	—	
	37.4		52.3		—		
	39.3		51.4		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY:				Site Incharge		Power Grid Review	
 				 		 	






 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- FEB-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	42.1	41.1 db	49.3	52.08 db	—	—	This Noise Level observed is below from allowable maximum limit i.e. 90 db for 8 Hrs in the working Area 
	40.8		54.5		—		
	40.4		54.6		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	36.5	37.9 db	54.3	55.3 db	—	—	
	38.3		56.4		—		
	38.9		55.2		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY:				Site Incharge		Power Grid Review	
 				 		 	






 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- MARCH-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	
	—	—	—	—	—	—	
	—	—	—	—	—	—	
2ND	—	—	—	—	—	—	This Noise level observed is below from 90 db for 08 Hrs
	—	—	—	—	—	—	
	—	—	—	—	—	—	
3RD	—	—	—	—	—	—	Working Area 
	—	—	—	—	—	—	
	—	—	—	—	—	—	
4TH	39.4 38.3 37.4	38.36 db	52.1 52.3 53.4	52.93 db	—	—	
Reading Taken BY:			Site Incharge			Power Grid Review	
 			 			 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SABROOM						Month:- MARCH-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	
	—	—	—	—	—	—	
	—	—	—	—	—	—	
2ND	—	—	—	—	—	—	
	—	—	—	—	—	—	
	—	—	—	—	—	—	
3RD	—	—	—	—	—	—	This Noise level observed is below from allowable maximum limit which is 90 db for 08 Hrs Working Area
	—	—	—	—	—	—	
	—	—	—	—	—	—	
4TH	39.4 38.3 38.1	38.66 db	52.3 53.4 54.1	52.26 db	—	—	
Reading Taken BY:			Site Incharge			Power Grid Review	
 			 			 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SABROOM						Month:- FEB-2019	
SNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	This noise level observed is below from allowable maximum limit which is 90 db for 8 hrs working hrs
2ND	37.3	38.73 db	39.3	50.7 db	—	—	
	38.4		55.4		—	—	
	38.5		53.4		—	—	
3RD	—	—	—	—	—	—	
4TH	—	—	—	—	—	—	
	—	—	—	—	—	—	
Reading Taken BY:			Site Incharge			Power Grid Review	
 			 			  RAMESH SIKHA Jt. Manager (T&D) / Jt. Manager (NER, Agartala)	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- BAGAFI						Month:- FEB-2019	
SNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	42.1	38.93 db	55.1	52.6 db	—	—	This noise level observed is below from allowable maximum limit which is 90 db for 8 hrs in the working hrs
	37.3		50.3		—	—	
	37.4		52.4		—	—	
2ND	36.4	38.23 db	50.9	52.3 db	—	—	RAMESH SIKHA 
	39.5		54.3		—	—	
	38.8		51.7		—	—	
3RD	—	—	—	—	—	—	
4TH	—	—	—	—	—	—	
	—	—	—	—	—	—	
Reading Taken BY:			Site Incharge			Power Grid Review	
 			 			  RAMESH SIKHA Jt. Manager (T&D) / Jt. Manager (NER, Agartala)	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- BELONIA						Month:- SEP-19	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	36.05	36.94db	48.05	49.45	—	—	This noise level observed is below from allowable maximum limit which is 90db for 08 Hrs in the working Area. 
	36.09		48.06		—		
	37.05		49.09		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY: RATNESH MISRA [SPML] 			Site Incharge RABIN DAS [SPML] 			Power Grid Review Rahul 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- OCT-19	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	40.05	40.93db	59.09	51.93db	—	—	The noise level observed is below from allowable maximum limit 90db for 08 Hrs working Area. 
	41.07		51.06		—		
	40.06		51.08		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	39.07	39.73db	50.06	53.06db	—	—	
	39.02		54.09		—		
	40.03		53.07		—		
Reading Taken BY: RATNESH MISRA [SPML] 			Site Incharge RABIN DAS [SPML] 			Power Grid Review Rahul 	

C. Soils Taxonomic Classification in Project Districts

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
1	Deep, somewhat excessively drained, loamy skeletal soils on very steeply sloping side slopes of high relief structural hills having loamy surface with very severe erosion hazard	Loamy skeletal Typic Dystrochrepts Fine loamy Typic Dystrochrepts	32.9	3.1
	Associated with: Deep to very deep, well drained, fine loamy soils on steeply sloping ridges with severe erosion hazard			
2	Deep to very deep, somewhat excessively drained, fine loamy skeletal soils on steeply sloping hill summits having loamy surface with severe erosion hazard	Fine loamy Typic Udorthents Fine loamy Typic Dystrochrepts	42.6	4.1
	Associated with: Deep, somewhat excessively drained, fine loamy soils on side slopes of high relief structural hill with severe erosion hazard and slight stoniness			
3	Deep, well drained, loamy skeletal soils on steeply sloping side slopes of high relief structural hills having loamy surface with very severe erosion hazard and moderate stoniness	Loamy skeletal Typic Dystrochrepts Fine loamy Typic Haplumbrepts	10.9	1.0
	Associated with: Deep to very deep well drained, fine loamy soils on moderately steeply sloping hill summit with severe erosion hazard and slight stoniness	Fragmental Lithic Udorthents		
4	Deep to very deep, well drained, fine loamy soils on moderately dissected side slopes of ridges having loamy surface with severe erosion hazard	Fine loamy Typic Hapludults Fine loamy Umbric Dystrochrepts	63.1	6.0
	Associated with: Deep, somewhat excessively drained, fine loamy soils on moderately steeply sloping ridge top with moderate erosion hazard and slight stoniness			
5	Very deep, excessively drained, Coarse loamy soils on the slopes of moderately sloping medium relief having loamy surface with severe erosion hazard	Coarse loamy Typic Udorthents Loamy over sandy Typic Dystrochrepts Fine Loamy Typic Dystrochrepts	20.2	1.9
	Associated with: Deep, well drained, loamy over sandy soils on moderately sloping side slopes of the hills with moderate erosion hazard			
6	Deep, well drained, fine loamy soils on the side slopes of parallel ridges, moderately steeply sloping having loamy surface with severe erosion hazard	Fine Typic Dystrochrepts Coarse loamy over sandy Typic Udorthents Fine loamy Typic Hapludults	58.8	5.6
	Associated with: Deep, well drained, coarse loamy over sandy soils on steeply sloping side slopes of the hills with moderate erosion hazard			
7	Very deep, well drained, fine loamy soils on the moderately steeply sloping hill top having loamy surface with severe erosion hazard	Fine loamy Typic Dystrochrepts Fragmental lithic Udorthents Fine loamy Typic Haplumbrepts	39.6	3.8
	Associated with: shallow, well drained, fragmental soils very steeply sloping parallel ridges, with severe erosion hazard and severe stoniness			
8	Deep to very deep, excessively drained, fine loamy soils on the moderately sloping side slopes of medium relief parallel ridges having loamy surface with severe erosion hazard and slight stoniness	Fine loamy Typic Dystrochrepts Fine loamy Typic Haplumbrepts	23.4	2.2

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	Associated with: Deep, well drained, fine loamy soils on moderately sloping side slopes of the hills with moderate erosion hazard	Coarse loamy Typic Udorthents		
9	Deep, somewhat excessively drained, fine loamy soils on the steeply sloping hill top having loamy surface with severe erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Udorthents	10.2	1.0
	Associated with: moderately Deep, excessively drained, coarse loamy soils on steeply sloping side slopes of the hills with severe erosion hazard and slight stoniness	Fine loamy Typic Hapludults		
10	Deep to very deep, well drained, fine loamy soils on the moderately steeply sloping hill top having loamy surface with moderate erosion hazard	Fine Typic Dystrochrepts Fine loamy Typic Dystrochrepts	31.2	3.0
	Associated with: Deep, well drained, fine loamy soils on gently sloping side slopes with moderate erosion hazard	Fine loamy Typic Paleudults		
11	Very deep, somewhat excessively drained, coarse loamy soils on moderately steeply sloping hill slopes having loamy surface with severe erosion hazard	Fine loamy Typic Udorthents Fine Loamy Typic Haplumbrepts	3.6	0.4
	Associated with: very Deep, well drained, fine loamy soils on moderately sloping hill top with moderate erosion hazard	Fine Loamy Umbric Dystrochrepts		
12	Very deep, well drained, loamy skeletal soils on the steeply sloping sides of ridges having loamy surface with moderate erosion hazard and moderate stoniness	Loamy skeletal Umbric Dystrochrepts Fine loamy Typic Dystrochrepts	24.4	2.3
	Associated with: Deep, well drained, fine loamy soils moderately sloping sides slopes with moderate erosion hazard			
13	Moderately Deep, somewhat excessively drained, coarse loamy soils on the moderately steeply sloping side slopes of ridges having loamy surface with severe erosion hazard	Coarse loamy Typic Udorthents Fine loamy Umbric Dystrochrepts	16.5	1.6
	Associated with: Deep, well drained, fine loamy soils on moderately sloping hill tops with moderate erosion hazard	Fine loamy Typic Dystrochrepts		
14	Deep to very deep, well drained, fine loamy soils on the moderately steeply sloping side slopes of low relief hills having loamy surface with severe erosion hazard	Fine Typic Dystrochrepts Coarse loamy Typic Udorthents	0.7	0.1
	Associated with: Deep, somewhat excessively drained, coarse loamy soils on moderately sloping ridge tops with severe erosion hazard	Fine Loamy Umbric Dystrochrepts		
15	Deep, well drained, fine loamy soils on moderately sloping flat topped denudation hills having clay loam surface with moderate erosion hazard	Fine loamy Typic Kandiodalts Fine loamy Typic Dystrochrepts	51.7	5.0
	Associated with: Deep, well drained, fine loamy soils on gently sloping flat topped denudation hills having clay loam surface with moderate erosion hazard	Fine Loamy Umbric Dystrochrepts		
16	Deep, well drained, fine loamy soils on moderately to gently sloping flat topped denudation hills having clay loam surface with moderate erosion hazard	Fine loamy Typic Kandiodalts Fine loamy	25.4	2.4

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	Associated with: Deep, imperfectly drained, fine loamy soils on gently sloping hill top with moderate erosion hazard	Aquic Dystrochrepts Fine Typic Dystrochrepts		
17	Deep, well drained, coarse loamy soils on gently sloping low-lying residual hills having sandy loam surface with moderate erosion hazard	Coarse loamy Typic Dystrochrepts Fine loamy	7.9	0.8
	Associated with: very Deep, well drained, fine loamy soils on moderately sloping low-lying residual hills with moderate erosion hazard	Typic Hapludults Clay Loamy Skeletal typic Dystrochrepts		
18	Deep, well drained, fine loamy soils on moderately sloping low-lying residual hills having clay loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy	4.8	0.5
	Associated with: very Deep, imperfectly drained, coarse loamy soils on gently sloping narrow interhall basin under poor to moderate cultivation of paddy	Aquic Udorthents Fine Loamy Aquic Dystrochrepts		
19	Deep, moderately well drained, fine loamy soils on gently to moderately sloping undulating plains with low mounds having clay loam surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Fine loamy Typic Epiaquepts Coarse loamy Typic Dystrochrepts	39.2	3.7
	Associated with: moderately shallow, poorly to imperfectly drained, fine loamy soils on very gently sloping narrow valleys with slight flooding hazard and slight erosion hazard			
20	Deep, well drained, fine loamy soils on gently to moderately sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine Typic Dystrochrepts Coarse loamy over sandy	6.0	0.6
	Associated with: very deep, well drained, coarse loamy over sandy soils on side slopes of moderately sloping low mounds with moderate erosion hazard	Typic Dystrochrepts Fine loamy Typic Hapludults		
21	Deep, moderately well drained, fine loamy soils on gently sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Fine Loamy Aquic Dystrochrepts Fine Loamy Oxyaquic Dystrochrepts	130.0	12.4
	Associated with: deep to very deep, poorly or imperfectly drained, fine loamy soils with slight erosion hazard			
22	Deep, moderately well drained, fine loamy soils on gently to moderately sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Fine Loamy Oxyaquic Dystrochrepts	12.0	1.0
	Associated with: Deep to very deep, imperfectly drained, fine loamy soils with slight erosion hazard	Course Loamy Typic Udorthents		
23	Moderately deep, well drained, fine loamy soils on moderately sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Kandiodalts Fine silty over sandy loamy	9.0	0.8
	Associated with: Deep to very deep, imperfectly to poorly drained, fine silty over sandy soils with slight erosion hazard	Aquic Dystrochrepts Course Loamy Typic Udorthents		
24	Very Deep, well drained, fine loamy soils on gently sloping low lands having loamy surface with moderate erosion hazard	Fine Loamy Oxyaquic Dystrochrepts Fine Loamy Aquic Udorthents	1.9	0.2
	Associated with: very deep, poorly drained, fine loamy soils with slight erosion hazard			

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
25	Very Deep, moderately well drained, fine loamy soils on gently sloping low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Kandiodalts	3.5	0.3
	Associated with: very deep, poorly drained, fine loamy soils on gently sloping low mounds with moderate erosion hazard	Fine loamy Umbric Dystrochrepts Fine Loamy Typic Udorthents		
26	Deep, moderately well drained, clayey soils on upland of gently to very gently sloping interhall valleys having fine loamy surface with moderate to slight erosion hazard	Fine Typic Dystrochrepts Fine Loamy Aquic Dystrochrepts	26.6	2.5
	Associated with: very deep, imperfectly drained, fine loamy soils on very gently sloping narrow interhall valleys with slight erosion hazard	Fine Loamy Typic Epiaquepts		
27	Very Deep, well drained, fine loamy soils on the upland of gently to very gently sloping interhill valleys having clay loamy surface with moderate erosion hazard	Fine loamy Typic Haplumbrepts Fine Loamy Dystrochrepts	19.2	1.8
	Associated with: very deep, well drained, fine loamy soils on gently sloping interhill valleys with moderate erosion hazard			
28	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhill valleys having coarse loamy surface with moderate to slight erosion hazard	Fine loamy Fluventic Umbric Haplumbrepts Fine silty Epiaquepts	8.3	0.8
	Associated with: very deep, poorly drained, fine silty soils on very gently sloping narrow interhill valleys with occasional flooding hazard and slight erosion hazard			
29	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhall valleys having fine loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Dystrochrepts	86.2	8.2
	Associated with: very deep, well drained, coarse loamy soils on the upland of gently sloping interhill with moderate erosion hazard	Fine loamy Typic Hapludults		
30	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhill valleys having clay loam surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Dystrochrepts	6.8	0.7
	Associated with: very deep, well drained, coarse loamy soils on the gently sloping interhill valleys with moderate erosion hazard	Coarse loamy Typic Udorthents		
31	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhill valleys having clay loam surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Dystrochrepts	10.4	1.0
	Associated with: very deep, well drained, coarse loamy soils on the gently sloping interhill valleys with moderate erosion hazard	Coarse loamy Typic Hapludults		
32	Deep, poorly to imperfectly drained, coarse loamy soils on gently to very gently sloping interhill valleys having sandy loam surface with moderate erosion hazard	Coarse loamy Aquic Udorthents Fine loamy Typic Dystrochrepts	1.5	0.1
	Associated with: very deep, well drained, clayey soils on the upland of gently sloping interhill valleys with moderate erosion hazard			
33	Deep, imperfectly drained, coarse loamy soils on gently to moderately gently sloping interhill valleys	Fine loamy Aeric Dystrochrepts	1.0	0.1

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	having sandy loam surface with moderate erosion hazard and occasional flooding hazard	Fine loamy Aquic Dystrochrepts		
	Associated with: very deep, poorly drained, fine loamy soils on gently sloping interhill valleys with slight erosion hazard and occasional flooding hazard			
34	Moderately Deep, imperfectly drained, fine loamy soils on gently sloping interhill valleys having clay loam surface with slight erosion hazard and occasional flooding hazard	Fine loamy Aquic Dystrochrepts Coarse loamy Fluventic Dystrochrepts	7.4	0.7
	Associated with: very deep, moderately well drained, coarse loamy soils on gently sloping interhill valleys with slight erosion hazard and occasional flooding hazard			
35	Deep, imperfectly to poorly drained, fine loamy soils on very gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard and slight erosion hazard	Fine Aerice Epiaquepts Fine Loamy Typic Epiaquepts	12.1	1.1
	Associated with: very deep, very poorly drained, fine loamy soils on gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard			
36	Deep, imperfectly to poorly drained, fine loamy soils on very gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard and slight erosion hazard	Fine Aerice Epiaquepts Fine Loamy Typic Epiaquepts Sandy Over Loamy Typic Epiaquepts	29.7	2.8
	Associated with: very deep, very poorly drained, fine loamy soils on gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard			
37	Very Deep, imperfectly drained, clayey soils developed on very gently sloping alluvial plain having silty clay surface with moderate flooding hazard and slight erosion hazard	Fine loamy Aquic Dystrochrepts Fine Typic Epiaquepts	1.9	0.2
	Associated with: very deep, very poorly drained, clayey soils on very gently sloping alluvial plain with moderate flood hazard			
38	Very Deep, imperfectly drained, coarse loamy developed on gently sloping alluvial plain having sandy loam surface with occasional flooding hazard and slight erosion hazard	Coarse Loamy Aerice Epiaquepts Fine Loamy Aquic Dystrochrepts Typic Udipsamments	1.0	0.1
	Associated with: very deep, imperfectly drained, fine loamy soils on gently sloping alluvial plain with occasional flooding hazard			
39	Deep, very poorly drained, clayey soils on gently sloping floodplain having silty clay surface with severe to very severe flooding hazard and slight erosion hazard	Fine Loamy Typic Epiaquepts Fine Loamy over Sandy Typic Epiaquepts	13.2	1.2
	Associated with: very deep, imperfectly drained, fine silty soils on very gently sloping flood plain with severe to very severe flooding hazard and slight erosion hazard			
40	Very Deep, very poorly drained, clayey soils on very gently sloping floodplain having clay loam surface with severe flooding hazard and very slight erosion hazard	Fine Typic Epiaquepts Fine Loamy Typic Epiaquepts	32.6	3.1

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	Associated with: very deep, poorly to very poorly drained, fine loamy soils	Coarse loamy over Sandy Typic Fluvaquentic Dystrochrepts		
41	Very Deep, moderately well to imperfectly drained, fine loamy soils on very gently sloping floodplain having clay loam surface with moderate flooding hazard and very slight erosion hazard	Fine Aquic Dystrochrepts Fine Oxyaquic Dystrochrepts Fine Aquic Dystrochrepts	72.9	7.0
	Associated with: very deep, moderately well drained, clayey soils on very gently sloping flood plain with occasional flooding hazard			
42	Very peep, poorly to very poorly drained, fine loamy soils on very gently sloping floodplain having clay loam surface with moderate to severe flooding hazard and very slight erosion hazard	Fine Typic Epiaquepts Fine Loamy Aeris Epiaquepts	35.9	3.5
	Associated with: very deep, poorly drained, fine loamy soils on very gently sloping flood plain with moderate to very severe flooding hazard and slight erosion hazard			
43	Very Deep, moderately well to imperfectly drained, fine loamy soils on very gently sloping floodplain having clay loam surface with moderate flooding hazard and very slight erosion hazard	Fine loamy Typic Haplumbrepts Fine Loamy Pachic Haplumbrepts Fine Typic Dystrochrepts	7.5	0.8
	Associated with: very deep, moderately well drained, clayey soils on very gently sloping flood plain with occasional flooding hazard			

D: Flora of Project Area Recorded during Site Survey

Sr. No.	Name of plant Species	Family	Conservation status IUCN (2020.1)
1.	<i>Hevea brasiliensis</i>	Euphorbiaceae	Least Concern
2.	<i>Shorea robusta</i>	Dipterocarpaceae	Least Concern
3.	<i>Pterospermum acerifolium</i>	Malvaceae	Least Concern
4.	<i>Acacia auriculiformis</i>	Fabaceae	Least Concern
5.	<i>Mangifera indica</i>	Anacardiaceae	Least Concern
6.	<i>Magnifera sylvatica</i>	Anacardiaceae	Least Concern
7.	<i>Borassus flabellifer</i>	Arecaceae	Least Concern
8.	<i>Bambusa vulgaris</i>	Poaceae	Least Concern
9.	<i>Cassia fistula</i>	Fabaceae	Least Concern
10.	<i>Areca catechu</i>	Arecaceae	Not Evaluated
11.	<i>Melia azedarach</i>	Meliaceae	Least Concern
12.	<i>Kumara plicatilis</i>	Aloaeae	Least Concern
13.	<i>Terminalia bellirica</i>	Combretaceae	Not Evaluated
14.	<i>Nauclea diderrichii</i>	Rubiaceae	Least Concern
15.	<i>Diospyros melanoxylon</i>	Ebenaceae	Least Concern
16.	<i>Tectona grandis</i>	Lamiaceae	Least Concern
17.	<i>Abrus Precatorius</i>	Fabaceae	Least Concern
18.	<i>Quercus semecarpifolia</i>	Fagaceae	Not Evaluated
19.	<i>Vitex penduncularis</i>	Lamiaceae	Least Concern
20.	<i>Mesua ferrea</i>	Calophyllaceae	Least Concern
21.	<i>Chukrasia tabularis</i>	Meliaceae	Least Concern
22.	<i>Tamarindus indica</i>	Fabaceae	Least Concern
23.	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	Low Risk-Least Concerned
24.	<i>Pistacia integerrima</i>	Anacardiaceae	Least Concern
25.	<i>Couroupita guianensis</i>	Lecythidaceae	Least Concern
26.	<i>Eucalyptus umbra</i>	Myrtaceae	Least Concern
27.	<i>Erythrina crista-galli</i>	Fabaceae	Least Concern
28.	<i>Ziziphus mauritiana</i>	Rhamnaceae	Least Concern
29.	<i>Cedrus deodara</i>	Pinaceae	Least Concern
30.	<i>Citrus indica</i>	Rutaceae	Least Concern
31.	<i>Cocos nucifera</i>	Arecaceae	Not evaluated
32.	<i>Artocarpus heterophyllus</i>	Moraceae	Least Concern
33.	<i>Albizia lebbeck</i>	Fabaceae	Least Concern
34.	<i>Pterocarpus marsupium</i>	Fabaceae	Vulnerable
35.	<i>Holoptelea integrifolia</i>	Ulmaceae	Least Concern
36.	<i>Ficus racemosa</i>	Moraceae	Least Concern
37.	<i>Psidium guajava</i>	Myrtaceae	Least Concern
38.	<i>Aegle marmelos</i>	Rutaceae	Near Threatened
39.	<i>Carica papaya</i>	Caricaceae	Least Concern
40.	<i>Azadirachta indica</i>	Meliaceae	Least Concern
41.	<i>Dillenia indica</i>	Dilleniaceae	Least Concern
42.	<i>Musa paradisiaca</i>	Musaceae	Least Concern
43.	<i>Ficus religiosa</i>	Moraceae	Least Concern
44.	<i>Anacardium occidentale</i>	Anacardiaceae	Least Concern
45.	<i>Delonix regia</i>	Fabaceae	Least Concern
46.	<i>Manilkara zapota</i>	Sapotaceae	Least concern
47.	<i>Alstonia scholaris</i>	Apocynaceae	Least concern
48.	<i>Coffee senna</i>	Fabaceae	Not Evaluated
49.	<i>Neolamarckia cadamba</i>	Rubiaceae	Least concern
50.	<i>Vaccinium spp.</i>	Ericaceae	Least Concern
51.	<i>Moringa oleifera</i>	Moringaceae	Least concern
52.	<i>Bombax ceiba</i>	Malvaceae	Least Concern
53.	<i>Cinnamomum glanduliferum</i>	Lauraceae	Least concern

Sr. No.	Name of plant Species	Family	Conservation status IUCN (2020.1)
54.	<i>Aphanamixis polystachya</i>	Meliaceae	Least concern
55.	<i>Actinodaphne angustifolia</i>	Lauraceae	Least concern
56.	<i>Lagerstroemia speciosa</i>	Lythraceae	Least concern
57.	<i>Dysoxylum binectarderum</i>	Meliaceae	Least concern
58.	<i>Michelia champaca</i>	Magnoliaceae	Least concern
59.	<i>Aquilaria malacensis</i>	Thymelaeaceae	Least concern
60.	<i>Holigarna caustic</i>	Anacardiaceae	Least concern
61.	<i>Bambusa pallida</i>	Fabaceae	Least concern
62.	<i>Syzygium cumini</i>	Myrtaceae	Least concern
63.	<i>Phlogacanthus thrsiflorus</i>	Acanthaceae	Least concern
64.	<i>Phrynium capitatum</i>	Marantaceae	-
65.	<i>Calamus leptospadix</i>	Arecaceae	Not known
66.	<i>Apostasia wallichii</i>	Orchidaceae	Not known
67.	<i>Zeuxine strateumatica</i>	Orchidaceae	Not known
68.	<i>Mesua ferra</i>	Calophyllaceae	Not known
69.	<i>Dysoxylum binectariferum</i>	Meliaceae	Least concern
70.	<i>Artocarpus chaplasha</i>	Moraceae	Least concern
71.	<i>Cryptocarya amygdalina</i>	Lauraceae	Least concern
72.	<i>Gmelina arborea</i>	Lamiaceae	Least concern
73.	<i>Schima wallichii</i>	Theaceae	Least concern
74.	<i>Chukrasia tabularis</i>	Meliaceae	Least concern
75.	<i>Albizia chiensis</i>	Fabaceae	Least concern
76.	<i>Mallotus philippensis</i>	Euphorbiaceae	Least concern
77.	<i>Phyllanthus emblica</i>	Phyllanthaceae	Least concern
78.	<i>Dalbergia stipulacea</i>	Fabaceae	Least concern
79.	<i>Stephania glandulifera</i>	Menispermaceae	Least concern
80.	<i>Osbeckia chinensis</i>	Melastomataceae	Least concern
81.	<i>Clerodendrum viscosum</i>	Lamiaceae	Least concern
82.	<i>Desmodium heterocarpon</i>	Fabaceae	Least concern
83.	<i>Holorrhea pubescens</i>	Apocynaceae	Least concern
84.	<i>Hydrocarpus kurzi</i>	Labiatae	Least concern
85.	<i>Justica adhatida</i>	Acanthaceae	Least concern
86.	<i>Marsilea minuta</i>	Acanthaceae	Least concern
87.	<i>Ocimum tenuiflorum</i>	Labiatae	Least concern
88.	<i>Phlogacanthus thrsiflorus</i>	Acanthaceae	Least concern
89.	<i>Rawfia serpentina</i>	Apocynaceae	Least concern
90.	<i>Orphiorrhiza villosa</i>	Rubiaceae	Least concern
91.	<i>Cycas pectinata</i>	Cycadaceae	Least concern
92.	<i>Dischidia benghalensis</i>	Asclepiadaceae	Least concern
93.	<i>Saraca asoca</i>	Fabaceae	Least concern
94.	<i>Dischidia major</i>	Asclepiadaceae	Least concern
95.	<i>Gnetum montanum</i>	Gnetaceae	Least concern
96.	<i>Gnetum oblongum</i>	Gnetaceae	Least concern
97.	<i>Torenia mucronulata</i>	Scrophulariae	Least concern
98.	<i>Wallichia caryotoides</i>	Arecaceae	Least concern
99.	<i>Jasminum listeri</i>	Oleaceae	Least concern
100.	<i>Phoenix dactylifera</i>	Arecaceae	Least Concern
101.	<i>Terminalia chebula</i>	Combretaceae	Least Concern
102.	<i>Streblus asper</i>	Moraceae	Least Concern
103.	<i>Schleichera oleosa</i>	Sapindaceae	Least Concern
104.	<i>Pongamia pinnata</i>	Fabaceae	Least Concern
105.	<i>Ficus benghalensis</i>	Moraceae	Not evaluated
106.	<i>Limonia acidissima</i>	Rutaceae	Not evaluated
107.	<i>Pogostemon cablin</i>	Lamiaceae	Least Concern
108.	<i>Senna occidentalis</i>	Fabaceae	Not Evaluated

Sr. No.	Name of plant Species	Family	Conservation status IUCN (2020.1)
109.	<i>Lantana Camara</i>	Verbenaceae	Not Evaluated

Appendix B

Public Consultation and PAP Meeting



पावरग्रिड
POWERGRID

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING

Public Consultation Enroute of Transmission Lines

Sr. No.	Village Name	Person Attended
1	Bagafa	1
2	Belonia	5
3	Udaypur	4
4	Amarpur	1



Bagafa



Belonia



Udaipur



Amarapur

	<p>FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura</p>	
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Public Consultations with POWERGRID

PROJECT SUMMARY



প্রকল্পের সারমর্ম



In order to strengthen the power scenario of the North Eastern States including Tripura, the Government of India with the financial assistance of the WORLD BANK, has formulated the North Eastern Region Power System Improvement Project (NERPSIP) which envisages in construction of new power Sub-stations, Transmission & Distribution lines and simultaneously augmentation/expansion of the existing Sub-stations and Transmission lines.

The NERPSIP in the state of Tripura broadly aims at:-

- Load enhancement of the transmission and distribution network of Tripura as well as reducing the transmission and distribution (T & D) loss.
- To adequately address the demand side management for ensuring adequate supply of electricity.

For implementation of project under North Eastern Region Power System Improvement Project (NERPSIP) construction of different 132 kV substation and transmission & distribution line have been planned to be taken up in this area. For construction of transmission line under this project, any damage caused will be compensated as per the Government norms.

We hope that implementation of the North Eastern Power System Improvement Project (NERPSIP) in the state of Tripura will definitely contribute in the socio-economic development of the state.

ত্রিপুরা সহ উত্তর-পূর্ব রাজ্যগুলির বিদ্যুৎ ব্যবস্থার উন্নতির জন্য ভারত সরকার-বিশ্বব্যাংকের আর্থিক সহায়তায় উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) গঠন করেছে, যার মূল উদ্দেশ্য হল নতুন বিদ্যুৎ সাবস্টেশন, নতুন বিদ্যুৎ পরিবাহী ও বন্টন লাইন তৈরী করা এবং পাশাপাশি বর্তমান সাবস্টেশন এবং লাইনগুলির ক্ষমতা বৃদ্ধি ও সম্প্রসারণ করা।

উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) ত্রিপুরাতে আনার উদ্দেশ্য হল :-

- বিদ্যুৎ পরিবাহী ও বন্টন লাইনের ক্ষমতা বৃদ্ধি করা তথা পরিবাহী ও বন্টন ব্যবদ অপচয় হ্রাস করা।
- চাহিদার উপযোগী বিদ্যুৎ যোগান দেওয়া।

উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্পের (NERPSIP) অধীনে ত্রিপুরা রাজ্যের প্রকল্প গুলি বাস্তবায়নের লক্ষ্যে এই এলাকায় ১৩২ কেভি সাবস্টেশন, বিদ্যুৎ পরিবাহী ও বন্টন লাইন তৈরী করার উদ্যোগ নেওয়া হয়েছে। এই প্রকল্পটি বাস্তবায়নে সরকারী নিয়ম অনুযায়ী নির্ধারিত ক্ষতিপূরণ প্রদান করা হবে।

আমরা আশা করি ত্রিপুরার সামাজিক ও অর্থনৈতিক উন্নয়নে উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) অনন্য অবদান রাখবে।



FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING/জনসম্মেলন সভার বিবরণ

Subject/বিষয়
Construction of 132 kV Udaipur – Bagafa Line, 132kV Bagafa- Satchand Line, 132kV Bagafa – Belonia Line & associated distribution lines (with financial assistance of WORLD BANK) under NERPSIP Project NERPSIP প্রকল্পের আওতায় (বিশ্ব ব্যাংকের আর্থিক সহায়তায়) 132kV উদয়পুর- বাগাফা, 132kV বাগাফা - সাতচান্দ ও 132kV বাগাফা - বীলোনিয়া পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ
Place of Meeting/সভার স্থান
Bagafa RD Block (BDO Office Conference Hall)/ বাগাফা ব্লক (BDO অফিস কনফারেন্স হল)
Date of Meeting/সভার তারিখ
15.09.2014 / ১৫.০৯.২০১৪
Name of the dignitary present in the meeting/ সভায় উপস্থিত মর্যাদাপূর্ণ ব্যক্তিদের নাম
A. Tripura Government/ ত্রিপুরা সরকার 1) Sh. Himangsu Roy, Sabhaadhipati, Belonia, South Tripura District 2) Sh. Sankar Majumdar, chairman Bagafa Block. 3) Sh. Parikshit Mora Singh, BAC Chairman 4) Sh. Arpan Dutta, Vice-Chairman 5) Sh. Hiralal Debbarma, Sr. DM 6) Sh. Ashish Dutta, BDO, Bagafa
B. TSECL Officials/ TSECL কর্মকর্তাবা 1. Sh. Ratan Das, DGM, TSECL
C. POWERGRID Officials/ পাওয়ার গ্রিড কর্মকর্তাবা 1. Sh. N. Dube, DGM, POWERGRID 2. Sh. D.N. Brahma, Chief Manager, POWERGRID 3. Sh. Uttam Debnath, Sr. Engineer, POWERGRID
People present in the meeting/ সভায় উপস্থিত জনসাধারণ
200-250 nos. of local village and some common public. (Attendance Sheet Enclosed) 200-250 জন স্থানীয় গ্রাম এবং কিছু সাধারণ পাবলিক (উপস্থিত ব্যক্তিবর্গের সাক্ষর)

Point addressed to the people/ জনসাধারণের উদ্দেশ্য ভাষণ:

A brief of the NORTH EASTERN REGION POWER SYSTEM IMPLEMENTATION PROJECT (NERPSIP) under the world bank assistance has been deliberated at the beginning of the meeting by Sh. Rattan Das, DGM, TSECL. Importance & necessity of the project, necessity for upgradation of existing transmission & distribution network, various environment & Social issues associated with the project have been briefly discussed and appraised to the public present in the meeting.

আলোচনা সভার শুরুতে TSECL এর ডেপুটি জেনারেল ম্যানেজার শ্রী রতন দাস মহাসয় বিশ্ব ব্যাংকের আর্থিক সহায়তায় উত্তর পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) সম্বন্ধে জনসাধারণের উদ্দেশ্যে সংক্ষিপ্ত তথ্য দিলেন। তাছাড়া প্রকল্পের প্রয়োজনীয়তা ও গুরুত্ব, বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন এর ক্ষমতা বৃদ্ধির প্রয়োজনীয়তা, প্রকল্পের সঙ্গে যুক্ত বিভিন্ন পরিবেশ ও সামাজিক বিষয়, সম্বন্ধে সংক্ষিপ্ত জ্ঞানমূল্যবান উত্থাপন করলেন উপস্থিত জনসাধারণের উদ্দেশ্যে।

Response from Public/ জনসাধারণের থেকে প্রতিক্রিয়া

Representatives from the public also responded and raised various concerns about the project. The various issues raised by public are summarised as below:-

- ✓ Whether this line will improve the power supplies in our village and remove frequent interruption/outage
- ✓ Whether these lines are safe for the nearby dwellers without any problems of electrocution while working in the fields
- ✓ What is compensation policy for the standing crops damaged and compensation for the land occupied by the tower footings

জনসাধারণের পক্ষ থেকেও প্রতিনিধিরা প্রতিক্রিয়া এবং প্রকল্প সম্পর্কে বিভিন্ন উদ্বেগ উত্থাপিত করলেন। জনসাধারণ দ্বারা উত্থাপিত কিছু গুরুত্বপূর্ণ বিষয় নীচের সংক্ষিপ্ত করা হলো :-

- এই প্রকল্প এর জন্য আমাদের গ্রামে বিদ্যুৎ সরবরাহ উন্নত হবে কিনা এবং ঘন ঘন বিদ্যুত বিচ্যুত মুহুর্তে ফেলা যাবে কিনা ?
- এই লাইন এর জন্য নিকটবর্তী গ্রামবাসীরা তাদের জমিতে কাজ করার সময় ভরিতাহত হয়ে কোনো ক্ষতিগ্রস্ত হবে কিনা ?
- ক্ষতিগ্রস্ত ফসলের ক্ষতিপূরণের জন্য ক্ষতিপূরণ নিয়ম কি হবে এবং টাওয়ার বানানোর জন্য যে জমি লাগবে তার ক্ষতিপূরণের কি নিয়ম হবে ?

Conclusion/ উপসংহার

However all the public present have unanimously agreed to the necessity and importance of the project and assured their co-operation during the implementation of the project.

TSECL/POWERGRID has assured that all the genuine issues will be duly taken care of during the implementation of the project. Further

- This transmission line along with associated distribution line planned to be constructed for improvement of electricity supply and minimize the power cut in your village
- Sufficient electrical clearance will be maintained while construction of these line and hence no electrocution while working in the field.
- For damaged crops,trees sufficient compensation will be given as per the rate provided by district revenue authority. Further no land will be acquired while constructing the tower but sufficient surface compensation will be provided.

The meeting has been concluded with a request to all public for their support in completion of the project.

তবে সবশেষে উপস্থিত জনসাধারণ সর্বসম্মতিক্রমে প্রকল্পের প্রয়োজনীয়তা এবং গুরুত্ব নিয়ে একমত প্রকাশ করেছেন এবং প্রকল্প বাস্তবায়ন সময় তাদের সহযোগিতা নিশ্চিত করেছেন।

TSECL / পাওয়ার গ্রিড কর্মকর্তারা সমস্ত বাস্তব সমস্যা উপর প্রকল্প বাস্তবায়নের সময় যথাযত নজর দেয়ার আশ্বাস দিয়েছেন. তাছাড়া

- এই বিদ্যুৎ পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ এর ফলে এই এলাকার বিদ্যুৎ বেবস্থার উন্নতি হবে এবং ঘন ঘন বিদ্যুৎ কাটা বন্ধ হবে।
- বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন নির্মাণের সময় যথেষ্ট বৈদ্যুতিক ব্যবধান রক্ষণাবেক্ষণ করা হবে যাতে বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন কাছাকাছি বা নিকটবর্তী মাঠে কাজ করা লোকদের কোনো ভরিতাভরতর সম্ভাবনা না থাকে।
- ক্ষতিগ্রস্ত ফসলের ও গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে। টাওয়ার বানানোর জন্য কোনো ভূমি অধিগ্রহণ করা হবে না কিন্তু টাওয়ার বানানোর ফলে যে গাছ বা ফসল ক্ষতি হবে তার ক্ষতি পূরণ দেওয়া হবে

প্রকল্প বাস্তবায়নে জনসাধারণের সহযোগিতার অনুরোধের সঙ্গে সভা সমাপ্তির ঘোষণা করা হয়েছে



FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Bagafa Line, 132kV Bagafa- Satchand Line, 132kV Bagafa - Belonia Line & associated distribution lines (with financial assistance of WORLD BANK) under NERPSIP Project

Name of Line:-
Date- 15.09.2014
Venue- BAGAFU

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
১)	Soma Das	Longang	House wife	Soma Das
২)	Jhann Kishor Paul	Longang	- do -	J. Paul
৩)	অমল (২৩)	Longang	"	অমল (২৩)
৪)	শ্রী পরমেশ্বর	Longang	"	শ্রী পরমেশ্বর
৫)	অমল আলী শাহ	Longang	"	অমল আলী শাহ
৬)	সুবাস চন্দ্র	Subash chand	"	Subash chand
৭)	আবুল কালাম	- do -	"	আবুল কালাম
৮)	মাহমুদ	মাহমুদ	"	মাহমুদ
৯)	অমল দাস	- do -	Business	Somhar Das
১০)	দিলীপ শর্মা	- do -	"	দিলীপ শর্মা
১১)	অমল শর্মা (১২৩)	Longang	"	অমল শর্মা (১২৩)

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Bagafa Line, 132kV Bagafa- Satchand Line, 132kV Bagafa - Belonia Line & associated distribution lines (with financial assistance of WORLD BANK) under NERPSIP Project

Name of Line:-
Date- 15.09.2014
Venue- BAGAFU

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
১২)	Rasmohan Chowdhury	Gardhang	Farmer	Rasmohan Chowdhury
১৩)	Ansul Bhowmik	Gardhang	HFV	Ansul Bhowmik
১৪)	Nirmal Tripathy	Gardhang	Farmer	Nirmal Tripathy
১৫)	সত্যজিৎ	সত্যজিৎ	HFV	সত্যজিৎ
১৬)	মুন্সি চন্দ্র	Ruk. Gang	Farmer	Sujan Bhowmik
১৭)	অমল শর্মা (১২৩)	DO -	Alorani Bhowmik	Alorani Bhowmik
১৮)	অমল শর্মা (১২৩)	DO	HFV	Arjun Das
১৯)	অমল শর্মা	DO	HFV	Ratan Das
২০)	অমল শর্মা	Betage	HFV	Tapani Majumdar
২১)	অমল শর্মা	Betage	HFV	গোপাল শর্মা

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Name of Line:- Construction of 132 kV Udaipur - Bagafa Line, 132kV
Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
associated distribution lines (with financial assistance
of WORLD BANK) under NERPSIP Project

Date- 15.09.2014

Venue- BAGAFa

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
21	MILAN DAS	LONGAM	H/W	Milans
23	MOHAN DAS	Betaga	Business	Satyajit Das
24	PAUL MONDAL	Betaga	"	Nikhil Mondal
25	PAUL MONDAL	Betaga	"	Rinad
26	PAUL MONDAL	Betaga	"	Nripendra
27	Bimal Ch. Das	Kandanaagar	"	Bimal Ch. Das
28	Sibendu Das (475)	Kandanaagar	H/W	Sibendu Das (475)
29	Subir Das	DO	Business	Subir Das
30	Nan' Gopal Das	DO	Business	Nan' Gopal Das
31	PAUL MONDAL	DO	Business	PAUL MONDAL
32	Topan Das	Subhoshilaya	Business	Topan Das

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Name of Line:- Construction of 132 kV Udaipur - Bagafa Line, 132kV
Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date- 15.09.2014

Venue- BAGAFa

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
33	Sailapati Chakraborty	Kandanaagar	Business	Sailapati Chakraborty
34	Monchal Maj	"	H/W	21.09.2014
35	Sinia Debbar	West Khatola	"	Sinia Debbar
36	Shipra Pedder (Dey)	"	"	Shipra Pedder (Dey)
37	Jaraki Reang	"	"	Jaraki Reang
38	Kabi's Reang	"	Business	Kabi's Reang
39	Bimal Dutta	"	"	Bimal Dutta
40	Sukhes Das	"	"	Sukhes Das
41	Nikhil Monal	"	"	Nikhil Monal
42	Anup Choudhary	"	"	Anup Choudhary
43	Pankaj Nain	Betaga	"	Pankaj Nain

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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Bagafa Line, 132kV
Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
Name of Line:- associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date: 15.09.2014

Venue: BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
44	Shefali Rani Dhar	Bagafa	H/W	Shefali Rani Dhar
45	Swarna Debnath	"	"	Swarna Debnath
46	Madhuri Das	"	"	Madhuri Das
47	Sirha Das	"	"	Sirha Das
48	Suparna Das	East Bagafa	Ranchayat	Suparna Das
49	Neeraj Mog	Gardhang	H/W	Neeraj Mog
50	Milan Das	"	H/W	Milan Das
51	Paiyu Mog	"	Business	Paiyu Mog
52	Sujit Tripathi	Gardhang	"	Sujit Tripathi
53	Angh Mog	Subhas Colony	"	Angh Mog
54	Parimal Ch. Das	"	"	Parimal Ch. Das

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**Public Consultation Meeting
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Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
Name of Line:- associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date: 15.09.2014

Venue: BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
55	Prabir Debnath	Bagafa	P/S	Prabir Debnath
56	Ranga Mohan	"	Business	Ranga Mohan
57	Raghunath Tripathi	"	"	Raghunath Tripathi
58	Dwijendra Rong	"	"	Dwijendra Rong
59	Smita Debnath	R.K. Gang	Prodhun	Smita Debnath
60	Smriti Nandi	Ranchamangal	Business	Smriti Nandi
61	Ranjati Janalia	Kanu	"	Ranjati Janalia
62	Biswapati Dhar	South Takur	"	Biswapati Dhar
63	Suresh Dhar	Kajapur	"	Suresh Dhar
64	Pangla Kishan	Takurachan	"	Pangla Kishan
65	Parulaxmi Tripathi	Gardhang	"	Parulaxmi Tripathi

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Bagafa Line, 132kV
Name of Line:- Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project.

Date- 15.09.2014

Venue- BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
66	Malati Tripathy	Takmasen	H/W	Malati Tripathy
67	Rishnu Priyadarshi (N.H.)	Bagafa	Business	Rishnu Priyadarshi
68	Prayabasi Rudhapa	Bagafa	"	Prayabasi Rudhapa
69	Ajit Das	R.K. Gang	"	Ajit Das
70	Shyamal Datta	Kandian Naga	"	Shyamal Datta
71	Nirapada Bar.	Tripura State Control Society	"	Nirapada Bar.
72	Suman Das	Post Bagafa	"	Suman Das
73	Nanda Bar.		"	Nanda Bar.
74				
75				
76				



FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING/জন মতামত সভার বিবরণ

Subject/ বিষয়
Construction of 132 kV Udaipur - Amarpur Line ,132kV Udaipur - Bagafa Line & associated distribution lines(with financial assistance of WORLD BANK) under NERPSIP Project NERPSIP প্রকল্পের আওতায় (বিশ্ব ব্যাংকের আর্থিক সহায়তায়) 132kV উদয়পুর- অমরপুর, 132kV উদয়পুর -বাগাফা পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ
Place of Meeting/সভার স্থান
Matabari RD Block(BDO Office Conference Hall)/ মাতাবারী ব্লক (BDO অফিস কনফারেন্স হল)
Date of Meeting/সভার তারিখ
20.09.2014 / ২০.০৯.২০১৪
Name of the dignitary present in the meeting/ সভায় উপস্থিত মর্যাদাপূর্ণ ব্যক্তিদের নাম
A. Tripura Government/ ত্রিপুরা সরকার 1) Smt. Nivedita Bhaumik, BDO 2) Sri Roy Ramkrishna Bhowmik, Chairman 3) Sri Madhusudan Bhowmik, Vice-Chairman 4) Sri Daharam Reang, BAC Chairman
B. TSECL Officials/ TSECL কর্মকর্তাবা 1. Sh. Ratan Das, DGM,TSECL
C. POWERGRID Officials/ পাওয়ার গ্রিড কর্মকর্তাবা 1. Sh. N. Dube, DGM, POWERGRID 2. Sh. D.N.Brahma, Chief Manager, POWERGRID 3. Sh. Uttam Debnath, Sr. Engineer, POWERGRID
People present in the meeting/ সভায় উপস্থিত জনসাধারণ
150-200 nos. of local village and some common public .(Attendance Sheet Enclosed) 150-200 জন স্থানীয় গ্রাম এবং কিছু সাধারণ পাবলিক (উপস্থিত ব্যক্তিবর্গের সাক্ষর)

Point addressed to the people/ জনসাধারণের উদ্দেশ্য ভাষন:

A brief of the NORTH EASTERN REGION POWER SYSTEM IMPLEMENTATION PROJECT(NERPSIP) under the world bank assistance has been deliberated at the beginning of the meeting by Sh. Rattan Das, DGM,TSECL. Importance & necessity of the project, necessity for upgradation of existing transmission & distribution network, various environment & Social issues associated with the project have been briefly discussed and appraised to the public present in the meeting.

আলোচনা সভার শুরুতে TSECL এর ডেপুটি ডিরেক্টর ম্যানুজার শ্রী রতন দাস মহাশয় বিশ্ব ব্যাংকের আর্থিক সহায়তায় উত্তর পূর্ব ক্ষেত্র বিদ্যুৎ বাবস্থা উন্নতিকরণ প্রকল্প(NERPSIP) সম্বন্ধে জনসাধারণের উদ্দেশ্যে সংক্ষিপ্ত তথ্য দিলেন। তাছাড়া প্রকল্পের প্রয়োজনীয়তা ও গুরুত্ব, বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন এর ক্ষমতা বৃদ্ধির প্রয়োজনীয়তা, প্রকল্পের সঙ্গে যুক্ত বিভিন্ন পরিবেশ ও সামাজিক বিষয়, সম্বন্ধে সংক্ষিপ্ত জানামত প্রদান করলেন উপস্থিত জনসাধারণের উদ্দেশ্যে।

Response from Public/ জনসাধারণের থেকে প্রতিক্রিয়া

Representatives from the public also responded and raised various concerns about the project. The various issues raised by public are summarised as below:-

- ❖ What is compensation policy for the standing crops damaged and compensation for the land occupied by the tower footings
- ❖ What about employment for local people and procedure for same
- ❖ What is the width of ROW for cutting trees? How much compensation for the trees will be given and when.

জনসাধারণের পক্ষ থেকেও প্রতিনিধিরা প্রতিক্রিয়া এবং প্রকল্প সম্পর্কে বিভিন্ন উদ্বেগ উত্থাপিত করলেন। জনসাধারণ দ্বারা উত্থাপিত কিছু গুরুত্বপূর্ণ বিষয় নীচের সংক্ষিপ্ত করা হলো :-

- ❖ ক্ষতিগ্রস্ত ফসলের ক্ষতিপূরণের জন্য ক্ষতিপূরণ নিয়ম কি হবে এবং টাওয়ার বানানোর জন্য যে জমি লাগবে তার ক্ষতিপূরণের কি নিয়ম হবে ?
- ❖ এই প্রকল্পের জন্য স্থানীয় মানুষ এর কর্মসংস্থান এবং নিয়োগ নীতির কি নিয়ম হবে ?
- ❖ লাইন বানানোর সময় গাছ কাটার করিডোর/প্রস্থ কি হবে ? কখন এবং কি পরিমাণ ক্ষতিপূরণ দেওয়া হবে গাছের জন্য ?

Conclusion/উপসংহার

However all the public present have unanimously agreed to the necessity and importance of the project and assured their co-operation during the implementation of the project.

TSECL/POWERGRID has assured that all the genuine issues will be duly taken care of during the implementation of the project. Furthermore

- ❖ For damaged crops,trees sufficient compensation will be given as per the rate provided by district revenue authority. Further no land will be accrued while constructing the tower but sufficient surface compensation will be provided.
- ❖ Local people will be engaged during the construction of line and the engagement will be as per their skill.
- ❖ The width of ROW of cutting trees will be 27 M and sufficient compensation will be given as per the rate provided by district revenue authority during the construction.

The meeting has been concluded with a request to all public for their support in completion of the project.

তবে সবশেষে উপস্থিত জনসাধারণ সর্বসম্মতিক্রমে প্রকল্পের প্রয়োজনীয়তা এবং গুরুত্ব নিয়ে একমত প্রকাশ করেছেন এবং প্রকল্প বাস্তবায়ন সময় তাদের সহযোগিতা নিশ্চিত করেছেন।

TSECL / পাওয়ার গ্রিড কর্মকর্তারা সমস্ত বাস্তব সমস্যা উপর প্রকল্প বাস্তবায়নের সময় যথাযত নজর দেয়ার আশ্বাস দিয়েছেন, জনসাধারণের প্রশ্নের উত্তরে POWERGRID/TSECL কর্মকর্তারা বলেন

- ❖ ক্ষতিগ্রস্ত ফসলের ও গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে। টাওয়ার বালালের জন্য কোনো জমি অধিগ্রহণ করা হবে না কিন্তু টাওয়ার বালালের ফলে যে গাছ বা ফসল ক্ষতি হবে তার ক্ষতি পূরণ দেওয়া হবে
- ❖ প্রকল্প কাজের রূপায়নের সময় গ্রামের তথা স্থানীয় কারিগর/ শ্রমিক দের তাদের যুগ্যতা অনুযায়ী নিয়োগ করা হবে
- ❖ লাইন বালালের সময় গাছ কাটার প্রশ্ন হবে ২৭ মিটার এবং ক্ষতিগ্রস্ত গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে।

প্রকল্প বাস্তবায়নে জনসাধারণের সহযোগিতার অনুরোধের সঙ্গে সভা সমাপ্তির ঘোষণা করা হয়েছে

TRIPURA STATE ELECTRICITY CORPORATION LTD
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Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur -
Name of Line:- Bagafa Line & associated distribution lines (with financial
assistance of WORLD BANK) under NERPSIP Project
Date- 20.09.2014 Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
1	Chameli Das	Pitua	H/W	Chameli Das
2	Malati Nandi	Pitua	H/W	Malati Nandi
3	Kajal Rani Das	Rajnagar	H/W	Kajal Rani Das
4	Jabbar Miza	Rajnagar	Business	Jabbar Miza
5	Karnu chandra Das	Putamati	Teachers	Karnu chandra Das
6	Selinara Begum	Putamati	capa handan	Selinara Begum
7	Putsel Day	Putamati	H/W	Putsel Day
8	Nand Lal Adhikari	Putamati	panchayat member	Nand Lal Adhikari
9	Manglu Day	Kilpara	H/W	Manglu Day
10	Kunima chakraborty	Kilpara	H/W	Kunima chakraborty
11	Haron ch. Paul	Lakshminipati	Former	Haron ch. Paul
12	Milan Sarkar	Putamati	Business	Milan Sarkar

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Public Consultation Meeting ATTENDANCE SHEET

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Name of Line:- Bagafa Line & associated distribution lines (with financial
assistance of WORLD BANK) under NERPSIP Project
Date- 20.09.2014 Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
13	Sajal Paul	Purba Kungabam	Business	Sajal Paul
14	Sital Ch. Sarkar Das	Purba Kungabam	Farmer	Sital Ch. Sarkar Das
15	Dipali Das	Purba Kungabam	H/W	Dipali Das
16	Bhela Rani Debbarma	Purba Kungabam	H/W	Bhela Rani Debbarma
17	Apur Shell	Uttar chandrapur	H/W	Apur Shell
18	Chaya Rani Das	Matabari	H/W	Chaya Rani Das
19	Pratap Chakraborty	- Do -	Business	Pratap Chakraborty
20	Sukumar Chhail	Pitua		Sukumar Chhail
21	Suparna Das	- Do -		Suparna Das
22	Prmit Das	U. chandrapur	Handan	Prmit Das
23	Mita Das Laskar	11		Mita Das Laskar
24	Kalpana Majumdar			Kalpana Majumdar

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur -
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project

Date:- 20.07.2014

Venue:- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
25	Sepati Das	W. Kungaba		Signature
26	Sepati Das	- DO -		Signature
27	Kelu Das	- DO -		Signature
28	Putabi Saha	- DO -		Signature
29	Manika Majumdar (Sarkar)	Kata Bari		Manika Majumdar
30	Archana Debnath	- DO -		Signature
31	Sahalan Nijja Sarkar	Uttar Mahara	Member	Signature
32	Kalipa Kallan	- DO -		Signature
33	Sayanul Haque	Portamati	proachan	Signature
34	Ratna Majumdar	W. Malabari		Signature
35	Manidar Begun	W. Kelpara		Signature
36	Kanu Guda	W. DO -		Signature

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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur -
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project

Date:- 20.07.2014

Venue:- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
37	Habibul Nijja	W. Kelpara	Member	Signature
38	Sabita Nana	Kata Bari		Signature
39	Kela Sarkar Das	Ful Kumari		Signature
40	Sujan Das	Matabari		Signature
41	Lakshmi Chakrabarty	S. DO -		Signature
42	Pran Krishna Das	S. DO -		
43	Abhisit Das			Signature
44	Mitu Rani Das	Rajnagar		Signature
45	Anima Das	- DO -		Signature
46	Mitu Rani Das	- DO -		Signature
47	Gouri Rani Singh	Maharani		Signature
48	Lakshmi Das	- DO -		Signature



Name of Line: Construction of 132 KV Udaipur - Amarpur Line, 132kV Udaipur - Bagafa Line & associated distribution lines (with financial assistance of WORLD BANK) under NERPSIP Project

Date- 20.09.2014

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
49	Prabhu Ghosh	Maharuni		Babur Ghosh
50	Dulal Majumdar	- DO -		2 marks
51	Sabira Prisi	- DO -		2 marks
52	Narain Chakraborty	- DO -		Narain Chakraborty
53	Hemangshu Das	- DO -		2 marks
54	Safali Pal	Kelpara		Safali Pal
55	Chitra Hazra	Mata Bini		Chitra Hazra
56	Renu Nag	Pal Kumari		Renu Nag
57	Goparani Das	- DO -		Goparani Das
58	Durani Das	- DO -		5 marks
59	Prabir Majumdar	- DO -		2 marks
60	Subash Sharma	S. Katabani		Subash Sharma

Name of Line:- Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur - Bagafa Line & associated distribution lines(with financial assistance of WORLD BANK) under NERPSIP Project

Date- 26 Dec, 20/24

Venue- MATABARI

[illegible]

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)

Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project
Venue- MATABARI

Date- 25.04.2019

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
64	Pradip Sil	Uttar Chandraipur		Pradip Sil
65	Dinkali Jey Deb	"		Dinkali Jey Deb
66	Dipali Banik Das	"		Dipali Banik Das
67	Rafik Mia	"		Rafik Mia
68	Suapam Ch Majumdar	Pitra		Suapam Ch Majumdar
69	Narash Ch Das	- Do -		Narash Ch Das
70	Biswajit Bhattacharya	Laxmi pati		Biswajit Bhattacharya
71	Abul Basar	Uttar Mahamni		Abul Basar
72	Rabindra Kr Das	- Do -		Rabindra Kr Das
73	Abdul Hanif	- Do -		Abdul Hanif
74	Rafik Mia	- Do -		Rafik Mia
75	Jharna Debbarma	"		Jharna Debbarma

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)

Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Amarpur Line, 132kV
Name of Line:- Udaipur - Bagafa Line & associated distribution lines(with
financial assistance of WORLD BANK) under NERPSIP Project

Date- 25.04.2019

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
76	Prerna Rani Dhar	Uttar Mahamni		Prerna Rani Dhar
77	Shipra Datta	Uttar Mahamni		Shipra Datta
78	Inam Uddin	M/L Pura		Inam Uddin
79	Uma Sankar Ghosh	"		Uma Sankar Ghosh
80	Sahar Mia	"		Sahar Mia
81	Nepal Ch Das	Pitra		Nepal Ch Das
82	Nakul Begam	- Do -		Nakul Begam
83	Priya Krishna Das	Matabari		Priya Krishna Das
84	Ashanjit K Sarker	Rajnagar		Ashanjit K Sarker
85	Suapam Bhattacharya	"		Suapam Bhattacharya
86	Lalita Chandra	Laxmi pati		Lalita Chandra
87	Jabita Das	"		Jabita Das

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project

Date- 20.07.2014

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
88	SUKLA RANI YUGI	Laxmibati		
89	Rina Sarkar	Maharai		
90	Sadhana Das	"		
91	Roy Sahajit Bhawanik	"		
92	AKKASE MIAH	"		
93	Jaton Ch. Bhawanik	"		
94	Biswanandhu Datta	South Matabari		
95	DIPAK ROY	Pitra		
96	Kuntal Das	South Matabari		
97	Ranjit Choudhary	Pitra		
98	Bi plab Dey	Darshin Matabari		
99	Giribala Das	Matabari		

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)

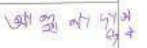


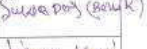



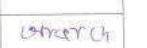
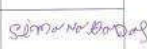

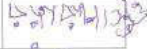



**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV
Udaipur - Bagafa Line & associated distribution lines(with
financial assistance of WORLD BANK) under NERPSIP Project

Date- 20.07.2014

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
100	Alpana Das (Deb)	Matabari		
101	Shefali Datta	Khilpara		
102	Jadulal Das	Matabari		
103	Sukhla Das (Bani)	Rajnagar	P. Samiti Member	
104	Latan Kanti Sen	Kunjaban		
105	Sujit Das	- DO -		
106	Johal Palaeas	Paschim Khilpara	Member	
107	Subash Karmakar	Kunjaban		
108	Aba Dey	Pat Kumari		
109	Soma Nalla Das	M. Khilpara		
110	M. K. Dhal	Vidhata Mahan Samiti		
111	Ratna Rani Sutar	Kunjaban		



পাওয়ারগ্রিড
POWERGRID

FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING/জন মতুনা সভার বিবরণ

Subject/ বিষয়
Construction of 132kV Bagafa- Satchand Line, 132kV Belonia - Sabroom Line & associated distribution lines (with financial assistance of WORLD BANK) under NERPSIP Project NERPSIP প্রকল্পের আওতায় (বিশ্ব ব্যাংকের আর্থিক সহায়তায়) 132kV বাগাফা - সাতচান্দ ও 132kV বীলোনিয়া - সাক্রম পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ
Place of Meeting/সভার স্থান
Satchand RD Block (BDO Office Conference Hall)/ সাতচান্দ ব্লক (BDO অফিস কনফারেন্স হল)
Date of Meeting/সভার তারিখ
26.09.2014 / ২৬.০৯.২০১৪
Name of the dignitary present in the meeting/ সভায় উপস্থিত মর্যাদাপূর্ণ ব্যক্তিদের নাম
A. Tripura Government/ ত্রিপুরা সরকার
1) Sh. Himangsu Roy, Sabhaadhipati, Belonia, South Tripura District 2) Sh. Hiralal Debbarma, Sr. DM 3) Sh. Goutam Chakraborty, BDO, Satchand
B. TSECL Officials/ TSECL কর্মকর্তাবা
1. Sh. Ratan Das, DGM, TSECL
C. POWERGRID Officials/ পাওয়ারগ্রিড কর্মকর্তাবা
1. Sh. N. Dube, DGM, POWERGRID 2. Sh. Anupam Acharya, Engineer, POWERGRID
People present in the meeting/ সভায় উপস্থিত জনসাধারণ
150-200 nos. of local village and some common public. (Attendance Sheet Enclosed) 150-200 জন স্থানীয় গ্রাম এবং কিছু সাধারণ পাবলিক (উপস্থিত ব্যক্তিবর্গের সাক্ষর)

Point addressed to the people/ আনা সাধারণের উদ্দেশ্য ভাষন:

A brief of the NORTH EASTERN REGION POWER SYSTEM IMPLEMENTATION PROJECT (NERPSIP) under the world bank assistance has been deliberated at the beginning of the meeting by Sh. Rattan Das, DGM, TSECL. Importance & necessity of the project, necessity for upgradation of existing transmission & distribution network, various environment & Social issues associated with the project have been briefly discussed and appraised to the public present in the meeting.

আলোচনা সভার শুরুতে TSECL এর ডেপুটি জেনারেল ম্যানেজার শ্রী রতন দাস মহাশয় বিশ্ব ব্যাংকের আর্থিক সহায়তায় উত্তর পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) সম্বন্ধে জনসাধারণের উদ্দেশ্যে সংক্ষিপ্ত তথ্য দিলেন। তাছাড়া প্রকল্পের প্রয়োজনীয়তা ও গুরুত্ব, বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন এর ক্ষমতা বৃদ্ধির প্রয়োজনীয়তা, প্রকল্পের সঙ্গে যুক্ত বিভিন্ন পরিবেশ ও সামাজিক বিষয়, সম্বন্ধে সংক্ষিপ্ত জানামত প্রদান উপস্থিত জনসাধারণের উদ্দেশ্যে।

Response from Public/ আনা সাধারণের থেকে প্রতিক্রিয়া

Representatives from the public also responded and raised various concerns about the project. The various issues raised by public are summarised as below:-

- Whether this line will improve the power supplies in our village and remove frequent interruption/outage?
- Whether these lines are safe for the nearby dwellers without any problems of electrocution while working in the fields?
- What is compensation policy for the standing crops damaged and compensation for the land occupied by the tower footings?
- What about employment for local people and procedure for same?

জনসাধারণের পক্ষ থেকেও প্রতিনিধিরা প্রতিক্রিয়া এবং প্রকল্প সম্পর্কে বিভিন্ন উদ্বেগ উত্থাপিত করলেন। জনসাধারণ দ্বারা উত্থাপিত কিছু গুরুত্বপূর্ণ বিষয় নীচের সংক্ষিপ্ত করা হলো :-

- এই প্রকল্প এর জন্য আমাদের গ্রামে বিদ্যুৎ সরবরাহ উন্নত হবে কিনা এবং ঘন ঘন বিদ্যুৎ বিচ্ছিন্নতা মুছে ফেলা যাবে কিনা?
- এই লাইন এর জন্য নিকটবর্তী গ্রামবাসীরা তাদের জমিতে কাজ করার সময় ভরিতা হতে পারে কিনা ক্ষতিগ্রস্ত হবে কিনা?
- ক্ষতিগ্রস্ত ফসলের ক্ষতিপূরণের জন্য ক্ষতিপূরণ নিয়ম কি হবে এবং টাওয়ার বানানোর জন্য যে জমি লাগবে তার ক্ষতিপূরণের কি নিয়ম হবে?
- এই প্রকল্পের জন্য স্থানীয় মানুষ এর কর্মসংস্থান এবং নিয়োগ নীতির কি নিয়ম হবে?

Conclusion/ উপসংহার

However all the public present have unanimously agreed to the necessity and importance of the project and assured their co-operation during the implementation of the project.

TSECL/POWERGRID has assured that all the genuine issues will be duly taken care of during the implementation of the project.

- ✚ This transmission line along with associated distribution line planned to be constructed for improvement of electricity supply and minimize the power cut in your village
- ✚ Sufficient electrical clearance will be maintained while construction of these line and hence no electrocution while working in the field.
- ✚ For damaged crops,trees sufficient compensation will be given as per the rate provided by district revenue authority. Further no land will be accrued while constructing the tower but sufficient surface compensation will be provided.
- ✚ Local people will be engaged during the construction of line and the engagement will be as per their skill.

The meeting has been concluded with a request to all public for their support in completion of the project.

ভাবে সবশেষে উপস্থিত জনসাধারণ সর্বসম্মতিক্রমে প্রকল্পের প্রয়োজনীয়তা এবং গুরুত্ব নিয়ে একমত প্রকাশ করেছেন এবং প্রকল্প বাস্তবায়ন সময় তাদের সহযোগিতা নিশ্চিত করেছেন।

TSECL / পাওয়ার গ্রিড কর্মকর্তারা সমস্ত বাস্তব সমস্যা উপর প্রকল্প বাস্তবায়নের সময় যথাযত নজর দেয়ার আশ্বাস দিয়েছেন। জনসাধারণের প্রশ্নের উত্তরে POWERGRID/TSECL কর্মকর্তারা বলেন,

- ✚ এই বিদ্যুৎ পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ এর ফলে এই এলাকার বিদ্যুৎ বেবস্বার উন্নতি হবে এবং ঘন ঘন বিদ্যুৎ কাটা বন্ধ হবে।
- ✚ বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন নির্মাণের সময় যথেষ্ট বৈদ্যুতিক ব্যবধান রক্ষণাবেক্ষণ করা হবে যাতে বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন কাছাকাছি বা নিকটবর্তী মাঠে কাজ করা লোকদের কোনো ভারিভাষ্যের সম্ভাবনা না থাকে।
- ✚ ক্ষতিগ্রস্ত ফসলের ও গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে। টাওয়ার বানানোর জন্য কোনো জমি অধিগ্রহণ করা হবে না কিন্তু টাওয়ার বানানোর ফলে যে গাছ বা ফসল ক্ষতি হবে তার ক্ষতি পূরণ দেওয়া হবে
- ✚ প্রকল্প কাজের রূপায়নের সময় গ্রামের তথা স্থানীয় কারিগর/ শ্রমিক দের তাদের যুগ্যতা অনুযায়ী নিয়োগ করা হবে।

প্রকল্প বাস্তবায়নে জনসাধারণের সহযোগিতার অনুরোধের সঙ্গে সভা সমাপ্তির ঘোষণা করা হয়েছে



**पावरग्रिड
POWERGRID**

FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Name of Line: Construction of 132kV Bagafa- Satchand Line, 132kV Belonia - Sabroom Line & associated distribution lines

Venue- SATCHAND

Date- 26.07.2014

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
1	Shrawan Das	Thakur	Member	
2	Shrawan Das	Uttar-garhi	Member	Monji Thakur
3	Swarna Das	Dakshin, Ghatolali	Member	Shrawan Das
4	Kanchanmali Das	Kalachara	Member	Kanchan Das
5	Halita Das	Nakagrav	Member	Shrawan Das
6	Khokan Ray	Kalachara	Upa - Pradhan	Khokan Ray
7	Gravesh Ch. Ray	-do-	Member	Ganesh Ch. Ray
8	Nivedita Nandi Bhawmik	Purba Harin	Pradhan	Nivedita Nandi (Bhawmik)
9	Usha Rani Ray	Purba Harin	Member	Usha Rani Ray
10	Santibata Shil	Purba Harin	Member	
11	Ratna Debnath	-do-	-do-	Ratna Debnath
12	Kamal Krishna Debnath	-do-	-do-	Kamal Krishna Debnath

TRIPURA STATE ELECTRICITY CORPORATION LTD
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Public Consultation Meeting ATTENDANCE SHEET

Name of Line: Construction of 132kV Bagafa- Satchand Line, 132kV Belonia - Sabroom Line & associated distribution lines

Venue- SATCHAND

Date- 26.07.2014

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
13	Shrawan Das	Purba Harin	Member	Shrawan Das
14	Shrawan Ch. Das	Satchand	Member	Shrawan Ch. Das
15	Shrawan Ch. Das	Mamukata	Member	Shrawan Ch. Das
16	Shrawan Das (Name)	-do-	Member	Shrawan Das
17	Shrawan Das	-do-	-do-	Shrawan Das
18	Shrawan Majumdar	Satchand	-do-	Boppi Majumdar
19	Shrawan Das Majumdar	-do-	-do-	Shrawan Das Majumdar
20	Shrawan Banik	Mamukata	-do-	Laxmi Banik
21	Sri Sanyal Chandra	-do-	-do-	Sri Sanyal Chandra
22	Shrawan Das	-do-	-do-	Shrawan Das
23	Shrawan Das	-do-	-do-	Shrawan Das
24	Kanchan Das	Purba Harin	-do-	Kanchan Das



FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Name of Line:- Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
25	Sh. Jadar Lal D/Mithi	South Govatala	Member	[Signature]
26	Sh. Manik Das	Satchand	Chairperson	[Signature]
27	Sh. Rana Kishore Kumar	Foot chon	Chairman	Rana Kishore Kumar
28	Sh. Manohar Sarkar	pengukhara	Member	[Signature]
29	" Pratik Das	Manu Bayar	- Do -	Mandrasankar
30	Sh. Subrata Majumdar	Manugant (Andiranagar)	- Do -	Ratimajumdar
31	" Ganesh Ch. Debnath	Andiranagar	- Do -	Subrata Majumdar
32	Sh. Praba Datta	- Do -	- Do -	Ganesh Ch. Debnath
33	" Rajal Majumdar	- Do -	- Do -	Prabha Datta
34	" Shipra Das	- Do -	- Do -	Rajal Majumdar
				Shipra Das

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Name of Line:- Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
35	Sh. Shipra Das	Chalita Chari A.D. village	Pradhan	Shipra Das
36	" Suparna Paul	W. Harina	Member	Suparna Paul (Majumdar)
37	" Namita Sarkar	- Do -	Pradhan	Namita Sarkar (Das)
38	" Naichai Mog	Katapani	Pradhan	Naichai Mog
39	" Nime Mog	- Do -	Member	Nime Mog
40	Sh. Apra Mog	- Do -	- Do -	Apra Mog
41	Sh. Jarna Sarkar	- Do -	- Do -	Jarna Sarkar
42	" Archana Sarkar	Nabagram	Pradhan	Archana Sarkar
43	" Gita Sarkar	- Do -	Member	Gita Sarkar
44	Sh. Manindra Das	- Do -	- Do -	Manindra Das
45	" Binmal Das	Satchand	- Do -	Binmal Das
46	" Dinesh Das	N. Govatala Das Para	- Do -	Dinesh Das



**पावरग्रिड
POWERGRID**

FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Name of Line:- Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
47	Sh. Anup choudhury	Kalapani	Member	Anup Choudhury
48	Sh. Lipi Roy Das	B. K. Pally, Panchajit	Upa Pradhan	Lipi Roy Das
49	Sh. Akren Paul	Nabagram	- DO -	Akren Paul
50	Sh. Krishna Dutta	Satchand	Member	Krishna Dutta
51	Sh. Jayapati Tripathi	- DO -	- DO -	Jayapati Tripathi
52	Sh. Rajat Kumar Das	Nabagram	- DO -	Rajat Kumar Das
53	Sh. Manohar Choudhary	Satchand	- DO -	Manohar Choudhary
54	Sh. Pradip Kumar Tripathi	- DO -	- DO -	Pradip Kumar Tripathi
55	Sh. Satish Kumar Tripathi	Satchand	Chair Person	Satish Kumar Tripathi
56	Sh. Tota Ram Das	Kalachara	Member	Tota Ram Das
57	Sh. Bishwanath Ray	Nabagram	- DO -	Bishwanath Ray
58	Sh. Dipak Banik	Kanu Nagar	Member	Dipak Banik

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Name of Line:- Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
59	Sh. Raj Kumar Das	Satchand	Pradhan	Raj Kumar Das
60	Sh. Roshni D. Das	- DO -	Member	Roshni D. Das
61	Sh. Gouri Paul	- DO -	- DO -	Gouri Paul
62	Sh. Subir Kumar	Satchand	- DO -	Subir Kumar
63	Sh. Manu Das	Satchand	- DO -	Manu Das
64	Sh. Ratan Sarkar	Nabagram	- DO -	Ratan Sarkar
65	Sh. Lalita Das	- DO -	- DO -	Lalita Das
66	Sh. Archana Debbarth	Gopabali	- DO -	Archana Debbarth
67	Sh. Phol Kati	- DO -	- DO -	Phol Kati
68	Sh. Jyotsna Debbarth	Kalapani	- DO -	Jyotsna Debbarth
69	Sh. Sanjit Das	Nabagram	- DO -	Sanjit Das
70	Sh. Parimal Patra	Gopabali	- DO -	Parimal Patra



**पावरग्रिड
POWERGRID**

FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Name of Line: Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date: 26.04.2014 Venue: SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
71	Sh. Partha Debbarma	N. Patara	Member -	Sh. Partha Debbarma
72	" Khotes Ch. Das	N. Gomati	- do -	Khotes Ch. Das
73	" Dulal Das	N. Harina	- do -	Dulal Das
74	Sh. Shekhar Das (nath)	B. K. Pally	- do -	Sh. Shekhar Das
75	" Rakhi Das	- do -	- do -	Rakhi Das
76	" Sukla Debbarma	- do -	- do -	Sukla Debbarma
77	" Omkar Ch. Das	- do -	- do -	Omkar Ch. Das
78	" Bhupal Das	- do -	- do -	Bhupal Das
79	Sh. Lakshmi Das	Dan Dama	- do -	Lakshmi Das
80	" Anu Rajendran (Bani K)	- do -	- do -	Anu Rajendran
81	Sanjay Choudhary	Surethi Beharal	- do -	Sanjay Choudhary
82	Sanjay D. Nath	- do -	- do -	Sanjay D. Nath

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



Public Consultation Meeting ATTENDANCE SHEET

Name of Line: Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date: 26.04.2014 Venue: SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
83	Sh. Parimal Debbarma	Rajibnagar	Member -	Sh. Parimal Debbarma
84	Sh. Jyotsna Chakrabarti	Kaladara	- do -	Jyotsna Chakrabarti
85	Sh. Jayanta Bhattacharya	Battala	- do -	Jayanta Bhattacharya
86	" Shiba Ranjan Das	- do -	"	Shiba Ranjan Das
87	" Parman Nanda	N. Dalakur	"	Parman Nanda
88	" Tapan Majumdar	Battala	"	Tapan Majumdar
89	Sh. Maya Raninath	- do -	"	Maya Raninath
90	" Debbarma Das	S. Harina	"	Debbarma Das
91	" Renuka Das	- do -	"	Renuka Das
92	" Pulut Das	Jalapa	"	Pulut Das
93	" Parimal Ch. Das	E. Jalapa	Member	Parimal Ch. Das
94	Sh. Jayanta Tripathy	- do -	Member	Sh. Jayanta Tripathy

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



**Public Consultation Meeting
ATTENDANCE SHEET**

Name of Line:- Construction of 132kV Bagafa- Satchand Line, 132kV Belonia - Sabroom Line & associated distribution lines

Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
95	Smt - Ratna Sharma	E-Jalapa	member	Ratna Sharma
96	Sh. Jahanul Haque	Nandigram	- do -	Jahanul Haque
97	" Ganajoy Deb Nath	Rajibnagar	- do -	Ganajoy Deb Nath
98	" Arun Ch. Das	Lokanta Palla	- do -	Arun Ch. Das
99	" Narayan Deb Nath	- do -	"	Narayan Deb Nath
100	" Chintan Kumar Das	- do -	Pradhan	Chintan Kumar Das
101	Smt. Shikha Das Majumdar	Rajibnagar	member	Shikha Das Majumdar
102	Sh. Bishunjit Majumdar	- do -	"	Bishunjit Majumdar
103	" Rajib Sarkar	- do -	"	Rajib Sarkar
104	" Babatosh Majumdar	- do -	"	Babatosh Majumdar
105	Smt. Medhu Sarkar	- do -	"	Medhu Sarkar
106	" Rina Subudhar	- do -	"	Rina Subudhar

Photographs of Public Consultation held on 15th Sep'2014 at Bagafa



Photographs of Public Consultation held on 20th Sep'2014 at Udaipur



Photographs of Public Consultation held on 26th Sep'2014 at Satchand



 पावरग्रिड POWERGRID	FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura	
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Appendix C

TOWER SCHEDULE

Udaipur to Bagafa 132 kV D/C TL - 31.943 Km

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GRANTRY (UDAIPUR) TO AP-4/0 (TOTAL LENGTH:- 0.631 KM.)

AS PER DETAIL SURVEY						AS PER CHECK SURVEY										REMARKS								
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)		REDUCE LEVEL (M)	HOT WEIGHT SPAN (M)	COLD WEIGHT SPAN (M)	COORDINATE				
																	LEFT	RIGHT	TOTAL	EASTING	NORTHING			
1	GAT	GAT	GAT		08°25'41"	40	40.0	1	GAT	GAT	GAT		08°25'41"	40	40.0	32.130	0.0	26.1	26.1	0.0	26.5	26.5	248563	2601195
2	AP1	3/0	DB+0	0	00°00'00"	80	80.0	2	AP1	3/0	DB+0	0	00°00'00"	80	80.0	22.230	3.8	45.1	51.2	35.5	27.2	43.7	248602	2601186
3	AP2	2/0	DB+1	3	48°26'06" (RT)	80	80.0	3	AP2	2/0	DB+1	3	48°26'06" (RT)	80	80.0	54.445	27.1	82.5	82.5	262.8	309.7	302.5	248924	2602118
4	AP4	4/0	DB+1	9	2°17'25" (LT)	281	281.0	4	AP4	4/0	DB+1	9	2°17'25" (LT)	281	281.0	53.952	181.5	8.8	193.3	171.3	8.8	371.1	249244	2603873
						631.0								631.0										

Approved
Note:- ① The approved doesn't assume responsibility of contractor.

TYPE OF TOWER	EXTENSION				TOTAL	GRAND TOTAL
	0	3	6	9		
DA	0	0	0	0	0	3
DB	0	0	0	0	0	
DC	0	0	0	0	0	
DD	1	1	0	1	3	

FOR TEEMS INDIA			FOR EMC			FOR POWER GRID CORPORATION OF INDIA LTD.		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Bromendal	Amor Sin	[Signature]	[Signature]	[Signature]	[Signature]	Rajin Sankar	[Signature]	[Signature]
CHENNAI			CHENNAI			CHENNAI		

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP-4/0 TO AP-5/0 (TOTAL LENGTH:- 0.095 KM.)

AS PER DETAIL SURVEY						AS PER CHECK SURVEY										REMARKS								
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)		REDUCE LEVEL (M)	HOT WEIGHT SPAN (M)	COLD WEIGHT SPAN (M)	COORDINATE	VILLAGE NAME			
																	LEFT	RIGHT	TOTAL	LATITUDE	LONGITUDE			
1	AP-4	4/0	DB+3	9	02°17'25" (LT)	75	75	1	AP-4	4/0	DB+3	9	02°17'25" (LT)	75	75	53.912	188.5	189	376.5	171	265	458.3	23°31'48.83"	91°31'15.80"
2	AP-5	5/0	DB+0	0	12°53'04" (RT)	95	95	2	AP-5	5/0	DB+0	0	12°53'04" (RT)	95	95	53.506	89	3	87	190	75	260	23°31'42.33"	91°31'15.93"
						TOTAL	95							TOTAL	95									

TYPE OF TOWER	EXTENSION				TOTAL	GRAND TOTAL
	+0	+3	+6	+9		
DA	0	0	0	0	0	2
DB	1	0	0	1	2	
DC	0	0	0	0	0	
DD	0	0	0	0	0	

FOR TEEMS INDIA			FOR EMC			FOR POWER GRID CORPORATION OF INDIA LTD.		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Bromendal	Amor Sin	[Signature]	[Signature]	[Signature]	[Signature]	Rajin Sankar	[Signature]	[Signature]
CHENNAI			CHENNAI			CHENNAI		



एन. के. नाग / M.K.NAG
उप महाप्रबंधक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
एन. ए. उदयपुर / NER UDAIPUR

एम. के. नाग / M.K.NAG
उप महाप्रबंधक/Dy.GENERAL MANAGER
पावरग्रिड / POWERGRID
सुप.प.क्षेत्र उदयपुर / NER UDAIPUR

LINE NAME: 10KV DC TRANSMISSION LINE FROM UDAIPUR TO BAGATA CONTRACTOR: TEEMS INDIA POWERLINES PRIVATE LIMITED CHECK SURVEY REPORT (From AP-34 to AP-44 & AP-45 to AP-46, Total -21.075)																							
AS PER DETAIL SURVEY										AS PER CHECK SURVEY													
AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	ADA Type	Wind Span	Reduced Level	Coordinate		AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	ADA Type	Wind Span	Reduced Level	Coordinate			
									Northing	Easting										Northing	Easting		
18	AP-345	245	DC-1	18°37'39"	120					22°27'36.00"	91°54'11.88"	AP-34	245	DC-1	17°40'54" RT	186.904	177.600	127.380	333.79	56.026	22°27'36.30"	91°54'11.78"	
19	AP-356	256	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-35	256	DB-0	17°37'51" RT	234.809	166.904	163.175	261.80	42.656	22°27'36.10"	91°54'14.12"	
20	AP-367	267	DB-0	18°37'39" LT	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-36	267	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
21	AP-378	278	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-37	278	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
22	AP-389	289	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-38	289	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
23	AP-390	290	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-39	290	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
24	AP-391	291	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-40	291	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
25	AP-392	292	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-41	292	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
26	AP-393	293	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-42	293	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
27	AP-394	294	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-43	294	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
28	AP-395	295	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-44	295	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
29	AP-401	301	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-45	301	DB-0	18°11'10" LT	306.303	256.809	163.183	261.80	42.312	22°27'36.20"	91°54'14.12"	
30	AP-420	420	DB-0	18°37'39" LT	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-46	420	DB-0	18°23'51" LT	340.715	542.305	453.484	108.83	13.261	22°30'12.60"	91°54'08.12"	
31	AP-421	421	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-47	421	DB-0									
32	AP-434	434	CO-1	18°37'39" RT	204	199	398	203.30	165.7	22°29'02.30"	91°54'05.60"	AP-48	434	DB-0	18°14'42" RT	302.503	699.628	199.022	296.51	82.864	22°34'53.10"	91°54'51.80"	
33	AP-431	431	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-49	431	DB-0	18°37'39" RT	302.503	699.628	199.022	296.51	82.864	22°34'53.10"	91°54'51.80"	
34	AP-432	432	DB-0	18°37'39"	362	702	504	282.80	105.83	22°27'36.00"	91°54'14.20"	AP-50	432	DB-0	18°37'39" RT	302.503	699.628	199.022	296.51	82.864	22°34'53.10"	91°54'51.80"	

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAPUR TO BAGGA TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP45 - AP51 (TOTAL LENGTH: 2.062 KM.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY																
SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	REDUCE LEVEL (M)	COLD WEIGHT SPAN (M)			HOT WEIGHT SPAN (M)			COORDINATE		REMARKS	
																	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING		
1	AP45	45/0	DB+0	0	12°48'33" (RT)	307	307	1	AP45	45/0	DB+0	0	12°48'33" (RT)	307	307	154.95	52.77	188.1	138.53	37.07	175.42	203.49	359.99	258980	259000	C&D - L.S.M.
2	AP46	46/0	DB+0	0	24°14'24" (LT)	225	307	2	AP46	46/0	DB+0	0	24°14'24" (LT)	225	307	133.78	112.7	247.59	355.25	133.38	189.09	328.97	363.74	259000	259000	VILLAGE ROAD, MALA, PHE
3	AP47	47/0	DB+0	0	19°45'36" (LT)	248	225	3	AP47	47/0	DB+0	0	19°45'36" (LT)	248	225	57.81	0	57	92	0	133	133	364.93	259029	259029	BT, LT LINE, METAL ROAD
4		47/1	DB+6	6	30°00'00"	138		4		47/1	DB+6	6	30°00'00"	138		80.1	133	188	334	155	171	324	259295	259038	33V LINE, AGRICULTURAL LAND	
5	AP48	48/0	DB+3	3	01°56'56" (LT)	304	304	5	AP48	48/0	DB+3	3	01°56'56" (LT)	304	304	80.23	115	132	247	145	129	174	355295	259048	33V LINE, AGRICULTURAL LAND	
6	AP49	49/0	DB+6	6	32°40'18" (LT)	253	304	6	AP49	49/0	DB+6	6	32°40'18" (LT)	253	304	81.72	192	98	290	175	150	285	355304	259090	33V LINE, AGRICULTURAL LAND	
7	AP50	50/0	DB+6	6	18°14'09" (LT)	387	253	7	AP50	50/0	DB+6	6	18°14'09" (LT)	387	253	64.39	155	155	311	142	173	338	355407	259118	33V LINE, 230VOLT, PUSKA ROAD	
8	AP51	51/0	DB+9	9	44°08'37" (RT)	387	387	8	AP51	51/0	DB+9	9	44°08'37" (RT)	387	387	16.32	223	215	482	324	172	388	355788	259183	PANCHU DAM, AGRICULTURAL LAND, NELLAPHEWOL, PONDUNDAL, MEV	

2067
- 883
1695

2067
- 883
1695

TOWER SUMMARY						
TYPE OF TOWER	EXTENTION				TOTAL	GRAND TOTAL
	+0	+3	+6	+9		
DA	0	0	1	0	1	8
DB	2	2	0	0	3	
DC	1	0	1	0	2	
DD	0	0	1	1	2	

Approved:-
Note:- ① The approval does not assume responsibility of contractor.
② Missing details have been separately submitted.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Bomondal	Imon Sin	ABHIJIT DEY			

FOR POWER GRID CORPORATION OF INDIA LTD.			
RECOMMENDED BY	CHECKED BY	APPROVED BY	
Rajendra 19/05/20	ABHIJIT DEY	ABHIJIT DEY	

वीर सावरकर / POWERGRID
उ.प. के. उदयपुर / NER UDAIPUR
19.05.20
अखिल चक्रवर्ती / JE
पावरग्रिड / POWERGRID
उ.प. के. उदयपुर / NER UDAIPUR

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAPUR TO BAGGA TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP11 - AP12 & AP18 - AP19 (TOTAL LENGTH: 0.424 KM.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY														REMARKS	
SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	REDUCE LEVEL (M)	COLD WEIGHT SPAN (M)			HOT WEIGHT SPAN (M)			COORDINATE		
																	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING		NORTHING
1	AP11	11/0	DB+0	0	33°50'50" (LT)	168.0	168.0	1	AP11	11/0	DB+0	0	33°50'50" (LT)	168.0	168.0	72.560	0.0	25.3	25.3	0.0	49.8	49.8	350984.99	2601211.05	66kv Line Road
2	AP12	12/0	DB+0	0	42°51'53" (RT)			2	AP12	12/0	DB+0	0	42°51'53" (RT)			76.100	142.2	0.0	142.2	117.7	0.0	117.7	351119.90	2601311.10	
1	AP18	18/0	DB+9	9	26°08'57" (LT)	256	256.0	1	AP18	18/0	DB+9	9	26°08'57" (LT)	256	256.0	28.524	0.0	155.6	155.6	0.0	120.9	120.9	352726.00	2600857.00	66kv Line
2	AP19	19/0	DB+9	9	39°12'55" (LT)			2	AP19	19/0	DB+9	9	39°12'55" (LT)			29.717	140.8	0.0	140.8	135.3	0.0	135.3	352761.13	2600639.09	

TOWER SUMMARY						
TYPE OF TOWER	EXTENTION				TOTAL	GRAND TOTAL
	0	3	6	9		
DA	0	0	0	0	0	4
DB	0	0	0	0	0	
DC	0	0	0	1	1	
DD	2	0	0	1	3	

Approved:-
Note:- The approval does not assume responsibility of contractor.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Bomondal	Imon Sin	ABHIJIT DEY			

FOR POWER GRID CORPORATION OF INDIA LTD.			
RECOMMENDED BY	CHECKED BY	APPROVED BY	
Rajendra 19/05/20	ABHIJIT DEY	ABHIJIT DEY	

वीर सावरकर / POWERGRID
उ.प. के. उदयपुर / NER UDAIPUR
19.05.20
अखिल चक्रवर्ती / JE
पावरग्रिड / POWERGRID
उ.प. के. उदयपुर / NER UDAIPUR

LINE NAME: LDKV DC TRANSMISSION LINE FROM UDAIPUR TO BAGAPA CONTRACTOR: TEAMS INDIA CONSTRUCTION PRIVATE LIMITED CHECK SURVEY REPORT (From AP-30 to AP-38 & AP-39 to AP-36, Total - 12.475)																										
AS PER RETAIL SURVEY												AS PER CHECK SURVEY												Remarks	CPD / BENCHMARK	Village Name
AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Robert Level	Coordinates Northing	Coordinates Easting	AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Robert Level	Coordinates Northing	Coordinates Easting					
				189		400	181.56	126.76							186.113		412.933	206.48	98.812	23°27'43.05"	91°37'33.47"	RT	Proposed for Benchmarking	Adiga		
44	531	DB-0	00°00'00"									523	DB-0			186.6							RT	Proposed for Benchmarking	Adiga	
45	AP-530	530	DC-3	00°00'00" LT	328	403	216.59	137.59	125°27'36.4"	91°38'16.4"	AP-531	530	DC-3	24°13'02" LT	317.300		412.943	433.040	136.05	76.707	23°27'59.31"	91°37'39.24"	RT	Proposed for Benchmarking	Adiga	
46	AP-540	540	DC-0	32°13'36" LT	229	219	444	232.80	91.38	125°27'32.5"	91°38'18.1"	AP-540	540	DC-0	17°29'20" LT	217.380		436.386	138.14	90.331	23°27'52.48"	91°37'18.12"		Village Road, Adiga, PEP	Adiga	
47	541	DB-7		225		496	243.80	143.96	126°02'12.0"	91°37'51.1"	541	DB-7			231.400		473.476	235.76	48.035	23°27'52.56"	91°37'33.68"		Adiga	Adiga		
48	AP-550	550	DB-3	02°20'18" LT	265	456	417	268.79	11.85	126°01'09.3"	91°38'05.1"	AP-551	550	DB-3	08°17'53" LT	473.476		466.497	343.25	88.081	23°27'57.31"	91°37'33.39"		Adiga	Adiga	
49	AP-556	556	DB-6	02°20'18" LT	262	452	472	276.06	13.63	126°01'02.1"	91°38'01.4"	AP-556	556	DB-6	02°29'22" LT	354.000		472.433	346.28	46.508	23°27'58.39"	91°37'33.90"		Adiga	Adiga	
50	AP-56	56	DB-4	02°20'18" LT	480	490	496	348.08	12.66	125°57'56.4"	91°38'28.8"	AP-56	56	DB-4	02°20'18" LT	415.540		418.541	712.261	194.13	45.960	23°27'53.31"	91°37'28.70"		Adiga	Adiga
51	AP-570	570	DB-4	18°49'30" LT	296	421	421	213.50	176.83	125°57'48.8"	91°38'22.8"	AP-570	570	DB-4	19°19'30" LT	327.494		263.712	421.206	116.66	23°27'40.68"	91°37'33.76"		Adiga	Adiga	
52	571	DB-4	00°00'00"	233		543	271.50	129.45			571	DB-4	00°00'00"		238.878		446.273	274.19	71.198	23°27'58.09"	91°37'33.69"		Adiga	Adiga		
53	572	DB-4	00°00'00"	233		423	211.50	137.31			572	DB-4	00°00'00"		269.332		430.211	215.11	43.921	23°27'53.34"	91°37'29.24"		Adiga	Adiga		
54	AP-580	580	DB-6	18°13'28" LT	344	554	155	177.30	146.71	125°57'38.4"	91°38'34.9"	AP-580	580	DB-6	19°10'32" LT	344.879		377.705	554.192	277.01	100.869	23°27'28.90"	91°37'44.60"		Adiga	Adiga
55	581	DB-3	00°00'00"		664	172.09	148.13				581	DB-3	00°00'00"				666.333	353.30	70.40	23°27'23.44"	91°37'43.22"		Adiga	Adiga		

Rajesh Chatterjee
PUUSH KANTI CHATTERJEE
ASST PROJECT ENGINEER
TEAMS INDIA
12/11/19

Raju Shreedharan
RAJU SHREEDHARAN
Chief Project Manager.

FOR EMC LIMITED
Abhijit Deo
(ABHIJIT DEO)
PROJECT MANAGER

Rajesh Singh
राजेश कुमार सिंह / FIELD SUPERVISOR
पवर ग्रिड / POWER GRID
उ.प. से. उदयपुर / NER, UDAIPUR

M. K. NAG
M. K. NAG
GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.प. से. उदयपुर / NER UDAIPUR

M. K. NAG
एम. के. नाग / M.K.NAG
उप महाप्रबन्धक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.प. से. उदयपुर / NER UDAIPUR

LINE NAME: LDKV DC TRANSMISSION LINE FROM UDAIPUR TO BAGAPA CONTRACTOR: TEAMS INDIA TOWERLANDS PRIVATE LIMITED CHECK SURVEY REPORT (From AP-36 to AP-38 & AP-39 to AP-36, Total - 12.475)																									
AS PER RETAIL SURVEY													AS PER CHECK SURVEY												
AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Robert Level	Coordinates		AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Robert Level	Coordinates		Remarks	CPD / BENCHMARK	Village Name	
									Northing	Easting										Northing	Easting				
				320											311.794							RT, Marley	Proposed for Rectifying	Delapra	
56	583	DB-0	00°00'00"			560	253.00	136.24			583	DB-0	00°00'00"		309.067	254.53	81.681		23°27'18.79"	91°37'43.16"					
57	584	DB-1	00°00'00"	286		564	183.00	124.84			583	DB-1	01°11'38" LT		187.273		300.718	180.36	72.147	23°27'16.05"	91°37'47.32"	RT	Proposed for Rectifying	Delapra	
				180											177.443							Panel, PLY		Delapra	
58	AP-590	590	DB-0	09°42'13" LT	187	1038	367	182.56	147.64	23°27'13.8"	91°34'36.4"	AP-590	590	DB-0	34°22'27" LT	1027.209	341.882	183.94	31.064	23°27'13.47"	91°37'43.73"				
59	AP-600	600	DB-0	01°49'13" LT	187	408	340.00	122.08	125°27'13.8"	91°34'36.4"	AP-600	600	DB-0	09°42'13" LT	188.439	561.962	230.91	47.333	23°27'13.47"	91°37'43.73"	RT		Delapra		
				311											313.443							RT		Delapra	
60	AP-610	610	DB-0	17°48'13" LT	211	311	272	288.00	103.38	23°27'13.8"	91°34'36.4"	AP-610	610	DB-0	09°42'13" LT	313.443	340.863	280.91	47.587	23°27'13.47"	91°37'43.13"				
				263											256							Dist. LT, 116V, Tar Road, RT, Nala	Seven-Roller, Angarap, Tar Road Crossing	Delapra	
61	611	DB-0	00°00'00"			624	312.00	108.43			611	DB-0	00°00'00"		358		307.00	45.519	23°27'13.47"	91°37'43.80"					
62	612	DB-0	00°00'00"	363		563	280.30	88.45			612	DB-0	00°00'00"		358		307.00	45.519	23°27'13.47"	91°37'43.80"	Agri, Ghosil Land		Delapra		
63	AP-620	620	DB-3	21°49'23" RT	187	823	315	157.50	87.3	125°27'13.8"	91°34'36.4"	AP-620	620	DB-3	19°29'28" RT	180.71	513.82	256.93	45.186	23°27'13.47"	91°37'43.79"	Agri, Ghosil Land		Delapra	
				312											109.12		580.71	313.82	256.93	45.186	23°27'13.47"	91°37'43.79"	Agri, Ghosil Land, Nala		Delapra
64	AP-630	630	DB-0	29°03'10" LT	217	317	382	291.80	47.77	126°02'12.0"	91°38'05.1"	AP-630	630	DB-0	04°49'13" LT	229.12	580.475	291.74	42.769	23°27'13.37"	91°37'43.58"	Agri, Ghosil Land, Nala		Delapra	
				267											265.359		343.359	499.332	248.68	49.214	23°27'12.65"	91°37'43.28"	Agri, Ghosil Land, Nala		Delapra
65	AP-640	640	DB-0	38°11'13" RT	233	267	380	245.00	45.73	126°01'02.1"	91°38'01.4"	AP-640	640	DB-0	28°26'28" RT	265.359	343.359	499.332	248.68	49.214	23°27'12.65"	91°37'43.28"	Agri, Ghosil Land		Delapra
				239											230.007		486.051	243.03	38.768	23°27'13.47"	91°37'43.72"	Agri, Ghosil Land		Delapra	
66	641	DB-3		239		481	242.50	47.52	126°01'02.1"	91°38'01.4"	641	DB-3	00°00'00"		230.007		486.051	243.03	38.768	23°27'13.47"	91°37'43.72"	Nala, police Road		Delapra	
67	AP-650	650	DB-3	01°09'44" LT	217	481	347	283.30	42.9	126°01'02.1"	91°38'01.4"	AP-650	650	DB-3	12°19'47" LT	314.029	486.051	308.086	38.768	23°27'13.37"	91°37'43.18"	Agri, Ghosil Land, Nala, Dist. Road		Delapra	
				317											314.029										
68	651	DB-4	00°00'00"			631	321.50	42.72	126°01'02.1"	91°38'01.4"	651	DB-4	00°00'00"				632.933	324.48	36.18	23°27'13.47"	91°37'43.83"	Agri, Ghosil Land, Dist. Road		Delapra	
				334											334.504										
69	AP-660	660	DB-3	18°13'28" RT	234	651	532	261.80	42.43	126°01'02.1"	91°38'01.4"	AP-660	660	DB-3	18°13'28" RT	334.504	452.953	521.689	380.88	25.166	23°27'13.47"	91°37'43.76"	Agri, Ghosil Land, Dist. Road		Delapra
				188											186.087										
70	AP-670	670	DB-0	00°00'00" RT	188	188	400	249.50	44.12	126°01'02.1"	91°38'01.4"	AP-670	670	DB-0	07°40'10" RT	186.087	386.463	490.363	243.23	25.184	23°27'13.47"	91°37'43.14"	Dist. Agri, Ghosil Land, Dist. Road		Delapra
				311											304.414										
71	AP-680	680	DB-4	09°27'20" LT	311	311	477	238.79	34.5	126°01'02.1"	91°38'01.4"	AP-680	680	DB-4	34°27'13" LT	100.48	526.036	464.476	232.25	49.058	23°27'13.37"	91°37'43.61"	Agri, Ghosil Land, Dist. Road		Delapra
				186											160.48										
72	AP-690	690	DB-0	38°21'20" LT	234	334	429	220.00	45.93	126°01'02.1"	91°38'01.4"	AP-690	690	DB-0	38°21'20" LT	241.822	340.48	462.762	261.12	33.559	23°27'13.37"	91°37'43.69"	Agri, Ghosil Land		Delapra
				251											241.822										
73	691	DB-0		251		509	254.50	40.9	126°01'02.1"	91°38'01.4"	691	DB-0			265.7		567.532	255.76	34.379	23°27'13.47"	91°37'43.47"	Agri, Ghosil Land, Dist. Road		Delapra	

Rajesh Singh
राजेश कुमार सिंह / FIELD SUPERVISOR
पवर ग्रिड / POWER GRID
उ.प. से. उदयपुर / NER, UDAIPUR

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उ.प. से. उदयपुर / NER UDAIPUR



Rajiv Singh
प्रोजेक्ट एक्जिक्यूटिव / PROJECT SUPERVISOR
पावर ग्रिड / POWER GRID
उ.पू.वे. उदयपुर / NER, UDAIPUR

Pooja Kanti Chatterjee
13/11/19
PUJUSH KANTI CHATTERJEE
ASST PROJECT ENGINEER
TEEMS INDIA

Raju Shreeharan
RAJU SHREEHARAN
Chief Project Manager.

FOR EMC LIMITED
Sudhu
(ABHIJIT DEY)
PROJECT MANAGER
Monsieur Sr. Surveyor
Teams India.

N.K.NAG
25/11/19
एन.के.नाम / N.K.NAG
उप महाप्रबन्धक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.पू. वे. उदयपुर / NER UDAIPUR

Abhishek Halder
अभिषेक हाल्देर
GENERAL MANAGER
POWERGRID
वे.पू. / NER UDAIPUR

LINE NAME: JOKHY DC TRANSMISSION LINE FROM URAHAPUR TO BAGARA																										
CONTRACT NO. - 31145 INDIA TOWER LINES PRIVATE LIMITED																										
CHECK SURVEY REPORT (From AP-51 to AP-51-R, AP-54 to AP-56, Total - 14.676)																										
AS PER DETAIL SURVEY													AS PER CHECK SURVEY													
AP NO.	LOC NO	Type of Tower	Angle of Deviation	Span to Mast	Section Length	AP# Span	What Span	Reduced Level	Coordinates		AP NO.	LOC NO	Type of Tower	Angle of Deviation	Span to Mast	Section Length	AP# Span	What Span	Reduced Level	Coordinates		Remarks	CPD / BENCHMARK	Voltage Range		
									Northing	Easting										Northing	Easting				Northing	Easting
				208											207.668											
75	AP-75	719	DC+0	14°49'48" RT		208	338	260.00	38.03	2781100.39		254049.34	AP75	719	DC+0	14°49'51" RT		207.668	337.839	260.91	31.431	277999.80		51°04'26.75"	226 volt Line, Cus. Track, Agricultural Land	
76	AP-76	726	DC+0	8°59'16" LT		240	153	266.50	38.25	2781038.33		233369.75	AP72	726	ED+0	23°13'08" LT		240.135	334.105	267.03	31.431	277995.50		51°04'12.03"	Agricultural Land	Public Use
				200											200.750											
77	AP-77	766	DC+0	3°04'18" RT		203	703	376.38	37.45	2780770.31		333777.42	AP73	766	ED+0	33°06'18" RT		203.705	715.577	377.76	30.326	277947.14		51°04'11.23"	Agricultural Land, Panna River, Cus. 220 volt Line (131 / 136)	
				420											421.822											
78	AP-78	749	DC+0	10°42'30" LT		426	637	308.50	36.27	2780448.22		335403.13	AP74	749	DC+0	17°16'20" LT		421.822	634.451	308.23	29.449	277957.57		51°04'11.02"	Railway Platform, Agricultural Land	Electricity
				997											194.629											
79	AP-79	759	ED+0	4°01'00" RT		107	440	320.00	39.31	2780770.18		253400.75	AP75	759	ED+0	49°21'10" RT		104.629	430.001	316.96	28.007	277951.46		51°03'57.88"	110v Line, Agricultural Land, Public Platform	Electricity
				243											235.287											
80	AP-80	769	DC+0	28°25'24" RT		243	408	229.00	39.25	2780605.73		253166.49	AP76	769	DC+0	28°19'53" RT		229.207	455.003	227.55	28.361	277929.20		51°03'49.56"	Habitat, Panna Road, Cus. Agricultural Land	
				213											215.806											
81	AP-81	779	ED+0	82°09'38" LT		313	564	262.00	34.85	2780234.32		323871.65	AP77	779	ED+0	53°09'01" LT		215.806	366.868	283.33	28.006	277930.00		51°03'41.52"	Madhav, Agricultural Land	Electricity
				349											336.862											
82	AP-82	786	DC+0	28°21'54" LT		349	581	296.91	33.83	2780034.39		323666.88	AP78	786	DC+0	21°49'51" LT		336.862	577.862	288.03	27.751	277922.58		51°03'32.08"	Madhav, Agricultural Land, 225 volt Line, Panna	Electricity, Village
				232											311.006											
83	AP-79	799	ED+0	51°09'14" RT		371	462	251.00	39.6	2779823.38		252989.42	AP79	799	ED+0	43°38'18" RT		227	447.854	232.75	26.583	277916.67		51°03'29.68"	Agricultural Land	Electricity
				230											218.504											
84	AP-84	806	ED+0	14°22'38" LT		230	230	132.00	32.25	2779769.91		252566.93	AP80	806	ED+0	11°42'54" LT		235.504	2189.73	1096.88	35.535	277915.89		51°03'22.92"	Madhav, Agricultural Land	Electricity

OVER SUMMARY					
Sr. No.	Tower Type	x1	x2	x3	Total
1	DA	1	2	1	4
2	DB	21	13	3	40
3	DC	9	9	4	22
4	DD	8	5	4	17
Total		39	29	12	80

TOWER SUMMARY					
SIR. No.	Tower Type	+0	+5	+6	Total
1	OA	1	3	0	5
2	OB	21	13	3	40
3	OC	9	4	2	19
4	OD	0	5	4	20
Total		34	27	12	80

Survey by Dennis J. Kelly	Overseen by Dennis J. Kelly	Submitted by Dennis J. Kelly	Submitted by Dennis J. Kelly
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फील्ड सुपरवाइजर / FIELD SUPERVISOR
पवर ग्रिड / POWER GRID
उ० पु० सी० उदयपुर / NER, UDAIPUR

FOR EMC LIMITED
(ABHIJIT DEY)
PROJECT MANAGER

SATYAM KALUNDAR
GENERAL MANAGER
POWERGRID
Jalgaon / NEERULGAON

Muzso
Sr. Lawyer,
Tams India.

एम. के. नाग / M.K. NAG
उप महाप्रबंधक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
उ. पू. क्षेत्र, उदयपुर / NER UDAIPUR

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP80 - AP85 (TOTAL LENGTH:- 0.917 KM.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY										REMARKS		
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	REDUCE LEVEL (M)	COLD WEIGHT SPAN (M)		HOT WEIGHT SPAN (M)		COORDINATE			
															LEFT	RIGHT	LEFT	RIGHT			EASTING	NORTHING
1	AP80	80/0	DB+3	3 11°42'34" (LT)	263	263	1	AP80	80/0	DB+3	3 11°42'34" (LT)	263	263	25.300	0.0	93.9	93.9	0.0	109.6	109.6	352366.98	2579770.11
2	AP81	81/0	DO+6	6 12°12'38" (RT)	168	168	2	AP81	81/0	DO+6	6 12°12'38" (RT)	168	168	25.000	188.8	24.5	188.3	131.1	49.5	202.6	352313.62	2579649.39
3	AP82	82/0	DO+9	9 19°22'59" (RT)	113	113	3	AP82	82/0	DO+9	9 19°22'59" (RT)	113	113	25.200	143.8	24.8	148.2	118.6	17.9	136.1	351971.35	2579601.49
4	AP83	83/0	DO+9	9 43°34'23" (LT)	220	220	4	AP83	83/0	DO+9	9 43°34'23" (LT)	220	220	25.030	181.3	193.4	201.2	75.2	158.4	233.1	351858.73	2579563.84
5	AP84	84/0	DO+6	6 51°56'09" (LT)	253	253	5	AP84	84/0	DO+6	6 51°56'09" (LT)	253	253	24.250	26.5	21.7	4.0	61.3	19.8	81.0	351688.63	2579404.47
6	AP85	85/0	DO+9	9 00°00'00"	153	153	6	AP85	85/0	DO+9	9 00°00'00"	153	153	23.700	174.4	0.0	174.4	133.2	0.0	133.2	351692.01	2579321.85

TOWER SUMMARY					
TYPE OF TOWER	EXTENSION				GRAND TOTAL
	0	3	6	9	
DA	0	0	0	0	0
DB	0	1	0	0	1
DC	0	0	0	0	0
DD	0	0	2	3	5
					6

Approved:-
note:- ① The approval doesn't
absolve responsibility of
Contractor.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Bomondal	Am on Xos	Wish	FOR EMC LIMITED		

FOR POWER GRID CORPORATION OF INDIA LTD.		
RECOMMENDED BY	APPROVED BY	
Rajiv Singh 19/5/20	19/5/20	

वीरेश कुमार / POWER GRID
पार गिड / POWER GRID
उ.पू.शे.उदयपुर / NER, UDAIPUR

वीरेश कुमार / POWER GRID
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वीरेश कुमार / M.K. TALUKDAR
वीरेश कुमार / Sr. GM
पावरग्रिड / POWERGRID
उ.पू.शे.उदयपुर / NER, UDAIPUR

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
DETAIL SURVEY TOWER SCHEDULE FROM AP-85/0 TO GANTRY (BAGAFI) (TOTAL LENGTH:- 0.559KMS.)

SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M.)	SECTION LENGTH (M.)	CUM. CHARGE (M.)	ADJACENT SPAN (M.)			WIND SPAN (M.)			EXTN.	R.C.	BENCHMARK OR C.P. D.	REDUCE LEVEL (M.)	EFFECTIVE RL. (M.)	WEIGHT SPAN (COLD) (M.)			WEIGHT SPAN (HOT) (M.)			COORDINATES		REMARKS
								LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL						LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	
1	AP-85	85/0	DO+9	40°28'28" RT	362	162	362	0.0	162.0	162.0	0.0	81.0	81.00	9	3	0	33.785	45.781	0	142.8	142.8	0	128.4	128.4	351692	2579322	BAGAFI, R.C. - 3M.
2	MC-1	MC1	DO+0	20°04'03" LT				162.0	144.0	306.0	81.0	265.0	153.00	0	0	0	34.887	34.887	-0.8	-293.6	-294.4	33.6	-140.2	-106.6	351789	2579194	BAGAFI
3	MC-2	MC2	DO+0	36°01'38" RT	144	144	306	144.0	156.0	300.0	72.0	163.0	150.00	0	0	0	54.339	54.339	437.6	993.1	830.7	284.2	280.9	545.1	351910	2579112	BAGAFI
4	MC-3	MC3	DO+0	62°02'36" RT				156.0	76.0	232.0	78.0	125.0	114.00	0	0	0	36.176	36.176	-37.1	-385.3	-422.4	-104.5	-207.7	-312.6	351965	2578968	BAGAFI
5	AP-86	86/0	DO+0	55°46'50" RT	76	76	538	76.0	21.0	97.0	38.0	330.0	48.50	0	0	0	54.063	54.063	401.3	-31.1	495.2	285.7	-33.7	270	351914	2578910	BAGAFI
6	GANTRY	GNT.		13°32'25"				21.0	0.0	21.0	10.5	0.0	10.50	0	0	0	54.386	54.386	52.1	0	52.1	34.7	0	34.7	351891	2578912	BAGAFI

559

TOWER SUMMARY					
TYPE OF TOWER	EXTENSION				GRAND TOTAL
	0	3	6	9	
DA	0	0	0	0	0
DB	0	0	0	0	0
DC	0	0	0	0	0
DD	1	0	0	1	2
QD	3	0	0	0	3
					5

FOR TEEMS INDIA TOWERLINES PVT. LTD.			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Pramod	Am on Xos	Wish	FOR EMC LIMITED		

FOR POWER GRID CORPORATION OF INDIA LIMITED		
CHECKED BY	RECOMMENDED BY	APPROVED BY
वीरेश कुमार / AKHIL CHAKMA वीरेश कुमार / Sr. GM पावरग्रिड / POWERGRID उ.पू.शे.उदयपुर / NER, UDAIPUR	वीरेश कुमार / RAJIV BARKAR वीरेश कुमार / Sr. GM पावरग्रिड / POWERGRID उ.पू.शे.उदयपुर / NER, UDAIPUR	वीरेश कुमार / A.C. DAS वीरेश कुमार / Sr. GM पावरग्रिड / POWERGRID उ.पू.शे.उदयपुर / NER, UDAIPUR



[illegible]

Belonia -Sabroom 132 kV D/C line -38.623 Km

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH- 38.815 KMS.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY													
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHAINAGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	REDUCE LEVEL (M)	EFFECTIVE R. (M)	WEIGHT SPAN (KG)	WEIGHT SPAN (M)	COORDINATES	REMARKS	
1	GANTRY	001	DMT	00°00'00"	0	0	1	GANTRY	001	DMT	00°00'00"	0	0	0	0	0	0	0	0	0	0	0	0
2	AP-1	1/0	DC-1	00°45'30"	30	30	2	AP-1	1/0	DC-1	00°45'30"	30	30	30	204	204	15	112	147	8	0	100.182	100.182
3	AP-2	2/0	DC-2	00°42'24"	330	330	3	AP-2	2/0	DC-2	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
4	AP-3	3/0	DC-3	00°42'24"	330	330	4	AP-3	3/0	DC-3	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
5	AP-4	4/0	DC-4	00°42'24"	330	330	5	AP-4	4/0	DC-4	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
6	AP-5	5/0	DC-5	00°42'24"	330	330	6	AP-5	5/0	DC-5	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
7	AP-6	6/0	DC-6	00°42'24"	330	330	7	AP-6	6/0	DC-6	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
8	AP-7	7/0	DC-7	00°42'24"	330	330	8	AP-7	7/0	DC-7	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
9	AP-8	8/0	DC-8	00°42'24"	330	330	9	AP-8	8/0	DC-8	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
10	AP-9	9/0	DC-9	00°42'24"	330	330	10	AP-9	9/0	DC-9	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
11	AP-10	10/0	DC-10	00°42'24"	330	330	11	AP-10	10/0	DC-10	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
12	AP-11	11/0	DC-11	00°42'24"	330	330	12	AP-11	11/0	DC-11	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
13	AP-12	12/0	DC-12	00°42'24"	330	330	13	AP-12	12/0	DC-12	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
14	AP-13	13/0	DC-13	00°42'24"	330	330	14	AP-13	13/0	DC-13	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
15	AP-14	14/0	DC-14	00°42'24"	330	330	15	AP-14	14/0	DC-14	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
16	AP-15	15/0	DC-15	00°42'24"	330	330	16	AP-15	15/0	DC-15	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
17	AP-16	16/0	DC-16	00°42'24"	330	330	17	AP-16	16/0	DC-16	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
18	AP-17	17/0	DC-17	00°42'24"	330	330	18	AP-17	17/0	DC-17	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
19	AP-18	18/0	DC-18	00°42'24"	330	330	19	AP-18	18/0	DC-18	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
20	AP-19	19/0	DC-19	00°42'24"	330	330	20	AP-19	19/0	DC-19	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
21	AP-20	20/0	DC-20	00°42'24"	330	330	21	AP-20	20/0	DC-20	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
22	AP-21	21/0	DC-21	00°42'24"	330	330	22	AP-21	21/0	DC-21	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
23	AP-22	22/0	DC-22	00°42'24"	330	330	23	AP-22	22/0	DC-22	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
24	AP-23	23/0	DC-23	00°42'24"	330	330	24	AP-23	23/0	DC-23	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
25	AP-24	24/0	DC-24	00°42'24"	330	330	25	AP-24	24/0	DC-24	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
26	AP-25	25/0	DC-25	00°42'24"	330	330	26	AP-25	25/0	DC-25	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
27	AP-26	26/0	DC-26	00°42'24"	330	330	27	AP-26	26/0	DC-26	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
28	AP-27	27/0	DC-27	00°42'24"	330	330	28	AP-27	27/0	DC-27	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
29	AP-28	28/0	DC-28	00°42'24"	330	330	29	AP-28	28/0	DC-28	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
30	AP-29	29/0	DC-29	00°42'24"	330	330	30	AP-29	29/0	DC-29	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
31	AP-30	30/0	DC-30	00°42'24"	330	330	31	AP-30	30/0	DC-30	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
32	AP-31	31/0	DC-31	00°42'24"	330	330	32	AP-31	31/0	DC-31	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
33	AP-32	32/0	DC-32	00°42'24"	330	330	33	AP-32	32/0	DC-32	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
34	AP-33	33/0	DC-33	00°42'24"	330	330	34	AP-33	33/0	DC-33	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
35	AP-34	34/0	DC-34	00°42'24"	330	330	35	AP-34	34/0	DC-34	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
36	AP-35	35/0	DC-35	00°42'24"	330	330	36	AP-35	35/0	DC-35	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
37	AP-36	36/0	DC-36	00°42'24"	330	330	37	AP-36	36/0	DC-36	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
38	AP-37	37/0	DC-37	00°42'24"	330	330	38	AP-37	37/0	DC-37	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
39	AP-38	38/0	DC-38	00°42'24"	330	330	39	AP-38	38/0	DC-38	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
40	AP-39	39/0	DC-39	00°42'24"	330	330	40	AP-39	39/0	DC-39	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
41	AP-40	40/0	DC-40	00°42'24"	330	330	41	AP-40	40/0	DC-40	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
42	AP-41	41/0	DC-41	00°42'24"	330	330	42	AP-41	41/0	DC-41	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
43	AP-42	42/0	DC-42	00°42'24"	330	330	43	AP-42	42/0	DC-42	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
44	AP-43	43/0	DC-43	00°42'24"	330	330	44	AP-43	43/0	DC-43	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
45	AP-44	44/0	DC-44	00°42'24"	330	330	45	AP-44	44/0	DC-44	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
46	AP-45	45/0	DC-45	00°42'24"	330	330	46	AP-45	45/0	DC-45	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
47	AP-46	46/0	DC-46	00°42'24"	330	330	47	AP-46	46/0	DC-46	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
48	AP-47	47/0	DC-47	00°42'24"	330	330	48	AP-47	47/0	DC-47	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
49	AP-48	48/0	DC-48	00°42'24"	330	330	49	AP-48	48/0	DC-48	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
50	AP-49	49/0	DC-49	00°42'24"	330	330	50	AP-49	49/0	DC-49	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
51	AP-50	50/0	DC-50	00°42'24"	330	330	51	AP-50	50/0	DC-50	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
52	AP-51	51/0	DC-51	00°42'24"	330	330	52	AP-51	51/0	DC-51	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
53	AP-52	52/0	DC-52	00°42'24"	330	330	53	AP-52	52/0	DC-52	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
54	AP-53	53/0	DC-53	00°42'24"	330	330	54	AP-53	53/0	DC-53	00°42'24"	330	330	330	204	204	15	112	147	8	0	100.182	100.182
55	AP-54	54/0	DC-54	00°42'24"	330	330	55	AP-54	54/0	DC-54	00°42'24"	330	330	330	204	204	15	112	147				

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROO TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH- 36.815 KMS.)

AS PER DETAIL SURVEY

AS PER CHECK SURVEY

SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUR. CHARGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	REDUCED LEVEL (M)	WEIGHT SPAN (KGS)	WEIGHT SPAN (KGS)	WEIGHT SPAN (KGS)	WEIGHT SPAN (KGS)	COORDINATES	REMARKS
51	AP-12	12/2	DA-6	09°58'50" E	178	178	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
52	AP-13	13/2	DA-6	09°57'34" E	206	206	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
53	AP-14	14/2	DA-6	09°56'10" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
54	AP-15	15/2	DA-6	09°54'46" E	230	230	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
55	AP-16	16/2	DA-6	09°53'22" E	203	203	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
56	AP-17	17/2	DA-6	09°51'58" E	235	235	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
57	AP-18	18/2	DA-6	09°50'34" E	334	334	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
58	AP-19	19/2	DA-6	09°49'10" E	332	332	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
59	AP-20	20/2	DA-6	09°47'46" E	325	325	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
60	AP-21	21/2	DA-6	09°46'22" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
61	AP-22	22/2	DA-6	09°45'00" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
62	AP-23	23/2	DA-6	09°43'38" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
63	AP-24	24/2	DA-6	09°42'16" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
64	AP-25	25/2	DA-6	09°40'54" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
65	AP-26	26/2	DA-6	09°39'32" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
66	AP-27	27/2	DA-6	09°38'10" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
67	AP-28	28/2	DA-6	09°36'48" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
68	AP-29	29/2	DA-6	09°35'26" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
69	AP-30	30/2	DA-6	09°34'04" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
70	AP-31	31/2	DA-6	09°32'42" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
71	AP-32	32/2	DA-6	09°31'20" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
72	AP-33	33/2	DA-6	09°29'58" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
73	AP-34	34/2	DA-6	09°28'36" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
74	AP-35	35/2	DA-6	09°27'14" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
75	AP-36	36/2	DA-6	09°25'52" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
76	AP-37	37/2	DA-6	09°24'30" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
77	AP-38	38/2	DA-6	09°23'08" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
78	AP-39	39/2	DA-6	09°21'46" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
79	AP-40	40/2	DA-6	09°20'24" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
80	AP-41	41/2	DA-6	09°19'02" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
81	AP-42	42/2	DA-6	09°17'40" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
82	AP-43	43/2	DA-6	09°16'18" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
83	AP-44	44/2	DA-6	09°14'56" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
84	AP-45	45/2	DA-6	09°13'34" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
85	AP-46	46/2	DA-6	09°12'12" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
86	AP-47	47/2	DA-6	09°10'50" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
87	AP-48	48/2	DA-6	09°09'28" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
88	AP-49	49/2	DA-6	09°08'06" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
89	AP-50	50/2	DA-6	09°06'44" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
90	AP-51	51/2	DA-6	09°05'22" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
91	AP-52	52/2	DA-6	09°04'00" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
92	AP-53	53/2	DA-6	09°02'38" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
93	AP-54	54/2	DA-6	09°01'16" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
94	AP-55	55/2	DA-6	08°59'54" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
95	AP-56	56/2	DA-6	08°58'32" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
96	AP-57	57/2	DA-6	08°57'10" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
97	AP-58	58/2	DA-6	08°55'48" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
98	AP-59	59/2	DA-6	08°54'26" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
99	AP-60	60/2	DA-6	08°53'04" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
100	AP-61	61/2	DA-6	08°51'42" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
101	AP-62	62/2	DA-6	08°50'20" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
102	AP-63	63/2	DA-6	08°48'58" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
103	AP-64	64/2	DA-6	08°47'36" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
104	AP-65	65/2	DA-6	08°46'14" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
105	AP-66	66/2	DA-6	08°44'52" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
106	AP-67	67/2	DA-6	08°43'30" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
107	AP-68	68/2	DA-6	08°42'08" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
108	AP-69	69/2	DA-6	08°40'46" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
109	AP-70	70/2	DA-6	08°39'24" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
110	AP-71	71/2	DA-6	08°38'02" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
111	AP-72	72/2	DA-6	08°36'40" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
112	AP-73	73/2	DA-6	08°35'18" E	360	360	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
113	AP-74	74/2	DA-6	08°33'56" E	360	360	131.574	131.574	131.574	131.574	131.574					

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (LINE LENGTH: 38.815 KMS.)

AS PER DETAIL SURVEY

SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)
76	AP-17A	17A/2	DA-6	09°58'50" E	240	240
77	AP-18A	18A/2	DA-6	09°57'34" E	240	240
78	AP-19A	19A/2	DA-6	09°56'10" E	240	240
79	AP-20A	20A/2	DA-6	09°54'46" E	240	240
80	AP-21A	21A/2	DA-6	09°53'22" E	240	240
81	AP-22A	22A/2	DA-6	09°51'58" E	240	240
82	AP-23A	23A/2	DA-6	09°50'34" E	240	240
83	AP-24A	24A/2	DA-6	09°49'10" E	240	240
84	AP-25A	25A/2	DA-6	09°47'46" E	240	240
85	AP-26A	26A/2	DA-6	09°46'22" E	240	240
86	AP-27A	27A/2	DA-6	09°44'58" E	240	240
87	AP-28A	28A/2	DA-6	09°43'34" E	240	240
88	AP-29A	29A/2	DA-6	09°42'10" E	240	240
89	AP-30A	30A/2	DA-6	09°40'46" E	240	240
90	AP-31A	31A/2	DA-6	09°39'22" E	240	240
91	AP-32A	32A/2	DA-6	09°37'58" E	240	240
92	AP-33A	33A/2	DA-6	09°36'34" E	240	240
93	AP-34A	34A/2	DA-6	09°35'10" E	240	240
94	AP-35A	35A/2	DA-6	09°33'46" E	240	240
95	AP-36A	36A/2	DA-6	09°32'22" E	240	240
96	AP-37A	37A/2	DA-6	09°30'58" E	240	240
97	AP-38A	38A/2	DA-6	09°29'34" E	240	240
98	AP-39A	39A/2	DA-6	09°28'10" E	240	240
99	AP-40A	40A/2	DA-6	09°26'46" E	240	240
100	AP-41A	41A/2	DA-6	09°25'22" E	240	240

AS PER CHECK SURVEY

SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUR. CHARGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	REDUCED LEVEL (M)	WEIGHT SPAN (KGS)	WEIGHT SPAN (KGS)	WEIGHT SPAN (KGS)	WEIGHT SPAN (KGS)	COORDINATES	REMARKS
76	AP-17A	17A/2	DA-6	09°58'50" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
77	AP-18A	18A/2	DA-6	09°57'34" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
78	AP-19A	19A/2	DA-6	09°56'10" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
79	AP-20A	20A/2	DA-6	09°54'46" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
80	AP-21A	21A/2	DA-6	09°53'22" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
81	AP-22A	22A/2	DA-6	09°51'58" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
82	AP-23A	23A/2	DA-6	09°50'34" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
83	AP-24A	24A/2	DA-6	09°49'10" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
84	AP-25A	25A/2	DA-6	09°47'46" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
85	AP-26A	26A/2	DA-6	09°46'22" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
86	AP-27A	27A/2	DA-6	09°44'58" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
87	AP-28A	28A/2	DA-6	09°43'34" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
88	AP-29A	29A/2	DA-6	09°42'10" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
89	AP-30A	30A/2	DA-6	09°40'46" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
90	AP-31A	31A/2	DA-6	09°39'22" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
91	AP-32A	32A/2	DA-6	09°37'58" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
92	AP-33A	33A/2	DA-6	09°36'34" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
93	AP-34A	34A/2	DA-6	09°35'10" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
94	AP-35A	35A/2	DA-6	09°33'46" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
95	AP-36A	36A/2	DA-6	09°32'22" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
96	AP-37A	37A/2	DA-6	09°30'58" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
97	AP-38A	38A/2	DA-6	09°29'34" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
98	AP-39A	39A/2	DA-6	09°28'10" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
99	AP-40A	40A/2	DA-6	09°26'46" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574
100	AP-41A	41A/2	DA-6	09°25'22" E	240	240	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574	131.574

POWER GRID CORPORATION OF INDIA LIMITED TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH: 38.815 KMS.)

AS PER DETAIL SURVEY							AS PER CHECK SURVEY																												
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M.)	SECTION LENGTH (M.)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M.)	SECTION LENGTH (M.)	CUM. CHARGE (M.)	ADJACENT SPAN (M.)	WIND SPAN (M.)	REDUCE LEVEL (M.)	EFFECTIVE R. (M.)	WEIGHT SPAN (KG)	WEIGHT SPAN (KG)	COORDINATES		REMARKS												
															LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING													
150		20/3	DB-6		340		100		20/1	DB-6		340		26380	240	300	540	120	130	250	6	0	1.5	100.351	105.681	227.2	139.3	388.5	182.2	149.8	136.0	550007	2555062	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	
151		20/2	DB-6		300		101		20/2	DB-6		300		26680	180	145	485	130	172.5	222.5	6	0	1.5	100.343	106.940	206.7	137.2	318.8	545.1	324.6	271.9	550130	2553000	POND, PUT, BIRCH, BONG, FOREST, LT LINE	
152	AP-204	204/1	DB-3	13°56'27" N	145		102	AP-204	204/1	DB-3	13°56'27" N	145		26870	145	144	289	72.5	72	144.5	3	0	1.5	100.306	102.336	152.2	240.9	271.3	54.5	181.8	104.0	300055	2552796	HAND PUMP, FLUCHAN, PUT	
153	AP-208	208/1	DB-3	2°17'47" N	144	144	103	AP-208	208/1	DB-3	2°17'47" N	144	144		144	148	292	71	67.5	138.5	3	0	1.5	101.704	101.704	148.0	16.9	139.1	54.5	181.8	104.0	300055	2552796	FLUCHAN, PUT	
154	AP-208	208/2	DB-6	11°59'24" N	135	135	104	AP-208	208/2	DB-6	11°59'24" N	135	135		135	261	399	67.5	231.5	300	6	0	1.5	101.727	101.727	118.1	116.7	234.8	96.9	321.9	259.8	300055	2552796	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	
155		20C/1	DB-6		270		105		20C/1	DB-6		270		27697	265	271	540	131.5	138.5	270	9	0	1.5	101.860	101.860	146.5	122.2	240.5	301.1	224.0	204.1	159485	2552410	FLUCHAN, PUT	
156		20C/2	DB-6		270		106		20C/2	DB-6		270		28053	277	287	614	134.5	138.5	273	0	0	1.5	101.838	101.838	154.8	200.5	481.4	481.0	224.7	216.7	159416	2552410	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	
157	AP-200	200/1	DB-3	12°53'20" N	197		107	AP-200	200/1	DB-3	12°53'20" N	197		28256	397	398	620	138.5	102.5	300	3	0	1.5	101.800	101.800	149.3	147.9	266.4	184.8	119.9	207.2	159813	2551822	FL LINE, POND, PUT, BIRCH, BONG, FOREST, LT LINE	
158	AP-206	206/1	DB-3	2°19'47" N	192		108	AP-206	206/1	DB-3	2°19'47" N	192		28493	306	330	461	122.5	118	230.5	8	0	1.5	102.360	102.360	157.1	187.1	110.0	76.1	471.8	287.2	255873	2551826	3 NOS. 13 IN. DIA. METAL ROAD, NORTH, LT LINE	
159	AP-21	21/1	DB-6	44°27'48" N	228		109	AP-21	21/1	DB-6	44°27'48" N	228		28721	236	228	465	118	114.5	232.5	6	0	1.5	104.118	110.118	405.1	421.8	814.9	248.9	286.9	556.2	300055	2551472	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	
160	AP-21A	21A/1	DB-6	15°28'12" N	160		110	AP-21A	21A/1	DB-6	15°28'12" N	160		28881	229	160	389	133.5	80	184.5	0	0	1.5	104.122	110.122	405.1	421.8	814.9	248.9	286.9	556.2	300055	2551472	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	
161		21A/2	DB-6		160		111		21A/2	DB-6		160		29221	160	348	508	80	270	260	0	0	1.5	101.353	101.353	300.4	171.2	471.4	207.8	171.2	376.6	380525	2551061	BRICK ROAD	
162		21A/3	DB-6		160		112		21A/3	DB-6		160		29586	160	347	507	178	273.5	368.5	9	0	1.5	101.890	101.890	188.6	154.1	322.0	181.3	160.3	191.5	380531	2550773	FL LINE	
163	AP-21B	21B/1	DB-6	08°04'45" N	106		113	AP-21B	21B/1	DB-6	08°04'45" N	106		29974	147	106	453	173.5	53	226.5	5	0	1.5	101.980	101.980	208.3	420.5	518.5	184.8	208.2	454.6	262341	2550443	CONCRETE STRUCTURE, METAL ROAD, SOUTH, LT LINE	
164	AP-21C	21C/1	DB-6	06°27'47" N	104		114	AP-21C	21C/1	DB-6	06°27'47" N	104		29888	106	104	300	53	67	170	0	0	1.5	104.886	104.886	150.6	178.3	345.1	160.2	144.8	181.5	360048	2550350	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	
165		21C/2	DB-6		231		115		21C/2	DB-6		231		30160	154	231	425	47	156	213	0	0	1.5	101.987	101.987	178.9	167.1	311	174.8	402.5	501.7	300453	2550161	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	
166		21C/3	DB-6		267		116		21C/3	DB-6		267		30577	252	271	523	119	136.5	254.5	8	0	1.5	102.075	102.075	188.7	228.9	311	248.0	181.5	181.5	349.6	260228	2549847	3 NOS. 13 IN. DIA. METAL ROAD, NORTH, LT LINE
167	AP-22	22/1	DB-6	09°03'28" N	190		117	AP-22	22/1	DB-6	09°03'28" N	190		30723	277	190	467	136.5	175	311.5	6	0	1.5	101.105	101.105	259.9	205.7	481.7	280.1	181.7	480.5	380613	2549664	SOUTH KALAKH	
168		22/2	DB-6		170		118		22/2	DB-6		170		30997	160	230	390	127	135	330	9	0	1.5	101.966	101.966	146.3	239.9	481.3	150.3	227.8	386.1	380774	2549372	BRICK ROAD, LT LINE, METAL ROAD, POND	
169	AP-23	23/1	DB-3	49°14'00" N	308		119	AP-23	23/1	DB-3	49°14'00" N	308		31305	310	308	618	125	354	289	3	0	1.5	102.420	102.420	164.5	138.4	431.2	380.2	281.2	560930	2548935	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE		
170	AP-23A	23A/1	DB-3	13°07'32" N	373		120	AP-23A	23A/1	DB-3	13°07'32" N	373		31570	308	271	581	124	136.5	266.5	3	0	1.5	101.749	101.749	163.8	249.6	133.6	407.2	148.0	123.2	275.1	481201	2548607	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE
171		23A/2	DB-6		340		121		23A/2	DB-6		340			278	247	525	218.5	132.5	350	6	0	1.5	101.666	101.666	158.4	207.1	451.7	206.8	441.1	341.5	381449	2548053	BRICK ROAD, METAL ROAD, KALAKH, WEST, LT LINE	

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH: 38.815 KMS.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY									
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M.)	SECTION LENGTH (M.)	CUR. CLEARANCE (M.)	ADJACENT SPAN (M.)	WIND SPAN (M.)	REDUCE LEVEL (M.)	PRECISION (M.)	WIND SPAN (M.)	WIND SPAN (M.)	WIND SPAN (M.)	WIND SPAN (M.)	WIND SPAN (M.)	WIND SPAN (M.)	WIND SPAN (M.)	WIND SPAN (M.)
145	AP-25A	25A/0	DC+0	15°24'20" RT	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207
147	AP-25B	25B/0	DC+0	11°59'33" LT	207	207	207	207	207	207	207	207	207	207	207	207	207	207	207
148	AP-30	30/0	DC+0	06°50'53" RT	317	317	317	317	317	317	317	317	317	317	317	317	317	317	317
149	AP-31	31/0	DC+0	42°59'33" LT	381	381	381	381	381	381	381	381	381	381	381	381	381	381	381
150	AP-31A	31A/0	DC+0	25°48'30" RT	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
151	AP-31B	31B/0	DC+0	28°27'55" LT	99	99	99	99	99	99	99	99	99	99	99	99	99	99	99
152	AP-32	32/0	DC+0	06°57'06" LT	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196
153	AP-33	33/0	DC+0	42°59'33" LT	164	164	164	164	164	164	164	164	164	164	164	164	164	164	164
154	AP-33A	33A/0	DC+0	29°47'14" LT	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129
155	AP-34	34/0	DC+0	39°59'40" LT	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
156	AP-35	35/0	DC+0	14°54'03" LT	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92
157	GANTRY	GAT.	GAT.	35°50'13"	38713	38713	38713	38713	38713	38713	38713	38713	38713	38713	38713	38713	38713	38713	38713

TOWER SUMMARY					GRAND TOTAL
TYPE OF TOWER	0	3	6	8	
DA	6	6	3	5	155
DB	22	12	23	24	
DC	8	7	3	6	
DD	14	7	4	5	
QD	0	0	0	0	

FOR TEEMS INDIA TOWERLINES PVT. LTD.		FOR EMC
SURVEYED BY	CHECKED BY	SUBMITTED BY
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
<i>[Stamp]</i>	<i>[Stamp]</i>	<i>[Stamp]</i>

FOR POWER GRID CORPORATION OF INDIA LIMITED		
CHECKED BY	RECOMMENDED BY	APPROVED BY
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
<i>[Stamp]</i>	<i>[Stamp]</i>	<i>[Stamp]</i>

Bagafa – Satchand 132 kV S/C on D/C line – 29.376 Km

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCSS BAGAFAT TO SATCHAND TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BAGAFAT) TO GANTRY (SATCHAND) (TOTAL LENGTH: 29.636 KMS.)

AS PER DETAIL SURVEY							AS PER CHECK SURVEY																
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHARGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	WIND AREA (M ²)	REDUCE LEVEL (M)	EFFECTIVE H. (M)	WEIGHT SPAN (KG)	WEIGHT SPAN (TON)	COORDINATES	REMARKS
1	QNT	QNT	QNT	0°00'00"	20	20	1	QNT	QNT	QNT	0°00'00"	20	20	0	20	20	0	0	0	0	0	257887	BAGAFAT
2	AP-1	1/1	DA-1	11°38'13"	188	188	2	AP-1	1/1	DA-1	11°38'13"	188	188	20	20	20	37	184.5	184.5	0	0	257887	5/0 BOUNDARY, 11 KV LINE (SHOULD BE DOCUMENTED)
3	AP-2	2/1	DA-2	12°03'11"	239	239	3	AP-2	2/1	DA-2	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	CUTTING ROAD, PUCCA ROAD, 11 KV LINE, 220V, 20KV, 33 KV LINE
4	AP-3	3/1	DA-3	12°03'11"	239	239	4	AP-3	3/1	DA-3	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
5	AP-4	4/1	DA-4	12°03'11"	239	239	5	AP-4	4/1	DA-4	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, PLANTATION
6	AP-5	5/1	DA-5	12°03'11"	239	239	6	AP-5	5/1	DA-5	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
7	AP-6	6/1	DA-6	12°03'11"	239	239	7	AP-6	6/1	DA-6	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, PUCCA ROAD, 400V LINE
8	AP-7	7/1	DA-7	12°03'11"	239	239	8	AP-7	7/1	DA-7	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
9	AP-8	8/1	DA-8	12°03'11"	239	239	9	AP-8	8/1	DA-8	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
10	AP-9	9/1	DA-9	12°03'11"	239	239	10	AP-9	9/1	DA-9	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
11	AP-10	10/1	DA-10	12°03'11"	239	239	11	AP-10	10/1	DA-10	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
12	AP-11	11/1	DA-11	12°03'11"	239	239	12	AP-11	11/1	DA-11	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
13	AP-12	12/1	DA-12	12°03'11"	239	239	13	AP-12	12/1	DA-12	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
14	AP-13	13/1	DA-13	12°03'11"	239	239	14	AP-13	13/1	DA-13	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
15	AP-14	14/1	DA-14	12°03'11"	239	239	15	AP-14	14/1	DA-14	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
16	AP-15	15/1	DA-15	12°03'11"	239	239	16	AP-15	15/1	DA-15	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
17	AP-16	16/1	DA-16	12°03'11"	239	239	17	AP-16	16/1	DA-16	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
18	AP-17	17/1	DA-17	12°03'11"	239	239	18	AP-17	17/1	DA-17	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
19	AP-18	18/1	DA-18	12°03'11"	239	239	19	AP-18	18/1	DA-18	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
20	AP-19	19/1	DA-19	12°03'11"	239	239	20	AP-19	19/1	DA-19	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
21	AP-20	20/1	DA-20	12°03'11"	239	239	21	AP-20	20/1	DA-20	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
22	AP-21	21/1	DA-21	12°03'11"	239	239	22	AP-21	21/1	DA-21	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
23	AP-22	22/1	DA-22	12°03'11"	239	239	23	AP-22	22/1	DA-22	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
24	AP-23	23/1	DA-23	12°03'11"	239	239	24	AP-23	23/1	DA-23	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
25	AP-24	24/1	DA-24	12°03'11"	239	239	25	AP-24	24/1	DA-24	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
26	AP-25	25/1	DA-25	12°03'11"	239	239	26	AP-25	25/1	DA-25	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
27	AP-26	26/1	DA-26	12°03'11"	239	239	27	AP-26	26/1	DA-26	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
28	AP-27	27/1	DA-27	12°03'11"	239	239	28	AP-27	27/1	DA-27	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
29	AP-28	28/1	DA-28	12°03'11"	239	239	29	AP-28	28/1	DA-28	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
30	AP-29	29/1	DA-29	12°03'11"	239	239	30	AP-29	29/1	DA-29	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
31	AP-30	30/1	DA-30	12°03'11"	239	239	31	AP-30	30/1	DA-30	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
32	AP-31	31/1	DA-31	12°03'11"	239	239	32	AP-31	31/1	DA-31	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
33	AP-32	32/1	DA-32	12°03'11"	239	239	33	AP-32	32/1	DA-32	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
34	AP-33	33/1	DA-33	12°03'11"	239	239	34	AP-33	33/1	DA-33	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
35	AP-34	34/1	DA-34	12°03'11"	239	239	35	AP-34	34/1	DA-34	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
36	AP-35	35/1	DA-35	12°03'11"	239	239	36	AP-35	35/1	DA-35	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
37	AP-36	36/1	DA-36	12°03'11"	239	239	37	AP-36	36/1	DA-36	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
38	AP-37	37/1	DA-37	12°03'11"	239	239	38	AP-37	37/1	DA-37	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
39	AP-38	38/1	DA-38	12°03'11"	239	239	39	AP-38	38/1	DA-38	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
40	AP-39	39/1	DA-39	12°03'11"	239	239	40	AP-39	39/1	DA-39	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
41	AP-40	40/1	DA-40	12°03'11"	239	239	41	AP-40	40/1	DA-40	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
42	AP-41	41/1	DA-41	12°03'11"	239	239	42	AP-41	41/1	DA-41	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
43	AP-42	42/1	DA-42	12°03'11"	239	239	43	AP-42	42/1	DA-42	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
44	AP-43	43/1	DA-43	12°03'11"	239	239	44	AP-43	43/1	DA-43	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
45	AP-44	44/1	DA-44	12°03'11"	239	239	45	AP-44	44/1	DA-44	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
46	AP-45	45/1	DA-45	12°03'11"	239	239	46	AP-45	45/1	DA-45	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
47	AP-46	46/1	DA-46	12°03'11"	239	239	47	AP-46	46/1	DA-46	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
48	AP-47	47/1	DA-47	12°03'11"	239	239	48	AP-47	47/1	DA-47	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
49	AP-48	48/1	DA-48	12°03'11"	239	239	49	AP-48	48/1	DA-48	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
50	AP-49	49/1	DA-49	12°03'11"	239	239	50	AP-49	49/1	DA-49	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
51	AP-50	50/1	DA-50	12°03'11"	239	239	51	AP-50	50/1	DA-50	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
52	AP-51	51/1	DA-51	12°03'11"	239	239	52	AP-51	51/1	DA-51	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	BAGAFAT
53	AP-52	52/1	DA-52	12°03'11"	239	239	53	AP-52	52/1	DA-52	12°03'11"	239	239	20	20	20	37	184.5	184.5	0	0	257887	400V LINE, 11KV, PUCCA ROAD, 400V LINE
54	AP-53	53/1	DA-53	12°03'11"	239																		

POWER GRID CORPORATION OF INDIA LIMITED TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCSS BAGAFU TO SATCHAND TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BAGAFU) TO GANTRY (SATCHAND) (TOTAL LENGTH:- 29.636 KMS.)

AS PER DETAIL SURVEY					AS PER CHECK SURVEY															COORDINATES		REMARKS										
LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	S. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHANGING (M)	ADJACENT SPAN (M)			WIND SPAN (M)			WEIGHT SPAN (KGS)				EASTING	NORTHING								
													LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL											
26/0	DO-0	41°44'51" LT	245		40	AP-26	26/0	DO-0	41°25'10" LT	244		10807	140	244	484	120	122	242	0	0	0	30339	2837	878	156.6	294.3	105.9	110.8	200.1	353955	2570357	MANHOBUR
26/1	DO-0		255		41	AP-26	26/1	DO-0		255		11242	244	255	499	120	125	245	0	0	0	26.86	26.86	217.4	120.3	247.7	125.2	126.3	246.5	353953	2570120	
26/2	DO-0		250		42	AP-26	26/2	DO-0		250		11532	255	250	505	120	125	245	0	0	0	27.54	27.54	124.7	128.2	242.9	157.7	129.0	260.7	353944	2569990	CHART TRACK
26/3	DO-0		260		43	AP-26	26/3	DO-0		260		11791	260	250	510	130	130	260	0	0	0	27.71	27.71	131.6	124.5	256.1	133.0	126.8	267.8	353938	2569947	PROPOSED ONCE GAS PIPE LINE CORRIDOR
26/4	DO-0		260		44	AP-26	26/4	DO-0	41°34'34" LT	260		12080	260	248	508	130	130	260	0	0	0	38.24	38.24	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/5	DO-0		260		45	AP-26	26/5	DO-0	22°15'17" LT	260		12389	260	248	508	130	130	260	0	0	0	26.59	26.59	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	PROPOSED ONCE GAS PIPE LINE CORRIDOR, PUCCA ROAD, AND V LINE (11 KV LINE) ROAD
26/6	DO-0		260		46	AP-26	26/6	DO-0	15°23'34" RT	260		12698	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/7	DO-0		260		47	AP-26	26/7	DO-0		260		13007	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/8	DO-0		260		48	AP-26	26/8	DO-0		260		13316	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/9	DO-0		260		49	AP-26	26/9	DO-0		260		13625	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/10	DO-0		260		50	AP-26	26/10	DO-0		260		13934	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/11	DO-0		260		51	AP-26	26/11	DO-0		260		14243	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/12	DO-0		260		52	AP-26	26/12	DO-0		260		14552	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/13	DO-0		260		53	AP-26	26/13	DO-0		260		14861	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/14	DO-0		260		54	AP-26	26/14	DO-0		260		15170	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/15	DO-0		260		55	AP-26	26/15	DO-0		260		15479	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/16	DO-0		260		56	AP-26	26/16	DO-0		260		15788	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/17	DO-0		260		57	AP-26	26/17	DO-0		260		16097	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/18	DO-0		260		58	AP-26	26/18	DO-0		260		16406	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/19	DO-0		260		59	AP-26	26/19	DO-0		260		16715	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/20	DO-0		260		60	AP-26	26/20	DO-0		260		17024	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/21	DO-0		260		61	AP-26	26/21	DO-0		260		17333	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/22	DO-0		260		62	AP-26	26/22	DO-0		260		17642	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/23	DO-0		260		63	AP-26	26/23	DO-0		260		17951	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/24	DO-0		260		64	AP-26	26/24	DO-0		260		18260	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/25	DO-0		260		65	AP-26	26/25	DO-0		260		18569	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/26	DO-0		260		66	AP-26	26/26	DO-0		260		18878	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/27	DO-0		260		67	AP-26	26/27	DO-0		260		19187	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/28	DO-0		260		68	AP-26	26/28	DO-0		260		19496	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/29	DO-0		260		69	AP-26	26/29	DO-0		260		19805	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/30	DO-0		260		70	AP-26	26/30	DO-0		260		20114	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/31	DO-0		260		71	AP-26	26/31	DO-0		260		20423	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/32	DO-0		260		72	AP-26	26/32	DO-0		260		20732	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/33	DO-0		260		73	AP-26	26/33	DO-0		260		21041	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/34	DO-0		260		74	AP-26	26/34	DO-0		260		21350	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/35	DO-0		260		75	AP-26	26/35	DO-0		260		21659	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/36	DO-0		260		76	AP-26	26/36	DO-0		260		21968	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/37	DO-0		260		77	AP-26	26/37	DO-0		260		22277	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/38	DO-0		260		78	AP-26	26/38	DO-0		260		22586	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/39	DO-0		260		79	AP-26	26/39	DO-0		260		22895	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR
26/40	DO-0		260		80	AP-26	26/40	DO-0		260		23204	260	248	508	130	130	260	0	0	0	35.49	35.49	140.5	124.4	249.9	133.2	127.8	246.5	353928	2569904	MANHOBUR

**POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.**

**132 KV DCSS BAGAFU TO SATCHAND TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GANTRY (BAGAFU) TO GANTRY (SATCHAND) (TOTAL LENGTH:- 29.636 KMS.)**

AS PER DETAIL SURVEY										AS PER CHECK SURVEY																							
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHAINAGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	R.C.	REDUCE LEVEL (M)	EFFECTIVE BL. (M)	WEIGHT SPAN (CROSS) (M)	WEIGHT SPAN (HORIZ) (M)	EASTING	NORTHING	REMARKS									
87	AP-47	45/1	DB-3		271	3278	88	AP-48	45/2	DB-3		278	3279	22727	271	278	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
88	AP-48	45/2	DB-3		278		89	AP-49	45/3	DB-3		279	3280	22728	278	279	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
89	AP-49	45/3	DB-3		279		90	AP-50	45/4	DB-3		280	3281	22729	279	280	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
90	AP-50	45/4	DB-3		280		91	AP-51	45/5	DB-3		281	3282	22730	280	281	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
91	AP-51	45/5	DB-3		281		92	AP-52	45/6	DB-3		282	3283	22731	281	282	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
92	AP-52	45/6	DB-3		282		93	AP-53	45/7	DB-3		283	3284	22732	282	283	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
93	AP-53	45/7	DB-3		283		94	AP-54	45/8	DB-3		284	3285	22733	283	284	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
94	AP-54	45/8	DB-3		284		95	AP-55	45/9	DB-3		285	3286	22734	284	285	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
95	AP-55	45/9	DB-3		285		96	AP-56	45/10	DB-3		286	3287	22735	285	286	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
96	AP-56	45/10	DB-3		286		97	AP-57	45/11	DB-3		287	3288	22736	286	287	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
97	AP-57	45/11	DB-3		287		98	AP-58	45/12	DB-3		288	3289	22737	287	288	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
98	AP-58	45/12	DB-3		288		99	AP-59	45/13	DB-3		289	3290	22738	288	289	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
99	AP-59	45/13	DB-3		289		100	AP-60	45/14	DB-3		290	3291	22739	289	290	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
100	AP-60	45/14	DB-3		290		101	AP-61	45/15	DB-3		291	3292	22740	290	291	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
101	AP-61	45/15	DB-3		291		102	AP-62	45/16	DB-3		292	3293	22741	291	292	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
102	AP-62	45/16	DB-3		292		103	AP-63	45/17	DB-3		293	3294	22742	292	293	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
103	AP-63	45/17	DB-3		293		104	AP-64	45/18	DB-3		294	3295	22743	293	294	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
104	AP-64	45/18	DB-3		294		105	AP-65	45/19	DB-3		295	3296	22744	294	295	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
105	AP-65	45/19	DB-3		295		106	AP-66	45/20	DB-3		296	3297	22745	295	296	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
106	AP-66	45/20	DB-3		296		107	AP-67	45/21	DB-3		297	3298	22746	296	297	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
107	AP-67	45/21	DB-3		297		108	AP-68	45/22	DB-3		298	3299	22747	297	298	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
108	AP-68	45/22	DB-3		298		109	AP-69	45/23	DB-3		299	3300	22748	298	299	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
109	AP-69	45/23	DB-3		299		110	AP-70	45/24	DB-3		300	3301	22749	299	300	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
110	AP-70	45/24	DB-3		300		111	AP-71	45/25	DB-3		301	3302	22750	300	301	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
111	AP-71	45/25	DB-3		301		112	AP-72	45/26	DB-3		302	3303	22751	301	302	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
112	AP-72	45/26	DB-3		302		113	AP-73	45/27	DB-3		303	3304	22752	302	303	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
113	AP-73	45/27	DB-3		303		114	AP-74	45/28	DB-3		304	3305	22753	303	304	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
114	AP-74	45/28	DB-3		304		115	AP-75	45/29	DB-3		305	3306	22754	304	305	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
115	AP-75	45/29	DB-3		305		116	AP-76	45/30	DB-3		306	3307	22755	305	306	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
116	AP-76	45/30	DB-3		306		117	AP-77	45/31	DB-3		307	3308	22756	306	307	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
117	AP-77	45/31	DB-3		307		118	AP-78	45/32	DB-3		308	3309	22757	307	308	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
118	AP-78	45/32	DB-3		308		119	AP-79	45/33	DB-3		309	3310	22758	308	309	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
119	AP-79	45/33	DB-3		309		120	AP-80	45/34	DB-3		310	3311	22759	309	310	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
120	AP-80	45/34	DB-3		310		121	AP-81	45/35	DB-3		311	3312	22760	310	311	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
121	AP-81	45/35	DB-3		311		122	AP-82	45/36	DB-3		312	3313	22761	311	312	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
122	AP-82	45/36	DB-3		312		123	AP-83	45/37	DB-3		313	3314	22762	312	313	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
123	AP-83	45/37	DB-3		313		124	AP-84	45/38	DB-3		314	3315	22763	313	314	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
124	AP-84	45/38	DB-3		314		125	AP-85	45/39	DB-3		315	3316	22764	314	315	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
125	AP-85	45/39	DB-3		315		126	AP-86	45/40	DB-3		316	3317	22765	315	316	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
126	AP-86	45/40	DB-3		316		127	AP-87	45/41	DB-3		317	3318	22766	316	317	549	145.5	138	274.5	3	0	31.49	53.99	35.5	103	24.6	77.5	12.0	120.5	356052	2562148	FOREST AREA
127	AP-87	45/41	DB-3		317		128	AP-88	45/42	DB-3		318	331																				

Udaipur - Amarpur 132 kV D/C TL - 15.619 Km

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE																				
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																				
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																				
DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION GANTRY - AP1 & AP7 -AP8 -0.327 KM																				
Sl. No	Twr No	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 48Q)			
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation	
1	GANTRY	GANTRY	3°18'51"		27	33.0	0.0	27.0	27.0	0.0	-56.6	-56.6	0.0	27.2	-27.2		348566.5	2603250	34.303	
2	AP1	DB+DB	7°46'45" (RT)		27.3	177.0	27.0	927.0	354.0	80.6	-71.7	11.8	54.2	27.0	81.1		348589.7	2603245	35.002	
3	AP7	DC+DB	18°58'45" (RT)				283.0	266.0	300.0	566.0	45.8	116.0	161.8	82.4	130.3	212.7		349746	2602510	67.85
4	AP8	DB+DB	09°12'50" (LT)		300	234.0	300.0	568.0	468.0	184.0	42.1	216.1	169.7	55.7	229.4		349871	2602238	68.42	

Tower Abstract					
Tower Type\ Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	0	1	0	0	1
DC	1	0	0	0	1
DD	1	0	0	0	1
Total	2	1	0	0	3

Approved.
Note:- The approval does not absolves responsibility of contractors.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
B. Mondal	Amrta Sin				

FOR POWER GRID CORPORATION OF INDIA LTD.					
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY

ABHIJIT DEY
PROJECT MANAGER

उ. पू. के. उदयपुर / NER UDAIPUR

PROJECT TITLE: 132 KV D/C LINE FROM UDAIPUR TO AMARPUR																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR : ELECTRICAL MANUFACTURING COMPANY LIMITED.																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Cmn. Challenge (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	Coordinates (Zone - 48Q)			
								Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation	
TOWER SCHEDULE FOR THE SECTION - AP13-AP14 (0.386KM)																					
1	AP13	DC+DB	18°44'27" (RT)				296.0	210.0	386.0	596.0	452.3	125.3	28.5	45.3	153.7	100.5	C.F.D+1.0M	350962	2601563	52.85	
				330													AWEY LINE CROSSING				
2	AP14	DB+DB	17°23'33" (RT)		88	186.0	343.0	386.0	350.0	686.0	260.7	321.4	582.0	233.3	349.5	481.7	C.F.D+2.5M & RC+13.0M	351048	2601572	70	

Tower Abstract						
Tower Type\ Extn	+0	+3	+6	+9	+18	Total
DA	0	0	0	0	0	0
DB	0	0	1	0	0	1
DC	0	0	0	1	0	1
DD	0	0	0	0	0	0
Total	0	0	1	1	0	2
Total						2

Approved.
Note:- The approval does not absolves responsibility of contractors.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
B. Mondal	Amrta Sin				

FOR POWER GRID CORPORATION OF INDIA LTD.					
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY

ABHIJIT DEY
PROJECT MANAGER

उ. पू. के. उदयपुर / NER UDAIPUR

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																					
DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION 16/2- AP18-1.181KM																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)				
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation		
3	16/2	DB+9	00°00'00"(-)	363.0		196.5	0.0	293.0	293.0	0.0	199.1	199.1	0.0	198.1	198.1	VILL:-TINGHORIA LT LINE, NALA, POND	352227.88	2601367.79	78.580		
4	AP-17	DC+6	10°12'09"(RT)	321.0		193.0	357.0	263.0	321.0	714.0	193.7	152.7	346.5	194.9	156.0	350.9	VILL:-TINGHORIA 3 NOS 11 KV LINE, 2 NOS CART TRACK, LT LINE, ROAD, POND, 2 NOS HUT	352593.54	2601231.48	32.580	
5	AP-18	DD+6	40°05'58" RT			321.0	166.5	321.0	6.0	321.0	166.5	0.0	168.3	165.0	0.0	165.0	VILL:- GAMPARA	352879	2601031	33.900	
	AP18	DD+06	40°05'58" RT					249.5	321.0	178.0	499.0	166.5	49.9	216.4	160.5	66.3	226.8		352879	2601031	100.409
				178.0																	
	18/1	DB+09				178.0	233.5	178.0	289.0	467.0	128.1	88.9	217.0	111.7	112.2	223.9		352905	2600856	99.984	
				289.0													66 KV LINE, POND				
	AP19	DD+01	32°56'53" LT			289.0	223.0	289.0	157.0	446.0	209.1	130.2	330.3	176.8	108.5	285.3		352990	2600577	111.925	

Tower Abstract					
Tower Type \ Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	0	0	0	2	2
DC	0	0	1	0	1
DD	0	1	1	0	2
Total	0	1	2	2	5

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	
Bhambhani	Amun S...	Vijay	ABHIJIT DEY PROJECT MANAGER	

FOR POWER GRID CORPORATION OF INDIA LTD.			
CHECKED BY	RECOMMENDED BY	APPROVED BY	Se. GM
Akhil Chakma	Ranjit Sarkar	M.K. Talukdar	
उ.पु.ब. उदयपुर / NER UDAIPUR	उ.पु.ब. उदयपुर / NER UDAIPUR	उ.पु.ब. उदयपुर / NER UDAIPUR	उ.पु.ब. उदयपुर / NER UDAIPUR

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																					
DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION AP37 TO AP38, AP41 TO AP42 & AP44 TO AP45 =0.639KM																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)				
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation		
1	AP-37	DB+0	02°42'34"(RT)	322.2	-	161.1	0.0	322.2	322.2	0.0	73.7	73.7	0.0	110.4	110.4	VILL:- GANDHARI SH ROAD 2 NOS	357019.08	2599693.09	128.520		
2	AP-38	DC+0	20°37'42"(LT)		122.2	161.1	322.2	0.0	322.2	248.5	0.0	248.5	211.8	0.0	211.8	VILL:- GANDHARI	357302.11	2599439.06	138.920		
1	AP-41	DD+0	36°59'42"(LT)	188.1	-	94.1	0.0	188.1	188.1	0.0	47.9	47.9	0.0	67.2	67.2	VILL:- GANDHARI 2 NOS HUTS, ROAD	357988.34	2599133.63	169.250		
2	AP-42	DB+0	5°53'24"(LT)		188.1	94.1	188.1	0.0	188.1	140.2	0.0	140.2	120.9	0.0	120.9	VILL:- GANDHARI	358176.25	2599131.92	172.460		
1	AP-44	DB+6	5°22'13"(RT)	129.0	-	64.5	0.0	129.0	129.0	0.0	130.6	130.6	0.0	102.9	102.9	VILL:- GANDHARI 11 KV LINE, ROAD	358642.35	2599287.22	147.240		
2	AP-45	DB+6	9°07'05"(RT)		129.0	64.5	129.0	0.0	129.0	-1.6	0.0	-1.6	26.1	0.0	26.1	VILL:- GANDHARI	358757.17	2599178.37	150.090		

Tower Abstract					
Tower Type \ Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	2	0	2	0	4
DC	1	0	0	0	1
DD	1	0	0	0	1
Total	4	0	2	0	6

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED	FOR EMC LIMITED	
Bhambhani	Amun S...	Vijay	ABHIJIT DEY PROJECT MANAGER	

FOR POWER GRID CORPORATION OF INDIA			
CHECKED BY	RECOMMENDED BY	APPROVED BY	Se. GM
Akhil Chakma	Ranjit Sarkar	M.K. Talukdar	
उ.पु.ब. उदयपुर / NER UDAIPUR	उ.पु.ब. उदयपुर / NER UDAIPUR	उ.पु.ब. उदयपुर / NER UDAIPUR	उ.पु.ब. उदयपुर / NER UDAIPUR

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE

CLIENT : POWER GRID CORPORATION OF INDIA LIMITED

CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI

DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION AP47 TO AP51 -0.949KM

Annexure - III(B)

Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Cum. Chainage (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)		
								Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation
1	AP-47	DB+0	3°56'48"(LT)				93.5	0.0	187.0	187.0	0.0	324.9	324.9	0.0	327.8	327.8	VILL:- GANDHARI	359281.82	2599361.88	139.030
2	AP-48	DC+0	2°52'35"(RT)	187.0	187.0	187.0	209.5	187.0	232.0	419.0	137.9	85.4	223.4	40.8	0.0	41.7	VILL:- REYANG BASTI	359468.8	2599372.3	121.040
3	AP-49	DC+0	2°40'55"(LT)	232.0	232.0	419.0	215.5	232.0	199.0	431.0	317.4	240.5	558.0	232.9	181.3	414.3	VILL:- REYANG BASTI	359679.12	2599274.05	140.339
4	AP-50	DC+0	28°17'05"(LT)	199.0	199.0	618.0	265.0	199.0	331.0	530.0	41.5	447.1	405.6	17.7	328.9	346.6	VILL:- REYANG BASTI	359876.1	2599255.23	129.940
5	AP-51	DC+0	12°02'10"(LT)	331.0	331.0	949.0	289.0	331.0	233.0	564.0	116.1	347.2	231.1	2.1	250.4	252.5	VILL:- REYANG BASTI	360186.85	2599380.28	95.500

Tower Abstract						
Tower Type \ Extn	+0	+3	+6	+9	+18	Total
DA	0	0	0	0	0	0
DB	1	0	0	0	0	1
DC	4	0	0	0	0	4
DD	0	0	0	0	0	0
Total	5	0	0	0	0	5

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	ABHIJIT DEY PROJECT MANAGER

FOR POWER GRID CORPORATION OF INDIA		
CHECKED BY	RECOMMENDED BY	APPROVED BY

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE

CLIENT : POWER GRID CORPORATION OF INDIA LIMITED

CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI

DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION AP51 TO AP55 -0.999KM

Annexure - III(B)

Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)		
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation
1	AP-52	DC+0	22°02'10"(LT)		331.0	282.0	331.0	233.0	564.0	116.1	347.2	231.1	2.1	250.4	252.5	VILL:- REYANG BASTI	360186.85	2599380.28	95.500
2	AP-53	DB+3	5°49'59"(LT)	233.0	233.0	257.0	233.0	281.0	514.0	114.2	115.2	1.0	17.4	125.8	108.4	STATE HIGH WAY	360305.25	2599539.47	72.640
3	AP-53	DC+0	20°28'00"(RT)	281.0	281.0	217.0	281.0	153.0	434.0	165.8	105.7	271.5	135.2	93.4	248.6	VILL:- REYANG BASTI	360537.78	2599754.44	78.270
4	AP-54	DB+0	14°00'30"(RT)	153.0	153.0	242.5	153.0	332.0	485.0	47.3	240.4	287.7	99.8	209.2	268.8	VILL:- BERAMBARI	360605.39	2599831.46	76.620
5	AP-55	DC+0	71°55'14"(LT)	332.0	332.0	166.0	332.0	0.0	332.0	91.6	0.0	91.6	122.8	0.0	122.8	VILL:- BERAMBARI	360900.94	2599914.5	67.490

Tower Abstract					
Tower Type \ Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	1	1	0	0	2
DC	3	0	0	0	3
DD	0	0	0	0	0
Total	4	1	0	0	5

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	ABHIJIT DEY PROJECT MANAGER

FOR POWER GRID CORPORATION OF INDIA		
CHECKED BY	RECOMMENDED BY	APPROVED BY

PROJECT TITLE: 132 KV D/C LINE FROM UDAIPUR TO AMARPUR																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD, CHENNAI																					
TOWER SCHEDULE FOR THE SECTION - AP55 TO GANTRY -0.772KM																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Cum. Chainage (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	Coordinates (Zone - 46Q)			
								Left	Right	Total	Left	Right	Total	Left	Right	Total		Longitude	Latitude	Elevation	
1	AP55	DC+00	21°55'14"(LT)	308.0			154.0	0.0	308.0	308.0	0.0	170.6	170.6	0.0	169.3	169.3			350990.94	2599914.5	95.49
2	AP56	DD+09	43°25'58"(LT)	117.0	308.0	308.0	713.5	308.0	117.0	425.0	129.4	66.6	196.0	130.7	63.2	202.5	RC-3M		351219.19	2600096.54	50.69
3	AP57	DB+59	13°50'45"(RT)	182.8	117.0	425.0	149.5	127.0	182.0	359.0	58.4	287.1	337.5	53.8	204.8	258.0	RC-3M	56kv Line	351259.39	2600207.38	50.34
4	AP58	DC+03	19°22'30"(LT)	176.0	182.0	607.0	154.0	182.0	176.0	358.0	105.1	121.6	16.5	22.8	97.0	74.2			351328.98	2600374.72	46.15
5	AP59	DD+00	10°34'11"(RT)	99.0	176.0	733.0	82.5	126.0	99.0	165.0	4.4	-20.3	-15.9	25.0	-3.6	-25.4	Pond		351379.97	2600494.76	46.42
6	GANTRY	GANTRY	00°00'00"		35.0	165.0	16.5	39.0	0.0	39.0	59.1	0.0	99.3	42.6	0.0	42.6			351367.96	2600526.96	72.991

Tower Abstract						
Tower Type \ Extn	+0	+3	+6	+9	+18	Total
DA	0	0	0	0	0	0
DB	0	0	0	1	0	1
DC	1	1	0	0	0	2
DD	1	0	0	1	0	2
Total	2	1	0	2	0	5
Total						5

Approved.
Note: The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	
			ABHIJIT DEY PROJECT MANAGER	

FOR POWER GRID CORPORATION OF INDIA LTD.		
CHECKED BY	RECOMMENDED BY	APPROVED BY
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
अखिल चौकमा / AKHIL CHAKMA कनिष्ठ अभियंता / JE पावरग्रिड / POWERGRID उ.पू.शे. उदयपुर / NER UDAIPUR	संजिव शर्मा / SANJIV SHARMA कनिष्ठ अभियंता / JE पावरग्रिड / POWERGRID उ.पू.शे. उदयपुर / NER UDAIPUR	म.के. तालुकदार / M.K. TALUKDAR महोदय / Sr. GM पावरग्रिड / POWERGRID उ.पू.शे. उदयपुर / NER UDAIPUR

CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																	
LINE NAME: 132 KV DC UDAIPUR - AMARPUR TRANSMISSION LINE																	
CONTRACTOR -TEEMS INDIA TOWERLINES PVT. LTD.																	
CHECK SURVEY REPORT FROM AP-10 TO LOC.NO-16/2(-2.525 KMS)																	
SL. NO	LOC. NO	AS PER DETAIL SURVEY							AS PER CHECK SURVEY							X-ING/REMARKS	
		TYPE OF TOWER	AOD	SPAN IN	SEC. LENG	REDUCED LEVEL(M)	NORTHING	EASTING	TYPE OF TOWER	AOD	SPAN IN MTR.	Sum of Adj.	SEC LENG	REDU CED	NORTHING		EASTING
1	AP-10	DC+6	25°57'11"RT			72.64	2602070.57	350077.68	DC+6	25°57'11"RT				68.78	2602071.58	350080.73	SLIGHT CHANGE FOR BETTER POSITION
2				407							398						PUCCA ROAD , RUBBER PLANTATION
3	AP-11	DD+9	54°46'26"LT		407	77.68	2601679.6	350190.77	DD+9	49°48'39"LT		675	398	70.45	2601695.32	350195.95	SLIGHT CHANGE FOR BETTER POSITION
4				277							277						PUCCA ROAD , RUBBER PLANTATION
5	AP-12	DD+3	37°06'13"LT		684	77.45	2601588.99	350452.53	DD+3	38°04'27"LT		498	675	79.41	2601587.07	350450.86	SLIGHT CHANGE FOR BETTER POSITION
6				213							221						RUBBER PLANTATION,PADDY FIELD
7	AP-13	DC+9	18°27'20"RT		897	52.85	2601654.85	350655.09	DC+9	14°12'05"RT		594	896	56.14	2601646.99	350666.64	SLIGHT CHANGE FOR BETTER POSITION
8				383							373						RUBBER PLANTATION,PADDY FIELD,66 KV
9	AP-14	DB+6	12°23'15"RT		1280	66	2601651.87	351038.08	DB+6	12°09'50"RT		701	1269	32.72	2601654.85	351037.51	SLIGHT CHANGE FOR BETTER POSITION
10				318							328						BRICK ROAD,CANAL,KACHOWA ROAD,LT LINES
11	AP-15	DC+3	22°01'02"LT		1598	31.18	2601581.24	351348.14	DC+3	19°11'48"LT		528	1597	31.16	2601588.13	351358.82	SLIGHT CHANGE FOR LT LINE
12				215							200						PADDY FIELD,LT LINE
13	AP-16	DC+0	29°32'57"RT		1813	32.81	2601615.56	351560.38	DC+0	28°21'27"RT		532	1797	29.53	2601615.56	351560.38	SAME POSITION
14				332							332						PADDY FIELD
15	16/1	DB+6	00°00'00"		2145	31.16	2601500.03	351871.63	DB+6	00°00'00"		712	2129	30.45	2601500.03	351871.63	SAME POSITION
16				380							380						PADDY FIELD,ANA,POND
17	16/2	DB+9	00°00'00"		2525	31.49	2601367.79	352227.88	DB+9	00°00'00"		380	2509	31.5	2601367.79	352227.88	SAME POSITION

FOR TEEMS INDIA TOWERLINES PVT. LTD.		FOR EMC LTD	
SURVEYED BY	SUBMITTED BY	SURVEYED BY	SUBMITTED BY
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
PRODIP KABIRAJ PROJECT MANAGER		RAJU SHREEDHARAN Chief Project Manager.	
FOR TEEMS INDIA PLUSH KANTI CHATTERJEE ASST. PROJECT ENGINEER			

FOR POWER GRID CORPORATION OF INDIA LIMITED		
CHECKED BY	RECOMMENDED BY	APPROVED BY
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
अखिल चौकमा / AKHIL CHAKMA कनिष्ठ अभियंता / JE पावरग्रिड / POWERGRID उ.पू.शे. उदयपुर / NER UDAIPUR	संजिव शर्मा / SANJIV SHARMA कनिष्ठ अभियंता / JE पावरग्रिड / POWERGRID उ.पू.शे. उदयपुर / NER UDAIPUR	म.के. तालुकदार / M.K. TALUKDAR महोदय / GENERAL MANAGER पावरग्रिड / POWERGRID उ.पू.शे. उदयपुर / NER UDAIPUR

CLIENT:- POWER GRID CORPORATION OF INDIA LIMITED
LINE NAME:- 132 KV DC UDAIPUR - AMARPUR TRANSMISSION LINE
Contractor - TEEMS INDIA TOWERLINES PVT. LTD.

Check Survey report from AP-18 to AP-23, AP-24 to AP-37, AP-38 to AP-41, AP-42 to AP-44, AP-45 to AP-47(=6.475 KMS)

SL. NO	LOC. NO	AS PER DETAIL SURVEY							AS PER CHECK SURVEY							X-ING/REMARKS	
		TYPE OF TOWER	ACD	SPAN IN MTR.	SEC. LENGTH	REDUCED LEVEL(M)	NORTHING	EASTING	TYPE OF TOWER	ACD	SPAN IN MTR.	Sum of Adj. Span.	SEC. LENGTH	REDUCED LEVEL(M)	NORTHING		EASTING
1	AP-18	DO+6	88°54'04"E	187		23.44	2601056.37	352839.38	DO+6	87°37'50"W	189		31.463	2601038.94	352852.62	CHANGED AS IT IS COMING UPON A POND	
2																	
3	(181)	DO+9		296	187	09.63			DO+9	00°00'00"	291	489	189	31.463	2600856.55	352880.21	SAME POSITION
4																	
5	(182)	DO+3		180	483	111.59	2600574.32	352948.27	DO+3	31°56'56"E	187	448	483	42.947	2600570.89	352947.08	SLIGHT CHANGE FOR BETTER POSITION
6																	
7	AP-20	DO+0	57°08'27"E	137	183	35.08	2600459.82	353030.92	DO+0	57°22'01"E	134	291	437	35.913	2600459.48	353053.98	SLIGHT CHANGE FOR ANGLE OF DEVIATION
8																	
9	AP-21	DO+6	81°42'32"E	303	829	35.08	2600490.62	353184.87	DO+6	28°04'10"E	300	438	771	35.951	2600483.17	353183.71	SLIGHT CHANGE FOR BETTER POSITION
10																	
11	AP-22	DO+9	30°54'44"E	353	1172	34.51	2600080.37	353467.09	DO+9	80°51'33"E	327	627	1071	35.935	2600392.22	353471.45	CHANGED AS IT IS COMING UPON A ROAD
12																	
13	AP-23	DO+0	18°27'18"E	1464	57.83	2600490.81	353782.75	353782.75	DO+0	17°29'56"E	1388	44.335	2600490.81	353782.75		SAME POSITION	

FOR TEEMS INDIA
PIJUSH KANTI CHATTERJEE
ASTT. PROJECT ENGINEER

FOR TEEMS INDIA
PRODIP KABIRAJ
PROJECT MANAGER

RAJU SHREEDHARAN
Chief Project Manager.

FOR EMC LIMITL
(ABHIJIT DEY)
PROJECT MANAGER

अखिल चाकमा / AKHIL CHAKMA
कनिष्ठ अभियंता / JE
पावरग्रिड / POWERGRID
उ.प.वे. उदयपुर / NER, UDAIPUR

एम. के. नाग / M.K.NAG
उप महाप्रबंधक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.प.वे. उदयपुर / NER, UDAIPUR

एम. के. तालुकदार / M.K.TALUKDAR
महा प्रबंधक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.प.वे. उदयपुर / NER UDAIPUR

Refer to letter no:-
NEUDP/NERPSIP/EMC-TL/2019-20/637

CLIENT:- POWER GRID CORPORATION OF INDIA LIMITED
LINE NAME:- 132 KV DC UDAIPUR - AMARPUR TRANSMISSION LINE
Contractor - TEEMS INDIA TOWERLINES PVT. LTD.

Check Survey report from AP-18 to AP-23, AP-24 to AP-37, AP-38 to AP-41, AP-42 to AP-44, AP-45 to AP-47(=6.475 KMS)

SL. NO	LOC. NO	AS PER DETAIL SURVEY						AS PER CHECK SURVEY						X-ING/REMARKS			
		TYPE OF TOWER	ACD	SPAN IN MTR.	SEC. LENGTH	REDUCED LEVEL(M)	NORTHING	EASTING	TYPE OF TOWER	ACD	SPAN IN MTR.	Sum of Adj. Span.	SEC. LENGTH		REDUCED LEVEL(M)	NORTHING	EASTING
14	AP-24	DO+0	17°41'30"E	250		118.31	2600145.51	354009.64	DO+0	17°11'41"E	270		69.603	2600493.42	353994.64	CHANGED FOR BETTER POSITION	
15																NALA, 82	
16	AP-25	DO+0	01°04'59"E	291	755	118.31	2600465.83	354104.47	DO+0	15°54'31"E	284	454	279	74.849	2600466.17	354102.94	SAME POSITION / ON PILLAR
17																	
18	AP-26	DO+0	03°54'28"E	293	440	130.89	2600411.54	354405.35	DO+0	15°57'34"E	283	447	454	84.788	2600411.71	354473.97	SLIGHT CHANGE FOR BETTER POSITION
19																	
20	AP-27	DO+9	01°50'39"E	292	702	130.89	2600332.99	354499.31	DO+9	21°17'09"E	287	479	717	82.763	2600362.26	354499.15	CHANGED FOR BETTER POSITION
21																82	
22	AP-28	DO+6	05°42'57"E	299	963	138.05	2600256.78	354872.52	DO+6	01°49'11"E	287	769	934	92.956	2600269.05	354876.41	CHANGED FOR BETTER POSITION
23																NALA, 82	
24	AP-29	DO+0	17°27'14"E	254	1456	111.83	2599990.45	355365.31	DO+0	27°41'40"E	248	881	1485	78.517	2599992.91	355365.53	SAME POSITION/ON PILLAR
25																2 MOS NALA, 82	
26	AP-30	DO+0	01°02'25"E	295	1751	134.09	2599969.18	355443.03	DO+0	01°47'57"E	288	556	1773	91.22	2599966.80	355454.30	SAME POSITION/ON PILLAR
27																	
28	AP-31	DO+0	08°45'08"E	258	2019	270.99	2599952.68	355918.77	DO+0	08°34'56"E	222	390	2641	127.627	2599953.10	355917.16	SAME POSITION/ON PILLAR
29																	
30	AP-32	DO+0	04°08'51"E	172	2143	145.43	2599897.66	356037.58	DO+0	07°55'56"E	172	384	2143	122.217	2599890.94	356038.38	SAME POSITION/ON PILLAR
31																82	
32	AP-33	DO+0	28°04'30"E	181	2347	153.18	2599868.53	356187.45	DO+0	30°09'26"E	182	457	2345	109.613	2599868.95	356181.47	SAME POSITION/ON PILLAR
33																	
34	AP-34	DO+0	14°06'21"E	298	2388	142.57	2599723.31	356441.48	DO+0	13°48'06"E	295	494	1626	118.939	2599719.14	356441.04	SAME POSITION/ON PILLAR
35																	
36	AP-35	DO+0	32°08'17"E	139	2767	145.65	2599654.96	356693.80	DO+0	41°38'42"E	139	329	2819	127.87	2599656.77	356691.77	SAME POSITION/ON PILLAR
37																82	
38	AP-36	DO+0	10°53'13"E	141	2338	157.6	2599715.26	356759.31	DO+0	11°07'28"E	140	425	2919	114.055	2599716.51	356763.72	SAME POSITION/ON PILLAR
39																	
40	AP-37	DO+0	07°38'11"E	288	8286	172.25	2599592.78	357053.62	DO+0	07°47'34"E	289	789	3248	128.522	2599593.09	357053.08	SAME POSITION

FOR TEEMS INDIA
PIJUSH KANTI CHATTERJEE
ASTT. PROJECT ENGINEER

FOR TEEMS INDIA
PRODIP KABIRAJ
PROJECT MANAGER

RAJU SHREEDHARAN
Chief Project Manager.

FOR EMC LIMITL
(ABHIJIT DEY)
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अखिल चाकमा / AKHIL CHAKMA
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पावरग्रिड / POWERGRID
उ.प.वे. उदयपुर / NER, UDAIPUR

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महा प्रबंधक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.प.वे. उदयपुर / NER UDAIPUR

Refer to letter no:- NEUDP/NERPSIP/EMC-TL/2019-20/637

CLIENT:- POWER GRID CORPORATION OF INDIA LIMITED
LINE NAME:- 132 KV DC UDAIPUR - ANARPUR TRANSMISSION LINE
Contractor:- TEEMS INDIA TOWERLINES PVT. LTD.

Check Survey report from AP-18 to AP-23, AP-24 to AP-37, AP-38 to AP-41, AP-42 to AP-44, AP-45 to AP-47

SL. NO.	LOC. NO.	AS PER DETAIL SURVEY						AS PER CHECK SURVEY						X-ING/REMARKS			
		TYPE OF TOWER	AOD	SPAN IN MTR.	SEC. LENGTH	REDUCED LEVEL(M)	NORTHING	EASTING	TYPE OF TOWER	AOD	SPAN IN MTR.	Sec. of Adj. Span	SEC. LENGTH		REDUCED LEVEL(M)	NORTHING	EASTING
42																	
43	AP-38	DC-H	18°17'34"11			182.7	2599419.39	357404.06	DC-H	20°37'47"17		153		188.918	2599439.06	357392.11	SAME POSITION IF
44	AP-39	DB-H	17°17'28"87	151		178.92	2599429.86	357454.22	DB-H	17°50'27"80	323	520	151	132.429	2599415.47	357450.38	SLIGHT CHANGE FOR BETTER POSITION IF
45	AP-39	DB-H	17°17'28"87	151		178.92	2599429.86	357454.22	DB-H	17°50'27"80	323	520	151	132.429	2599415.47	357450.38	IF
46	AP-40	DB-H	15°33'31"87	348		348.25	2599291.18	357779.35	DB-H	15°33'31"87	347	624	380	344.369	2599295.40	357776.66	SLIGHT CHANGE FOR BETTER POSITION IF
47	AP-40	DB-H	15°33'31"87	348		348.25	2599291.18	357779.35	DB-H	15°33'31"87	347	624	380	344.369	2599295.40	357776.66	IF
48	AP-41	DC-H	27°38'41"11			749	2599154.89	357985.06	DC-H	28°39'47"17		297	767	169.254	2599133.63	357988.14	CHANGED FOR BETTER POSITION IF
49	AP-41	DC-H	27°38'41"11			749	2599154.89	357985.06	DC-H	28°39'47"17		297	767	169.254	2599133.63	357988.14	IF
50																	
51	AP-42	DB-H	16°08'35"11			213.65	2599132.42	358177.77	DB-H	15°57'24"11		174		172.459	2599141.92	358174.35	SAME POSITION IF
52	AP-43	DC-H	20°36'52"11	172		172	2599146.16	358348.97	DC-H	21°07'27"17	334	487	174	348.096	2599147.84	358350.34	SLIGHT CHANGE FOR BETTER POSITION IF
53	AP-43	DC-H	20°36'52"11	172		172	2599146.16	358348.97	DC-H	21°07'27"17	334	487	174	348.096	2599147.84	358350.34	IF
54	AP-44	DB-H	06°17'31"87	502		190.28	2599287.00	358841.05	DB-H	09°22'27"87	523	497	247.239	2599287.22	358842.35		SAME POSITION IF
55	AP-44	DB-H	06°17'31"87	502		190.28	2599287.00	358841.05	DB-H	09°22'27"87	523	497	247.239	2599287.22	358842.35		IF
56																	
57	AP-45	DB-H	09°17'54"87			219.43	2599326.85	358749.83	DB-H	09°07'05"87		292		150.088	2599328.17	358757.17	SLIGHT CHANGE FOR BETTER POSITION IF
58	AP-45	DB-H	09°17'54"87			219.43	2599326.85	358749.83	DB-H	09°07'05"87		292		150.088	2599328.17	358757.17	IF
59	AP-46	DB-H	09°40'27"87	306		306	2599360.83	359056.35	DB-H	07°39'31"87	331	529	297	199.58	2599360.40	359058.33	SAME POSITION IF
60	AP-46	DB-H	09°40'27"87	306		306	2599360.83	359056.35	DB-H	07°39'31"87	331	529	297	199.58	2599360.40	359058.33	IF
61	AP-47	DB-H	07°37'08"11	544		180.43	2599361.68	359286.36	DB-H	07°34'48"11		291	523	139.052	2599361.88	359284.76	SAME POSITION IF

FOR TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI

SURVEYED BY: *[Signature]* FOR TEEMS INDIA
PRADIP KUMAR
PROJECT MANAGER

SUBMITTED BY: *[Signature]*

FOR TEEMS INDIA
PIJUSH KANTI CHATTERJEE
ASTT. PROJECT ENGINEER

RAJU SHREEDHARAN
Chief Project Manager.

[Signature]
एच. के. नाग / M.K. NAG
उप महाप्रबन्धक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
उ. पू. शे. उदयपुर / NER UDUPUR

FOR POWER GRID CORPORATION OF INDIA LIMITED

CHECKED BY: *[Signature]* RECOMMENDED BY: *[Signature]* APPROVED BY: *[Signature]*

FOR EMC LIMITED
(ABHIJIT DEY)
PROJECT MANAGER

[Signature]
एच. के. कलुश्याक / H.K. TALUKDAR
महा प्रबन्धक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ. पू. शे. उदयपुर / NER UDAIPUR

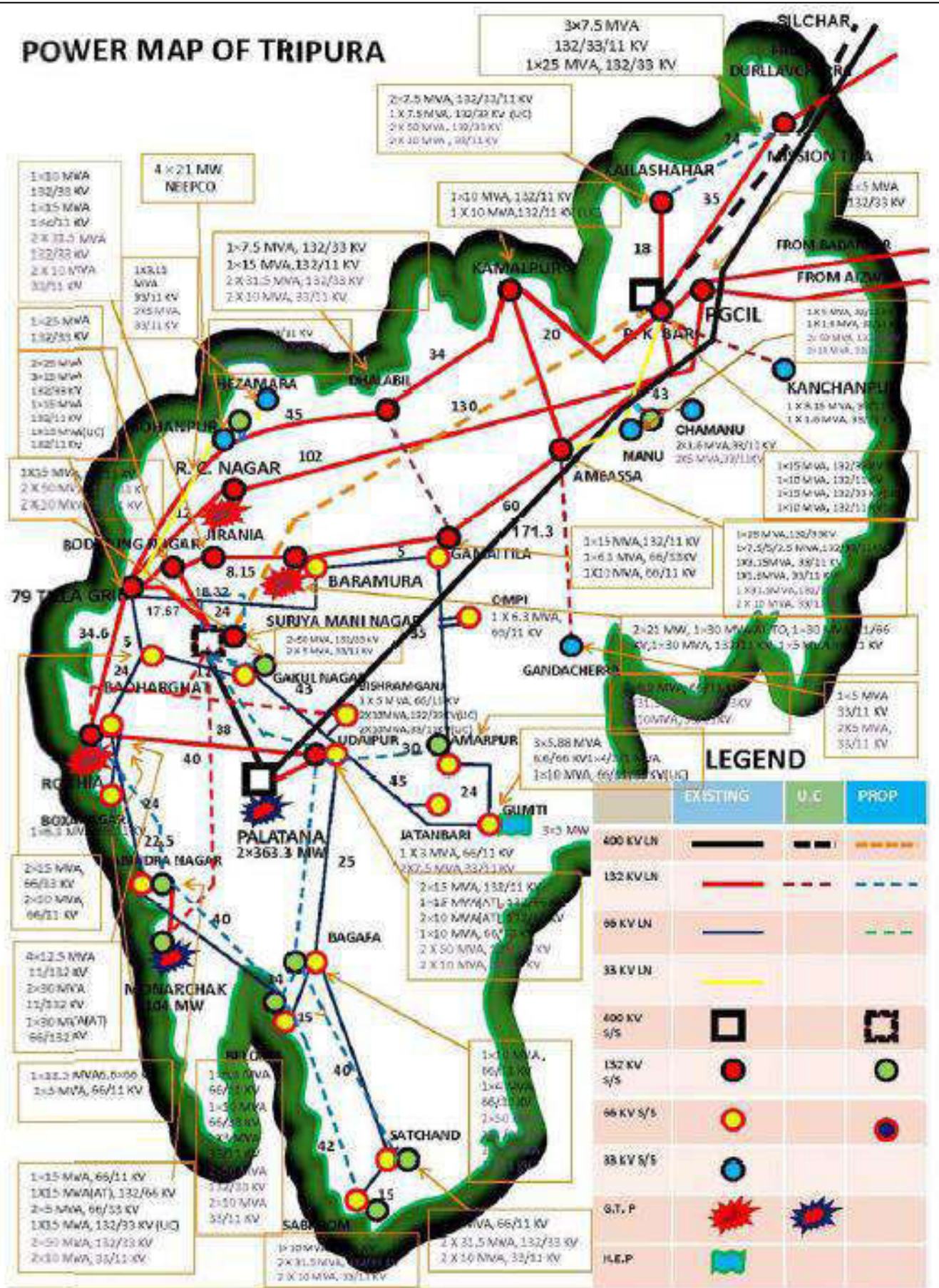
Refer to Letter no:-
NEUDP/NERPSIP/EMC-TL/2019-20/687

Annexure

Annexure 1

Power Map of Tripura State

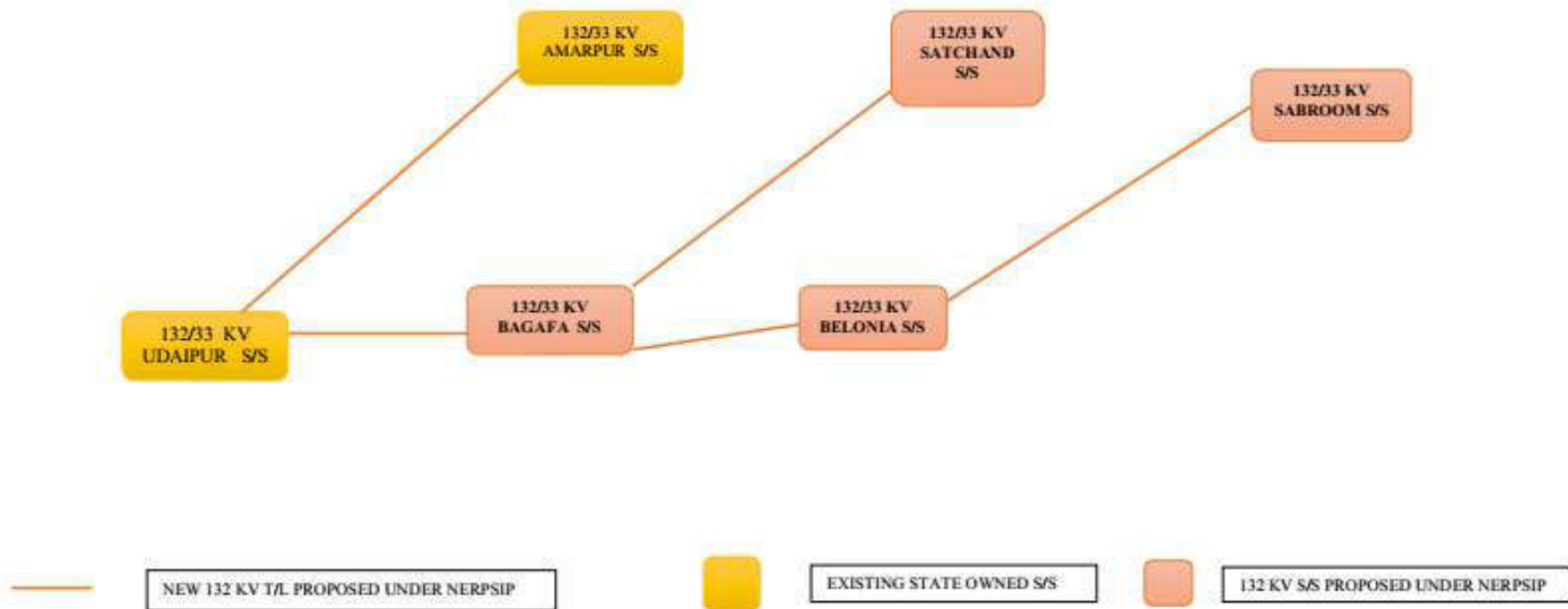
POWER MAP OF TRIPURA



Annexure 2

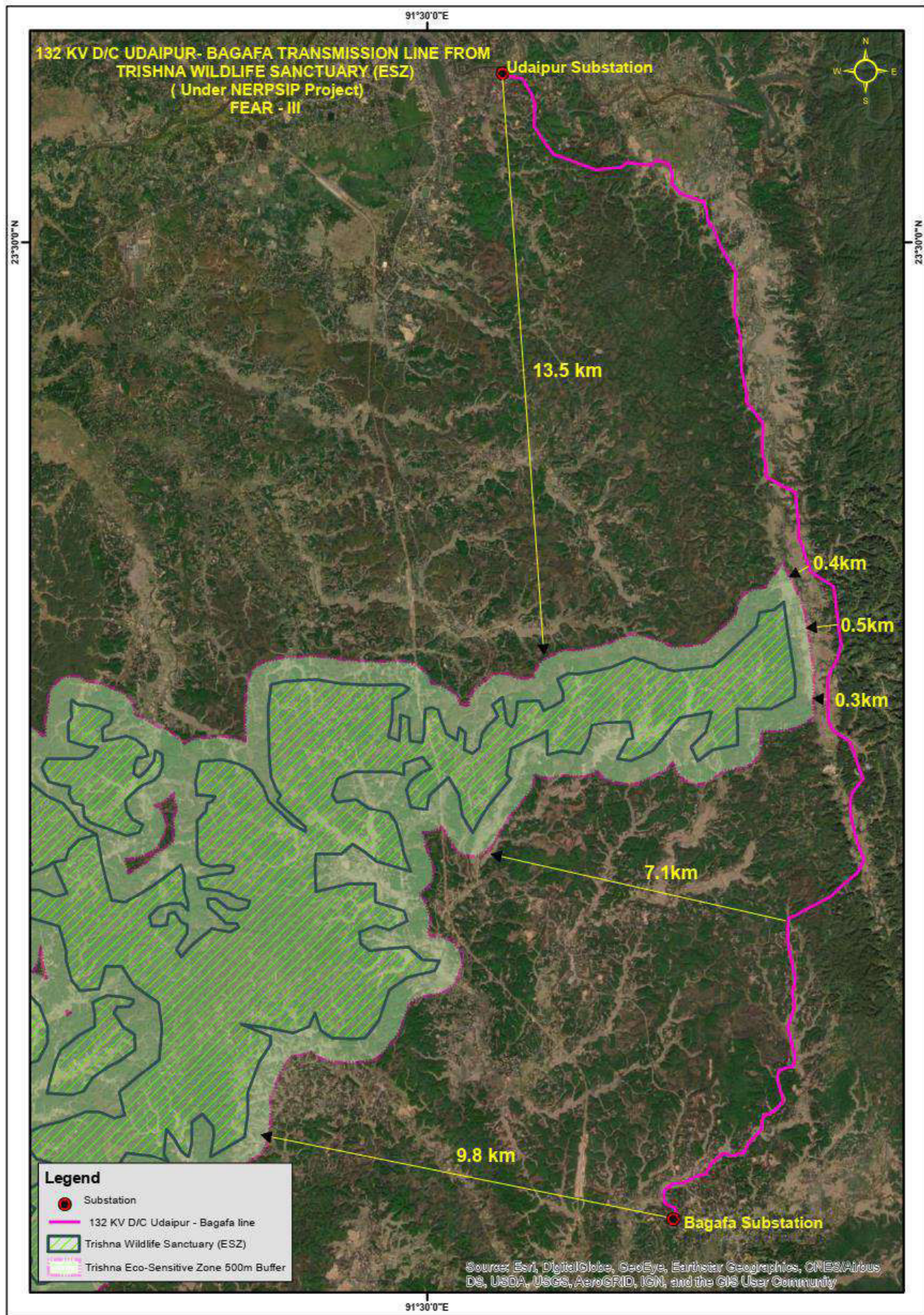
Schematic Map of Projects Covered in FEAR III

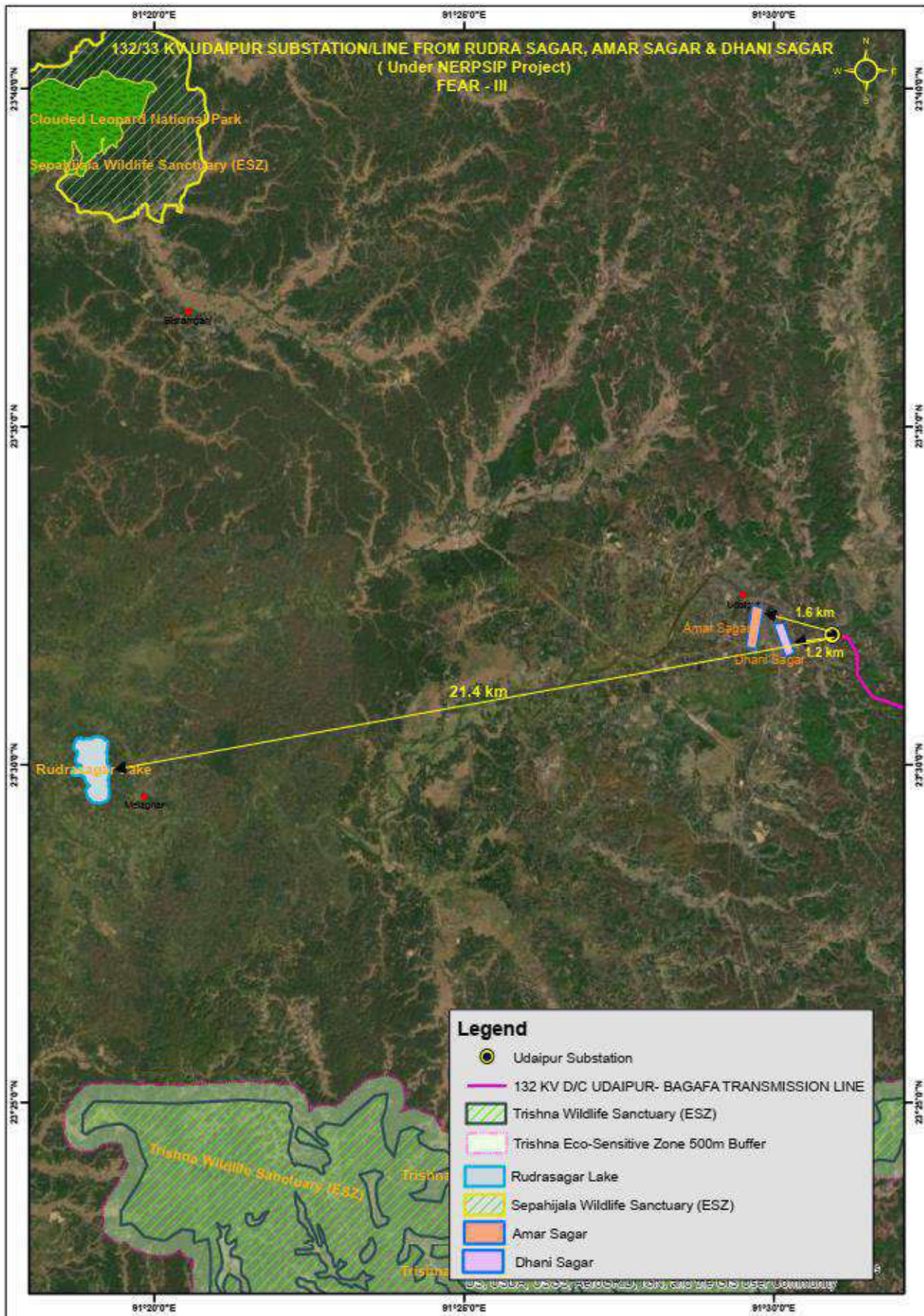
Schematic Map Showing proposed Transmission Network in Gumti & South Tripura District under NER Power System Improvement Project in TRIPURA



Annexure 3

Distance of 132 kV Udaipur - Bagafa D/C TL from Trishna WLS







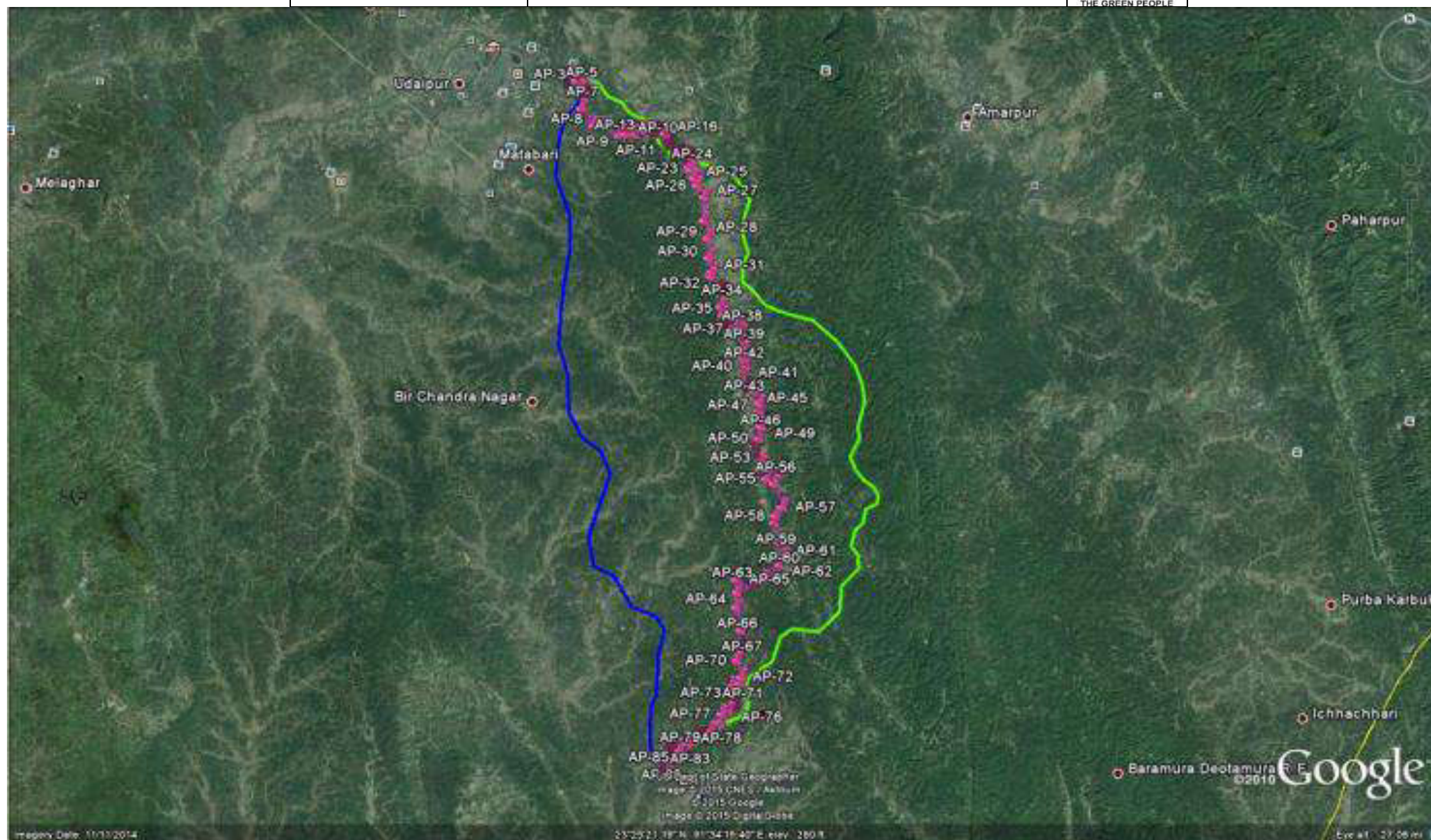
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POWERGRID

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



Annexure 4

Alternative Analysis of TLs



Alternative Route Alignment for 132 kV D/C Udaipur - Bagafa Tr. Line - Alternative I, II and III



IBAT Map Superimposing For 132 kV D/C Udaipur - Bagafa TL - 1 km Distance from Trishna WLS

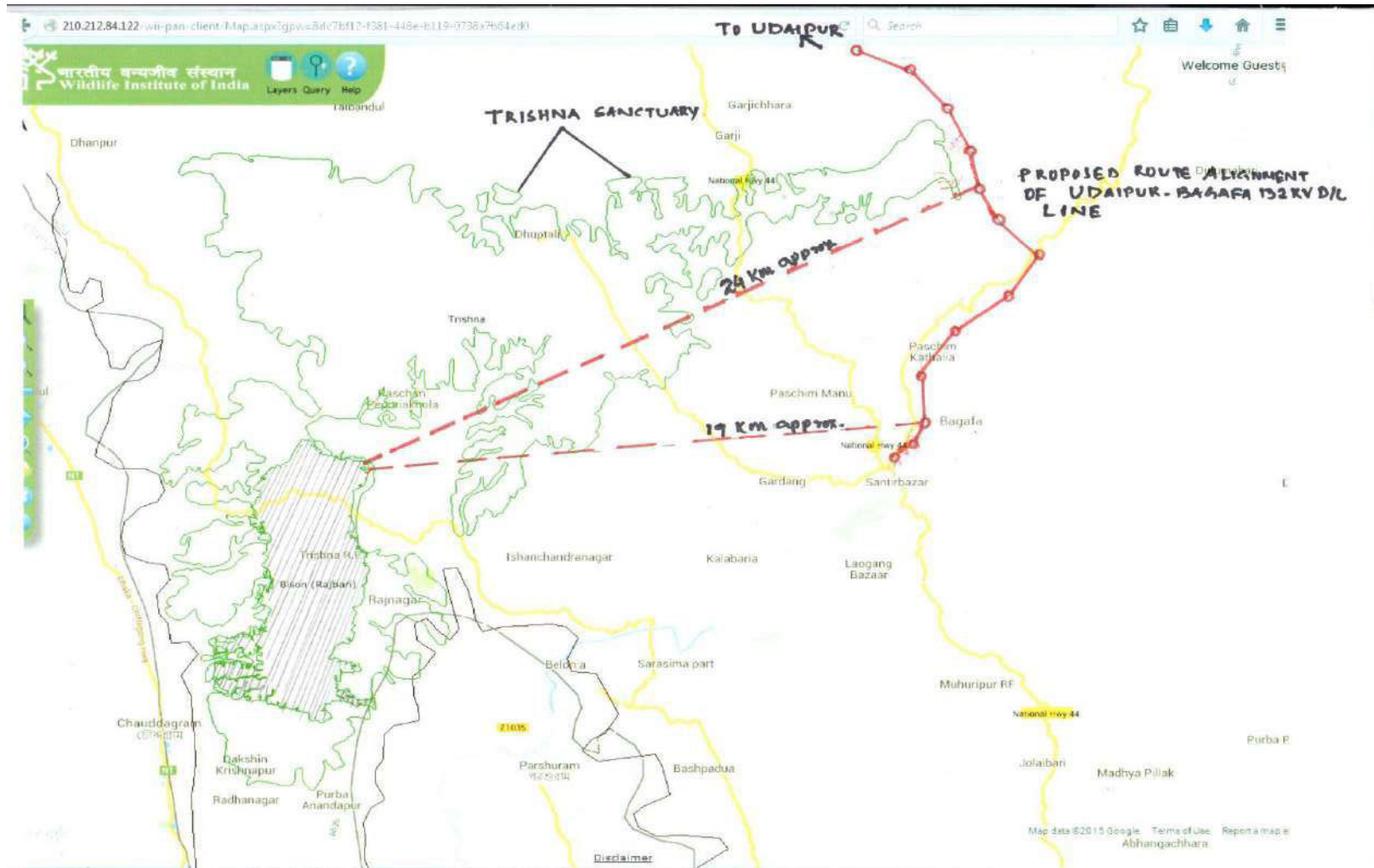


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FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



Geospatial Map of Area Showing Sanctuary Boundary and Bison Reserve Vis-À-Vis 132 kV D/C Udaipur – Bagafa Line Route



Geospatial Map of Area Showing Sanctuary Boundary and Bison Reserve Vis-À-Vis 132 kV D/C Udaipur – Bagafa Line Route

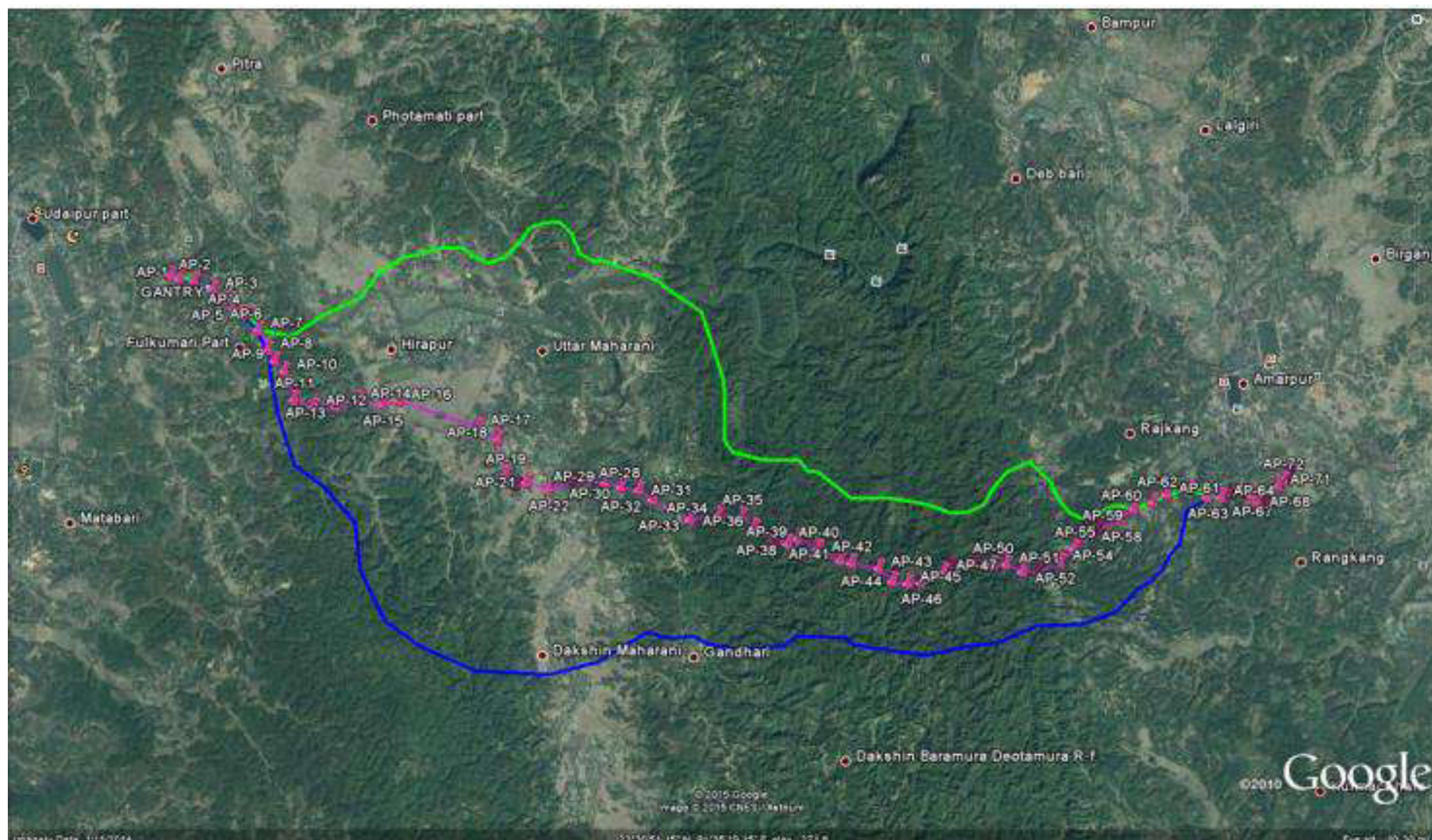


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POWERGRID

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



Alternative Route Alignment for 132 kV D/C Udaipur – Amarapur Tr. Line – Alternatives I, II and III to Avoid RF Area



- Alternative 1 Final
- Alternative 2
- Alternative 3

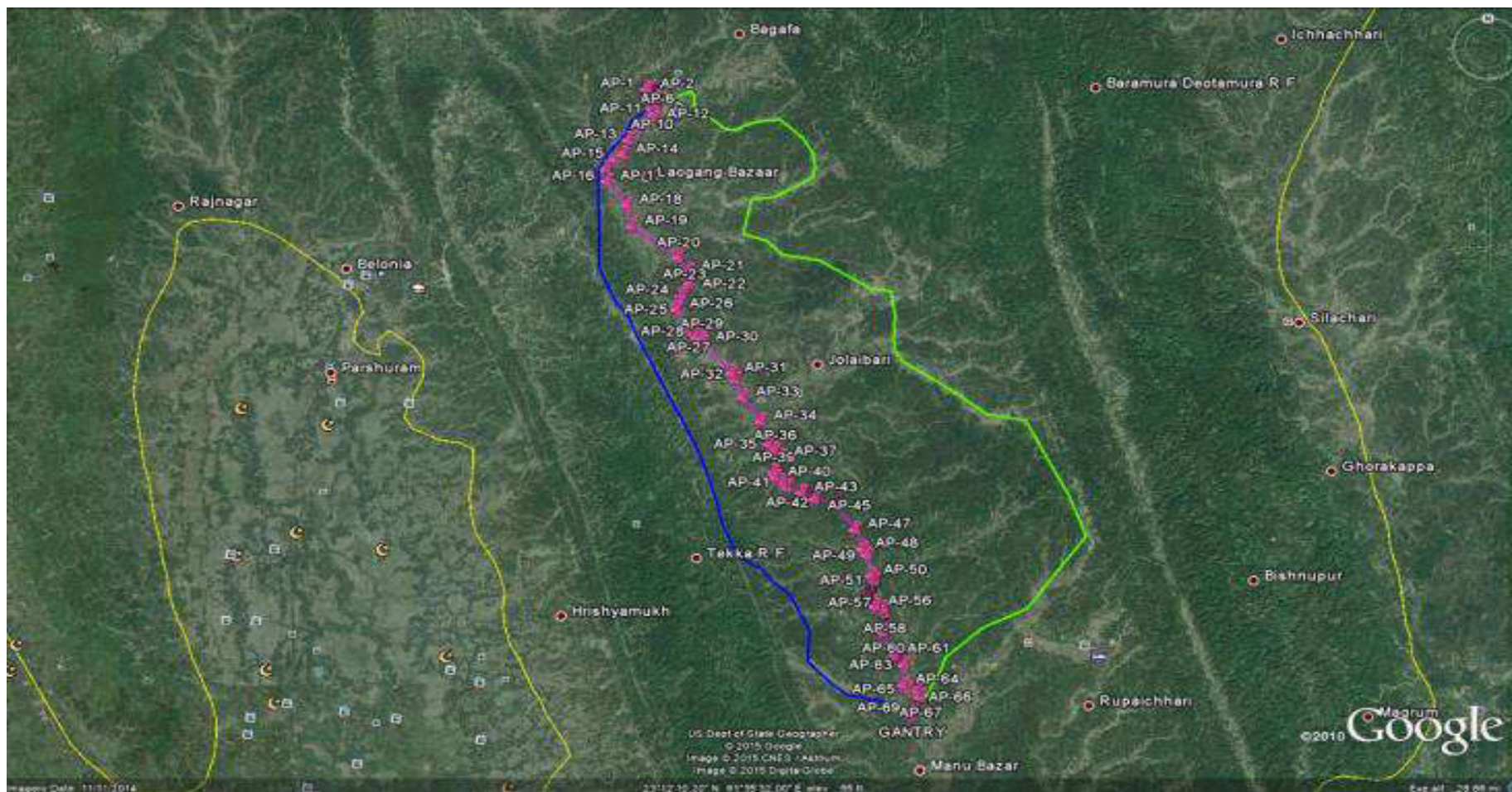


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FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura

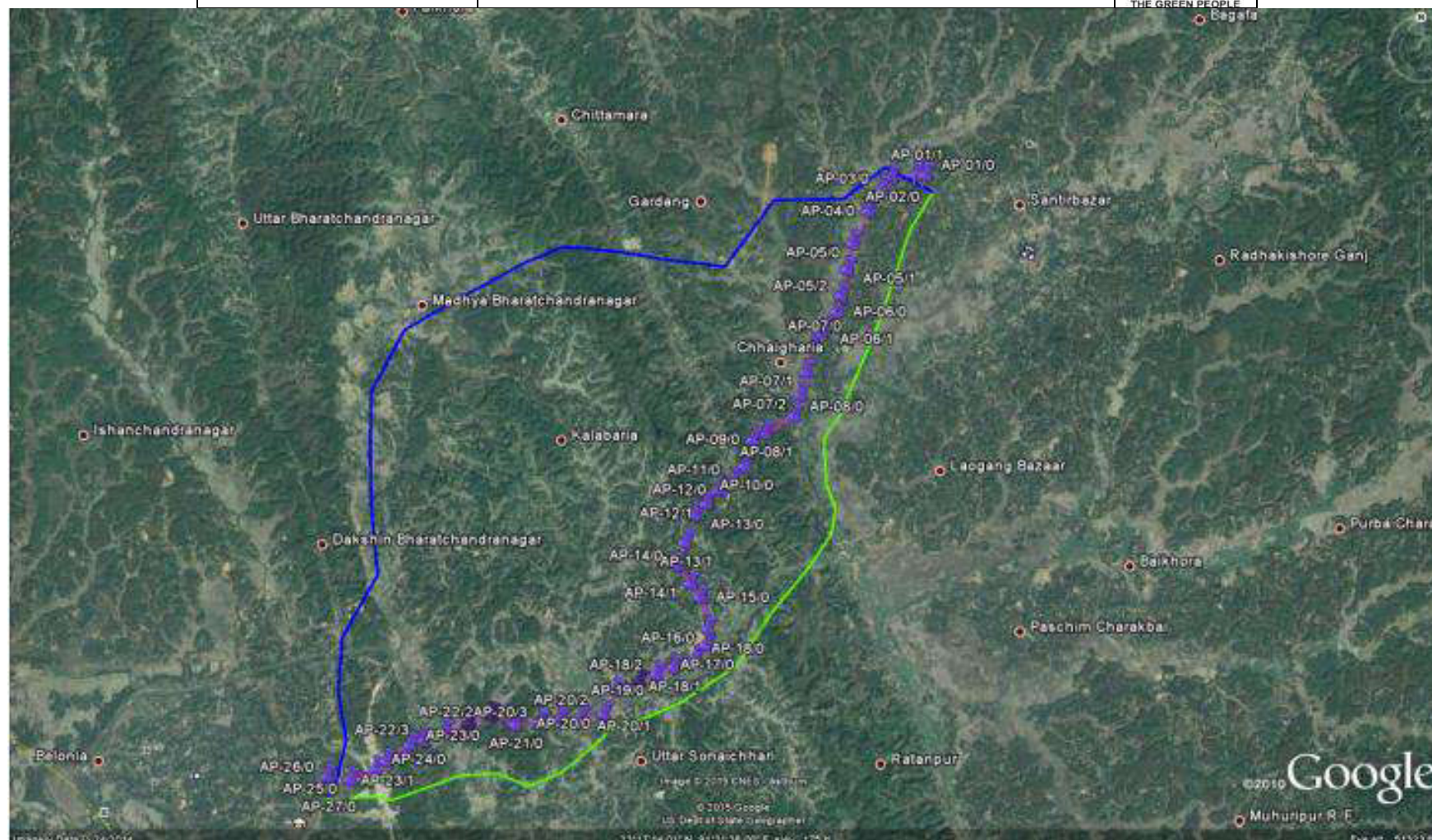


Alternative Route Alignment for 132 kV D/C Bagafa –Satchand Tr. Line – Alternatives I, II and III to Avoid RF Area



- Alternative 1 Final
- Alternative 2
- Alternative 3

Alternative Route Alignment for 132 kV D/C Bagafa – Belonia Tr. Line – Alternatives I, II and III to Avoid RF Area



- Alternative 1 Final
- Alternative 2
- Alternative 3

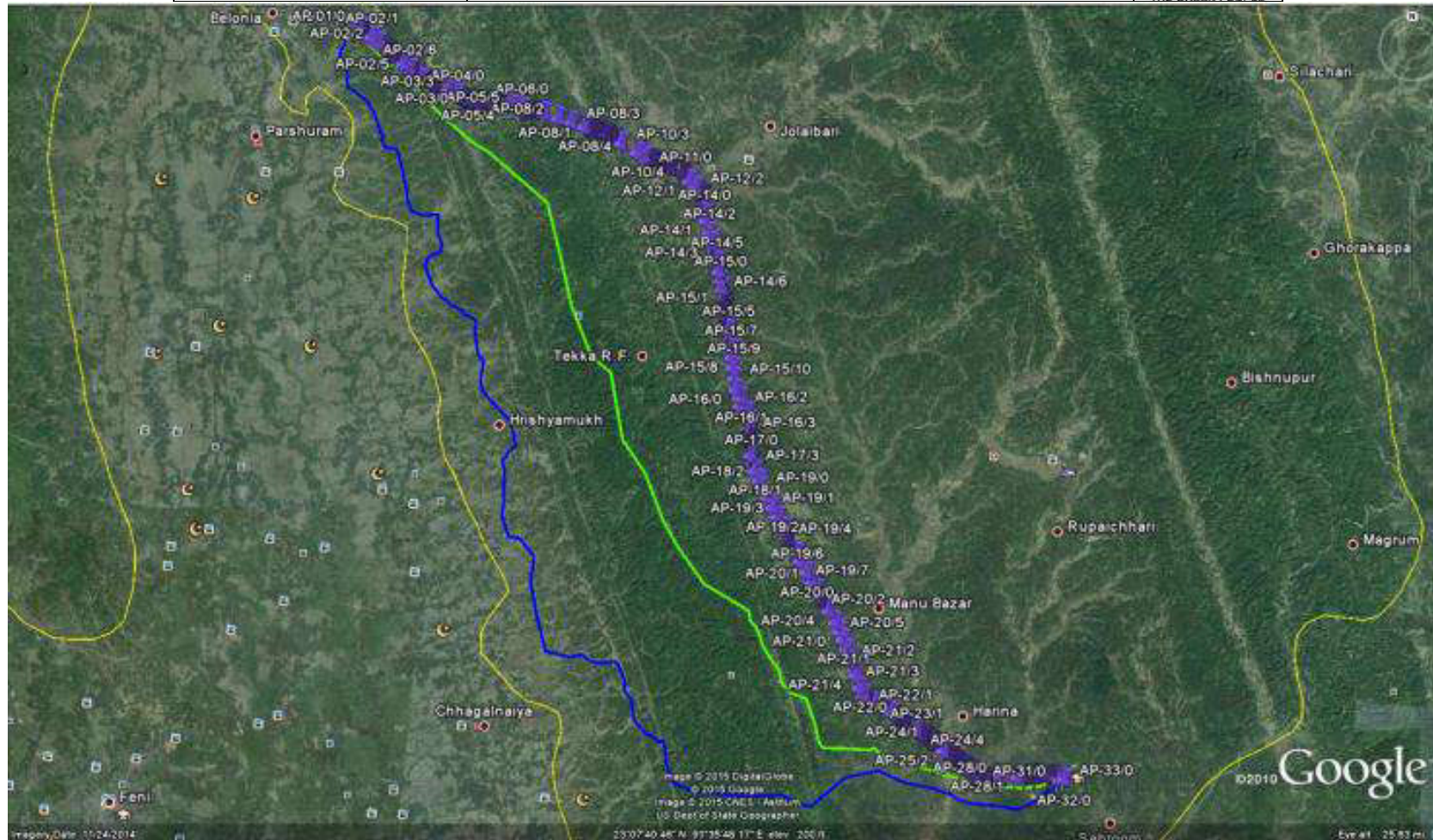


पावरग्रिड
POWERGRID

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



Alternative Route Alignment for 132 kV D/C Belonia – Sabroom Tr. Line – Alternatives I, II and III to Avoid RF Area



- Alternative 1 Final
- Alternative 2
- Alternative 3

Annexure 5

Details of NOCs obtained from Various Authorities

1. Intimation to NHIDC for

- a. 132/33 kV Udaipur - Bagafa TL Crossing at
NH – 8**
- b. 132/33 kV Belonia - Sabroom TL Crossing at
NH – 108A**
- c. 132/33 kV Bagafa - Satchand TL Crossing at
NH – 108A and NH – 8**



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. NEUDP/NERPSIP/2020-21/1627

Date: 02.03.2021

To,

The General Manager,
NHIDCL Teliamura,
Khowai, Tripura,
Pin- 799205

Sub: Intimation regarding NH-8 High way crossing of 132 KV D/C Udaipur to Bagafa Transmission line at Bagafa under Santirbazar Subdivision, South Tripura District.

Sir,

It is to inform you that Power Grid Corporation of India, a Govt. of India Enterprise (under the Ministry of Power) is presently working for power system development of Tripura state under NERPSIP (North Eastern Regional Power System Improvement Project). This project is funded by the World Bank & Govt of India (50:50). The owner of this project is Tripura State Electricity Corporation Limited (TSECL) and POWERGRID is implementing the project on behalf of TSECL.

132 KV D/C Udaipur to Bagafa Transmission line is crossing NH-8 High way at Bagafa under Santirbazar Subdivision, South Tripura District. The coordinates of tower locations corresponding to NH crossing are: AP-81: 23° 19'10.82", 91°33'13.80"; AP-82: 23° 19'09.37", 91°33'08.11". NH crossing details drawings are enclosed here with for your kind information please.

Enclosed: i) 5 copies of drawings profile
ii) 5 copies of details drawings

Yours faithfully


(A. C. Das)
Sr. DGM, Udaipur
NERPSIP, Tripura
Mob-9435507303

✓ Copy to: Sr.GM, NERPSIP, Agartala for kind information please.



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. NEUDP/NERPSIP/2020-21/ 787

Date: 19.02.2021

To,

The General Manager,
NHIDC, Teliamura.
Khowai, Tripura,

Sub: Intimation regarding NH -108A High way crossing of 132 KV D/C Belonia – Sabroom Transmission line at Uttar Sunichari village Belonia Subdivision South Tripura District.

Sir,

It is to inform you that Power Grid Corporation of India, a Govt. of India Enterprise (under the Ministry of Power) is presently working for power system development of Tripura state under NERPSIP (North Eastern Regional Power System Improvement Project). This project is funded by the World Bank & Govt of India (50:50). The owner of this project is Tripura State Electricity Corporation Limited (TSECL) and POWERGRID is implementing the project on behalf of TSECL.

NH -108A High way is crossing , 132 KV D/C Belonia – Sabroom Transmission line at Uttar Sunichari village Belonia Subdivision South Tripura District at GPS coordinate E 347097.28 N 2569475.87 NH crossing details drawings are enclosed here with for your kind information please.

Enclosed :- A. 5 copies of drawings profile
B. 5 copies of details drawings

Yours faithfully


A. C. Das
Sr. DGM, Udaipur
NERPSIP, Tripura
9435507303



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. NEUDP/NERPSIP/2020-21/ 788

Date: 14.02.2021

To,

The General Manager,
NHIDC, Teliamura,
Khowai, Tripura,

Sub: Intimation regarding NH -108A & NH8 High way crossing of 132 KV D/C Bagafa-Satchand Transmission line at West Pilak & Sakbari village Santibazar & Sabroom Subdivision South Tripura District.

Sir,

It is to inform you that Power Grid Corporation of India, a Govt. of India Enterprise (under the Ministry of Power) is presently working for power system development of Tripura state under NERPSIP (North Eastern Regional Power System Improvement Project). This project is funded by the World Bank & Govt of India (50:50). The owner of this project is Tripura State Electricity Corporation Limited (TSECL) and POWERGRID is implementing the project on behalf of TSECL.

NH -108A High way is crossing , 132 KV D/C Bagafa- Satchand Transmission line at West Pilak village Santibazar Subdivision , South Tripura District at GPS coordinate E 354960 N 2567602 and NH-08 crossing at Sakbari village , Sabroom Subdivision South Tripura District at GPS coordinate E 357668 N 2562770 . NH crossing details drawings are enclosed here with for your kind information please.

Enclosed :- A. 5 copies of drawings profile
B. 5 copies of details drawings

Yours faithfully



A. C. Das
Sr. DGM, Udaipur
NERPSIP, Tripura
9435507303

- 2. Intimation to Railway for**
- a. 132/33kV Satchand – Bagafa TL Crossing
near Julaibari**
 - b. 132/33kV Belonia – Sabroom TL Crossing
near Manubazar**
 - c. 132/33kV Bagafa – Satchand TL Crossing
near Jolaibari**

**TRIPURA STATE ELECTRICITY CORPORATION LIMITED**
(A Govt. of Tripura Enterprise)

No.F. 5(5)/TECH/TD/UDP/2020-2021/ ২৩০৭-০০০

Date: 27.02.2021

To

The DRM/Engg.

N.F.Railway, Lumding Division,

Lumding, Assam

Sub: - Submission of Proposal for approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track near Jolaibari (HP.87/4-87/5)

Dear Sir,

Please find the attached herewith the complete proposal consisting following documents for necessary approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track between Jolaibari to Belonia at HP.87/4-87/5 under your jurisdiction.

It is requested to get the proposal examined and arrange to convey necessary permission to execute the work of the above said transmission line crossing over the railway track at the earliest possible.

Enclosed all required Annexure and demand draft as detailed below:

1. Signed copy of online application.
2. Original DD Bearing No:034308, Dated: 24/02/2021 of amount of Rs. 2000/-
3. Signed copy of Draft agreement.
4. Signed copy of Questionnaires.
5. Profile & detailed drawing of the crossing span.
6. Tower spotting data.

Thanking You

Yours sincerely



Dy. General Manager
Transmission Division, Udaipur
Gomati District, Tripura

Copy forwarded to: -

1. The additional General Manager, Transmission Circle, Agartala for kind information please.
2. The Sr. GM, NERPSIP, POWERGRID, Agartala for information please.

Received
for 08/03/2021
for Dm (w) HLG


Dy. General Manager

**TRIPURA STATE ELECTRICITY CORPORATION LIMITED**

Office of the Deputy General Manager
Transmission Division, Udaipur
Gomati District, Tripura

No.F. 5(5)/TECH/TD/UDP/2020-2021/ 2246-48

Dated: 17-02-2021

To
The DRM/Ersg.
N.F.Railway, Lumding Division.
Lumding, Assam

**Sub: - Submission of Proposal for approval of crossing of overhead 132 kV
S/C Belonia to Sabroom Transmission line over Agartala to Sabroom BG
Railway Track near Manubazar (HP.110/8-110/9).**

Dear Sir,

Please find the attached herewith the complete proposal consisting following documents for necessary approval of crossing of overhead 132 kV S/C Belonia to Sabroom Transmission line over Agartala to Sabroom BG Railway Track between Manubazar to Sabroom at HP.110/8-110/9 under your jurisdiction.

It is requested to get the proposal examined and arrange to convey necessary permission to execute the work of the above said transmission line crossing over the railway track at the earliest possible.

Enclosed all required Annexure and demand draft as detailed below:

1. Signed copy of online application.
2. Original DD Bearing No:184487, Dated: 09/02/2021 of amount of Rs. 2000/-
3. Signed copy of Draft agreement.
4. Signed copy of Questionnaires.
5. Profile & detailed drawing of the crossing span.
6. Tower spotting data.

Thanking You,

Yours sincerely,

Dy. General Manager
Transmission Division, Udaipur
Gomati District, Tripura

Copy to:

1. The Additional General Manager, Transmission Circle, Agartala for kind information please.
2. The SR.GM, NERPSIP, POWERGRID, Agartala for information please.

*Received
18/02/2021
For DRM(M) 2mg.*

[Signature]
17/02/2021
Dy. General Manager

**TRIPURA STATE ELECTRICITY CORPORATION LIMITED**

Office of the Deputy General Manager
Transmission Division, Udaipur
Gomati District, Tripura

No.F. 5(5)/TECH/TD/UDP/2020-2021/ 2243-45

Dated: 17-02-2021

To
The DRM/Engg.
N.F.Railway, Lumding Division,
Lumding, Assam

Sub: - Submission of Proposal for approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track near Julaibari (HP.91/6-91/7).

Dear Sir,

Please find the attached herewith the complete proposal consisting following documents for necessary approval of crossing of overhead 132 kV S/C Bagafa to Satchand Transmission line over Agartala to Sabroom BG Railway Track between Julaibari to Thali:Twisa at HP.91/6-91/7 under your jurisdiction.

It is requested to get the proposal examined and arrange to convey necessary permission to execute the work of the above said transmission line crossing over the railway track at the earliest possible.

Enclosed all required Annexure and demand draft as detailed below:

1. Signed copy of online application.
2. Original DD Bearing No:184486, Dated: 09/02/2021 of amount of Rs. 2000/-
3. Signed copy of Draft agreement.
4. Signed copy of Questionnaires.
5. Profile & detailed drawing of the crossing span.
6. Tower spotting data.

Thanking You,

Yours sincerely,

Dy. General Manager
Transmission Division, Udaipur
Gomati District, Tripura

Copy to:

1. The Additional General Manager, Transmission Circle, Agartala for kind information please.
2. The SR.GM, NERPSIP, POWERGRID, Agartala for information please.

*Received
In 05/02/2021
For DM (Asst) LMS*

Kao.
Dy. General Manager

3. TIDC NOC

**Tripura Industrial Development Corporation Ltd.***(A Government of Tripura Undertaking)*

"ISO 9001:2015 certified"

No.: TIDC/ESTT/239/Part-II/ 98-100

Date:- 15 May, 2021.

To
✓ The Ch. Manager,
POWERGRID,
NERPSIP,
Near Hall Chowmuhani,
Belonia - 799155, South Tripura.

**Sub:-Construction of 132 KV D/C Bagafa-Belonia & 132 KV D/C
Rabindranagar - Belonia Transmission Line - Regarding placement of one
Multi Circuit tower in TIDC land at Sarasima, Belonia.**

Ref.: NERBLN/NERPSIP/2021 - 22/BLN- 51/913, dt.01/05/2021.

Sir,

With reference to the subject cited above, this is to inform you that TIDC
Ltd. is agreed with your proposal.

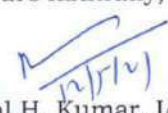
TIDC's Bank details are given below:-

- (i) Union Bank of India
- (ii) IFS Code:- UBIN0536164.
- (iii) A/C No.:-361602010003846.

This is for your kind information and doing the needful please.

Enclo:- One Xerox copy of Bank Cheque.

Yours faithfully,


(Raval H. Kumar, IAS)
Managing Director

Copy to:-

1. The District Magistrate & Collector, South Tripura, Belonia for
information please.
2. The SDM, Belonia, South Tripura for information and necessary action.

Shilpa Nigam Bhawan, Khejur Bagan, P.O. Kunjaban, AGARTALA, TRIPURA (WEST), PIN-799006

Phones : (0381) 241-6617, 241-6446, 241-6373, 241-4327, 241-7608, Fax No. (0381) 241-4503

Website : www.tidc.org.in E-mail:- tidcltd.in@gmail.com. CIN: U75112TR1974SGC001491

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 (A Govt. of Tripura Enterprise)

NOTICE

Ref No.:

Date: 19/09/2021

To

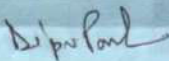
T.D.C. Agartala.

 Sub:- Utilization of land for tower footing at Loc. No. **MC-02 (Belonia end)** type of tower **QD+00**, in connection with **"132 KV Bogate-Belonia Transmission Line"**

Dear Sir,


 As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, **Belonia**, will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name:- TIDC	219.4546 Sq. meters.	TIDC
2	Plot No.:- 2197		
3	Khatian No.:- 3043		
4	Jote No.:-		
5	Mouza:- Sarasima.		



Signature of the Power Grid Corp. of India Ltd.

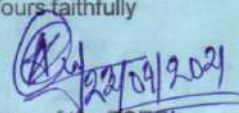
DIPU PAUL
 JUNIOR ENGINEER
 NERPSIP, BELONIA
 POWERGRID


 Signature of Tehsildar
Sarashima T.K.
 Belonia, South Tripura


 Signature /Thumb impression of land Owner / Present Occupier
 Address :-
Assistant Engineer
TIDC Ltd.

 Witness :- 1.
 2.

Yours faithfully


 Signature of the TSECL
 Name & Seal
Manager (Electrical)
 Belonia 56/33/11 KV Sub-Station,
 Belonia, South Tripura.

Copy to :-

1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,



 Signature of TSECL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 Transmission Division, 79 Tilla, Agartala

Manager (Electrical)
 Belonia 56/33/11 KV Sub-Station,
 Belonia, South Tripura.

4. NOC from Land Owner for Tower Footing on Plot

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)



113 **NOTICE**

Ref No. : NERPSIP/NERSTC/SAT/1/e/01 Date : 22/01/2020

To Narayan Chandra Debnath
S/o - Madan Chandra Debnath

Sub :- Utilization of land for tower footing at Loc. No. AP-1/0, type of tower DD+0, in connection with Interconnection of 132 kV Sabroom - Satchand transmission line at Satchand end.

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Narayan Chandra Debnath</u>	84.18 sqm	<u>Narayan Chandra Debnath</u> <u>S/o - Madan Chandra Debnath</u>
2	Plot No. :- <u>1155</u>		
3	Khatian No. :- <u>110</u>		
4	Jote No. :-		
5	Mouza :- <u>Soulk Kalapaniya</u>		

Signature of the Power Grid Corp. or
Name and Seal
POWERGRID SATCHAND

Signature of the TSEC
Name and Seal
11/02/2020

Signature/Thumb impression of land
Owner / Present Occupier
Address :-
Vill+P.O - Satchand
P-9 - Manu Bazar
Sabroom Tripura (S)
Yours faithfully

Witness :- 1. Choudhury Boro Deb Nath
2. ...

Copy to :-
1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,


Signature of TSEC
Name & Seal **Manager (E)**
66kV sub-station Satchand

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

Signature of TSEC
Name & Seal **Manager (E)**
66kV sub-station Satchand

5. Forest Clearance from MoEFCC

Stage II Forest Clearance for Bagafa – Belonia 132 kV D/C line

 <p>Government of India Ministry of Environment, Forest & Climate Change, North Eastern Regional Office, Law-U-Sib Lumbatngen, Near MTC Workshop, Shillong-793021, टेली/Tel(0364)-253-7609,7340/7395/7278, ईमेल/Email-ro.nez.shil@gmail.com/moefshil 09@rediffmail.com</p>	<p>भारत सरकार पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय पूर्वांतर क्षेत्रीय कार्यालय, शिलांग लॉड सीब लुम्बतंगेन एम् टी सी के पास, शिलांग - ७९३०२१ क्स/ Fax -0364- 2536041/2536983</p>
<p>No. 3-TR B 040/2018-SHI 622-23 7th June, 2019</p>	
<p>सेवा में, सचिव / Secretary, त्रिपुरा की सरकार / Government of Tripura, पर्यावरण और वन विभाग / Environment and Forest Department, अगरतला / Agartala.</p>	
<p>Sub : Proposal for diversion of 2.511 ha of forest land for construction of 132 KV D/C Transmission Line from Bagafa to Belonia under DFO, South in favor of Tripura State Electricity Corporation Limited.</p>	
<p>Sir, This has got reference to the State Government's letter No. F.6-1116/FC/For-2017/56-60 dated 17.04.2018 and No. F.6-1116/FC/For-2017/435-437 dated 15.09.2018 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980. After careful consideration of the proposal of the State Govt of Tripura, In-principle approval was granted vide this office letter of even number dated 30.10.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the in-principle approval and has requested the Central Government to grant final approval.</p>	
<p>In this connection and on the basis of the compliance report furnished by the State Government vide letter No. F.6-1116/FC/For-2019/Pt-I/80-82 dated 07.05.2019 and confirmation of funds transferred and payment details checked from in web portal, Final Approval of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion 2.511 ha of forest land for construction of 132 KV D/C Transmission Line from Bagafa to Belonia under DFO, South, subject to the following conditions:</p>	
<ol style="list-style-type: none"> (1) The legal status of the forest land shall remain unchanged. (2) Compensatory afforestation (CA) shall be carried out over double the area diverted i.e. 5.04 ha in degraded forest identified at Tekka Tulsi RF, Compartment No. 13, Hrishyamukh Range, Belonia Forest Sub-Division in South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. The species planted should be indigenous and Medicinal Plants / Shrubs / Herbs (about 20%). (3) The demarcation of forest land proposed for diversion shall be done on the ground at project cost using four feet high reinforced cement concrete pillars with serial numbers, forward and backward bearings and distance from pillar to pillar superscribed on the pillars (4) The User Agency shall restrict the felling of trees to minimum number in the diverted forest land and the trees shall be felled only when it is unavoidable under strict supervision of the State Forest Department. 	

- (5) The plantation of dwarf species in right of way under the transmission lines wherever feasible should be carried out under project cost in consultation with State Forest Department.
- (6) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- (7) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- (8) No labour camps shall be established on the forest land.
- (9) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
- (10) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (11) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- (12) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
- (13) The User Agency will have to obtain the Forest (Conservation) Act, 1980 clearance for removal of stone, river sand, river boulders in forest land, if necessary.
- (14) All other clearances / NOCs under different rules / regulations / local laws and under Forest Dwellers (Recognition of Forest Rights) Act, 2006 as required vide MoEF, New Delhi guideline No. 11-9/98-FC(Pt) dated 05.02.2013 shall be complied with.
- (15) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
- (16) The forest land shall not be used for any purpose other than that specified in the project proposal.
- (17) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- (18) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- (19) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
- (20) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

This is issued with the approval of Addl. Director General (Central).

भवदीय

(आर. एल. सांगा)/(R.L. Sanga)

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Copy to:

1. प्रधान मुख्य संरक्षक एफ वन और होफ / The Principal Chief Conservator of Forests & HoFF
त्रिपुरा की सरकार / Government of Tripura, पर्यावरण और वन विभाग / Environment and Forest Department,
अगरतला / Agartala.

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

0/e

Stage II Forest Clearance for Udaipur - Bagafa 132 kV D/C line

GOVERNMENT OF INDIA
Ministry of Environment, Forest & Climate Change,
North Eastern Regional Office,
Law-U-Sib Lumbatngen,
Near MTC Workshop, Shillong-793021,
टेली/Tel(0364)-253-7609,7340/7395/7278,

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
लॉड सीब लुम्बतंगेन
एम टी सी के पास, शिलांग - ७९३०२१
क्स/Fax -0364- 2536041/2536983

ईमेल/Email-ro.nez.shil@gmail.com/moefshil 09@rediffmail.com

No. 3-TR C 073/2017-SHI 600-0/

6th June, 2019

सेवा मे,

सचिव / Secretary,
त्रिपुरा की सरकार / Government of Tripura,
पर्यावरण और वन विभाग / Environment and Forest Department,
अगरतला / Agartala.

Sub : Proposal for diversion of 26.77 ha of forest land for construction of 132 KV D/C Transmission Line from Udaipur (Banduar) (Gomti District) to Bagafa (South Tripura District) under District Forest Officer, Gumti & South by Tripura State Electricity Corporation Limited.

Sir,

This has got reference to the State Government's letter No. F.6-1054/FC/For-2015/275 dated 14.09.2017 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the ECA, 1980. After careful consideration of the proposal of the State Govt of Tripura, In-principle approval was granted vide this office letter of even number dated 09.04.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the in-principle approval and has requested the Central Government to grant final approval.

In this connection and on the basis of the compliance report furnished by the State Government vide letter No. F.6-1054/FC/For-2015/Pt-I/89-91 dated 07.05.2019 and confirmation of funds transferred and payment made in web portal, **Final Approval** of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion **26.77 ha** of forest land for construction of 132 KV D/C Transmission Line from Udaipur (Banduar) (Gumti District) to Bagafa (South Tripura District) under District Forest Officer, Gumti, subject to the following conditions:

- (1) The legal status of the forest land shall remain unchanged.
- (2) Compensatory afforestation (CA) shall be carried out over double the area diverted i.e. 53.54 ha identified at 2 (two) locations i.e. 36.94 ha in Amarpur Forest Sub-Division, Gomti District & 16.60 ha in Sabroom Sub-Division, South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. The species planted should be indigenous and Medicinal Plants / Shrubs / Herbs (about 20%).
- (3) The demarcation of forest land proposed for diversion shall be done on the ground at project cost using four feet high reinforced cement concrete pillars with serial numbers, forward and backward bearings and distance from pillar to pillar superscribed on the pillars.

- (4) The User Agency shall restrict the felling of trees to minimum number in the diverted forest land and the trees shall be felled only when it is unavoidable under strict supervision of the State Forest Department.
- (5) The plantation of dwarf species in right of way under the transmission lines wherever feasible should be carried out under project cost in consultation with State Forest Department.
- (6) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- (7) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- (8) No labour camps shall be established on the forest land.
- (9) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
- (10) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (11) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- (12) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
- (13) The User Agency will have to obtain the Forest (Conservation) Act, 1980 clearance for removal of stone, river sand, river boulders in forest land, if necessary.
- (14) All other clearances / NOCs under different rules / regulations / local laws and under Forest Dwellers (Recognition of Forest Rights) Act, 2006 as required vide MoEF, New Delhi guideline No. 11-9/98-FC(Pt) dated 05.02.2013 shall be complied with.
- (15) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
- (16) The forest land shall not be used for any purpose other than that specified in the project proposal.
- (17) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- (18) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- (19) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
- (20) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

This is issued with the approval of Addl. Director General (Central).

भवदीय

(आर. एल. सांगा)/(R.L. Sanga)

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Copy to:

1. प्रधान मुख्य संरक्षक एफ वन और होफ / The Principal Chief Conservator of Forests & HoFF
त्रिपुरा की सरकार / Government of Tripura, पर्यावरण और वन विभाग / Environment and Forest Department,
अगरतला / Agartala.

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Stage II Forest Clearance for Belonia –Sabroom 132 kV D/C line

Government of India
Ministry of Environment, Forest & Climate Change
North Eastern Regional Office
Law-U-Sib, Lumbatngen
Near MTC Workshop, Shillong-793021
Tel(0364)-253-7609,7340/7395/7278.
Fax No(0364)2536041/2536983.
Email:- ro.nez.shil@gmail.com &
moefro.shillong@gov.in

भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
लॉड सीब लुम्बतंगेन
एम टी सी के पास, शिलांग - ७९३०२१
टेली(0364) 253-7609,7340/7395/7278
फैक्स (0364)-2536041/2536983

No.3-TR C 080/2017-SHI **1189-90**

5th August, 2020

सेवा में,

सचिव/Secretary,

त्रिपुरा सरकार/ Government of Tripura

पर्यावरण और वन विभाग /Department of Environment & Forests,

कुंजावन, अगरतला/ Kunjaban, Agartala.

Sub: Diversion of 25.5204 ha of forest land for construction of 132 KV DC transmission line from Belonia (South Tripura District) to Sabroom (South Tripura District) under NERPSIP Project by Tripura State Electricity Corporation Limited.

Sir,

This has reference to the State Govt letter No. F.6-1091/FC/For-2015/345-49 dated 18.10.2017 and No. F.6-1091/FC/For-2015/Pt.I/161-164 dated 22.06.2018 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980.

After careful consideration of the proposal, In-Principle approval was granted vide this office letter of even number dated 28.06.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the In-Principle Approval and has requested the Central Government to grant final approval.

In this connection and on the basis of the compliance report furnished by the State Government letter No. F.6-1091/FC/For-2015/PT-I/86-88 dated 07.05.2019 and even no. 310 dated 04.08.2020 of Govt of Tripura and confirmation of transaction of compensatory levies amount from the e-portal and Challan for collection of Ad-hoc CAMPA fund dated 05.09.2018, '**Final Approval**' of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of **25.5204 ha** of forest land for construction of 132 KV DC transmission line from Belonia (South Tripura District) to Sabroom (South Tripura District) under NERPSIP Project by Tripura State Electricity Corporation Limited, subject to the following conditions:

- (1) The legal status of the forest land shall remain unchanged.
- (2) The forest land will be handed over only after required non-forest land for the project is handed over to the user agency.
- (3) Compensatory afforestation shall be raised by the State Forest Department over double the degraded forest area of 52.31127 ha identified at Hrishyamukh Range in Bagafa Forest Sub-Division, South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. As far as possible, a mixture of

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- local indigenous species shall be planted and monoculture of any species may be avoided.
- (4) The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.
 - (5) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
 - (6) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
 - (7) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
 - (8) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
 - (9) No labour camps shall be established on the forest land.
 - (10) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
 - (11) The boundary of the diverted forest land shall be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer.
 - (12) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
 - (13) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
 - (14) The forest land shall not be used for any purpose other than that specified in the project proposal.
 - (15) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
 - (16) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
 - (17) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
 - (18) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

भवदीय


(W. I. Yatbon)

उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

Copy to :

1. प्रधान मुख्य वन संरक्षक, त्रिपुरा सरकार, पर्यावरण और वन विभाग, कुंजावन, अगरतला /
Principal Chief Conservator of Forests, Govt. of Tripura, Department of Environment
& Forests, Kunjaban, Agartala.


उप वन महानिरीक्षक (केंद्रीय)/ Deputy Inspector General of Forests (C)

9c

Stage II Forest Clearance for Bagafa – Satchand 132 kV S/C on D/C line



Government of India
 Ministry of Environment, Forest & Climate Change
 North Eastern Regional Office
 Law-U-Sib, Lumbatnagen
 Near MTC Workshop, Shillong-793021
 Tel(0364)-253-7609,7340/7395/7278.
 Fax No(0364)2536041/2536983.
 Email:- ro.nez.shil@gmail.com &
 moefro.shillong@gov.in

भारत सरकार
 पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
 पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
 लॉड सीब लुम्बतनगेन
 एम् टी सी के पास, शिलांग - ७९३०२१
 टेली(0364) 253-7609,7340/7395/7278
 फैक्स (0364)-2536041/2536983

No.3-TR C 031/2018-SHI *1289-90*

24th August, 2020

सेवा में,

सचिव/Secretary,
 त्रिपुरा सरकार/ Government of Tripura
 पर्यावरण और वन विभाग /Department of Environment & Forests,
 कुंजावन, अगरतला/ Kunjaban, Agartala.

Sub: Diversion of 9.1503 ha of forest land construction of 132 KV D/C Transmission Line from Bagafa to Satchand under District Forest Officer, South, Tripura.

Sir,

This has reference to the State Govt letter No. F.6-1028/FC/For-2014/739-43 dated 23.02.2018 and F.6-1028/FC/For-2014/Pt.I/325-27 dated 27.08.2018 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980.

After careful consideration of the proposal, In-Principle approval was granted vide this office letter of even number dated 12.10.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the In-Principle Approval and has requested the Central Government to grant final approval.

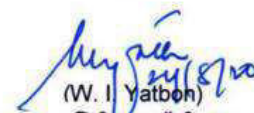
In this connection and on the basis of the compliance report furnished by the State Government letter No. F.6-1028/FC/For-2014/Pt.I/298 dated 31.07.2020 and even no 329 dated 11.08.2020 of Govt of Tripura and a confirmation of transaction of compensatory levies amount from the e-portal and Challan for Ad-hoc CAMPA fund dated 08.01.2019, 'Final Approval' of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of **9.1503 ha** of forest land construction of 132 KV D/C Transmission Line from Bagafa to Satchand under District Forest Officer, South, Tripura, subject to the following conditions:

- (1) The legal status of the forest land shall remain unchanged.
- (2) The forest land will be handed over only after required non-forest land for the project is handed over to the user agency.
- (3) Compensatory afforestation shall be raised by the State Forest Department over double the degraded forest area of 18.78 ha identified in Tekka Tulshi RF, compartment No. 11, Hrishyamukh Range, Belonia Forest Sub-Division in South District of Tripura as per the fund deposited by the User Agency & scheme furnished by the State Govt. As far as possible, a mixture of local indigenous species shall be planted and monoculture of any species may be avoided.
- (4) The complete compliance of the FRA, 2006 shall be ensured by way of prescribed certificate from the concerned District Collector.

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- (5) The User Agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- (6) The User Agency shall comply with the guidelines for laying transmission through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- (7) The User Agency shall obtain the Environmental Clearance under Environment (Protection) Act, 1986, if applicable.
- (8) The lay out of the proposal shall not be changed without the prior approval of the Central Government.
- (9) No labour camps shall be established on the forest land.
- (10) Sufficient firewood, preferably the alternative fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternative fuel.
- (11) The boundary of the diverted forest land shall be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer.
- (12) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (13) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- (14) The forest land shall not be used for any purpose other than that specified in the project proposal.
- (15) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- (16) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- (17) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF & CC Guidelines F No. 11-42/2017-FC dated 29/01/2018.
- (18) Any other conditions that the North Eastern Regional Office, Ministry of Environment, Forest & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.


भवदीय


(W. I. Yatbon)
उप वन महानिरीक्षक (केंद्रीय)/

Deputy Inspector General of Forests (C)

Copy to :

1. प्रधान मुख्य वन संरक्षक, त्रिपुरा सरकार, पर्यावरण और वन विभाग, कुंजावन, अगरतला /
Principal Chief Conservator of Forests, Govt. of Tripura, Department of
Environment & Forests, Kunjaban, Agartala.


उप वन महानिरीक्षक (केंद्रीय)/
Deputy Inspector General of Forests (C)

o/c

Stage II Forest Clearance for Udaipur - Amarpur 132 kV D/C line

Government of India
Ministry of Environment, Forest & Climate Change
North Eastern Regional Office
Law-U-Sib, Lumbatngen
Near MTC Workshop, Shillong-793021
Tel(0364)-253-7609,7340/7395/7278.
Fax No(0364)2536041/2536983.
Email:- ro.nez.shil@gmail.com & moefro.shillong@gov.in

भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
पूर्वोत्तर क्षेत्रीय कार्यालय, शिलांग
लॉड सीब लुम्बतंगेन
एम् टी सी के पास, शिलांग - ७९३०२१
टेली(0364) 253-7609,7340/7395/7278
फैक्स (0364)-2536041/2536983
ईमेल: ro.nez.shil@gmail.com/moefro.shillong@gov.in

No.3-TR C 074/2017-SHI **1931-32**

29th August, 2019

सेवा में,

सचिव/Secretary,
त्रिपुरा सरकार/ Government of Tripura,
पर्यावरण और वन विभाग /Department of Environment & Forests,
कुंजावन, अगरतला/ Kunjaban, Agartala.

Sub:- Proposal for diversion of 22.0482 ha of forest land for construction of 132 KV DC transmission line from Udaipur (Banduar) (Gumti District, Tripura) to Amarpur (Gumti District, Tripura) under NERPSIP Project under Gumti District.

Sir,

This has got reference to the State Govt letter No. F.6-1088/FC/For-2015/268-72 dated 11.09.2017 and No. F.6-1088/FC/For-19/505 dated 05.08.2019 on the subject mentioned above, seeking prior approval of the Central Government in accordance with Section 2 of the FCA, 1980.

After careful consideration of the proposal, In-Principle Approval was granted by Regional Office, Shillong vide letter No. 3-TR C 074/2017-SHI/327-28 dated 10.04.2018 subject to fulfillment of certain conditions. The State Government has furnished compliance report in respect of the conditions stipulated in the In-Principle Approval and has requested the Central Government to grant Final Approval.

In this connection and on the basis of the compliance report furnished by the State Government vide letter F. No. F.6-1088/FC/For-2019/83-85 dated 07.05.2019, F.No. F.6-1088/FC/For-19/Pt-I/505 dated 05.08.2019 and confirmation of transaction date i.e. 05.09.2018 and 19.11.2018 of compensatory levies amount from the e-portal, **Final Approval** of the Central Government is hereby granted under Section-2 of the Forest (Conservation) Act, 1980 for diversion of 22.0482 ha of forest land for construction of 132 KV DC transmission line from Udaipur (Banduar) (Gumti District, Tripura) to Amarpur (Gumti District, Tripura) under NERPSIP Project under Gumti District subject to the following conditions:

- 1) Legal status of the forest land shall remain unchanged.
- 2) Forest land will be handed over only after required non-forest land for the project is handed over to the user agency.

- 3) Compensatory afforestation shall be taken up by the Forest Department over double the degraded forest area of 44.08 ha identified at Paschim Kalajhuri RF, CS Pot No-483, KH No-3/84, under Amarpur Range, Gumti district of Tripura at the cost of the user agency. As far as possible, a mixture of local indigenous species shall be planted and monoculture of any species may be avoided.
- 4) The user agency shall restore the forest land which was utilized for existing 66KV transmission line and revert back to the State Forest Department, Govt of Tripura, after the construction and implementation of this instant proposal.
- 5) State Govt shall take up the eco-restoration of elephant habitat in Gandhari Reserve Forest as per the submitted project component.
- 6) The user agency at its cost shall provide bird deflectors, which are to be fixed on upper conductor of transmission line at suitable intervals to avoid bird hits.
- 7) Plantation of dwarf species in right of way under the transmission lines wherever feasible shall be carried out under project cost in consultation with State Forest Department. The plantation should consist of atleast 50% indigenous medicinal plants/herbs species of the total seedlings.
- 8) The User Agency shall comply with the guidelines for laying transmission lines through forest areas issued by Ministry vide letter no. 7-25/2012-FC dated 05/05/2014 & 19/11/2014.
- 9) User Agency shall obtain Environmental Clearance as per the provisions of the Environmental (Protection) Act, 1986, if applicable.
- 10) The layout plan of the proposal shall not be changed without prior approval of Central Government.
- 11) No labour camp shall be established on the forest land.
- 12) Sufficient firewood, preferably the alternate fuel, shall be provided by the User Agency to the labourer after purchasing the same from the State Forest Department or the Forest Development Corporation or any other legal source of alternate fuel.
- 13) The boundary of the diverted forest land shall be suitably demarcated on ground at the project cost, as per the directions of the concerned Divisional Forest Officer.
- 14) No additional or new path will be constructed inside the forest area for transportation of construction materials for execution of the project work.
- 15) The period of diversion under this approval shall be co-terminus with the period of lease to be granted in favour of the user agency or the project life, whichever is less.
- 16) The forest land shall not be used for any purpose other than that specified in the project proposal.
- 17) The User Agency and the State Government shall ensure compliance of all the Court orders, provisions, rules, regulations and guidelines for the time being in force as applicable to the project.
- 18) The forest land proposed to be diverted shall under no circumstances be transferred to any other agencies, department or person without prior approval of Govt. of India.
- 19) Regular patrolling of the transmission lines shall be carried out by the user agency to check sag and swing, and contact of the live wire with the trees.
- 20) The User Agency shall take all possible precautions & care all the time not to impact adversely the surrounding forests and forest land by their actions/activities.

- 21) The proposal will be implemented under the overall supervision of the concerned Divisional Forest Officer.
- 22) Violation of any of these conditions will amount to violation of Forest (Conservation) Act, 1980 and action would be taken as per the MoEF&CC Guideline F. No. 11-42/2017-FC dt 29/01/2018.
- 23) Any other condition that the Ministry of Environment, Forests & Climate Change may stipulate from time to time in the interest of conservation, protection and development of forests & wildlife.

This has the approval of Deputy Director General of Forests (Central).

भवदीय,

(W.I. Yathon)

वन उप महानिरीक्षक (केंद्रीय)

/Deputy Inspector General of Forests(C)

Copy to:

प्रधान मुख्य वन संरक्षक/ Principal Chief Conservator of Forests & HoFF, त्रिपुरा सरकार/
Government of Tripura, पर्यावरण और वन विभाग /Department of Environment & Forests, कुंजावन,
अगरतला/ Kunjaban, Agartala.

वन उप महानिरीक्षक (केंद्रीय)

/Deputy Inspector General of Forests(C)

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Annexure 6

MoP Guidelines Dated 5th OCT.'15 for Payment of Compensation for Transmission Line

No 3/7/2015-Trans
Government of India
Ministry of Power
Shram Shakti Bhawan
Rafi Marg, New Delhi – 110001

Dated, 15th October, 2015

To

1. Chief Secretaries/Administrators of all the States/UTs
(As per list attached)
2. Chairperson, CEA, New Delhi with the request to disseminate the above
guidelines to all the stakeholders.
3. CMD, PGCIL, Gurgaon.
4. CEO, POSOCO, New Delhi.
5. Secretary, CERC, New Delhi.
6. CMD of State Power Utilities/SEBs.

Subject: Guidelines for payment of compensation towards damages in regard to
Right of Way for transmission lines.

During the Power Ministers Conference held on April 9-10, 2015 at Guwahati with States/UTs, it has, *inter alia*, been decided to constitute a Committee under the chairmanship of Special Secretary, Ministry of Power to analyse the issues related to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this count. Subsequently, this Ministry had constituted a Committee with representatives from various State Governments and others. The Committee held several meetings to obtain the views of State Governments on the issue and submitted its Report along with the recommendations (copy of the Report is at Annex-1).

2. The Recommendations made by the Committee are hereby formulated in the form of following guidelines for determining the compensation towards "damages" as stipulated in section 67 and 68 of the Electricity Act, 2003 read with Section 10 and 16 of Indian Telegraph Act, 1885 which will be in addition to the compensation towards normal crop and tree damages. This amount will be payable only for transmission lines supported by a tower base of 66 KV and above, and not for sub-transmission and distribution lines below 66 KV:-

- (i) Compensation @ 85% of land value as determined by District Magistrate or any other authority based on Circle rate/ Guideline value/ Stamp Act rates for tower base area (between four legs) impacted severely due to installation of tower/pylon structure;

—/—

- (ii) Compensation towards diminution of land value in the width of Right of Way (RoW) Corridor due to laying of transmission line and imposing certain restriction would be decided by the States as per categorization/type of land in different places of States, subject to a maximum of 15% of land value as determined based on Circle rate/ Guideline value/ Stamp Act rates.
- (iii) In areas where land owner/owners have been offered/ accepted alternate mode of compensation by concerned corporation/ Municipality under Transfer Development Rights (TDR) policy of State, the licensee /Utility shall deposit compensation amount as per (i) & (ii) above with the concerned Corporation/ Municipality/ Local Body or the State Government.
- (iv) For this purpose, the width of RoW corridor shall not be more than that prescribed in the table at Annex-2 and shall not be less than the width directly below the conductors.
3. Necessary action may kindly be taken accordingly. These guidelines may not only facilitate an early resolution of RoW issues and also facilitate completion of the vital transmission lines through active support of State/ UT administration.
4. All the States/UTs etc are requested to take suitable decision regarding adoption of the guidelines considering that acquisition of land is a State subject.

Yours faithfully,

Jyoti Arora
(Jyoti Arora)

Joint Secretary (Trans.)
Tele: 011-2371 0389

Copy, along with enclosure, forwarded to the following:

1. Secretaries of Government of India (Infrastructure Ministries/Deptt including MoEF - As per attached list)
2. Prime Minister's Office (Kind Attn: Shri Nripendra Mishra, Principal Secretary to PM).
3. Technical Director, NIC, Ministry of Power with the request to host on the website of Ministry of Power.

Copy to PS to Hon'ble MoSP (IC) / Secretary (Power) / AS (BNS) / AS (BPP) / All Joint Secretaries/EA/ All Directors/DSS, Ministry of Power.

- 2 -

Annexure 7

The letter was issued to TSECL regarding adoption of MoP, GoI Guidelines for payment of compensation towards damages in regards to RoW for Transmission lines vide ref. *NEAGT/NERPSIP-102/2017-18/212* dated 15/05/2018.



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)



पावरग्रिड

दूरभाष : (0361)2330045 (क)
NERPSIP Office,
Ranigan-06(Middle), 3rd Crossing, Agartala - 799002.
उत्तर पूर्वी क्षेत्र / NORTH EASTERN REGION
Date: 15/05/2018

Ref. : NEAGT/NERPSIP-102/2017-18/21

To:
The AGM(Transmission Circle)
Tripura State Electricity Corporation Limited
79 Tilla : Transmission Circle
Agartala, Tripura(W)

Sub: Adoption of MoP, Govt guidelines for payment and compensation towards damage in regards to RoW for Transmission line for State Government-Reg.

Dear Sir,
With reference to the above subject this is to inform you that Ministry of Power (MOP), Government of India (GOI) has issued "Guidelines for payment of compensation towards damages in regards to Right of Way for Transmission Lines" on 15th October 2015. In the said letter MoP requested all the states/UTs etc to take suitable decision regarding adoption of the guidelines considering that compensation towards diminution of land value in the width of Right of Way is a state subject.

As per the guidelines, Govt of Assam & Manipur has already implemented the guideline in their respective states. The notification issued by Govt of Assam & Govt of Manipur is enclosed herewith for your ready reference. The guidelines of MoP, GOI and Notification of Govt of Assam was also earlier forwarded to M/s TSECL vide our letter ref NEAGT/NERPSIP-102/2017-18/465 dtd 06/06/2017.

In view of above, since we have already started construction activity of 132kV Transmission lines under NERPSIP Tripura Project, you are hereby requested to kindly take up the matter with state government for issuing guidelines for payment of compensation towards the damage in regards to RoW for Transmission Lines.

Thanking you,



Yours faithfully


(S.I. Singh)
Dy. General Manager
POWERGRID, Agartala.

Copy for kind information to:

1. CMD TSECL, Corporate Office, Banamalipur, Agartala.

Registered Office: B-9 Qutab Institute Area, Katwaria Sarai, New Delhi- 110016
Tel: 011-26560112, Fax: 26601081, Website: <http://www.powergridindia.com>
संविन एव संप्रतिन मे जगत् बचाए
Save Energy for Benefit of Self and Nation

Annexure 8

TSECL intimated POWERGRID that Govt. of Tripura has decided for continuing with the prevailing practice of payment of compensation towards damage in regards to RoW for Transmission lines.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED**(A Govt. of Tripura Enterprise)**

No. F. 5(85) / TSECL / 2018 – 19 / 631

Dated, Agartala, the 25th September, 2018

To
The DGM (NERPSIP),
PGCIL,
Ramnagar – 06, 3rd crossing,
Agartala – 799002.

Sub : Adoption of MoP, GoI guidelines for payment of compensation towards damage in
regards to RoW for Transmission lines. – reg.

Ref: 1) NEAGT / NERPSIP-102 / 2017-18 / 212, dated 15.05.2018.
2) Minutes of Meeting of 4th Project Steering Committee of MoP, GoI vide No. 3 / 16 / 2013 –
Trans. Pt – 3, dated 11th June, 2018.
3) F.1(2) / DT / TSECL / 2018 / 24194, dated, 07.09.2018.

Sir

Kindly refer to Minutes of Meeting of the 4th Project Steering Committee of Ministry of Power, Govt. of
India held on 18th May 2018 at Guwahati on NER Power System Improvement Project (NERPSIP),
where it had been recorded that all States are to confirm their stand on the issue of payment of land
compensation for the tower footing and line corridors to MoP.

In view of the above, please find enclosed herewith the letter of Tripura State Electricity Corporation
Ltd. (TSECL) in the above context for favour of your kind record please.

Thanking you

Encl: As Stated.

Yours faithfully


Addl. General Manager
Transmission Circle, TSECL, Agartala
25/09/18

TRIPURA STATE ELECTRICITY CORPORATION LIMITED**(A Govt. of Tripura Enterprise)**

No. F. 1 (2) / DT / TSECL / 2015 / 24194

Dated, Agartala, the 7-September, 2016

To
The Joint Secretary (Trans),
Ministry of Power,
Govt. of India,
Rafi Marg, Shram Shakti Bhawan, New Delhi 110001.

Sub: - Adoption of MoP, GoI guidelines for payment of compensation towards damage in
regards to RoW for Transmission lines. – reg.

Sir,


This is to inform you that Govt. of Tripura has decided for continuing with the prevailing practice of payment of compensation towards damage in regards to RoW for Transmission lines as mentioned here-under :

- i) 100 % land value is compensated for tower base affected area as per rate assessed by the District Administration of State Govt. Apart from this if there be any damage to tree/crops/structure in the said area, compensation to the occupier / land owner for the damage in the tower base area is also paid as per State Govt. approved rates. In areas where Land owner does not allow to erect towers, the required land is acquired through acquisition process / purchased through Land Purchase Committee as per norms of State Govt.
- ii) If there be any damage to tree/crops/ structure in the Corridor of width of Right of Way between the towers, compensation for the same is paid to the owner as per rate approved by the State Govt.
- iii) No compensation is paid for the Corridor of land in the width of Right of Way between the towers at present.


Recommendations of the Guidelines issued by Ministry of Power, Govt. of India vide letter dated 15.10.2015 regarding payment of compensation towards damage in regards to RoW for Transmission lines will not be feasible to transmission line developmental activities in the State of Tripura.

This is for favour of your kind record please.


Yours faithfully,


(M. Debbarma)Director (Technical)
TSECL, Agartala

Other correspondences with TSECL in respect to RoW Compensation of 132kV Transmission lines are given below.



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)



पावरग्रिड

Ref: NEAGT/NERPSIP-101/2017-18/169

To: **The AGM(Transmission Circle)**
Tripura State Electricity Corporation Limited
79 Tilla; Transmission Circle
Agartala; Tripura(W)

दस्तावेज : (0301)2330045 (8)
NERPSIP Office,
Bamangar-06(Middle); 3rd Crossing, Agartala - 791002.
उत्तर पूर्वी क्षेत्र / NORTH EASTERN REGION
Date: 27/04/2018

Sub: Compensation of 132kV Transmission line which are to be constructed under NERPSIP Tripura-Reg.

Dear Sir,

With reference to the above it is to inform you that there are 14 Nos. of 132kV Transmission line to be constructed in Tripura under NERPSIP Project.

The survey activities of all the Transmission Lines have been completed and the construction of the lines is being started shortly. For Finalization of Surface Damage Compensation to the affected land owners along the route of the Transmission line the following action may kindly be taken from your side:-


- 1) District Authority may kindly be intimated to depute their representative for identification and authentication of the land owner.
- 2) The rates of Tree/Crops compensation prevailing in Tripura State may kindly be provided for assessment of the compensation amount.
- 3) Authorized representative of TSECL may kindly be identified area wise/Line wise for signing of Compensation notice / assessment sheet etc.

The name of the lines where construction activity is being started is enclosed in Annexure-01.

Your early action in this regards is highly solicited.

Thanking you.

Yours faithfully



(S.I. Singh)
Dy. General Manager
POWERGRID; Agartala.

Copy for kind information to:-


1. CMD TSECL, Corporate Office, Bamangar, Agartala.

Registered Office: B-9 Qutab Institute Area, Katwaria Sarai, New Delhi- 110016
Tel: 011-26560112, Fax: 26601081, Website: <http://www.powergridindia.com>
सहजता एवं राष्ट्रहित में कार्य
Serve Energy for Benefit of Self and Nation

TSECL office order dated 04/05/2018 regarding nominated officials who are authorised to sign compensation notice for obtaining RoW and all Statutory Clearances for the corresponding Transmission lines

Received & J. No. 663
Dated: 04/05/2018

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)



No.F. 5(85)/AGM/TC/2018-19/219-239 Dated :- 4th May, 2018

ORDER

As per Clause No. 7.8 of the Implementation / Participation Agreement signed between Tripura State Electricity Corporation Limited (TSECL) & Power Grid Corporation of India Limited (PGCIL) on 13th March, 2015 regarding implementation of NER Power System Improvement Project (NERPSIP) pertaining to the State of Tripura, the Utility (TSECL) as Owner has the responsibilities of obtaining Right of Way (RoW) and all Statutory Clearances viz. Environment, Forest / River / Canal / Power Lines / Roads / Highways/ Railway Crossing, PTCC, Aviation, Electrical inspector etc. PowerGrid being the Implementing Agency will undertake all the activities for and on behalf of the Owner (TSECL) as well as provide technical / administrative assistance to TSECL to avail RoW / Clearances.

For smooth implementation of the Project, following Officials of TSECL are hereby authorized to sign on the compensation notice jointly with PowerGrid for obtaining Right of Way (RoW) and all Statutory Clearances for the corresponding Transmission Lines as mentioned below -

Sl. No.	Name of Line	Name of Authorized Official	Address for Communication
1	132 KV D/C Bagaila - Belonia Transmission Line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Bagaila S/S 3. Sr. Manager / Manager, Belonia S/S.	DGM, Transmission Division, Udaipur, Gomati District, Tripura.
2	132 KV S/C (on D/C Tower) - Bagaila - Satchand Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Bagaila S/S. 3. Sr. Manager / Manager, Satchand S/S.	
3	132 KV D/C Udaipur - Bagaila Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Bagaila S/S.	
4	132 KV D/C Udaipur to Amarpur Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Amarpur S/S.	
5	132 KV D/C Belonia to Sabroom Transmission line	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Belonia S/S. 3. Sr. Manager / Manager, Sabroom S/S.	
6	132KV interconnection portion of 132 KV S/C Sabroom - Satchand Transmission Line at Sabroom end	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Sabroom S/S.	
7	132 KV interconnection portion of 132 KV S/C Sabroom - Satchand Transmission Line at Satchand end	1. Sr. Manager, Banduar Sub-Station. 2. Sr. Manager / Manager, Satchand S/S.	
8	132 KV D/C Rabindranagar - Rokhia Transmission line	1. Sr. Manager, Rabindranagar S/S.	DGM, Transmission Division, Agartala, 79 Tilla, West District, Tripura.
9	L/C of Suramaninagar - Rokhia 132 KV line at Gokulnagar S/S	1. Sr. Manager, TSD, 79 Tilla, Agartala.	
10	L/C of 132 KV Agartala (79 Tilla) - Dhalabati Transmission line at Mohanpur.	1. Sr. Manager, Transmission Sub-division, 79 Tilla, Agartala	

KSD

OFFICE OF THE ADDITIONAL GENERAL MANAGER, TRANSMISSION CIRCLE, 79 TILLA, AGARTALA
PHONE & FAX: 0381-235-1579

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)


Sl. No	Name of Line	Name of Authorized Official	Address for Communication
11	132 KV D/C Rabindranagar - Belonia Transmission line	1. Sr. Manager, Rabindranagar S/S 2. Sr. Manager, Banduar S/S	1. DGM, Transmission Division, Agartala, 79 Tilla, West District, Tripura. 2. DGM, Transmission Division, Udaipur, Gomati District, Tripura
12	LIL of 132 KV S/C Ambassa - P.K. Bari Transmission Line at Manu S/S	1. Sr. Manager, Ambassa S/S	DGM, Transmission Division, Kumarghat, Unokoti District, Tripura.
13	132 KV interconnection portion from Manu (Old-existing) S/S to Manu (New) S/S for charging of 132 KV S/C Manu-Chawmaru TL		
14	132 KV D/C Kalashahar- Dhamanagar Transmission line	1. Sr. Manager / Manager, Gourmagar S/S, Kalashahar. 2. Sr. Manager / Manager, MissionTila S/S, Dhamanagar.	

In addition, DGM, TD, Agartala / DGM, TD, Udaipur / DGM, TD, Kumarghat / DGM, P – II, / DGM, P – III, / DGM (Civil), / Sr. Manager (Civil), Planning, Transmission Circle, Agartala and Sr. Manager, Transmission Civil Sub-Division, Agartala are hereby instructed to redress Grievances / disputes, if any, for early resolve and smooth execution of the project.


Addl. General Manager
Transmission Circle, TSECL, Agartala.
04/05/18


Copy to:-

- 1-3) The DGM, TD, Agartala // Udaipur // Kumarghat for necessary action.
- 4-6) The DGM, P – II // DGM, P – III // DGM, Civil, TC, Agartala for necessary action.
- 7) The DGM, NERPSIP, PGCL, Agartala for kind information and necessary action.
- 8-13) SM, Banduar S/S // SM, TSD, Agartala // SM, Ambassa S/S // SM, Rabindranagar S/S // SM (Civil), Planning, TC, Agartala // SM, TSD (Civil), Agartala, for necessary action.
- 14-20) SM / M, MissionTila S/S // SM / M, Gourmagar S/S // SM / M, Bagala S/S // SM / M, Belonia S/S // SM / M, Satchand S/S // SM / M, Sabroon S/S // SM / M, Amarpur S/S, for necessary action.
- 21) Office order book.


Addl. General Manager
04/05/18

OFFICE OF THE ADDITIONAL GENERAL MANAGER, TRANSMISSION CIRCLE, 79 TILLA, AGARTALA
PHONE & FAX: 0381-235-1579

**TSECL letters to Sub-Divisional Magistrate-Bishalgarh; Sadar & Mohanpur for
Deployment of Tehsildar for Identification of affected Land owners for 132kV LILO line
Rokhia-Surjamaninagar at 132kV Gokulnagar S/s & Agartala-Dhalabil at 132kV
Mohanpur S/s, respectively.**

 **TRIPURA STATE ELECTRICITY CORPORATION LIMITED**
(A Govt. of Tripura Enterprise)

No F 5885 / AGM / TC / 2018-19 **318-22** Dated **15-05-2018**

To
The Sub-Divisional Magistrate
Bishalgarh Sub-Division
Dist-Sepahjala Tripura

Sub: Deployment of Tehsildar for Identification of Land owner for Construction of 132kV LILO line of
Rokhia - Surjamaninagar at 132kV Gokulnagar S/S.


Dear Sir,

This is to bring to your kind notice that Government of India has entrusted Power Grid Corporation of India Ltd. (A Government of India Enterprise) for the task of implementation of the North Eastern Region Power System Improvement Project (NERPSIP) in the State of Tripura. Under the said project various 132kV & 33kV Power Transmission Lines are to be constructed along with the associated Substation in the State.


Tehsildar of Baranagar & Gokulnagar Tehsil may kindly be informed to extend their co-operation in order to identify the land owner en-route the 132kV LILO of Rokhia - Surjamaninagar Transmission line at Gokulnagar Substation under Bishalgarh Sub-Division.


NERPSIP being a time-bound Central Sector Project, your co-operation in this regard is highly solicited towards timely completion of the same.

Thanking you.

Yours faithfully,

Addl. General Manager
Transmission Circle
Agartala **15/05/18**

Copy to:-
1) DM & Collector Sepahjala District, Baranagar for kind information.
2) DGM (NERPSIP), PowerGrid, Agartala.
3) DGM TD, Agartala - DGM (Civil), Transmission Circle, Agartala.


18 MAY 2018
CT


Addl. General Manager
15/05/18

Addl. General Manager, Transmission Circle, 79 Tilla, Agartala, West Tripura, Tel. & Fax - (0381)225-1579

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



No.F 5(85) / AGM / TC (2018-19) 382-87

Date: 17-05-2018

To
The Sub-Divisional Magistrate
Mohonpur Sub-Division
Dist- West Tripura

Sub: Deployment of Tehsildar for identification of Land owner for Construction of 132kV LILO line of
Agartala - Dhalabli at 132kV Mohonpur S/S.

Dear Sir,

This is to bring to your kind notice that Government of India has entrusted Power Grid Corporation of India Ltd. (A Government of India Enterprise) for the task of implementation of the North Eastern Region Power System Improvement Project (NERPSIP) in the State of Tripura. Under the said project various 132kV & 33kV Power Transmission Lines are to be constructed along-with the associated Substation in the State.

Tehsildar of Mohonpur Tehsil may kindly be informed to extend their co-operation in order to identify the land owner en-route the 132kV LILO of Agartala - Dhalabli Transmission line at Mohonpur Substation under Mohonpur Sub-Division.

NERPSIP being a time-bound Central Sector Project, your co-operation in this regard is highly solicited towards timely completion of the same.

Thanking you



Yours faithfully,

[Signature]
Asst. General Manager
Transmission Circle,
Agartala. 17/05/18

Copy to:-

- 1) DM & Collector, West Tripura District, for kind information.
- 2) DGM (NERPSIP), PowerGrid, Agartala.
- 3-4) DGM, TD, Agartala / DGM (CIVIL), Transmission Circle, Agartala.

Addl. General Manager

Addl. General Manager, Transmission Circle, 79 Tilla, Agartala, West Tripura, Tel. & Fax - (0381)225-1579

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



No.F.5(85)/AGM/TC/2018-19/ 435-39

Dated: 21-05-2018

To
The Sub-Divisional Magistrate
Sadar Sub-Division
Dist. West Tripura

Sub: Deployment of Tehsildar for identification of Land owner for Construction of 132kV LILO line of
Rokhia - Surjamaninagar at 132kV Gakulnagar S/S.

Dear Sir,

This is to bring to your kind notice that Government of India has entrusted Power Grid Corporation of India Ltd(A Government of India Enterprise) for the task of implementation of the North Eastern Region Power System Improvement Project (NERPSIP) in the State of Tripura. Under the said project various 132kV & 33kV Power Transmission Lines are to be constructed along-with the associated Substation in the State.

Tehsildar of Bikanranagar Tehsil may kindly be informed to extend co-operation in order to identify the land owner en-route the 132kV LILO of Rokhia - Surjamaninagar Transmission line at Gakulnagar Substation.

NERPSIP being a time-bound Central Sector Project, your co-operation in this regard is highly solicited towards timely completion of the same.

Thanking you.



Yours faithfully,


Addl. General Manager
Transmission Circle
Agartala 21/05/18

Copy to:-

- 1) The DM & Collector, West Tripura District, for kind information.
- 2) The DGM (NERPSIP), PowerGrid, Agartala
- 3-4) The DGM, TD, Agartala / DGM (Civil), Transmission Circle, Agartala.




Addl. General Manager
21/05/18

Addl. General Manager, Transmission Circle, 79 Tilla, Agartala, West Tripura, Tel. & Fax - (0381)235-1579

**Draft notice for compensation for construction of 132kV Transmission lines under
NERPSIP-Tripura**

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



No.F.5(85) IASG/T/C/2018-19/ 323-29

Dated 15.05.2018

To:
The DGM (NERPSIP)
Power Grid Corporation of India Ltd.
Rammagar-06, Agartala

Sub - Forwarding of Draft Notice for compensation for construction of TL line under NERPSIP - Tripura.
Ref - NEAGT / NERPSIP - 102 / 2017 - 18 / 213, dated 15.05.2018.

Sir,

With reference to the above, kindly find enclosed herewith the sample copy of Notice in Ann-01 & 02 to be used for Surface damage compensation & Land Compensation in respect of construction of Transmission Line under NERPSIP, Tripura.

It is further to be noted that each notice shall be of 5 copies (1 original & 4 Carbon Copy) and Joint signature of POWERGRID & TSECL in original to be put in all the copies of notice. After signing of notice, 1st copy to be handed over to the affected Land Owner, 2nd Copy will be kept at POWERGRID, 3rd & 4th Copies to be forwarded to respective DM & SDM for assessment, and 5th Copy to be handed over to TSECL.

Once assessment is completed and compensation amount is finalized from the respective District Administration, the payment shall be done by POWERGRID.

Thanking you.

Enclor - As stated above.

*Land notice is not
available
Pl. collect*

Yours faithfully,

[Signature]
Asst. General Manager
Transmission Circle
Agartala 15/05/18

Copy to:-

- 1-3) The DGM, TD, Agartala / Udaipur / Kumarghat
- 4-5) The DGM (P - I) / DGM (P - II) / DGM (Civil), Transmission Circle, Agartala

Addl. General Manager



TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



NOTICE

Ref No.:

Date: / /

To

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-154 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities:

- a. Foundation Loc No. _____
b. Erection Loc No. _____
c. Stringing Loc No. from _____ to _____

II. (1) Name of the Owner and Address:

- (2) Name of the Village / Mouza & J.L. No.
(3) Name of PS & District
(4) Plot No/ Khatian No

Particulars of trees /Crops / Other standing properties:

Sl. No.	Item	Species	Dimension	Qty.
1)	Trees			
2)	Crops			
3)	Others			

Signature of the owner
Address :-

Signature of Power Grid Corp of India Ltd.

Signature of TSECL

Signature of Tehsildar

Witness:

Copy to:

1. The D.M. _____ for kind information please.
2. The Deputy General Manager _____ for favour of kind information.
3. The S.D.M. _____ for kind information. It is highly requested to assess the value of the said trees/crops etc. from his kind end and inform this office for payment of compensation.
4. The Tehsildar, _____

Signature of TSECL

Address of the concern Division/ Communicating address

Annexure 9

Sample Copy of Land Compensation Notices

1. 132/33 kV Udaipur Amarapur TL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 (A Govt. of Tripura Enterprise)

NOTICE

Ref No. :

320

Date : 16/12/2020

 To Pradip Kumar Jamatia

 Sub :- Utilization of land for tower footing at Loc. No. 40/0 type of tower DC+06 in connection with "Udaipur-Bazafa 132 KV D/L Transmission Line"

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, Udaipur will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Krishna Kumar Jamatia</u>	<u>9.68 X 9.68 m²</u> <u>= 89.64 m²</u>	<u>Pradip Kumar Jamatia</u> <u>- Son</u>
2	Plot No. :- <u>205</u>		
3	Khatian No. :- <u>62/1</u>		
4	Jote No. :-		
5	Mouza :- <u>Baishabari</u>		

 Signature of the Power Grid Corp. of India Ltd.
 Name and Seal

 Signature of Tahasildar
 Name & Seal
 Tehsildar
 Ganjee T.K.
 Udaipur Gomati Tripura

 Signature / Thumb impression of land Owner / Present Occupier
 Address :-

 Witness :- 1. Ranjit Jamatia
 2.

Yours faithfully

 Signature of Pradip Kumar Jamatia
 Signature of the TSECL
 132 KV Sub-Station
 Udaipur, Gomati District.

Copy to :-

1. The D.M. Gomati for kind information please
2. The Deputy General Manager, TSECL, I.D., V.D.P. for favour of kind information.
3. The S.D.M. Udaipur for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar, Ganjee T.K.

 Signature of Pradip Kumar Jamatia
 Signature of the TSECL
 132 KV Sub-Station
 Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 Transmission Division, 79 Tilla, Agartala

2. 132/33 kV Udaipur - Amarpur TL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)


NOTICE

Ref No. : 377

Date : 27/01/2021

To Soma Goswami Dey

Sub :- Utilization of land for tower footing at Loc. No. A/O, type of tower DA 100, in connection with " 132 KV Udaipur - Amarpur D/C transmission line "

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/sting etc. related to the above-mentioned work. The Sub-Divisional Magistrate, Udaipur will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Sunil Chandua Debnath</u>	<u>1.207 x 7.207 m²</u>	<u>Soma Goswami Dey</u>
2	Plot No. :- <u>1398</u>	<u>2</u>	<u>Buyer</u>
3	Khatian No. :- <u>1110</u>	<u>25.24 m²</u>	
4	Jote No. :- <u>NA</u>	<u>25.97 m²</u>	
5	Mouza :- <u>Fulkumari</u>	<u>(02 hqs)</u>	

Signature of the Power Grid Corp. of India Ltd.
Name and Seal

Signature of the Sub-Divisional Magistrate
R. K. Prasad
Udaipur, Gomati, Tripura

Signature /Thumb impression of land Owner / Present Occupier
Soma Goswami Dey
Address :-

Witness :- 1.
2.

Yours faithfully

Signature of Senior Manager TSECL
132 KV Sub Station, Banduar
Udaipur, Gomati District.







Copy to :-

1. The D.M. Gomati for kind information please
2. The Deputy General Manager, TSECL, T.D. for favour of kind information.
3. The S.D.M. Udaipur for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar, Hahar, R.K.P.

Signature of Senior Manager TSECL
132 KV Sub Station, Banduar
Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

3. 132/33 kV Udaipur - Bagafa TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED			
(A Govt. of Tripura Enterprise)			
573	 NOTICE	Date : 17/03/2021	
Ref No. :			
To <u>Devananda Reang</u>			
Sub :- Utilization of land for tower footing at Loc. No. <u>18/0</u> , type of tower <u>DB+03</u> in connection with " <u>132 kV Udaipur - Bagafa D/C Transmission line</u> ."			
<p>Dear Sir,</p> <p>As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, <u>Udaipur</u>..... will assess necessary compensation in this respect.</p>			
Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Tapan Reang</u>	<u>(8.19 X 8.19) m²</u> <u>= 67.076 m²</u>	<u>Devananda Reang</u>
2	Plot No. :- <u>1031</u>		
3	Khatian No. :- <u>700</u>		
4	Jote No. :-		
5	Mouza :- <u>Baishabari</u>		
 Signature of the Power Grid Corp. of India Ltd. Name and Seal		 Signature of Tahasildar Garjee T.K. Udaipur Gomati Tripura	
 Signature /Thumb impression of land Owner / Present Occupier Address :-			
Witness :- 1. 2.		Yours faithfully  Manager Signature of the TSECL Name & Seal	
Copy to :- 1. The D.M. <u>Gomati</u> for kind information please 2. The Deputy General Manager, <u>TSECL, T.D.</u> for favour of kind information. 3. The S.D.M. <u>Udaipur</u> for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation. 4. The Tehsildar, <u>Garjee T.K.</u>			
 Manager Signature of TSECL Name & Seal			
TRIPURA STATE ELECTRICITY CORPORATION LIMITED Transmission Division, 79 Tilla, Agartala			

V

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 (A Govt. of Tripura Enterprise)

NOTICE

 Ref No. : **316**

 Date : **01/12/2020**

 To **Kuhiram Reang. Jo Lati - Badhurai Reang.**

 Sub :- **Utilization of land for tower footing at Loc. No. 46/0, type of tower DB+00, in connection with " 132 KV B. Udaipur - Bagafa A/C Transmission Line.**

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, **Udaipur**..... will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- Badhurai Reang.	6.987 X 6.987 ft = 48.82 m²	Kuhiram Reang Son.
2	Plot No. :- 1316		
3	Khatian No. :- 262		
4	Jote No. :- -		
5	Mouza :- Baishabari		

Signature of the Power Grid Corp. of India Ltd.
AKHIL CHAKMA
 Director (NER) / JE
 पावरग्रिड / NER, UDAIPUR
 उ.पु.क्षेत्र उदायपुर / NER, UDAIPUR

Signature of Tahasildar
 Name & Seal
**Tehsildar
 Garjee T.K.
 Udaipur Gomati Tripura**

Signature / Thumb impression of land Owner / Present Occupier
Kuhiram Reang
 Address :-

 Witness :- **1. Lambita Reang**
2.

Yours faithfully

Signature of the TSECL
Senior Manager, TSECL
 132 KV Sub-Station, Bandwar
 Udaipur, Gomati District.

Copy to :-

- The D.M., **Gomati**..... for kind information please
- The Deputy General Manager, **TSECL**..... for favour of kind information.
- The S.D.M., **Udaipur**..... for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
- The Tehsildar, **Garjee**.....

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
 Transmission Division, 79 Tilla, Agartala

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



NOTICE

Ref No. : 321

Date : 16/12/2020

To : Suchitra Rani Jamatia

Sub :- Utilization of land for tower footing at Loc. No. 91/0, type of tower DB+03, in connection with "132 KV Udaipur-Bagaha D.C. transmission line".

Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/sting etc. related to the above-mentioned work. The Sub-Divisional Magistrate, Udaipur will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name :- <u>Pagat Lari Jamatia</u>	7.965 x 7.965 m ² = 63.441 m ²	<u>Suchitra Rani Jamatia</u> Granddaughter.
2	Plot No. :- <u>540</u>		
3	Khatian No. :- <u>100</u>		
4	Jote No. :- <u>-</u>		
5	Mouza :- <u>Baishabari</u>		



Signature of the Power Grid Corp. of
India Ltd.
Name and Seal


Signature of Tahasildar
Name & Seal
Tahsildar
Garjee T.K.
Udaipur Gomati Tripura

Suchitra Rani Jamatia
Signature /Thumb impression of land
Owner / Present Occupier
Address :-

Witness :- 1. Shyamal Jamatia
2. _____


Yours faithfully


Signature of the Senior Manager, TSECL
Name & Seal
132 KV Sub. Station, Banduar
Udaipur, Gomati District.

Copy to :-

1. The D.M. Gomati for kind information please
2. The Deputy General Manager, TSECL for favour of kind information.
3. The S.D.M. Udaipur for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar, Garjee T.K.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala


Signature of the Senior Manager, TSECL
Name & Seal
132 KV Sub. Station, Banduar
Udaipur, Gomati District.

ANNEXURE-I

POWER GRID CORPORATION OF INDIA LTD

NERPSIP Belonia Office

ASSESSMENT OF LAND VALUE FOR TOWER BASE OF 132 KV D/C BAGAJA-BELONIA TRANSMISSION LINE

Sl No	Tower Loc No & Tower Type	Name & Address of affected Land Owner	Village/Tehsil/Mauza	Plot/Khasia No	Measured area of affected land (in sqm)	Measured area of affected land (in Hact)	Government approved value per Hact (in Rs.)	Assessed value of affected land (in Rs.)	Bank Details of affected land owner for payment of land value	Remarks
A	B	C	D	E	F	G	H=(G/10000)	I=J*(H*1)	J=(I*6.172)	K(H*1)
1	409 Dtd 10.11.2020	Sh. Sanjit Datta Vill: East Kolabaria, ICDS PO & PS: Belonia Dist: South Tripura.	Vill: East Kolabaria Tehsil: Maichera Mauza: Kolabaria	Plot No. 6890 Kh No. 1599	51.941	0.0051941	228000.00	3655.00	Tripura State Co-operative Bank Limited Branch: Belonia A/C No. 000412010007770. PSC-ICIC001SCBL	The land is in joint holding of Sh. Sanjit Datta & Mrs. Subarna Datta who are wife & husband & they also hold a joint bank account.
2	409 Dtd 10.11.2020	Mrs. Subarna Datta Vill: East Kolabaria, ICDS PO & PS: Belonia Dist: South Tripura.	Vill: East Kolabaria Tehsil: Maichera Mauza: Kolabaria	Plot No. 6890 Kh No. 1599				3655.00	Tripura State Co-operative Bank Limited Branch: Belonia A/C No. 000412010007770. PSC-ICIC001SCBL	
		1 Hact= 6.172 Kani						TOTAL Rs.	7310.00	

(Signature)
21/12/20

DR. P. K. SINGH / MR. CHAUDHURY
Zonal Chief Manager
Director / POWERGRID
B-1, 2nd & 3rd Fl. / NERPSIP
Belonia / BELONIA

(Signature)
20/12/20
Sub-Divisional Magistrate
Belonia, South Tripura.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

NOTICE

Date: 10 / 11 / 2020

TO: MR. SANJIT DATTA & MRS. SUBARNA DATTA
Subject: Utilization of land for tower footing at Loc. No. 16/1, type of tower DB+0, in connection with "132 KV BELONIA - BAGHA TRANSMISSION LINE"
Dear Sir,

As per section 67 of the Electricity Act, 2003, we require a portion of your land having the area mentioned below for construction of tower footings/stinging etc. related to the above-mentioned work. The Sub-Divisional Magistrate, BELONIA will assess necessary compensation in this respect.

Sl. No.	Name of owner as per document and other	Area of land utilization	Name of present occupier and relation
1	Name:- MR. SANJIT DATTA	51.941 m ²	SELF (HUSBAND AND WIFE)
2	Plot No.:- 6890		
3	Khatian No.:- 1599		
4	Jote No.:-		
5	Mouza:- KOLABARIA		

Prasenjit Dhar

Signature of the Power Grid Corp. of India Ltd.

Name and Seal

PRASENJIT DHAR
FS (ELECT)
NERPSIP, BELONIA
PACIL

Signature of Tehsildar

Name & Seal

Tejshildar
Maichara T.R.
Belonia, South Tripura

Subarna Datta
Sanjit Datta

Signature / Thumb impression of land

Owner / Present Occupier

Address :-

EAST KOLABARIA, P.O. - BELONIA,
P.S. - BELONIA, SOUTH TRIPURA.

Witness :- 1. **Sanjit Datta**
2. **Subarna Datta**

Yours faithfully

Signature of the TSECL
Name & Seal
Manager (Electrical)
Belonia, South Tripura.

Copy to :-

1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,

Signature of TSECL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Transmission Division, 79 Tilla, Agartala

**GOVERNMENT OF TRIPURA
OFFICE OF THE SUB-DIVISIONAL MAGISTRATE
BELONIA, SOUTH TRIPURA**

No. F&D 237-SDM/BLN/SUR/2018/ 610

Dated, Belonia, the 21st Dec. 2020.

**The Chief Manager,
POWERGRID, NERPSIP,
Belonia, South Tripura.**

Sub:- Providing rate/value of land for the purpose of making compensation payment of Tower base to the affected land owners against construction of 132 KV D/C Bokafa- Belonia Transmission Line associated with NERPSIP works of Tripura, at mouja- Kalabaria under Belonia Sub-Division

Ref:- Your letter No. NERBLN/NERPSIP/2020-2021/BLN-51, dated-27.11.2020.

Sir,


With reference to the subject mentioned above, I am furnishing herewith the Government approved rate as per the latest Land Valuation Chart of the following plots under Kalabaria Mouja under Belonia Sub-Division for enabling payment of compensation to the land owners in connection with construction of 132 KV DC Bokafa - Belonia Transmission Line associated with NERPSIP works of Tripura.

The detail particulars of land are as follows.

Sl No.	Name of T.K	Name of Mouja	Khatian No.	Plot No.	Class of land	Recorded Land Owner	Rate as per the latest Land Valuation Chart (Rs. per Kani)
1.	Maichera	Kalabariya	1599	6890/p	Tilla	1. Sri sanjit Kr. Datta, S/o- Prabhat Datta. 2. Subarna datta, W/O- Sri sanjit Kr. Datta.	2,28,000/-


This is for your information and necessary action.

Yours faithfully


Sub-Divisional Magistrate
Belonia, South Tripura.

Copy to:

1. The District Magistrate & Collector, South Tripura for favour of kind information.
2. SR.GM, POWERGRID, NERPSIP Agartala, Tripura for information.


Sub-Divisional Magistrate
Belonia, South Tripura.

भारत सरकार
Government of India
Enrollment No. : 2183-50010-00080

To
Sangit Datta
CGO LT, Pashar Datta
GAC, HILARVA
KALABURGA / EAST KALABURGA
South Tripura
Tribal, 791106
9774801120

आपका क्रमांक / Your No. :
8705 6502 5392
मेरा आधार, मेरी पहचान

भारत सरकार
Government of India
Sangit Datta
CGO LT, Pashar Datta
KALABURGA / EAST KALABURGA
South Tripura, 791106

मेरा आधार, मेरी पहचान

पहचान का प्रमाण है, तबतक का नहीं।
पहचान का प्रमाण अनिवार्य प्रमाणपत्र द्वारा प्राप्त करें।

is proof of identity, not of citizenship.
To establish identity, authenticate online.

देश भर में मान्य है।
अधिनियम में सरकारी और गैर-सरकारी सेवाओं
का लाभ उठाने में उपयोगी सेवा।
is valid throughout the country.
will be helpful in availing Government
and Non-Government services in future.

Unique Identification Authority of India

Address: CGO LT, Pashar Datta, GAC, HILARVA,
KALABURGA / EAST KALABURGA, South
Tripura, Tribal, 791106

8705 6502 5392

Sangit Datta

Government of India

(কম্পিউটার)

- পরিচয়ের প্রমাণ, নাগরিকত্বের প্রমাণ নয়।
- পরিচয়ের প্রমাণ অনলাইন প্রমাণিত হওয়া সত্ত্বেও

করুন।

MAHARASHTRA

- A passport is proof of identity, not of citizenship.
- To establish identity, authenticate online.

Subarna Datta

এই ডাটাবেসে সারা দেশে মান্য।
ভবিষ্যতে সরকারী ও বেসরকারী পরিষেবা
গ্রহণ সহায়ক হবে।
This database is valid throughout the country.
It will be helpful in availing Government
and Non-Government services in future.

Unique Identification Authority of India

Address:
WHO-Sangli Data, East
Kashikarni, Maharashtra, Kashekar,
South Tigris, Beldar
Anandpur, Tirumala 799155

5873 7708 0481

MAHARASHTRA

Government of India

ভারত সরকার

Government of India

অধিকাংশ ক্ষেত্রেই / Enrollment No.: 2033/1881201164

To
Subarna Datta
WHO-Sangli Data
East Kashikarni
Maheshwar
Kashekar
Beldar
Anandpur
Tirumala 799155
9876543210
2033/1881201164
APR 14 2023 09:11 E

আপনার সংখ্যা / Your ID No.:
5873 7708 0481

- সাধারণ মানুষের অধিকার

X

ভারত সরকার
Government of India

Subarna Datta
WHO-Sangli Data
East Kashikarni
Maheshwar
Kashekar
Beldar
Anandpur
Tirumala 799155

5873 7708 0481

- সাধারণ মানুষের অধিকার

Please paste photograph properly
Do not use staple pins

000412010007770 X
000412010007770 W

Photograph(s) needs to be attested by issuing authority

Tripura State Co-operative Bank Limited

Sanjit Bata
Subarna Datta

SEARCH NAME : BELONGIA
ACCOUNT NO. : 000412010007770 : IFS Code : TIC000TSCBL : MICR CODE :
CUSTOMER NAME : MR SANJIT BATA
ADDRESS : BELONGIA
CITY : SUDH
TRIPURA INDIA
CUSTOMER PIN : 760414
NOMINEE : 16/04/2012
EMAIL ID :
MOBILE NO : 0

Verified
Dipul Paul
JUNIOR ENGINEER
NERPSIP, BELONGIA
POWERGRID


Tripura State Co-operative Bank Limited
Dipul Paul

Annexure 10

Sample Copy Tree/ Crop Compensation Notices

Location: 132kV D/C Ugaipur - Amarpur TL

128
(A Govt. of Tripura Enterprise)


NOTICE

Page No. :
Ref No. :
To : **Manik Debboruma**
Date : **04/02/2021**

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed **132 Kv Ugaipur - Amarpur D/C** Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: **NA**
b. Erection Loc No: **NA**
c. Stringing Loc No. from **AP 06** to **AP 07**

II. (1) Name of the Owner and Address: Sonamoni Debboruma, Present: Manik Debboruma,
(2) Name of the Village / Mouza & J.L. No. **Kalua Deba / Fulkumaser**
(3) Name of PS & District **R.K. Pura & Gomati**
(4) Plot No/ Khatian No **P-1896, K-1654.**

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees	Rubbere (6 years)		21 nos (Twenty one)
2)	Crops	NA		
3)	Others	NA		

Manik Debboruma
Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd.
Signature of Tehsildar
Signature of TSECL
Manager
Signature of TSECL
Manager
Signature of TSECL

Witness :
Copy to :

1. The D.M. **Gomati** for kind information please.
2. The Deputy General Manager, **TSECL, TA** for favour of kind information.
3. The S.D.M., **Ugaipur** for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
4. The Tehsildar, **R.K. Pura, T.K.**

Location: 132kV D/C Udaipur - Bagafa TL
TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Page No. :

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NOTICE

Ref No. :

Date : 08/04/2021

To **RADHA JAMATIA**

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up to date thereto, this is to inform you that the proposed 132 KV Udaipur - Bagafa D/C Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: 38/2
- Erection Loc No. NA
- Stringing Loc No. from NA to NA

- (1) Name of the Owner and Address: Radha Jamatia
- (2) Name of the Village / Mouza & J.L. No. Baishabari
- (3) Name of PS & District R.K. Pw & Gomati
- (4) Plot No/ Khatian No

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees	Rubber	(6 years)	215 nos (fifteen)
2)	Crops	NA		
3)	Others	NA		

Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd.

Signature of TSECL
132 KV Sub-Station
Gomati South Tripura

Witness :

Gopinath Jamatia

Signature of Tehsildar
Garje T.K.
Udaipur Gomati Tripura

Copy to :

- The D.M. Gomati for kind information please.
- The Deputy General Manager, TSECL, T.O. for favour of kind information.
- The S.D.M., Udaipur for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
- The Tehsildar, Garje T.K.


Signature of TSECL

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Signature of TSECL
132 KV Sub-Station
Gomati South Tripura

Location: 132/33kV Udaipur Bagafa TL

Page No. : 152


NOTICE

Ref No. : Date : 18/03/2021

To Suchitra Rani Jamatia

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed 132/33 kV Udaipur Bagafa TL Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: NA

b. Erection Loc No: NA

c. Stringing Loc No. from NA to NA

II. (1) Name of the Owner and Address: Suchitra Rani Jamatia / Jagat Hare Jamatia

(2) Name of the Village / Mouza & J.L. No. Vill + Mouza - Baishabari - Grand father.

(3) Name of PS & District P.K. Puri & Gomati Dist.

(4) Plot No/ Khatian No P-570, Kh-100

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees			
2)	Crops	<u>Chilli</u>	<u>(10 x 10) m²</u> <u>= 100 m²</u>	<u>= 0.01 ha.</u>
3)	Others			

Signature of the owner Suchitra Rani Jamatia

Signature of Power Grid Corp. of India Ltd. [Signature]

Signature of TSECL [Signature]

Address :- Udaipur Gomati Tripura

Signature of Tehsildar Ganje T.K.

Witness : Udaipur Gomati Tripura

Copy to :

1. The D.M. Gomati for kind information please.

2. The Deputy General Manager, TSECL, T.D. for favour of kind information.

3. The S.D.M., Udaipur for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.

4. The Tehsildar, Ganje T.K.

Signature of TSECL [Signature]

DGM, Transmission Division, Udaipur, Gomati District, Tripura

132/33 kV Sub-Station
Udaipur South Tripura

Location: 132/33kV Udaipur Bagafa TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED **(A Govt. of Tripura Enterprise)**

Page No. : 05



NOTICE

Ref No. :

Date : 08/03/2021

To **Jiban Reang**

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed **132 KV Udaipur - Bagafa D/C** Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: **79/0**
 - Erection Loc No. **NA**
 - Stringing Loc No. from **NA** to **NA**
- ii. (1) Name of the Owner and Address: **Jiban Reang**
 (2) Name of the Village / Mouza & J.L. No. **Narailang / West Khatla**
 (3) Name of PS & District **Santirbazar, South Tripura**
 (4) Plot No/ Khatian No **P-766, Kh-48**

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension	Qty.
1)	Trees	NA		
2)	Crops	Paddy (Hybrid podo)	(30 x 30)m² - 900 m²	
3)	Others	NA		

Jiban Reang
Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd.

Signature of TSECL
[Signature]

Signature of Tehsildar
Bokafa T. K.

Witness :

Copy to :

- The D.M. **South** for kind information please.
- The Deputy General Manager, **Santirbazar** for favour of kind information.
- The S.D.M., **Bagafa T.A.** for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind and inform this office for payment of compensation.
- The Tehsildar, **Bagafa T.A.**

Signature of TSECL
[Signature]

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Location: 132/33kV Udaipur Bagafa TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Page No. : 08

NOTICE

Date : 22/09/20

Ref No. :

To *Khatiya Mohan Jamali*

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed *Udaipur to Bagafa 132 kV D/C T.L.* Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: *8/2*

b. Erection Loc No.to.....

c. Stringing Loc No. from.....to.....

II. (1) Name of the Owner and Address:

(2) Name of the Village / Mouza & J.L. No. *Golasing Bari*

(3) Name of PS & District *Birganj & South Tripura*

(4) Plot No/ Khatian No *(200/1808)/842*

Particulars of trees /Crops / Other standing properties:

SL. No.	Item	Species	Dimension / Age	Qty.
1)	Trees	(a) <i>Redwood</i> (b) <i>Rubber</i>	<i>7 yrs</i> <i>7 yrs</i>	<i>17 nos (Location)</i> <i>12 nos (Approach)</i> <i>71 = 13 nos</i>
2)	Crops	<i>NA</i>		
3)	Others	<i>Jam fruit</i>	<i>98 cm</i>	<i>01 (Approach)</i>

Signature of the owner *Khatiya Mohan Jamali*

Signature of Power Grid Corp. of India Ltd. *Rajiv Singh*

Signature of TSECL *Ranjit Sarkar*

Signature of Tehsildar *Mahesh Chandra*

Witness :

Copy to :

1. The D.M. *Udaipur* for kind information please.

2. The Deputy General Manager, *Transmission, Udaipur* for favour of kind information.

3. The S.D.M., *Udaipur* for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.

4. The Tehsildar, *Udaipur*

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Page No. :

07

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

NOTICE

Ref No. :

To *Supriya Desbarm*

Date: 9/9/20

Dear Sir/ Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed *Udaipur - Bagra 132 KV D/S IL* Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: *AP-10*
- Erection Loc No.
- Stringing Loc No. from to

II. (1) Name of the Owner and Address:

- Name of the Village / Mouza & J.L. No. *Ramnagar Road No-1*
- Name of PS & District *Ramnagar 2 West Tripura*
- Plot No/ Khatian No *378/1965/1041*

Particulars of trees / Crops / Other standing properties:

SL. No.	Item	Species	Dimension / Age	Qty.
1)	Trees	<i>Rubber</i>	For Location 08 years	09
			Approach 08 yrs	04
				Total 13
2)	Crops (Nil)	<i>Teak</i>	OF Cirtk, 0.4m = 2 nos	0.63m = 2 nos
			0.44m = 2 nos	0.62m = 1 nos
			0.45m = 2 nos	0.63m = 1 nos
			0.5m = 2 nos	0.75m = 1 nos
			0.55m = 1 nos	
3)	Others (Nil)		'All are of height 5m'	

Supriya Desbarm
9/9/2020
Signature of the owner
Address :-

Raju Saha
9/9/20
Signature of Power Grid Corp. of India Ltd.

Tehsildar
Signature of Tehsildar
Udaipur, Gomati, Tripura.

Signature
09/09/20
Signature of TSECL
Senior Manager, TSECL
132 KV Sub-Station, Banduar
Udaipur, Gomati District.

Witness :

Copy to :

- The D.M. *Udaipur* for kind information please.
- The Deputy General Manager, *Transmission Division, Udaipur* for favour of kind information.
- The S.D.M., *Udaipur* for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
- The Tehsildar, *Udaipur*

DGM, Transmission Division, Udaipur, Gomati District, Tripura

Signature
09/09/20
Signature of TSECL
Senior Manager, TSECL
132 KV Sub-Station, Banduar
Udaipur, Gomati District.

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Page No. : 01


NOTICE

Ref No. :

Date : 4/9/20

To *Ratna Debbarma*

Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under Section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed *Udaipur to Nagpur 132 KV TL* Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / erection of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/ crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

- Foundation Loc No: *AP-7/0*
- Erection Loc No.
- Stringing Loc No. from.....to.....

II. (1) Name of the Owner and Address:

- Name of the Village / Mouza & J.L. No. *240. Pakumari Chaitraibung.*
- Name of PS & District *R. K. Pur, Gomati*
- Plot No/ Khatian No *2000/480 (Khat)*

Particulars of trees / Crops / Other standing properties:

SL. No.	Item	Species	Dimension / Age	Qty.
1)	Trees	<i>Rubber</i>	<i>7 yrs</i>	<i>10</i>
2)	Crops	<i>NA</i>	<i>NA</i>	<i>NA</i>
3)	Others	<i>NA</i>	<i>NA</i>	<i>NA</i>

Signature of the owner
Address :-

Signature of Power Grid Corp. of India Ltd

Signature of TSECL

Senior Manager, TSECL
132 KV Sub-Station, Bandua

Witness :

Copy to :

- The D.M. *Udaipur* for kind information please.
- The Deputy General Manager, *Transmission, Udaipur* for favour of kind information.
- The S.D.M., *Udaipur* for kind information. It is highly requested to assess the value of the said trees/crops etc from his kind end and inform this office for payment of compensation.
- The Tehsildar, *Udaipur*

Signature of TSECL

Senior Manager, TSECL

DGM, Transmission Division, Udaipur, Gomati District, Tripura

132 KV Sub-Station, Bandua

Location: 132/33kV Bagafa Satchand TL

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
(A Govt. of Tripura Enterprise)

Book No. : 17 Page No. 805
Date : 16/04/2021

NOTICE

To Tirth Roy Tripura
S/o- Goni Krishna Tripura
Dear Sir / Madam

In exercise of power vested with TRIPURA STATE ELECTRICITY CORPORATION LIMITED (TSECL) under section-164 of the Electricity Act, 2003 and Section 10 & 11 of the Indian Telegraph Act 1885 and amendment made up-to date thereto, this is to inform you that the proposed 132 kV Bagafa to Satchand Transmission line will be passing through your land and the properties belonging to you and standing in the required clearance belt of said transmission line will be cut / removed and the trees / crops belonging to you will have to be unavoidably damaged during the construction / election of the line. If so desired by you, the trees / crops so felled / damaged will be handed over to you against recovery of salvage value of the felled trees/crops etc. The compensation for the yield component of the tree(s) so fell and the crop(s) actually damaged will be paid to you as assessed by the Executive Magistrate or authority specified by the Appropriate Government.

I. Activities :

a. Foundation Loc No: AP 50/0
b. Erection Loc. No.
c. Stringing Loc No. from to

II. (1) Name of the Owner and Address : Tirth Roy Tripura, Goni Para, Sakbari
(2) Name of the Village / Mouza & J.L. No. Sakbari / Sakbari
(3) Name of PS & District Hamubazar S. South Tripura.
(4) Plot No/Khatian No. 372 / 107

Particulars of trees/Crops/Other standing properties :

Sl. No.	Item	Species	Dimension	Qty.
1)	Trees			
2)	Crops	Ash gourd	38m x 32m	0.1216 Ha (Hectare)
3)	Others			


For Tirth Roy Tripura
Kalinohan Tripura
Signature of the owner
Address :- Goni Para, Sakbari

Signature of Power Grid Corp of India Ltd.
Signature of Tehsildar
Bhuratali T K
Sabrom, South Tripura

Signature of TSECL
Manager
132/33KV Sub-Station
Sachand, South Tripura


Witness : Mijesh Tripura
Copy to :-
1. The D.M. for kind information please
2. The Deputy General Manager, for favour of kind information.
3. The S.D.M. for kind information. It is highly requested to assess the said land from his kind end and inform this office for payment of compensation.
4. The Tehsildar,

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Signature of TSECL
Manager
132/33KV Sub-Station
Sachand, South Tripura




INDIA NON JUDICIAL
Government of Tripura
e-Stamp

Certificate No.	: IN-TR08571557234190T
Certificate Issued Date	: 30-Apr-2021 12:07 PM
Account Reference	: CSCACC (GV)/ trcsceg07/ TR-STR TAN0011/ TR-STR
Unique Doc. Reference	: SUBIN-TRTRCSCEG0716465215593286T
Purchased by	: SUDHARAM TRIPURA
Description of Document	: Article IA-4 Affidavit
Property Description	: NO OBJECTION
Consideration Price (Rs.)	: 0 (Zero)
First Party	: SUDHARAM TRIPURA
Second Party	: NA
Stamp Duty Paid By	: SUDHARAM TRIPURA
Stamp Duty Amount(Rs.)	: 5 (Five only)



.....Please write or type below this line.....

SJ NO 1000 DATE 30-9-2021



NOTARY
Gomati Subdivision,
Saidpur
NOTARIAL IN 2008
GOVT. OF TRIPURA

Signature

Manik Varshawmik
Advocate,
Sabroom Sub-Div. Court
Sabroom, Tripura (S)

0000484227

Sabroom South Tripura

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at: www.shcilestamp.com or using e-Stamp Mobile App of Stock Holding.
2. Any discrepancy in the details on the Certificate and as available on the website / Mobile App renders it invalid.
3. The onus of checking the legitimacy is on the users of the certificate.
4. In case of any discrepancy, please inform the Competent Authority.

SLIP 1000 DATE 30-9-2021

Vide e-Stamp No. QT 0000484227

**BEFORE THE NOTARY PUBLIC
SABROOM, SOUTH TRIPURA**

I, Sri Sudharam Tripura, S/O Late Laban Chandra Tripura, of- Sakbari, P.S- Manubazar, Sub Division- Sabroom Dist- South Tripura, State- Tripura, age about 85 Years, by Caste- Hindu, by Occupation- Oldage, citizen of India, do hereby solemnly affirm and declare as follows:-

- 1) That I am a bonafied citizen of India, presently residing in the above mentioned address permanently.
- 2) That some land under mouja Sakbari, TK Bhuratali, Khatian No. 107, plot No. 372, land measuring 0.70 Satak recorded is my name before the competent authority.
- 3) It is true that I did not possess the above mentioned land. The owner of said land is Sri Tirtharoy Tripura S/O Gori Krishna Tripura of Sakbari permanently and I am not interested to get any benefit from that land as well as from Govt. Department.
- 4) That I have no any objection if Tirtharoy Tripura getting any financial benefit from any Govt. department or any other authority, and the above mentioned land bounded by North Laxmi Mohan, South Jamiroy, East and West Thirtharoy Tripura.

All are true to the best of my knowledge

VARIFICATION

That the statements made above are true to the best of my knowledge and belief and I signed this the 30th April 2021 A.D. at Court premises

IDENTIFIED BY ME

Advocate
20/4/21
Manik Lal Bhownik
Advocate
Sabroom SDJM Court
Sabroom, Tripura (SI)

Deponent

30/9/2021
GOMAL CHANDRA MAJUMDER
NOTARY PUBLIC
Sabroom, South Tripura

জিপুরা গ্রামীণ ব্যাংক
TRIPURA GRAMIN BANK

ABBREVIATIONS

1. Cash : Cash	6. Int. : Interest
2. Clg. : Clearing	7. Com. : Commission
3. Tfr : Transfer	8. P&T : Postage & Telegra
4. Dft. : Draft	9. BC : Bankers Cheque
5. D.W. : Dividend Warrant	10. Chgs : Other Charges

8064012000494

নাম / Branch

NOMINATION REGISTERED (Y/N)

সঞ্চয়ী ব্যাংক একাউন্ট পাস বই / SAVINGS BANK ACCOUNT PASS BOOK

গ্রাহক আইডি / Customer ID

নাম / Name (s)

ঠিকানা / Address

ব্যাংক / Mode of Operation

তারিখ / Date

অফিসার / Officer, শাখা পরিচালক / Branch Manager

A/c details :-
Sh. Tirtharoy Tripura
Tripura Gramin Bank .
A/c no- 8064012000494
IFSC- PUNBORRBTGB

Shale

ত্রিপুরা সরকার
ত্রিপুরা ভূমি রাজস্ব ফর্ম - ৭
(বিধি নিয়ম ৫৩(১) ধারা দ্রষ্টব্য)

ONLY FOR DISPLAY

মোজা : শাকবাড়ী
তহশীল : ভোরাভলী

খতিয়ান নং : ১০৭
রেভিনিউ সার্কেল : মনু বাজার

মহকুমা : সাক্রম
তৌজি নং : ১০২

উপরিস্থ স্বত্ত্বের বিবরণ				
খতিয়ান নং	বিবরণ ও দখলকার (বিস্তারিত)	পরস্পর অংশ	রাজস্ব	যে তারিখ হইতে ধার্য্য খাজনা আমলে আসিবে
(১)	(২)	(৩)	(৪)	(৫)
১	ত্রিপুরা সরকার	১০০০০০	৩.৮৫ তিন টাকা পঁচাশী পয়সা মাত্র	১৬(২) ধারা সাপেক্ষ

Reference No.:

অত্র স্বত্ত্ব					
স্বত্ত্বের বিবরণ ও দখলকার (বিস্তারিত)	অংশ	স্বত্ত্বের শ্রেণী ও বিবরণ	স্বত্ত্বের বিশেষ নিয়ম ও অনুযায়	অধীনস্থ স্বত্ত্ব, অধীনস্থ স্বত্ত্বের পৃথক খতিয়ানের নম্বর	
(৬)	(৭)	(৮)	(৯)	(১০)	
১ দং সুধারাম ত্রিপুরা পিতা: লবন চন্দ্র রোয়াজা সাংওপোঃ-নিজ জাতি-ত্রিপুরা	১০০০০০	রায়তি চিরস্থায়ী	রাজস্ব বৃদ্ধির যোগ্য		
	১০০০০০				

অত্র স্বত্ত্বের আপন দখলীয় জমি									
দাগ নম্বর		উত্তর সীমানা		জমির শ্রেণী		অত্র স্বত্ত্বের বসদায় পরিমাণ			
সাবেক	হাল	দাগ নম্বর	দখলকার	জমির শ্রেণী	মন্তব্য	একর	শতক	হেক্টর	আর
(১১)	(১২)	(১৩)	(১৪)	(১৫)	(১৬)	(১৭)	(১৮)	(১৯)	(২০)
৬৩/৮১৩	১১৬	১১৪	ধর্মরাম	লুঙ্গা	মোঃ ১১৮ নং দাগ	০	৭০	০	২৮৩
৬৪	১১৮	১০২	বন বিভাগ	নাল (নাল)	অনুমতি ধর্মরাম ত্রিপুরা পিতা: লবন চন্দ্র রোয়াজা সাং- নিজ	০	১০	০	০৪০
১২০/৮৫২	৩৭২	৩৭০	লক্ষী	নাল (নাল)	জোর দং লক্ষী মোহন ত্রিপুরা পিতা: বামন চন্দ্র ত্রিপুরা সাং-নিজ ১৩৮৮বাং১৩৯১ ত্রিং সন হইতে	০	৪০	০	১৬২
মোট দাগ: ৩				আপন দখলীয় জমির মোট		১	২০	০	৪৮৫
				জের		০	০০	০	০০০
				অধীনস্থ স্বত্ত্বের মোট					
				সর্বমোট		১	২০	০	৪৮৫

Printed On: 26/05/2021

Compared By
Rajeeb Chisim, LDC

Authenticated By
Gautam Sinha, RI

Annexure 11

Tree Compensation Process

Tree Cutting in Non-Forest Area – Notification and Process

No. F.7 (200)/For/FP-2000-09/ 19.611-29
GOVERNMENT OF TRIPURA
FOREST DEPARTMENT

Dated: 20/10/2010, 2010.

NOTIFICATION

Whereas the Hon'ble Supreme Court of India vide order dated 12.5.2001 in Writ Petition (Civil) No. 202/ 1995 had directed, inter-alia, that guidelines/rules be framed regarding extraction of trees from non-forest areas including plantations on non-forest areas;

Whereas in pursuance of the said directives, the State Government framed the guidelines on extraction of trees from non-forest areas vide notification No.F.7 (44)/For/FP-2001/PT-II/29.042 dated 17.01.2002;

Whereas in view of certain operational difficulties in implementation of the guidelines, it was deemed necessary to revise the aforesaid guidelines and revised guidelines duly approved Council of Ministers were referred to Ministry of Environment & Forests, Govt. of India vide this office letter No.F.7 (200)/For/FP-2k-2009/1110 dated 24th March, 2010 for concurrence.

Whereas the Ministry of Environment & Forests, Govt. of India has concurred the revised guidelines vide letter F.No.8-24/2010-FP dated 23rd September, 2010 with certain modifications and same was incorporated in the draft guidelines. Now therefore in exercise of all the enabling powers the following guidelines are hereby laid down by the State Govt. of Tripura with immediate effect.

- 1.1 These guidelines shall be called the "Guidelines for extraction of trees from non-forest areas"
- 1.2 These shall extend to the whole of the State in respect of extraction of trees from non-forest areas.
- 1.3 These shall come into effect from the date of their notification in the official gazette

2. **DEFINITION:**

In these guidelines, unless there is anything repugnant to the subjects or context

- (a) "Government" means Government of Tripura.
- (b) 'Forest' means (i) Reserved forest or Protected Forest or any other areas legally constituted as 'forest'; and (ii) any area recorded as 'Forest' in Government records maintained by Forest Department or other Govt. Departments and (iii) deemed forest area identified as per Supreme Court order dated 12.12.96 in Writ Petition (C) No. 202/95.
- (c) "Non-forest area" for the purpose of these guidelines means land, which is not 'Forest' as per 2 (b) above.
- (d) "Authorized officer" means the officer as prescribed by the Forest Department.
- (e) "PCCF" means Head of the Forest Department of Tripura.

(f) "Extraction" means felling and/or transportation of trees, including timber and firewood derived there from, away from the plot of land, where the trees stand or where these were felled.

(g) "Domestic use/purpose" means use of produce for one own use excluding sale.

(h) "Marking Rules" means Tripura Forest (Timber Marking) Rules, 1985 and amendments made thereto from time to time.

3. REGISTRATION OF TREES FOR PERMISSION FOR EXTRACTION:

- 3.1 For permission of extraction of trees standing on any plot of non-forest area, the owner of the plot who wants to extract trees shall get the trees registered with authorized officer in the manner as may be prescribed in this behalf by the State Government.
- 3.2 Application for registration of trees shall be made to the concerned authorized officer through the concerned Range Officer in the prescribed application Form along with prescribed Registration fee.
- 3.3 While registering a plot with trees standing thereon, it shall be, inter-alia, ensured that the applicant is the legal titleholder; and it is a non-forest area as per Para-2 (c) above.
- 3.4 Processing of applications; enquiry in to the status of land and trees standing there upon; and felling and extraction shall be carried out in accordance with instructions issued by Forest Department from time to time.
- 3.5 Tree registration shall remain valid for 7 (seven) years. After this period, registration shall have to be done afresh.
- 3.6 No registration shall be required for cases mentioned under "Special Provisions".

4. TREES NOT REQUIRING TREE REGISTRATION CERTIFICATES AND EXTRACTION PERMISSION

- 4.1 No permission from Forest Department will be needed for extraction of trees from non-forest land in the following cases.
 - a) For tree species namely Aam (*Mangifera indica*), Lichi (*litchi chinensis*), Sajna (*moringa oleifera*), Guava (*psidium guajava*)
The owner will, however, be required to intimate the local Range Officer at least 10 days in advance in Form prescribed by Forest Department about such intention.
- 4.2 The State Govt. shall be competent to add or delete species in Para 4.1 above.

5. PROCEDURE FOR EXTRACTION OF RUBBER TREES

No registration shall be required for felling of rubber trees. The procedure for extraction of rubber trees shall be separately prescribed by the Forest Department.

6. Service Charge:

Service charge shall be realized by the Forest Department from the owners of the trees for rendering the service on account of verification of the land, marking of trees namely stand marking, log marking and sale marking, issue of transit pass, etc. at the rates prescribed by State Government from time to time.

7. **SPECIAL PROVISIONS:**

Permission of following kinds in the context of non-forest land as per para 2(c) above may be issued by the Authorized officer on receipt of application from legal title holder. Such permissions shall not be considered repugnant to contrary provisions in para (3).

- a. Permission for extraction of such trees from non-forest land that pose danger to the human life and property may be accorded within 10 days from the date of receipt of application from the owner.
- b. Action for extraction of trees from non-forest land which is also Govt. land for construction of Govt. buildings, roads including widening of roads, bridges and railway lines, etc. shall be taken within 45 days from the date of receipt of the complete application from the user agency. Extraction and disposal of felled trees will be done by the Forest Department and revenue collected by way of sale of such timber etc. will be deposited by the Forest Department in the Government exchequer.
- c. One time permission for extraction of 5 trees for domestic use from plots of non-forest land which are not contiguous to forest land.
- d. In habitation areas, public places, roads where the trees have fallen due to natural causes like storm, decay of the tree, etc., causing severe inconvenience to people, the owner will be free to displace the same after giving intimation in writing to the Authorized officer. In other places, where trees have fallen due to such natural causes, intimation shall be given by the owner to the Authorized officer. The Authorized officer shall first causes enquiry and if he is satisfied with natural cause of the fall of tree/trees, he may allow extraction after recording the reasons within 20 (twenty) days.

8. **CONFISCATION OF TREES FELLED IN VIOLATION OF GUIDELINES**

- 8.1 Timber obtained from trees felled in violation of these guidelines shall be seized by the Forest Department.
- 8.2 On enquiry, if the trees are found felled from:
 - a. Private land, the Authorized officer shall be at liberty to release the timber obtained from such trees, to the legal title holder(s), after recovery of an amount equal to 25% of the royalty payable for the tree/timber. However, such released timber shall not be eligible for purchase or use by any wood based unit, traders or registered timber transporters.
 - b. Govt. land/ Forest land, these shall be deemed to have been confiscated to the State Government.
- 8.3 For verification and recovery of the timber mentioned in para 8.1 above the staff of the Forest Department shall have the authority to enter the plot of land where the trees were felled and the Authorized officer shall have the authority to issue search warrants to his staff to search the premises, including houses, concerned.
- 8.4 The seizure of timber as per 8.1 above shall be without prejudice to any other action, including legal action or prosecution in a court of law.

9. **REPEAL AND SAVINGS:**

This is issued in supersession of guidelines and executive orders issued earlier on this matter.

The registration certificates already issued regarding trees on different plots as per guidelines communicated vide no F.7 (44)/For/FP/2001/PT-II/29042, dated 17th January, 2002 will however continue to remain valid.

By order of the Governor,


Chief Secretary,
Government of Tripura

Copy to:

1. The Principal Secretary to the Governor, Tripura for favour of information of the Governor, Tripura.
2. The Principal Secretary to the Chief Minister, Tripura for favour of information of the Chief Minister, Tripura.
3. The P.S. to the Minister for Finance, Tripura for favour of information of the Minister for Finance, Tripura.
4. The P.S. to the Minister for Forests Tripura for favour of information of the Minister for Forests, Tripura.
5. The P.S. to the Minister for Planning, Tripura for favour of information of the Minister for Planning, Tripura.
6. The S.A. to the Chief Secretary, Tripura for favour of information of the Chief Secretary, Tripura.
7. The Principal Chief Conservator of Forests, Tripura.
8. The Principal Secretary, Planning, Tripura.
9. The Principal Secretary, Finance, Tripura.
10. The Chief Wildlife Warden, Tripura.
11. The Inspector General of Forests (Forest Conservation), Ministry of Environment & Forests, Paryavaran Bhawan, CGO Complex, New Delhi.
12. The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, North Eastern Regional office, Law-U-Sib, Lumbatngen, Near M.T.C. Workshop, Shillong 793 021.
13. The Chief Conservator of Forests (Planning & Development), Tripura.
14. The Nodal Officer, Forest (Conservation) Act, Tripura.
15. The Chief Conservator of Forests (Administration), Tripura.
16. The Additional/ Joint Secretary, Forests, Tripura.
17. The Manager, United Bank of India, Agartala.
18. The Manager, Government Press, Agartala for publishing in Tripura Gazette.


(C. K. Das) 20.10.10
Joint Secretary to the
Government of Tripura

**TREE / CROP/ TOWER FOOTING COMPENSATION PROCESS
(OTHER THAN FOREST LAND COMPENSATION)**

As per the provisions of Electricity Act, 2003 and Indian Telegraph Act 1885, land for tower and right of way is not acquired and agricultural activities are allowed to continue. However, the acts also stipulate that licensee shall pay full compensation to all interested for any damages sustained during the execution of said work. Accordingly, TSECL pays compensation to land owners towards damages if any during implementation of transmission project as well as during operation and maintenance phase. TSECL follows the principle of avoidance, minimization and mitigation in the construction of line in agricultural field having crop due to inherent flexibility in phasing the construction activity and tries to defer construction in cropped area to facilitate crop harvesting. However, if it is unavoidable and is likely to affect project schedule, compensation is given at market rate for standing crops. All efforts are also taken to minimize the crop damage to the extent possible in such cases. As regards trees coming in the Right of Way (RoW) following procedure is adopted for enumeration: All the trees which are coming within the clearance belt of ROW on either side of the center line are identified and marked/numbered from one AP (Affected Person) to the other and documented. Type, Girth (Measured 1 m. above ground level), approximate height of the tree is also noted for each tree. Trees belonging to Govt., Forest, Highways and other local bodies may be separately noted down or timely follow up with the concerned authorities for inspection and removal. Cashew, Guava, Lemon and other hybrid trees which are not of tall growing nature are not marked for cutting since these trees can be crossed using standard tower extensions if required. TSECL also pay compensation to affected land owners for utilization of their land for tower footing.

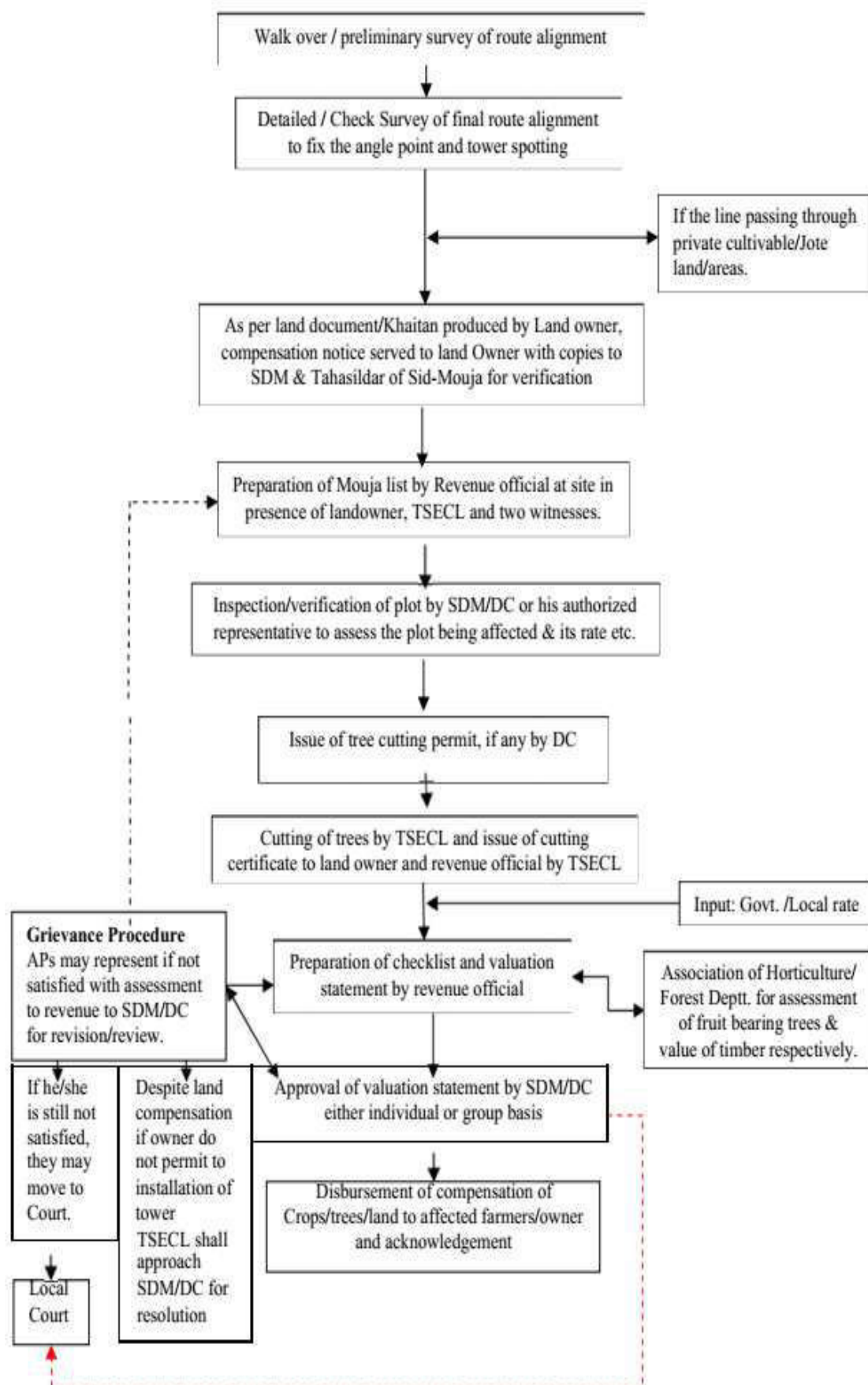
A notice under Electricity Act, 2003/ Indian Telegraph Act, 1885 is served to the landowners informing that the proposed transmission line is being routed through the property of the individual concerned. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops/land inevitability likely to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owners. A copy of said notice is further issued to the Revenue Officer/SDM, who has been authorized by the Tripura Govt. for the purpose of assessment/valuation and disbursement of compensation to the affected parties.

The revenue officer shall further issue a notice of intimation to the concerned land owner and inspect the site to verify the documents related to the proof of ownership and a detailed Mouja list is prepared for the identified trees/ crops/ land for tower footing inevitability damaged during the course of the construction. For assessing the true value of timber yielding trees help of forest officials is taken and for fruit bearing trees help of Horticulture department is taken.

The Mouja list shall contain the land owner details including extent land area utilization for tower footing, type of tree/crop, its present age, variety, yielding pattern etc. and the same is prepared at site in the presence of the land owner. These Mouja lists are further compiled and a random verification is conducted by the concerned DC or his authorized representative in order to ascertain the assessment carried out by the revenue office is

genuine and correct. After this process the District Collector/ a tree cutting permit to TSECL to enable removal / damage to the standing tree/crop identified in the line corridor. Similarly on the basis of enquiry report received from concerned Tehsildar, SDM issue land valuation certificate to TSECL for payment of compensation to land owner. Once the tree/crop is removed / damaged, TSECL shall issue a tree cutting/crop damaged notice to the land owner with a copy to the Revenue Officer to process the compensation payment. Based on the above the compensation payment is generated by means of a computerized programme developed by the National Informatics Center exclusively for this purpose. The detailed Valuation statement thus generated using this programme is verified at various levels and approval of payment of compensation is accorded by the concerned District Collectors.

On approval of compensation, the revenue officer shall further intimate the amount payable to the different landowners and TSECL arranges the payment by way of Demand Draft to the affected parties. The payment is further disbursed at the local village office after due verification of the documents in presence of other witnesses.



Budget Estimation

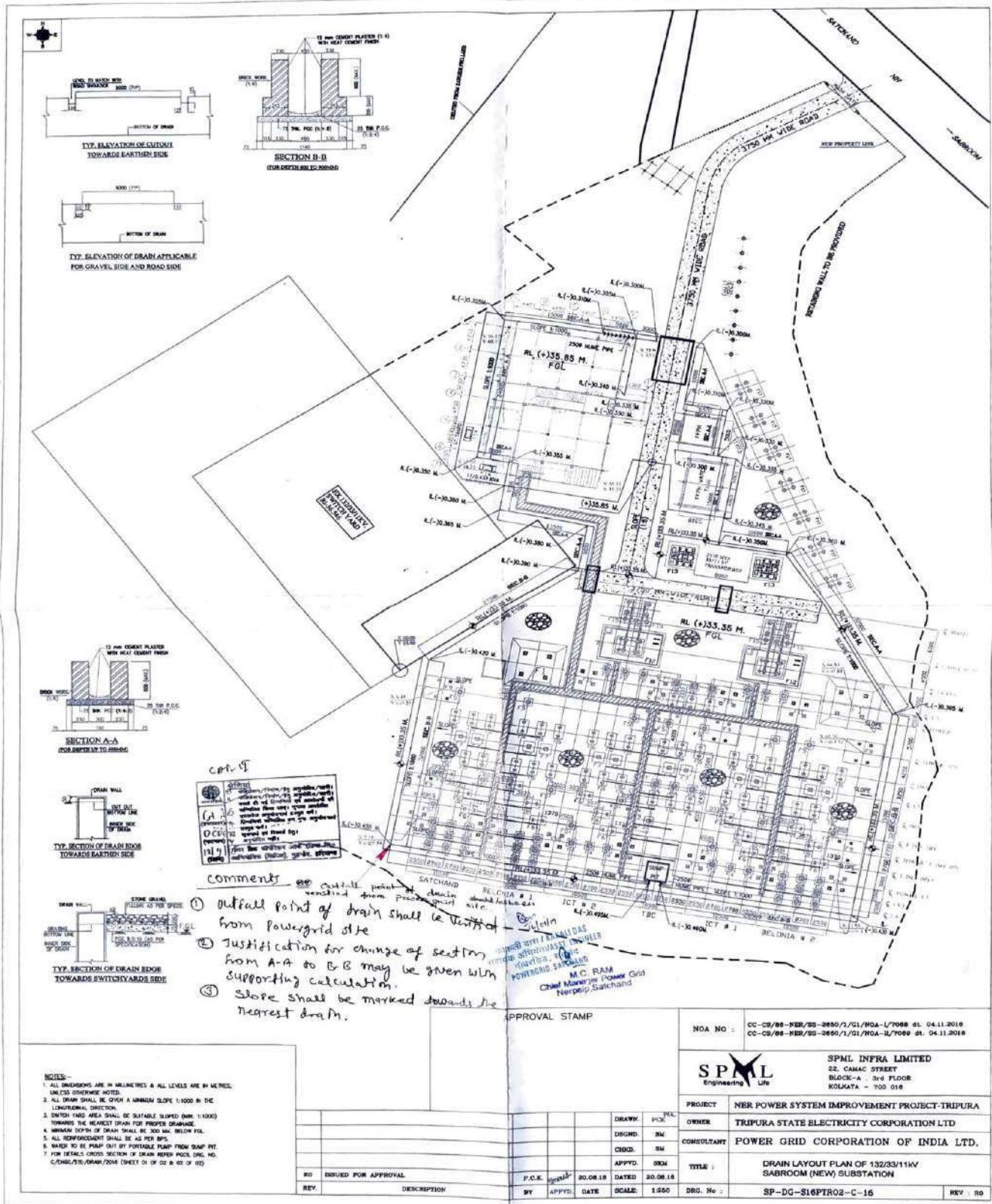
BUDGET ESTIMATE TOWARDS FOREST AND CROP/TREE/ TOWER FOOTING COMPENSATION

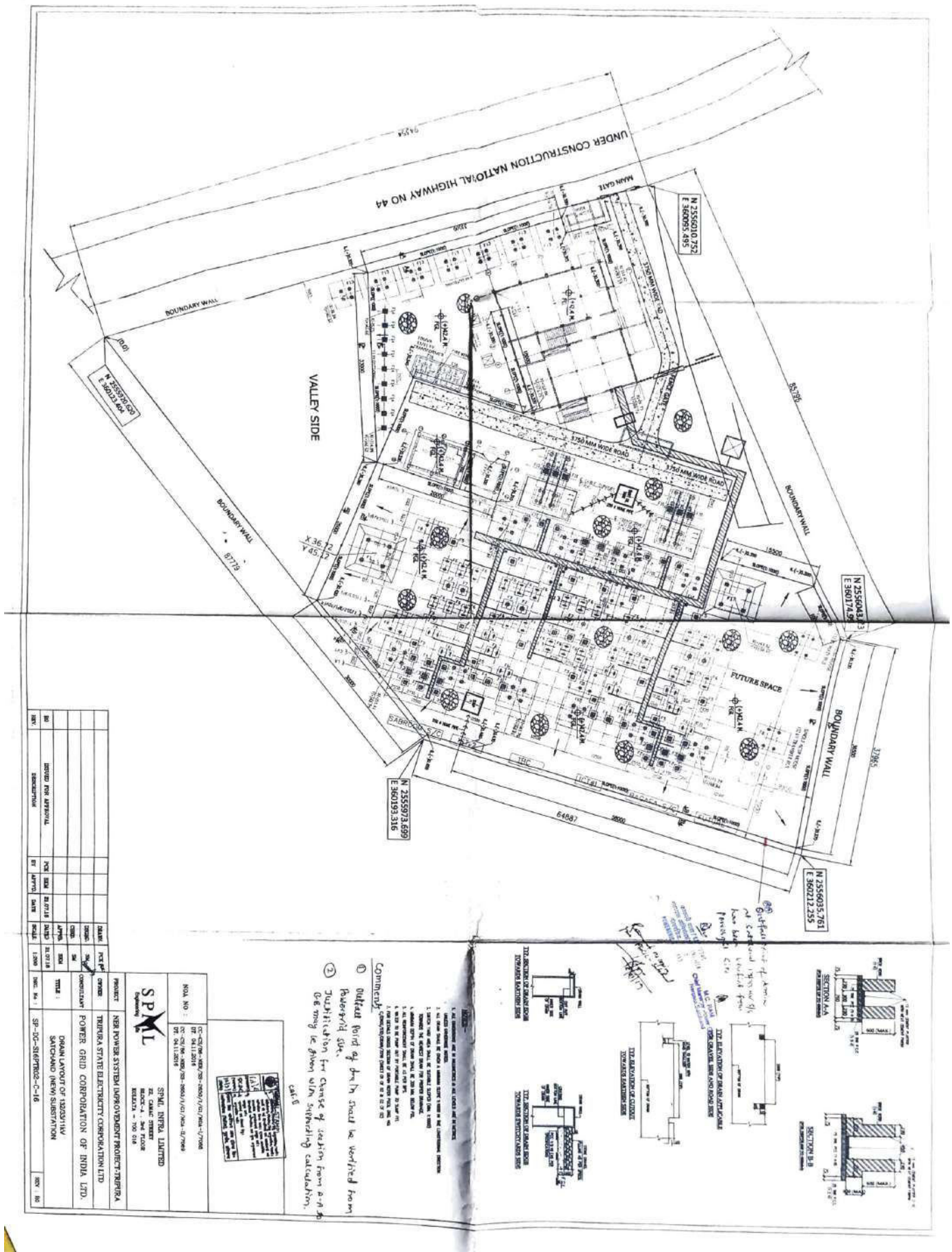
Total 132 kV T/L length	-	139.3 Kms.
Total 132 kV tower locations	-	420 approx.
A. Compensation		
1 Forest	-	Rs. 2845.00 lakhs.
2. Crop & Trees		
- 132 kV T/L length in Private /Revenue land	-	85.27 Kms.
- Crop/tree compensation 132 kV line- (85.27 kms @ 5,00,000/-)	-	Rs. 426.35 lakhs
3. Land compensation for 132 kV tower footing- (256 towers x 13,600/-)	-	Rs 34.81 lakhs
Sub Total - A (1+2+3)	-	Rs. 3306.16 lakhs
B. Implementation Monitoring & Audit		
i) Man-power involved for EMP implementation & Monitoring in entire route of transmission Line (Rs.10, 000/- x 140Km)	=	Rs. 14.00 lakhs
ii) Independent Audit (LS) if needed	=	Rs. 20.00 lakhs
Sub Total - B	-	Rs. 34.00 lakhs
GrandTotal (A+B)	=	Rs. 3340.16 lakhs

Annexure 12

Drainage System / Mechanism for Sub-Station:

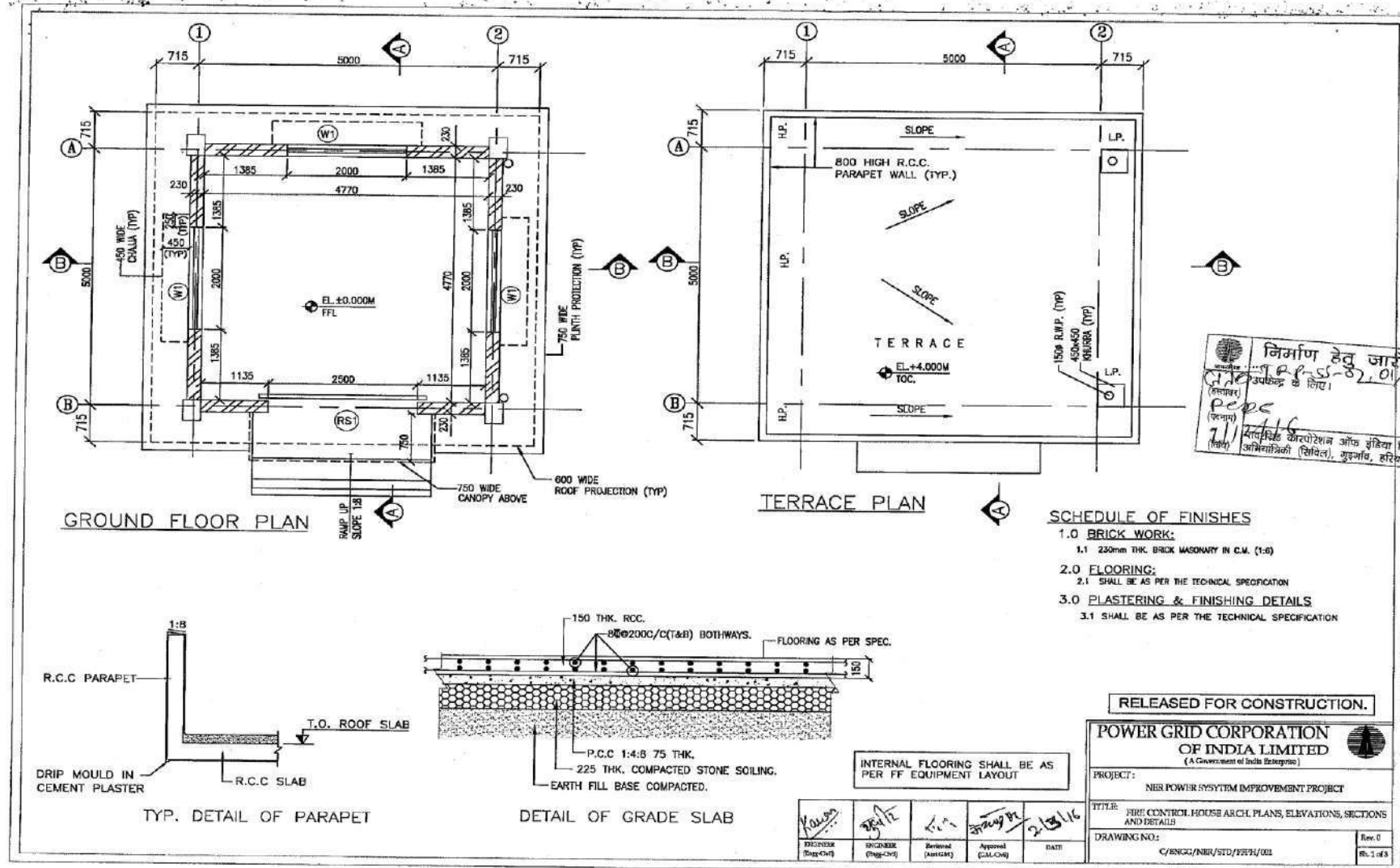
Sample Drainage layout of Sabroom S/s

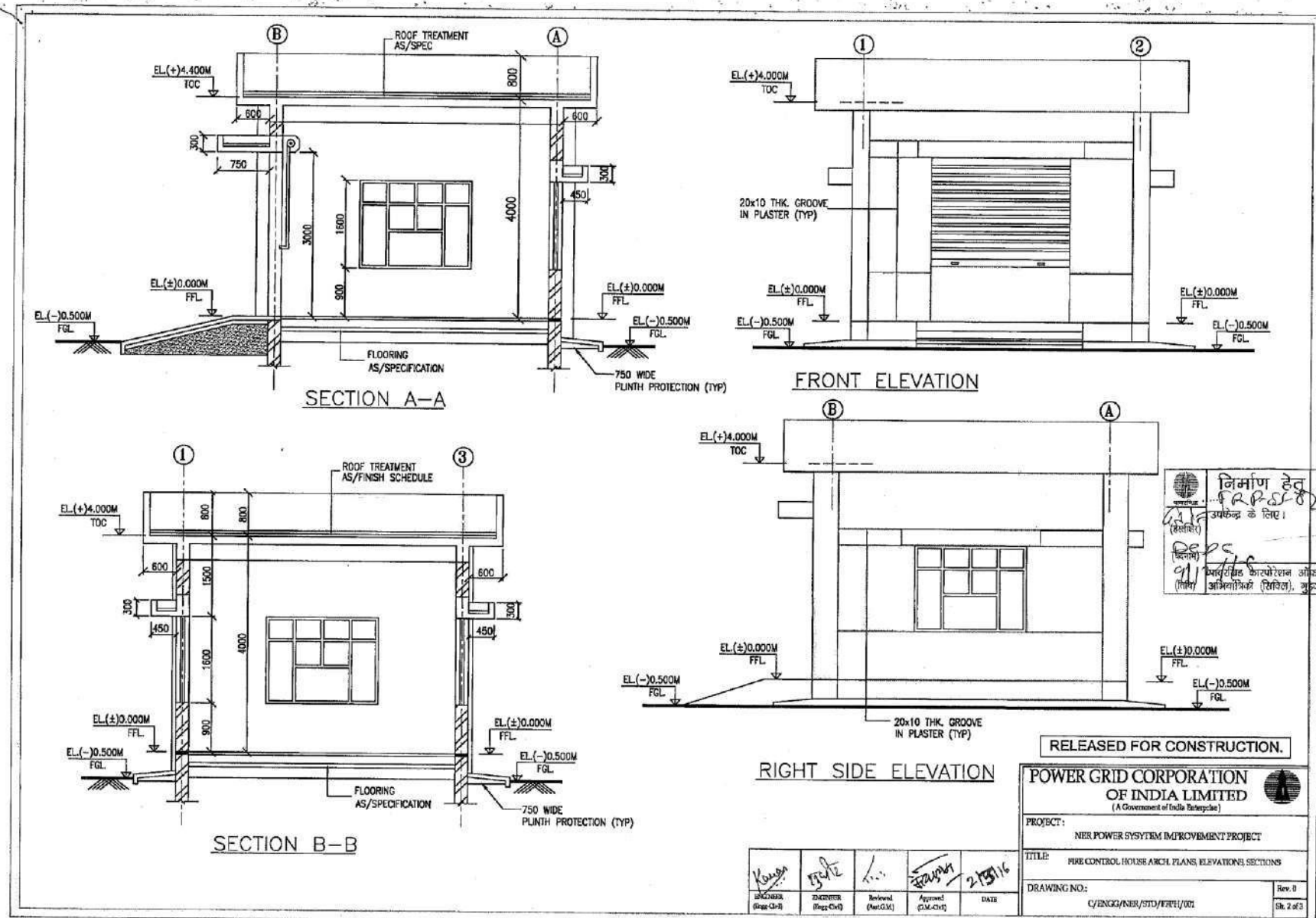




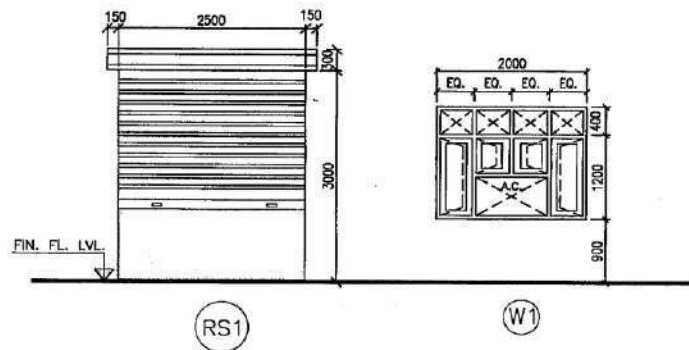
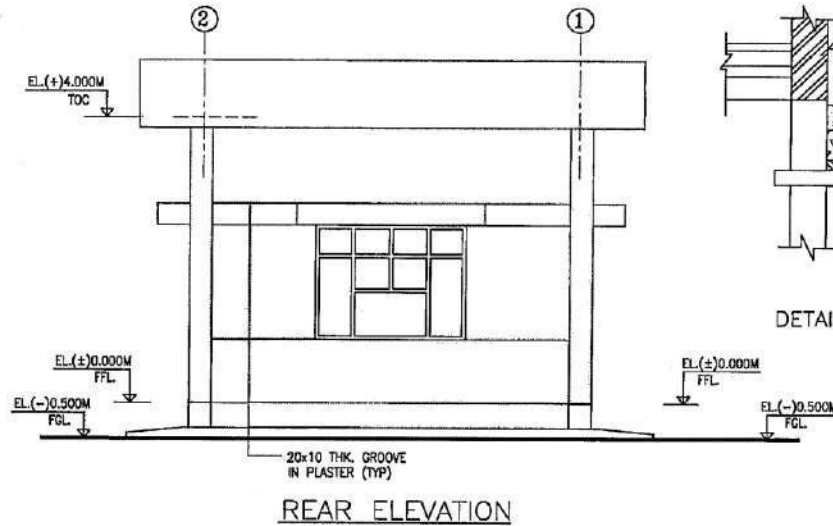
Annexure 13

Fire Fighting System



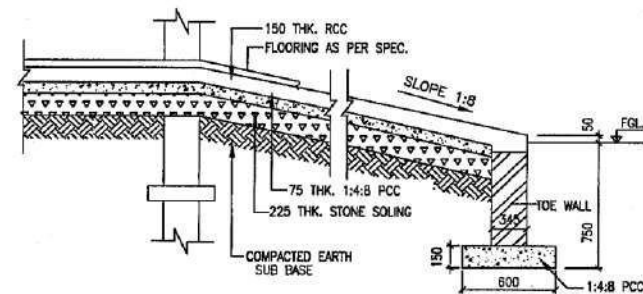
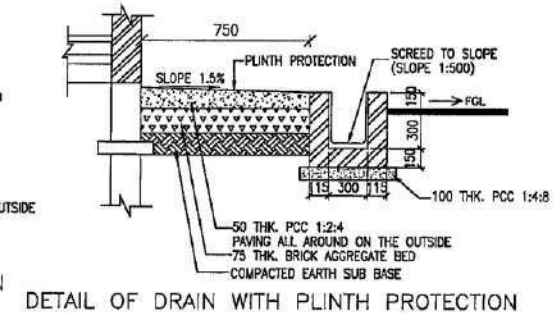
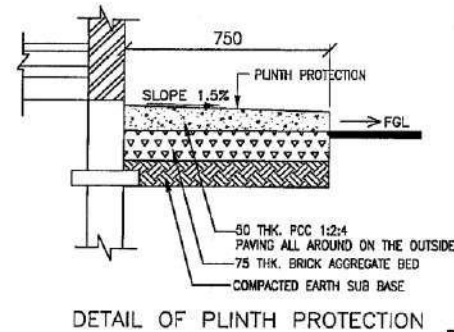




निर्माण हेतु जारी
FRP-STD-1001/01/03
अनुमति के लिए।
2/13/16
अनुमति के लिए जारी किया गया है।
अभिमानिनी (सिविल), मुंबई, हरियाणा

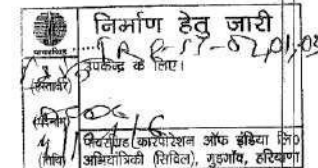


SCHEDULE OF DOORS & WINDOWS

TYPE	OPENING SIZE	FRAME SIZE	CILL LEVEL	LINTEL LEVEL	NOS.	DESCRIPTION
RS1	2500 X 3000	2500 X 3000	-	3000	1	STEEL ROLLING SHUTTER
W1	2000 X 1600	1980 X 1580	900	2500	3	STANDARD STEEL WINDOW PARTLY FIXED & PARTLY OPENABLE



-  SIDE HUNG OPENABLE PANEL
 FIXED GLASS PANEL
 FFL = FINISH FLOOR LEVEL
 FGL = FINISH GRADE LEVEL
 H.P. = HIGH POINT
 L.P. = LOWER POINT






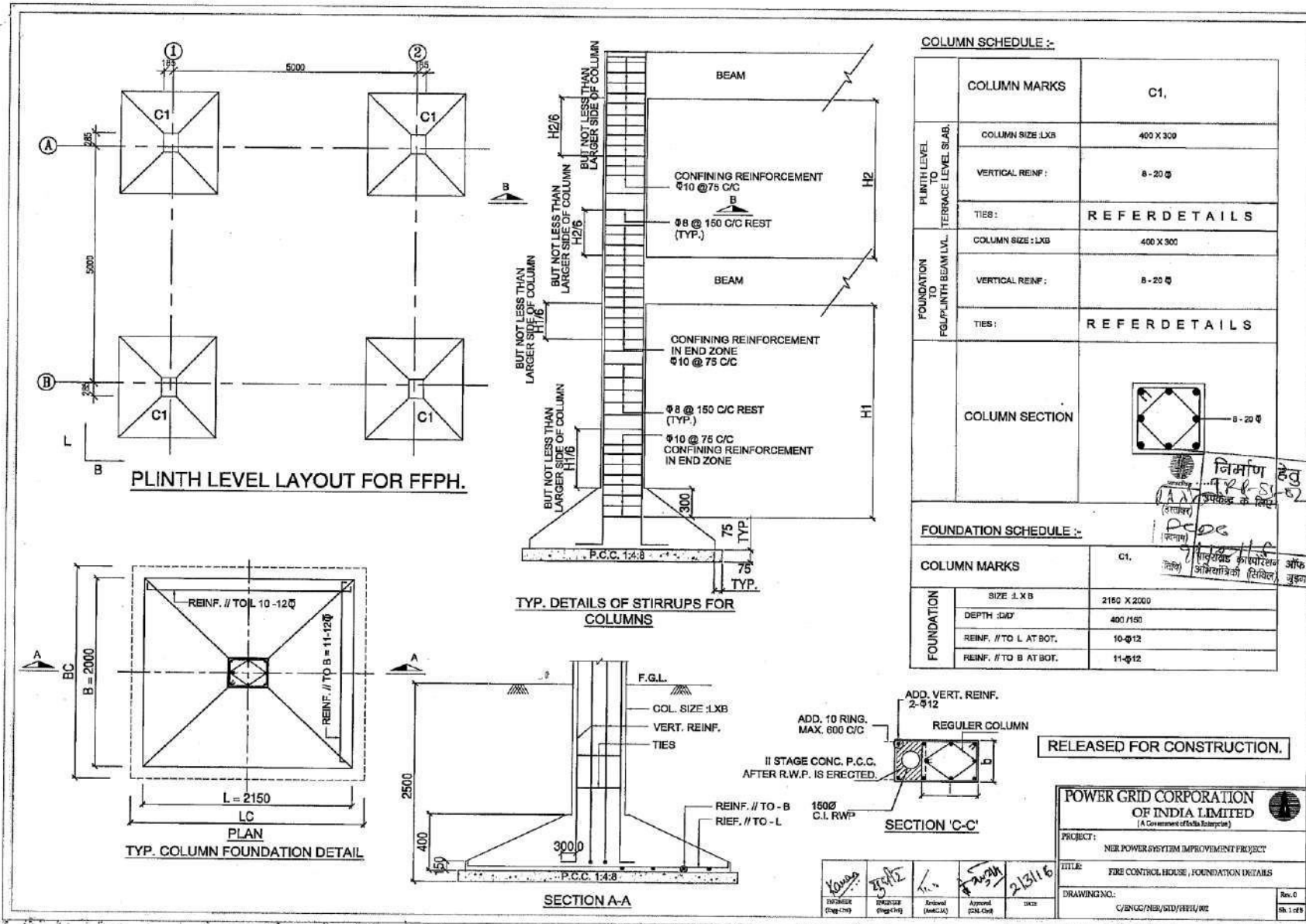
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)

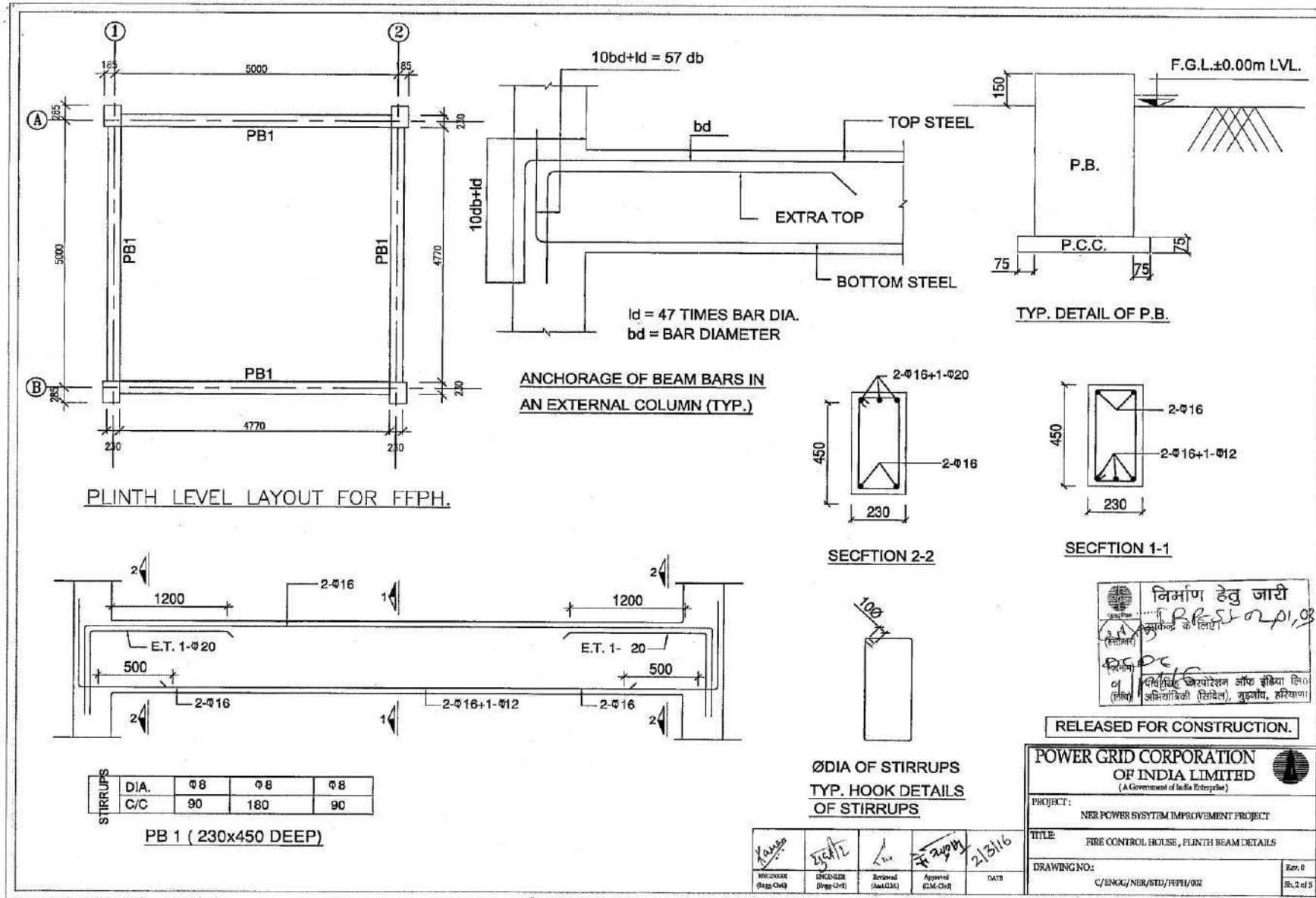
PROJECT: NER POWER SYSTEM IMPROVEMENT PROJECT

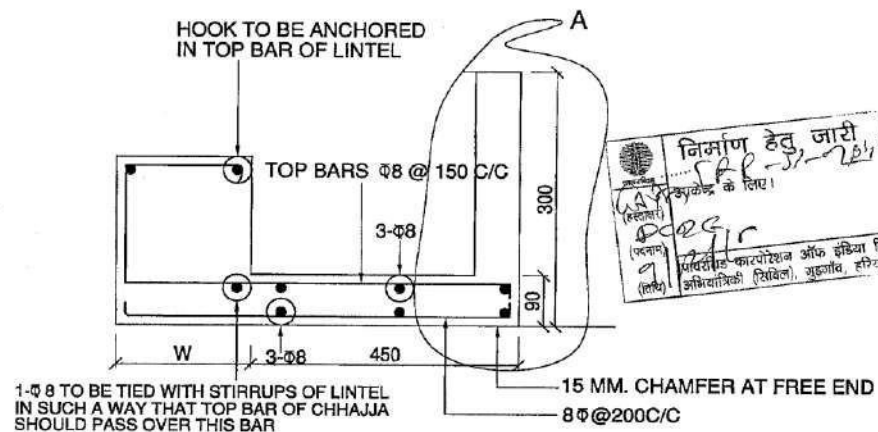
TITLE: FIRE CONTROL HOUSE ARCH. PLANS, ELEVATIONS, SECTIONS AND DETAILS

DRAWING NO: C/ENGG/NIS/STD/TEPH/011
Rev. 0
Sh. 3 of 3

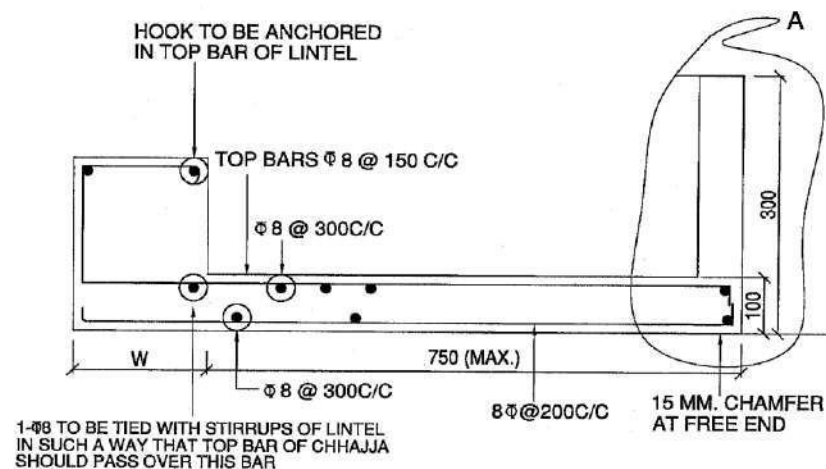
Designed (Sd/-) 
 Checked (Sd/-) 
 Approved (Sd/-) 
 Date: 21/3/16



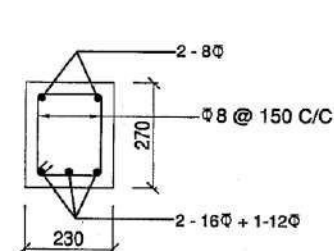
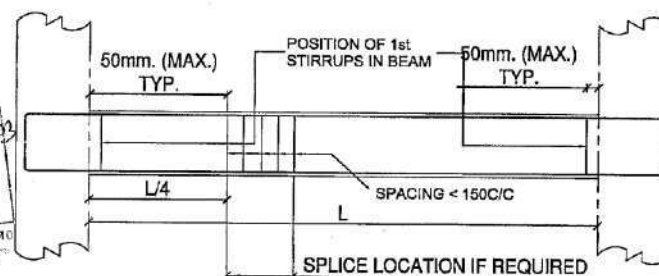




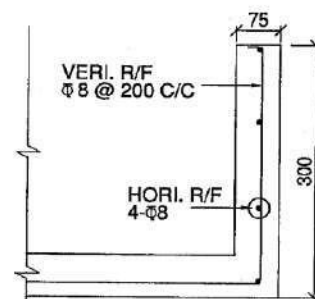
TYPICAL CHHAJJA DETAIL UP TO 450mm PROJECTION



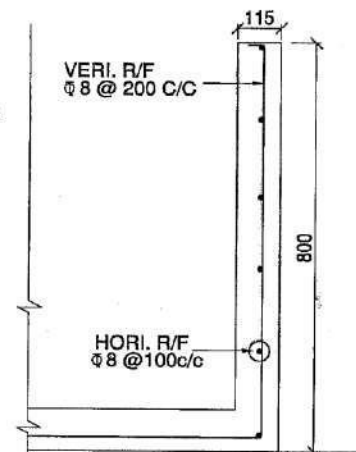
TYPICAL CHHAJJA DETAIL UP TO 750mm PROJECTION



TYP. SECTION FOR LINTEL



DETAIL A



DETAIL OF PARAPET

RELEASED FOR CONSTRUCTION.

**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)

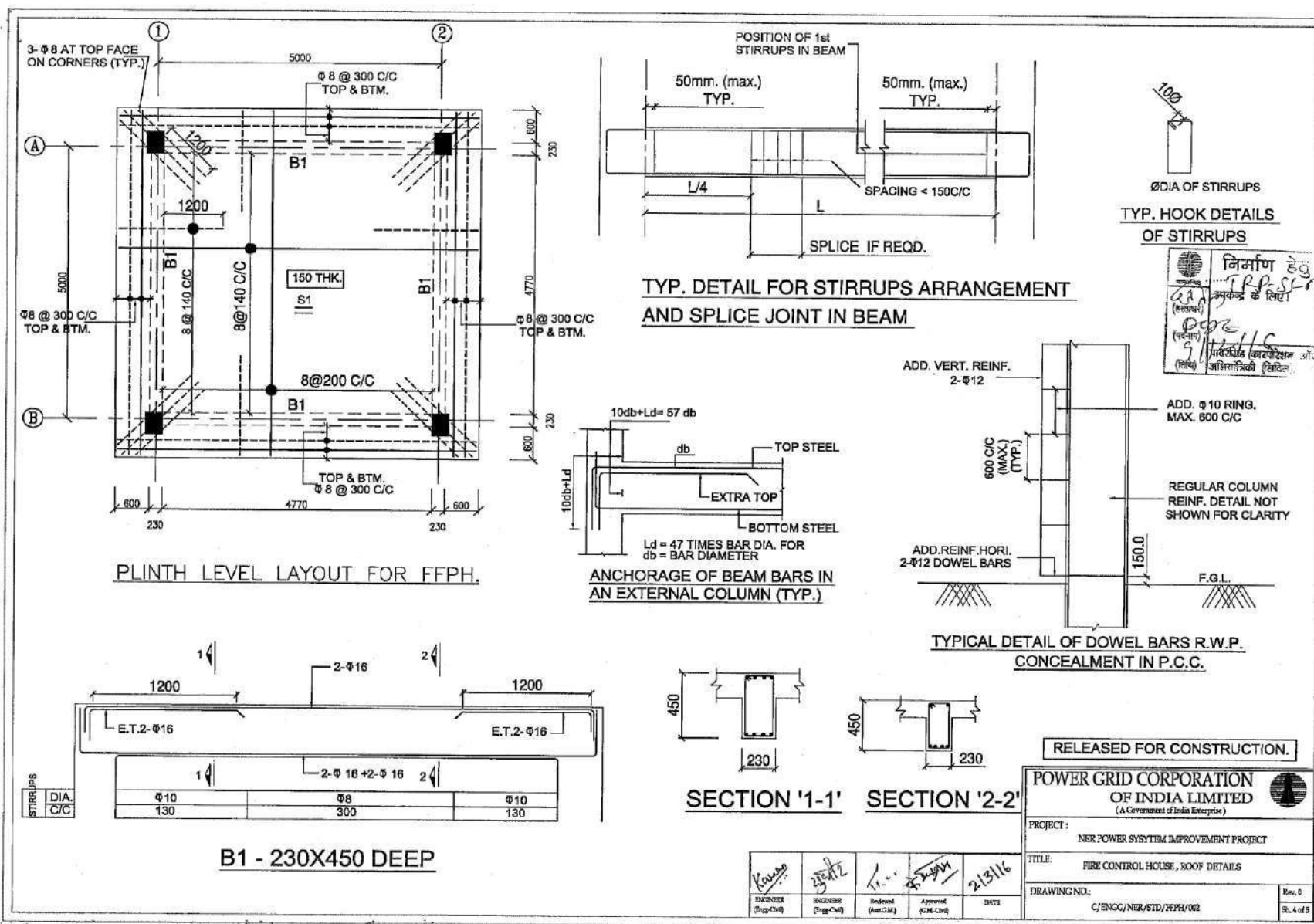
PROJECT: NER POWER SYSTEM IMPROVEMENT PROJECT

TITLE:	FIRE CONTROL HOUSE, LINTEL DETAILS
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DRAWING NO.: C/ENGG/NER/STD/FEPLI/002

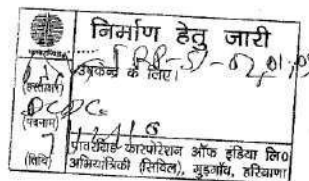
Rev. U
Sh. 3 of

<i>Karon</i>	<i>2/2/11</i>	<i>Lin</i>	<i>#2011</i>	<i>2/3/11</i>
ENGINEER (Please Print)	ENGINEER (Please Print)	Reviewed (AEC/ME)	Approved KIM-CLIN	DATE



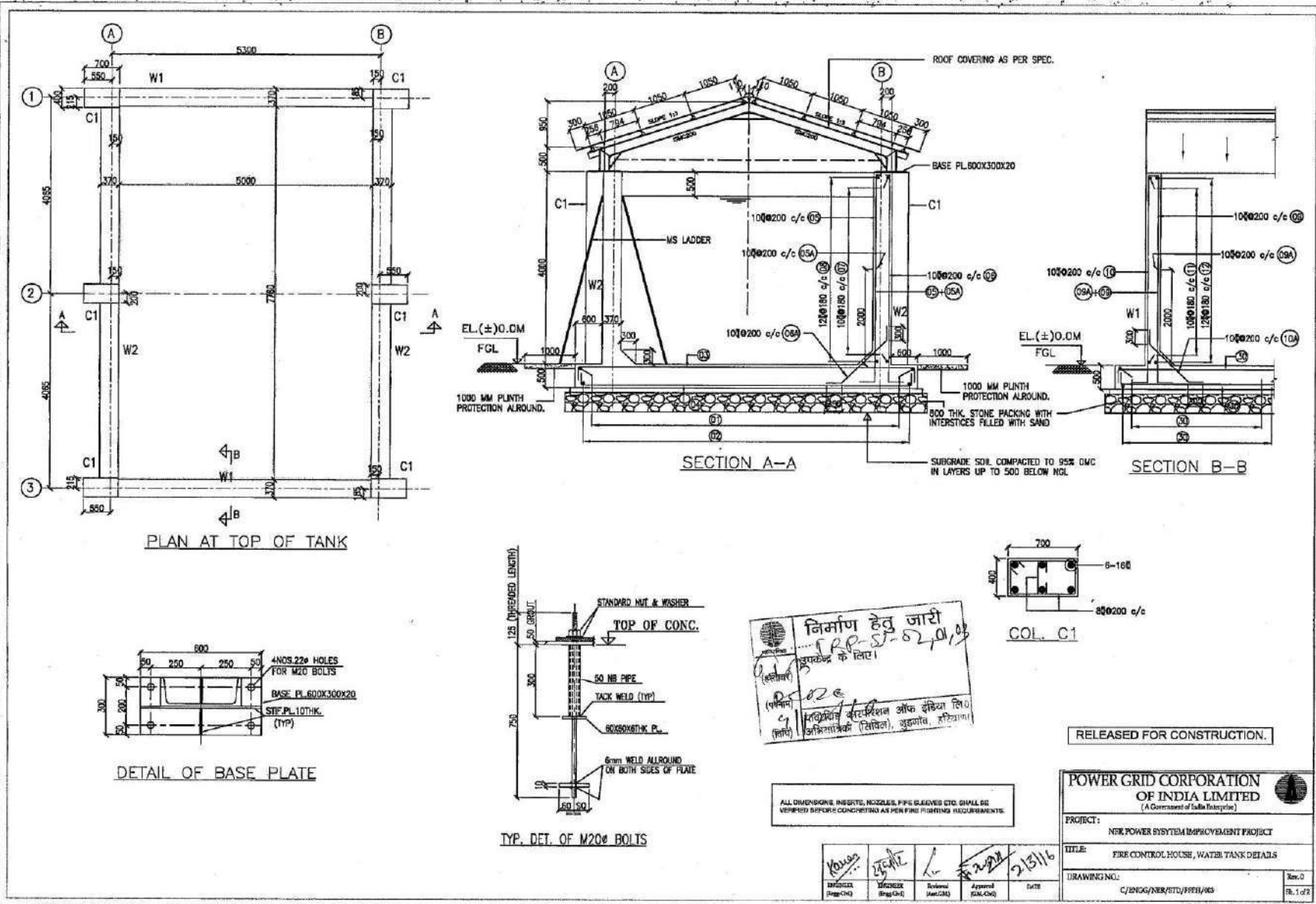
GENERAL NOTES:-

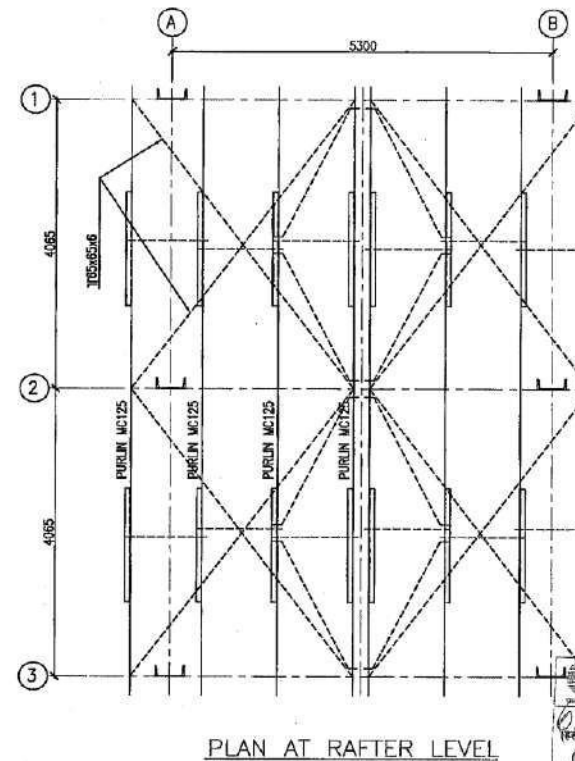
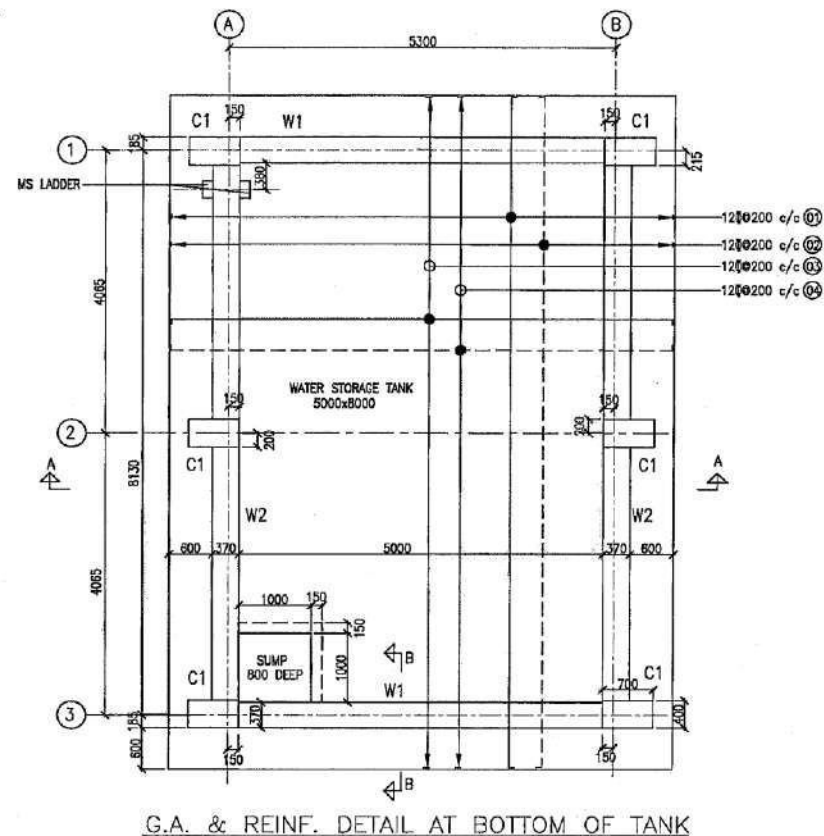
- (1) ALL DIMENSIONS ARE IN MM AND LEVEL IN METERS.
- (2) DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
- (3) UNLESS OTHERWISE NOTED ALL R.C.C. SHALL BE OF GRADE M-25.
- (4) ALL LEAN CONCRETE SHALL BE 1:4.8 (1 CEMENT, 4 COARSE SAND 8 GRADED STONE AGGREGATE 40 MM NOMINAL SIZE). A SLIDING LAYER OF BITUMEN PAPER OR CRAFT PAPER SHALL BE PROVIDED BETWEEN BASE SLAB
- (5) ALL REINFORCEMENT SHALL BE OF GRADE Fe 500 CONFORMING TO IS:1786-1985.
- (6) CLEAR COVER TO REINFORCEMENT SHALL BE AS UNDER
 - * BOTTOM AND SIDES OF FOUNDATION - 50 MM
 - * FOR COLUMN - 40 MM
 - * FOR BEAMS - 25 MM
 - * FOR LINTELS, CHAJJAS & SLABS - 20 MM
- 7 PROVIDE CLEAR COVER TO REINFORCEMENT FOR WATER TANK AS GIVEN BELOW..
25 mm FOR FACE IN CONTACT WITH WATER
50 mm FOR FACE IN CONTACT WITH SOIL
- 8 ALL LAPS SHALL BE STAGGERED AND LAP LENGTH SHALL BE 50 TIMES THE BAR DIA.
- 9 CONSTRUCTION JOINT BE IN CONSULTATION WITH SITE INCHARGE TO SUIT CONCRETING PROGRAMME/FORM WORK.
- 10 WATER NOT TO BE FILLED IN TANK UNTIL TOP LIFT HAS BEEN CAST & CURED
- 11 INTEGRAL WATER PROOFING COMPOUND SHALL BE ADDED WHILE CONCRETING AS PER Manufacturer's RECOMMENDATIONS
- 12 ALL INSERTS, NOZZLES, PIPE SLEEVES ETC. SHALL BE PLACED IN POSITION BEFORE CONCRETING AS PER FIRE FIGHTING REQUIREMENTS.
- 13 DIMENSIONS OF EQUIPMENT FOUNDATIONS SHALL BE AS PER F.F. SYSTEM REQUIREMENTS.
- 14 PURLINS SHALL BE MANUFACTURED AFTER EXACT MEASUREMENT AT SITE.
- 15 COLOUR SCHEME MATCHING WITH CR BUILDING SHALL BE DECIDED AT SITE
- 16 ALL EXTERNAL WALLS ARE 230 THICK
- 17 WATER PROOFING SHALL BE DONE AS PER SPECIFICATION
- 18 ALL EXTERNAL SURFACES SHALL HAVE 18 MM THK CEMENT PLASTER AS PER SPECIFICATION.
- 19 ALL INTERNAL SURFACES SHALL HAVE 12 MM THK CEMENT PLASTER ON SMOOTH SURFACE OF BRICK WALL & 15mm THK. CEMENT PLASTER ON ROUGH SIDE OF BRICK WALL AS PER SPECIFICATION.
- 20 CEILINGS SHALL HAVE 6MM THK CEMENT PLASTER AS PER SPECIFICATION .
- 21 OUTSIDE AND INSIDE SURFACES OF FIRE WATER TANK SHALL BE UNPLASTERED AND PROVIDED WITH A NEAT COAT OF CEMENT WASH
- 22 FOUNDATION HAS BEEN DESIGNED FOR A BEARING CAPACITY OF 9.0 MT/SQM
- 23 LEVELS OF PLINTH BEAM SHALL BE VERIFIED AS PER CABLE ENTRY DETAILS.



DRG. NO.	ENGINEER	Reviewed	Approved	DATE
21/3/16				

POWER GRID CORPORATION OF INDIA LIMITED (A Government of India Enterprise)	
PROJECT: NER POWER SYSTEM IMPROVEMENT PROJECT	
TITLE: FIRE CONTROL HOUSE, GENERAL NOTES	
DRAWING NO: C/ENG/NER/STD/18PM/02	Rev. 0 Sh. 5 of 5





NOTES:-

1. ALL DIMENSIONS ARE IN MM & LEVELS ARE IN METRES.
2. FIGURED DIMENSIONS ONLY SHALL BE FOLLOWED.
3. THIS DWG. IS TO BE READ IN CONJUNCTION WITH DWG. NO. C/ENG/NER/STD/FFPH/001
4. UNLESS OTHERWISE NOTED ALL R.C.C. SHALL BE OF GRADE M-25.
5. ALL REINFORCEMENT SHALL BE OF GRADE Fe 500 CONFORMING TO IS:1786-1985.
6. CLEAR COVER TO REINF. INCLUDING LINKS FOR R.C.C. MEMBERS SHALL BE AS UNDER:
FOOTING =50mm COLUMN =50mm WALL =40mm

7. STANDARD 'L' HOOKS SHALL BE PROVIDED AT THE ENDS OF ALL BARS.
8. LAP LENGTH/DEVELOPMENT LENGTH FOR MAIN REINFORCEMENT BARS AS PER IS: 456-2000 SHALL BE 50xDIA OF BAR
9. LAPS SHALL BE STAGGERED AND AVOIDED AT THE SECTIONS OF MAX. BENDING MOMENT
10. ANY LOOSE POCKET PATCH BELOW FDN. SHALL BE CLEARED AND FILLED WITH P.C.C. 1:4:8
11. BOTTOM BAR INDICATES: ————
12. TOP BAR INDICATES: ————
13. ANTICORROSSIVE PAINTING SHALL BE GIVEN TO ALL STEEL MEMBERS.

ALL DIMENSIONS, INSERTS, NOZZLES, PIPE BUSHES ETC. SHALL BE VERIFIED BEFORE CONCRETING AS PER FIRM FIXING REQUIREMENTS.

DESIGNED (Signature)	CHECKED (Signature)	REVIEWED (Signature)	APPROVED (Signature)	DATE 2/3/16
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RELEASED FOR CONSTRUCTION.

**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)

PROJECT:
NER POWER SYSTEM IMPROVEMENT PROJECT

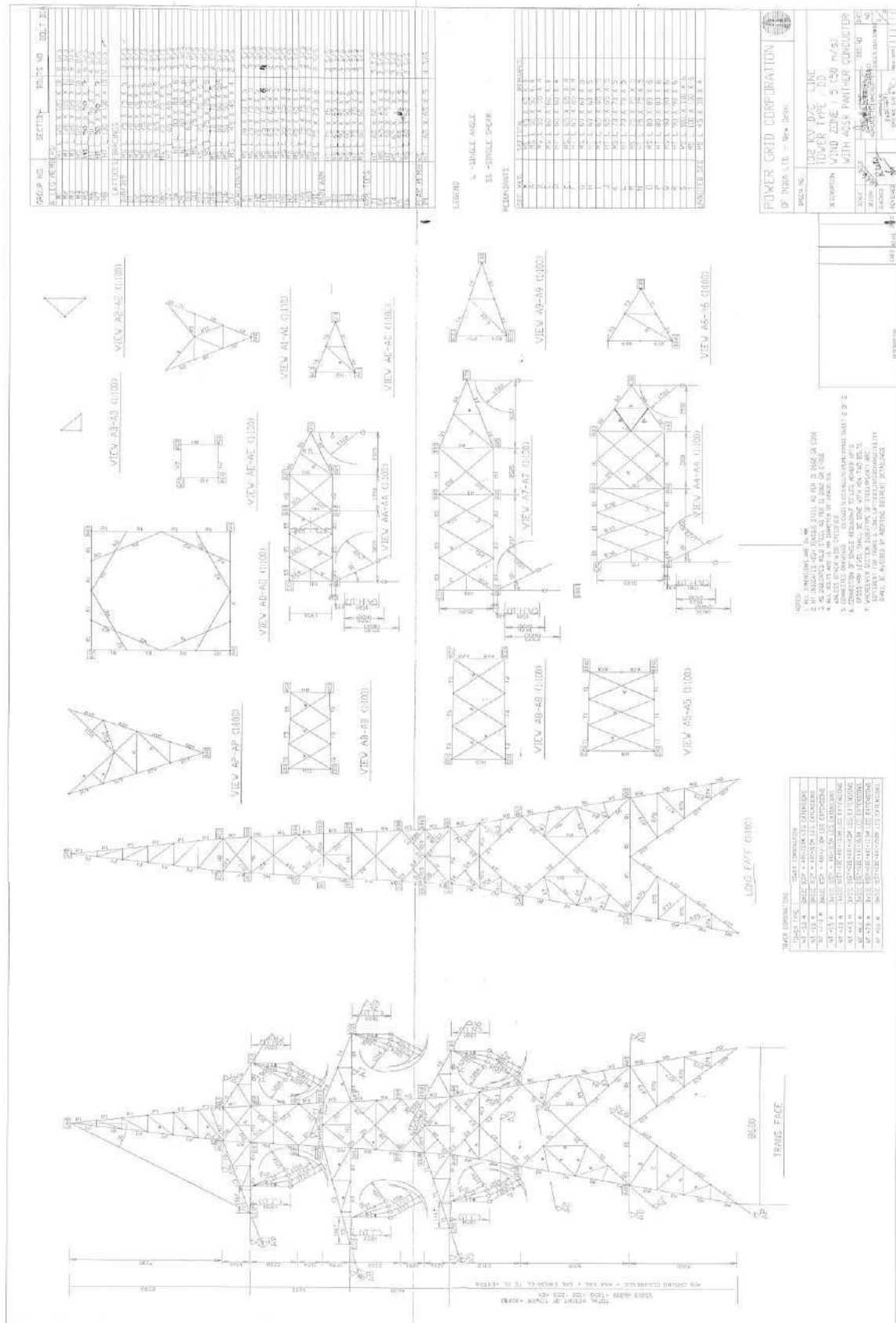
TITLE:
FIRE CONTROL HOUSE, WATER TANK DETAILS

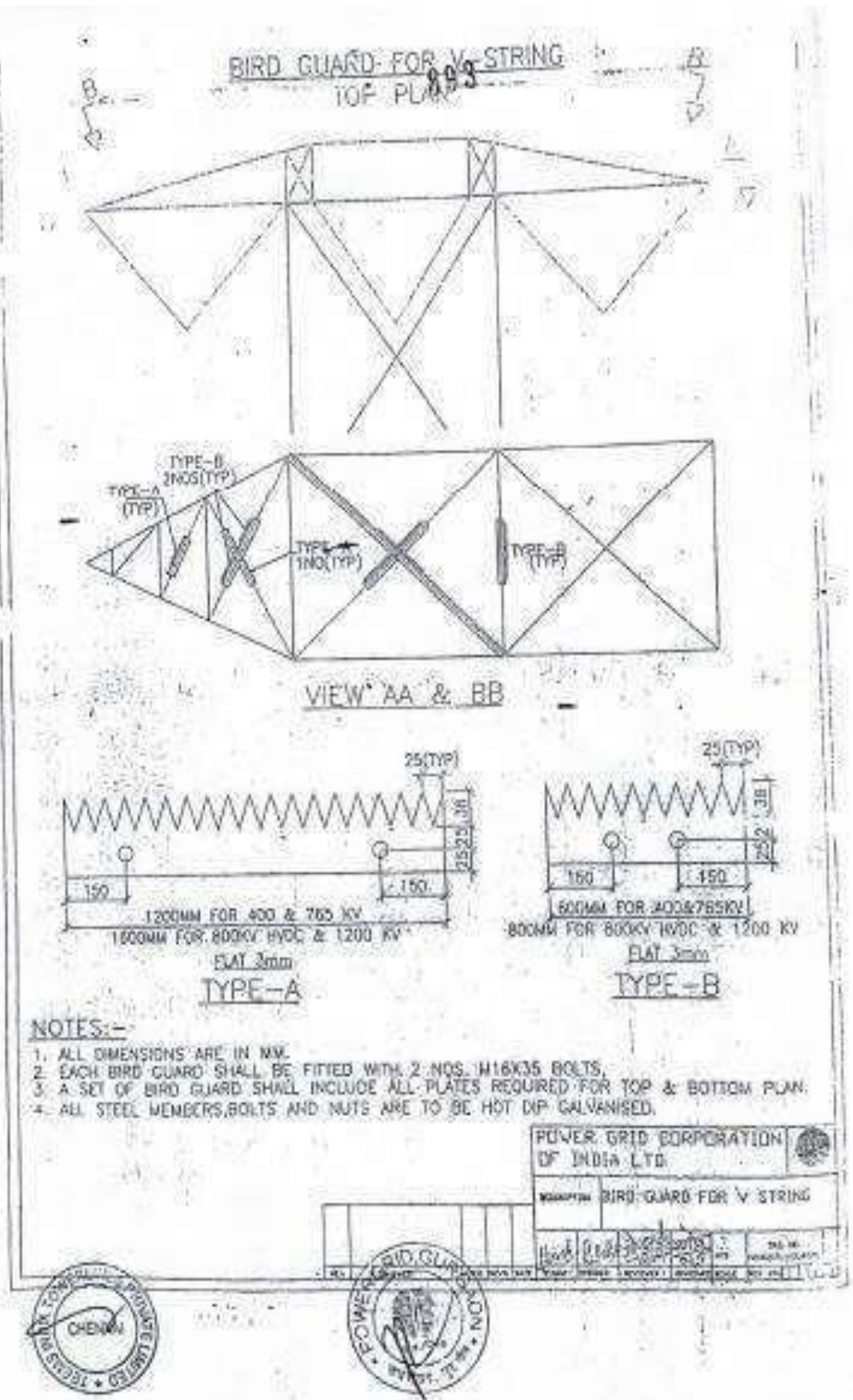
DRAWING NO.:
C/ENG/NER/STD/FFPH/003

Rev. 0
Sh. 2 of 2

Annexure 14

Tower Design and Bird Guard and Anti-Perch Device



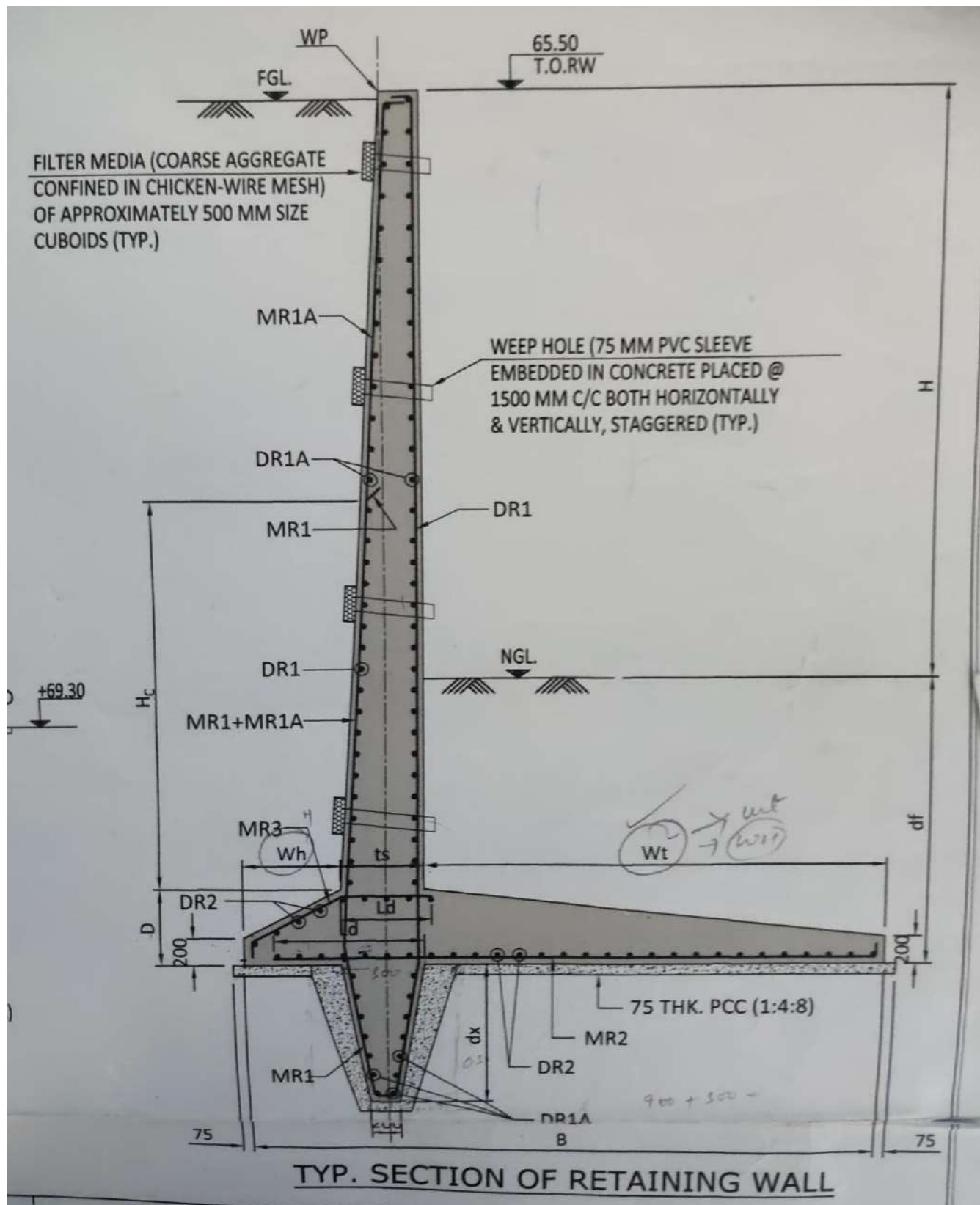


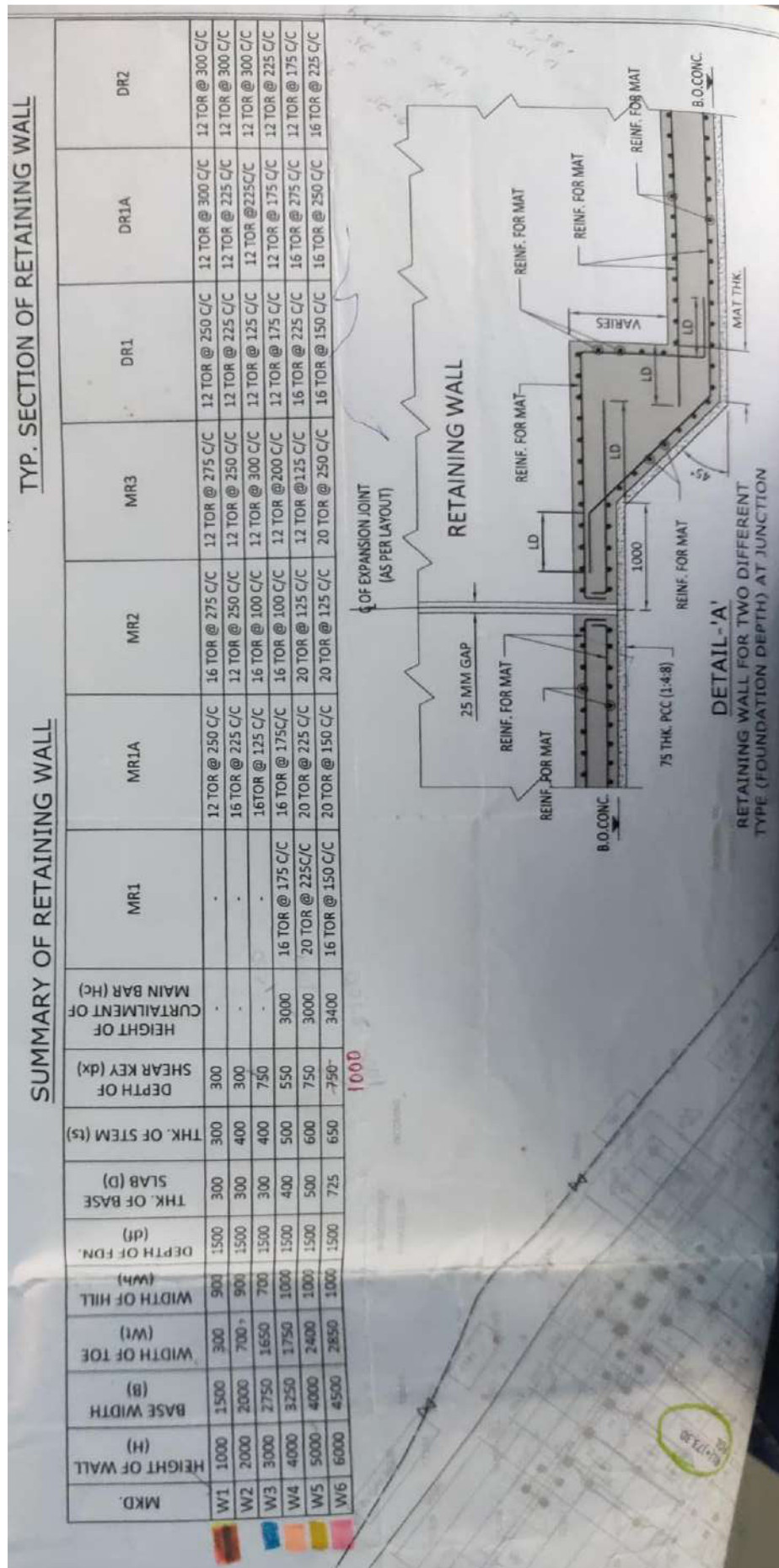


Annexure 15

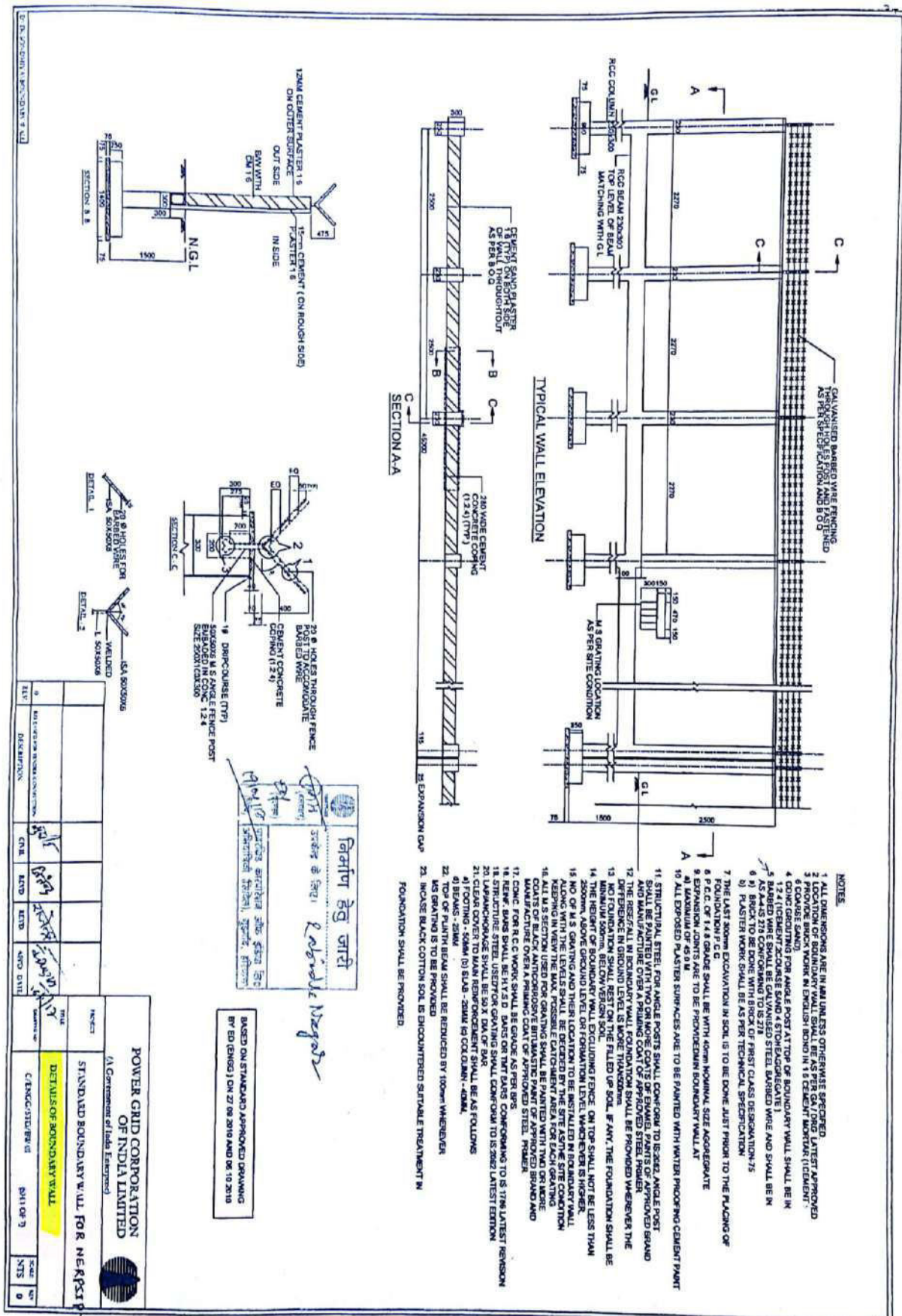
Drawings of RRM Wall / Pretension Wall / Boundary Wall

Drawing of Retention Wall



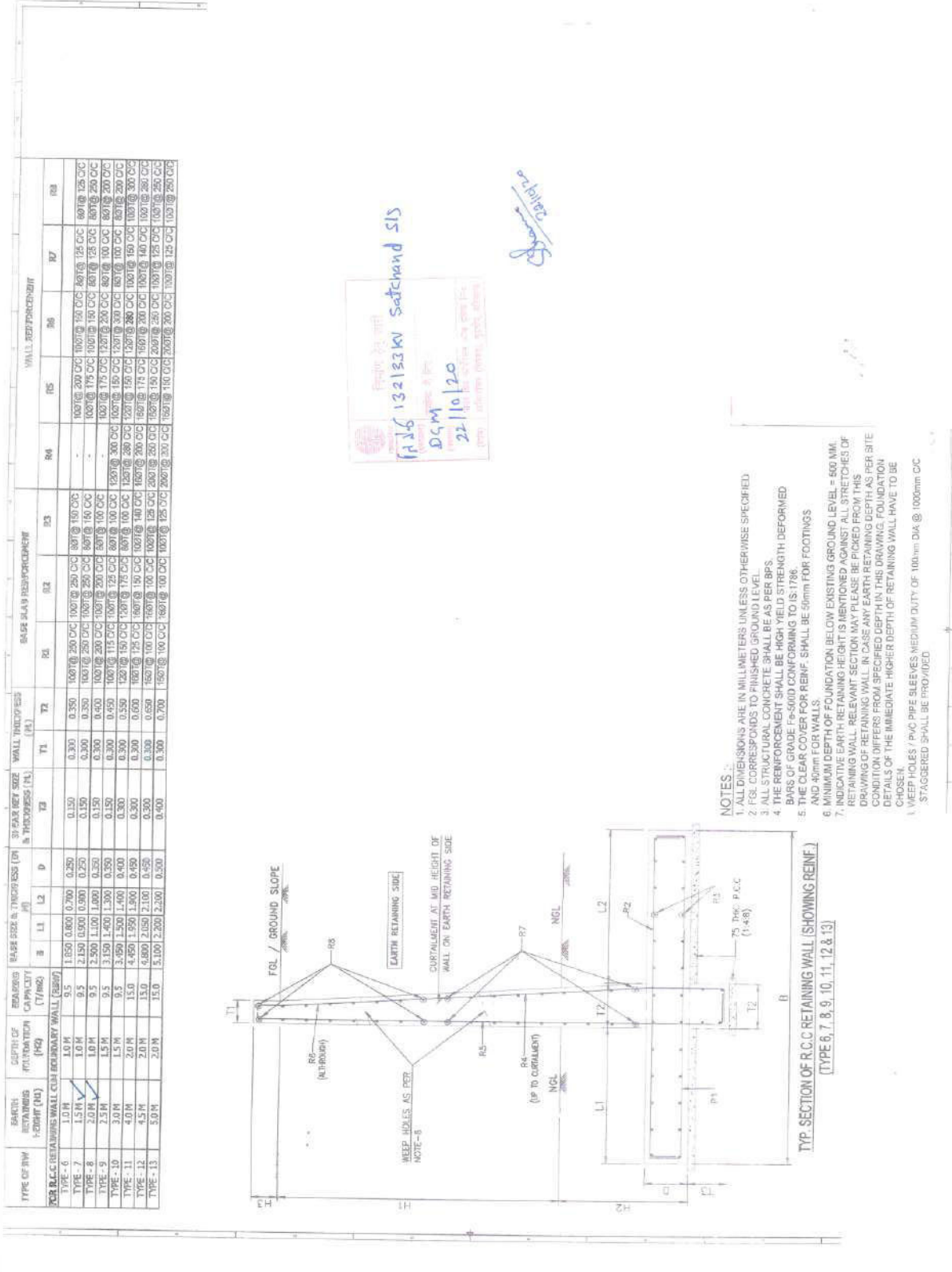


Drawing of Boundary Wall (Standard)

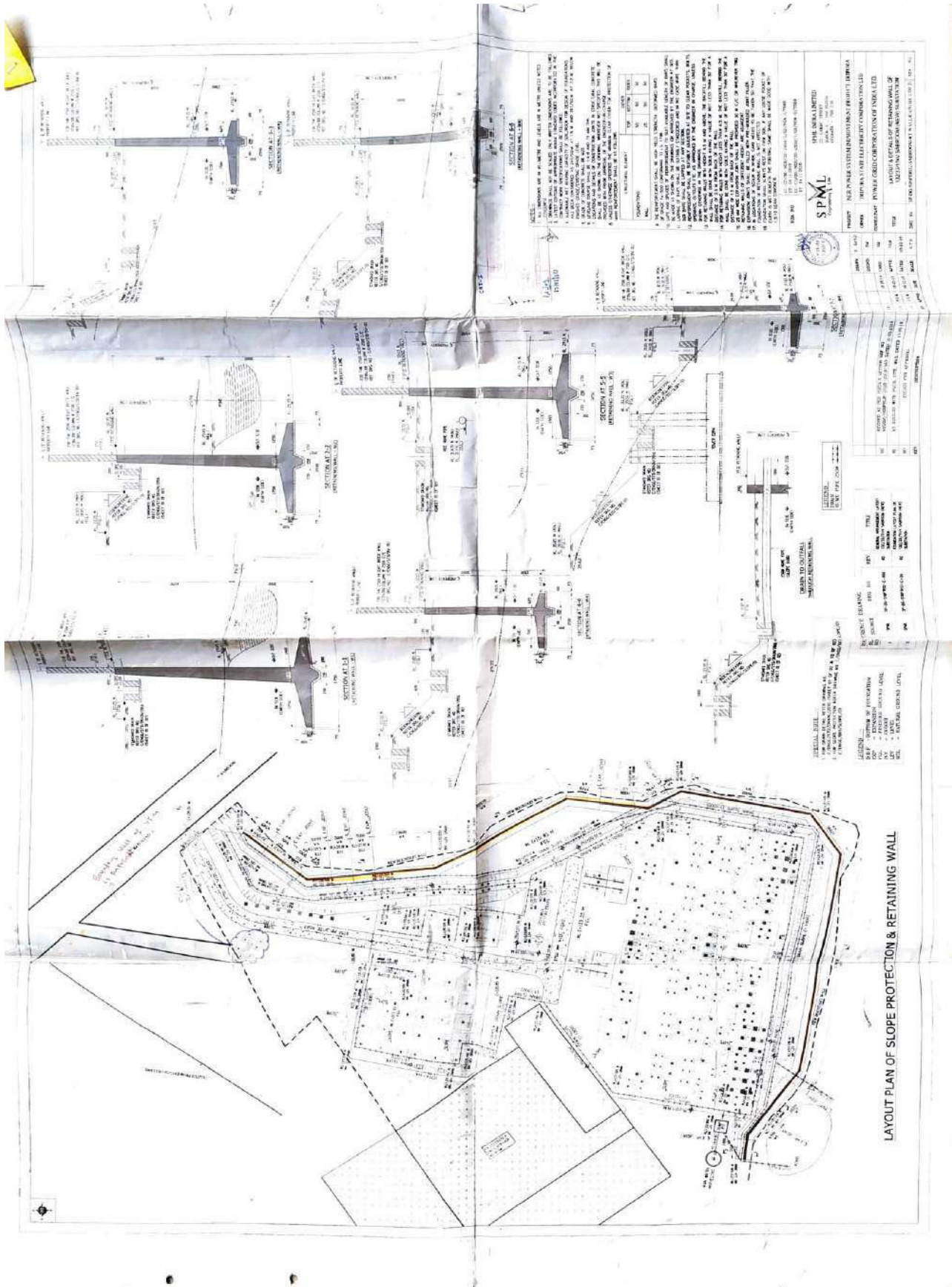




Approved Drawing of Retaining Wall at Satchand S/S



Approved Drawing of Retaining Wall at Sabroom S/S



Annexure 16

Safety Conditions in Contract Agreement

POWER GRID CORPORATION OF INDIA LTD.**NERPSIP :: AGARTALA**

Ref: NEAGT/NERPSIP-600/2018-19/

Dated: 12.05.2018

**Sub: - Proposal for approval of Safety Plan for Tower Package TW-01, TW-02, TW-03 for
Tripura associated to NERPSIP being awarded to M/s. EMC Limited.**

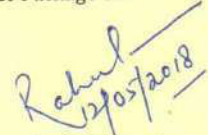
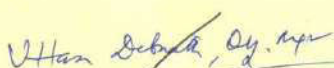
Ref: - CC-CS/86-NER/TW-3612/1/G4/NOA-II/7337 dtd. 12.06.2017

CC-CS/86-NER/TW-3613/1/G4/NOA-II/7339 dtd. 12.06.2017

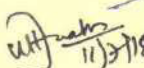
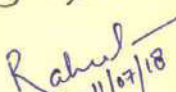
CC-CS/86-NER/TW-3614/1/G4/NOA-II/7341 dtd. 12.06.2017

1. Tower package TW-01, TW-02, TW-03 for Tripura associated to NERPSIP is awarded to M/s. EMC Limited. Under the above said package there are total 08 No. 132kV New Transmission Lines, 03 No. Interconnection portions and 03 No. LILOs with total of 238 km line length. The scope of work also includes 260 km and 171 km OPGW stringing in 14 No. 132kV New and 09 No. 132kV Existing Transmission Lines, respectively.
2. As per the contract agreement Volume B, Section IX. PCC 22.4.3.26, the contractor has to submit the Safety Plan as per Section IX: Contract Forms, Part-3 of bidding document.
3. M/s. EMC Limited vide their letter reference EMC/Tripura/Safety/2018/48 dated 18.01.2018; EMC/Tripura/TW-02/Safety/26; EMC/Tripura/TW03/2017-18/29 dated 04.04.2018 has requested for approval of the Safety Plan to in line with contract agreement guidelines for implementation during the construction of 132kV New Transmission Lines under Tower package TW-01, TW-02, TW-03. The Safety Plan is enclosed for kind perusal.
4. The documents and enclosures submitted by M/s. EMC Limited has been checked and found in order as per requirement of LOA.
5. In view of above it is recommended to approve the Safety Plan for the Tower Package TW-01, TW-02, TW-03 as submitted by M/s. EMC Limited.

Put up for kind approval please.

Dy. Manager (NERPSIP)/ Agartala
(Rahul Misra)
FO (ESM), Agartala
→ DGM (NERPSIP) / Agartala
R. Misra, FO (ESM)

Approved as proposed.


11/05/18
11/05/18



अभिषेक पश्चिम बंगाल WEST BENGAL

22AA 264826

SAFETY PLAN

THIS SAFETY PLAN is made this 7th day of August 2017 by EMC LIMITED, a Company registered under the Companies Act, 1956 concern having its Registered Office at Constantia Office Complex, 11, Dr U N Brahmachari Street, 8th Floor, South Block, Kolkata-700017 (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of M/s Power Grid Corporation of India Limited., a company incorporated under the Companies Act, 1956 having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 for its Contract for Tower Package TW-01 associated with NER Power System Improvement Project (Intra-State: Tripura) (Specification No CC-CS/86-NER/TW-3612/1/G4)

WHEREAS POWERGRID has awarded to the Contractor the aforesaid Contract vide its Notification of Award No. CC-CS/86-NER/TW-3612/1/G4/NOA-I/7336 & NOA-II/7337 dated 12.06.2017 for construction of Tower Package : TW-01 associated with NER Power System Improvement Project (Intra-State : Tripura) – Specification NO. CC-CS/86-NER/TW-3612/1/G4 (hereinafter called the "Contract") in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the POWERGRID within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.

For EMC Limited.
Rakesh Kumar
Rakesh Kumar
Safety Officer.

For EMC Limited.
Mithu Dutta
Mithu Dutta
(Project Manager)





पश्चिम बंगाल WEST BENGAL

22AA 264827

SAFETY PLAN

THIS SAFETY PLAN is made this 7th day of August 2017 by EMC LIMITED, a Company registered under the Companies Act, 1956 concern having its Registered Office at Constantia Office Complex, 11, Dr U.N Brahmachari Street, 8th Floor, South Block, Kolkata-700017 (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of M/s Power Grid Corporation of India Limited., a company incorporated under the Companies Act, 1956 having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 for its Contract for Tower Package TW02 associated with NER Power System Improvement Project (Intra-State: Tripura) (Specification No CC-CS/86-NER/TW-3612/1/G4)

WHEREAS POWERGRID has awarded to the Contractor the aforesaid Contract vide its Notification of Award No. CC-CS/86-NER/TW-3613/1/G4/NOA-I/7338 & CA-II/7339 dated 12.06.2017 for Construction of Tower Package : TW-02 associated with NER Power System Improvement Project (Inter-State : Tripura) – Specification No. CC-CS/86-NER/TW-3613/1/G4 (hereinafter called the "Contract") in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the POWERGRID within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.





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SAFETY PLAN

THIS SAFETY PLAN is made this 7th day of August 2017 by EMC LIMITED, a Company registered under the Companies Act, 1956 concern having its Registered Office at Constantia Office Complex, 11, Dr U N Brahmachari Street, 8th Floor, South Block, Kolkata-700017 (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of M/s Power Grid Corporation of India Limited., a company incorporated under the Companies Act, 1956 having its Registered Office at B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi – 110 016 for its Contract for Tower Package TW03 associated with NER Power System Improvement Project (Intra-State: Tripura) (Specification No CC-CS/86-NER/TW-3612/1/G4)

WHEREAS POWERGRID has awarded to the Contractor the aforesaid Contract vide its Notification of Award No. CC-CS/86-NER/TW-3614/1/G4/NOA-I/7340 & CA-II/7341 dated 12.06.2017 for Construction of Tower Package-TW-03 associated with NER Power System Improvement Project (Inter-State : Tripura – Specification No. CC-CS/86-NER/TW-3614/1/G4 (hereinafter called the "Contract") in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the POWERGRID within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.



THE CONTRACTOR shall incorporate modifications/changes in this 'Safety Plan' necessitated on the basis of review/comments of the Engineer In-Charge/Project Manager within fourteen (14) days of receipt of review/comments and on final approval of the Engineer In-Charge/Project Manager of this 'Safety Plan', the Contractor shall execute the works under the Contract as per approved 'Safety Plan'. Further, the Contractor has also noted that the first progressive payment towards Services Contract shall be made on submission of 'Safety Plan' alongwith all requisite documents and approval of the same by the Engineer In-Charge/Project Manager.

IN WITNESS WHEREOF, the Contractor has hereunto set its hand through its authorised representative under the common seal of the Company, the day, month and year first above mentioned.

MD  For and on behalf of
EMC Limited
Name: Manoj Toshniwal
Designation: Managing Director

(Common Seal)

WITNESS

1. Signature

Name :

Address :

2. Signature

Name :

Address :

✓ Manoj Toshniwal
MD

ordered by the Employer consistent with the requirements of the Contract.

PC 21.4 Replace the word 'materials' in line no. 2 with 'Plant and Equipment'.

Add the word 'including liabilities for port charges if any' after the word 'clearance' in line no. 3.

Addition of Sub-Clauses (PC22.2.3.1, PC22.2.3.2, PC22.2.3.3, PC 22.2.3.4) of GC 22.2.3

PC 22.2.3.1 Compliance with Labour Regulations

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all applicable existing labour enactments and rules made thereunder, regulations notifications and byelaws of the State or Central Government or local authority and any other labour law (including rules), regulations bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. The employees of the Contractor and the Sub-contractor in no case shall be treated as the employees of the Employer at any point of time.

PC 22.2.3.2 The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made thereunder, regulations or notifications including amendments.

PC 22.2.3.3 If the Employer is caused to pay under any law as principal employer such amounts as may be necessary to cause or observe, or for non observance of the provisions stipulated in the notifications/ byelaws/Acts/ Rules/regulations including amendments, if any, on the part of the Contractor, the Employer shall have the right to deduct any money due to the Contractor under this contract or any other contract with the employer including his amount of performance security for adjusting the aforesaid payment. The Employer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

PC 22.2.3.4 Salient features of some major laws applicable to establishments engaged in building and other construction works are indicated at **Appendix-I** to PC.

Addition of New Sub-Clauses (PC22.4.1 to 22.4.3 including its sub-clauses) of GC 22.4

PC 22.4.1 **Protection of Environment**

The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other

causes arising as consequence of his methods of operation.

During continuance of the Contract, the Contractor and his Sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made there under, regulations, notifications and bye-laws of the State or Central Government, or local authorities and any other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority.

Salient features of some of the major laws that are applicable are given below:

The Water (Prevention and Control of Pollution) Act, 1974, This provides for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. 'Pollution' means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms.

The Air (Prevention and Control of Pollution) Act, 1981, This provides for prevention, control and abatement of air pollution. 'Air Pollution' means the presence in the atmosphere of any 'air pollutant', which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment.

The Environment (Protection) Act, 1986, This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

The Public Liability Insurance Act, 1991, This provides for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under Environment (Protection) Act, 1986, and exceeding such quantity as may be specified by notification by the Central Government.

PC 22.4.2

- (i) The Contractor shall (a) establish an operational system of managing environmental impacts, (b) carry out all the monitoring and mitigation measures set forth in the environment management plan attached to the Particular Conditions as Appendix-I, and (c) allocate the budget required

to ensure that such measures are carried out. The Contractor shall submit to the Employer (quarterly) semi-annual) reports on the carrying out of such measures.

- (ii) The Contractor shall adequately record the conditions of roads, agricultural land and other infrastructure prior to transport of material and construction commencement, and shall fully reinstate pathways, other local infrastructure and agricultural land to atleast their pre-project condition upon construction completion.
- (iii) The Contractor shall undertake detailed survey of the affected persons during transmission line alignment finalization under the Project, where applicable. and
- (iv) The Contractor shall conduct health and safety programme for workers employed under the Contract and shall include information on the risk of sexually transmitted diseases, including HIV/AIDS in such programs.

PC 22.4.3 Safety Precautions

PC 22.4.3.1 The Contractor shall observe all applicable regulations regarding safety on the Site.

Unless otherwise agreed, the Contractor shall, from the commencement of work on Site until taking over, provide:

- a) fencing, lighting, guarding and watching of the Works wherever required, and
- b) temporary roadways, footways, guards and fences which may be necessary for the accommodation and protection of Employer / his representatives and occupiers of adjacent property, the public and others.

PC 22.4.3.2 The Contractor shall ensure proper safety of all the workmen, materials, plant and equipment belonging to him or to THE EMPLOYER or to others, working at the Site. The Contractor shall also be responsible for provision of all safety notices and safety equipment required both by the relevant legislations and the Engineer, as he may deem necessary.

PC 22.4.3.3 The Contractor will notify well in advance to the Engineer of his intention to bring to the Site any container filled with liquid or gaseous fuel or explosive or petroleum substance or such chemicals which may involve hazards. The Engineer shall have the right to prescribe the conditions, under which such container is to be stored, handled and used during the performance of the works and the Contractor shall strictly adhere to and comply with such

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instructions. The Engineer shall have the right at his sole discretion to inspect any such container or such construction, plant/equipment for which material in the container is required to be used and if in his opinion, its use is not safe, he may forbid its use. No claim due to such prohibition shall be entertained by the Owner and the Owner shall not entertain any claim of the Contractor towards additional safety provisions/conditions to be provided for/constructed as per the Engineer's instructions.

Further, any such decision of the Engineer shall not, in any way, absolve the Contractor of his responsibilities and in case, use of such a container or entry thereof into the Site area is forbidden by the Engineer, the Contractor shall use alternative methods with the approval of the Engineer without any cost implication to THE EMPLOYER or extension of work schedule.

PC 22.4.3.4 Where it is necessary to provide and/or store petroleum products or petroleum mixtures and explosives, the Contractor shall be responsible for carrying-out such provision and/or storage in accordance with the rules and regulations laid down in Petroleum Act 1934, Explosives Act, 1948 and Petroleum and Carbide of Calcium Manual published by the Chief Inspector of Explosives of India. All such storage shall have prior approval of the Engineer. In case, any approvals are necessary from the Chief Inspector (Explosives) or any statutory authorities, the Contractor shall be responsible for obtaining the same.

PC 22.4.3.5 All equipment used in construction and erection by Contractor shall meet Indian/International Standards and where such standards do not exist, the Contractor shall ensure these to be absolutely safe. All equipment shall be strictly operated and maintained by the Contractor in accordance with manufacturer's Operation Manual and safety instructions and as per Guidelines/rules of THE EMPLOYER in this regard.

PC 22.4.3.6 Periodical examinations and all tests for all lifting/hoisting equipment & tackles shall be carried-out in accordance with the relevant provisions of Factories Act 1948, Indian Electricity Act 1910 and associated Laws/Rules in force from time to time. A register of such examinations and tests shall be properly maintained by the Contractor and will be promptly produced as and when desired by the Engineer or by the person authorised by him.

PC 22.4.3.7 The Contractor shall be fully responsible for the safe storage of his and his Sub-Contractor's radioactive sources in accordance with BARC/DAE Rules and other applicable provisions. All precautionary measures stipulated by

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Section VIII, Particular Conditions

BARC/DAE in connection with use, storage and handling of such material will be taken by the Contractor.

PC 22.4.3.8 The Contractor shall provide suitable safety equipment of prescribed standard to all employees and workmen according to the need, as may be directed by the Engineer who will also have right to examine these safety equipment to determine their suitability, reliability, acceptability and adaptability.

PC 22.4.3.9 Where explosives are to be used, the same shall be used under the direct control and supervision of an expert, experienced, qualified and competent person strictly in accordance with the Code of Practice/Rules framed under Indian Explosives Act pertaining to handling, storage and use of explosives.

PC 22.4.3.10 The Contractor shall provide safe working conditions to all workmen and employees at the Site including safe means of access, railings, stairs, ladders, scaffoldings etc. The scaffoldings shall be erected under the control and supervision of an experienced and competent person. For erection, good and standard quality of material only shall be used by the Contractor.

PC 22.4.3.11 The Contractor shall not interfere or disturb electric fuses, wiring and other electrical equipment belonging to the Owner or other Contractors under any circumstances, whatsoever, unless expressly permitted in writing by THE EMPLOYER to handle such fuses, wiring, or electrical equipment

PC 22.4.3.12 Before the Contractor connects any electrical appliances to any plug or socket belonging to the other Contractor or Owner, he shall:

- Satisfy the Engineer that the appliance is in good working condition;
- Inform the Engineer of the maximum current rating, voltage and phases of the appliances;
- Obtain permission of the Engineer detailing the sockets to which the appliances may be connected.

PC 22.4.3.13 The Engineer will not grant permission to connect until he is satisfied that:

- The appliance is in good condition and is fitted with suitable plug;
- The appliance is fitted with a suitable cable having two earth conductors, one of which shall be an

Power Packages ASM-TW01 & ASM-TW02 for Assam associated with NER Power System Improvement Project.

Section VIII. Particular Conditions

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earthed metal sheath surrounding the cores.

PC 22.4.3.14 No electric cable in use by the Contractor/Owner will be disturbed without prior permission. No weight of any description will be imposed on any cable and no ladder or similar equipment will rest against or attached to it.

PC 22.4.3.15 No repair work shall be carried out on any live equipment. The equipment must be declared safe by the Engineer and a permit to work shall be issued by the Engineer before any repair work is carried out by the Contractor. While working on electric lines/equipment, whether live or dead, suitable type and sufficient quantity of tools will have to be provided by the Contractor to electricians/workmen/officers.

PC 22.4.3.16 The Contractor shall employ necessary number of qualified, full time electricians/electrical supervisors to maintain his temporary electrical installation.

PC 22.4.3.17 The Contractor employing more than 250 workmen whether temporary, casual, probationer, regular or permanent or on contract, shall employ at least one full time officer exclusively as safety officer to supervise safety aspects of the equipment and workmen, who will coordinate with the Project Safety Officer. In case of work being carried out through Sub-Contractors, the Sub-Contractor's workmen/employees will also be considered as the Contractor's employees/workmen for the above purpose.

The name and address of such Safety Officers of the Contractor will be promptly informed in writing to Engineer with a copy to Safety Officer-In charge before he starts work or immediately after any change of the incumbent is made during currency of the Contract.

PC 22.4.3.18 In case any accident occurs during the construction/erection or other associated activities undertaken by the Contractor thereby causing any minor or major or fatal injury to his employees due to any reason, whatsoever, it shall be the responsibility of the Contractor to promptly inform the same to the Engineer in prescribed form and also to all the authorities envisaged under the applicable laws.

PC 22.4.3.19 The Engineer shall have the right at his sole discretion to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the Contractor shall be informed in writing about the nature of hazards and

Tower Packages-ASM-TW01 & ASM-TW02 for Assam-associated with NER Power System Improvement Project

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Section VIII. Particular Conditions

possible injury/accident and he shall comply to remove shortcomings promptly. The Contractor after stopping the specific work can, if felt necessary, appeal against the order of stoppage of work to the Engineer within 3 days of such stoppage of work and decision of the Engineer in this respect shall be conclusive and binding on the Contractor.

PC 22.4.3.20 The Contractor shall not be entitled for any damages/compensation for stoppage of work due to safety reasons as provided in para GCC 22.4.3.19 above and the period of such stoppage of work will not be taken as an extension of time for completion of work and will not be the ground for waiver of levy of liquidated damages.

PC 22.4.3.21 It is mandatory for the Contractor to observe during the execution of the works, requirements of Safety Rules which would generally include but not limited to following:

Safety Rules.

- a) Each employee shall be provided with initial indoctrination regarding safety by the Contractor, so as to enable him to conduct his work in a safe manner.
- b) No employee shall be given a new assignment of work unfamiliar to him without proper introduction as to the hazards incident thereto, both to himself and his fellow employees.
- c) Under no circumstances shall an employee hurry or take unnecessary chance when working under hazardous conditions.
- d) Employees must not leave naked fires unattended. Smoking shall not be permitted around fire prone areas and adequate fire fighting equipment shall be provided at crucial location.
- e) Employees under the influence of any intoxicating beverage, even to the slightest degree shall not be permitted to remain at work.
- f) There shall be a suitable arrangement at every work site for rendering prompt and sufficient first aid to the injured.
- g) The staircases and passageways shall be adequately lighted.
- h) The employees when working around moving machinery, must not be permitted to wear loose

Tower Packages: ASM-TW01 & ASM-TW02 for Assam associated with NER Power System Improvement Project.

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EMPLOYER employees or any other person who are at Site or adjacent thereto, then the Contractor shall be responsible for payment of a sum as indicated below to be deposited with THE EMPLOYER, which will be passed on by THE EMPLOYER to such person or next to kith and kin of the deceased:

a.	Fatal injury or accident causing death	Rs. 1,000,000/- per person
b.	Major injuries or accident causing 25% or more permanent disablement	Rs. 100,000/- per person

Permanent disablement shall have same meaning as indicated in Workmen's Compensation Act. The amount to be deposited with THE EMPLOYER and passed on to the person mentioned above shall be in addition to the compensation payable under the relevant provisions of the Workmen's Compensation Act and rules framed there under or any other applicable laws as applicable from time to time. In case the Contractor does not deposit the above mentioned amount with THE EMPLOYER, such amount shall be recovered by THE EMPLOYER from any monies due or becoming due to the Contractor under the contract or any other on-going contract.

PC22.4.3.25

If the Contractor observes all the Safety Rules and Codes, Statutory Laws and Rules during the currency of Contract awarded by the Owner and no accident occurs then THE EMPLOYER may consider the performance of the Contractor and award suitable 'ACCIDENT FREE SAFETY MERITORIOUS AWARD' as per scheme as may be announced separately from time to time.

PC22.4.3.26

The Contractor shall also submit 'Safety Plan' as per proforma specified in Section IX: Contract Forms, Part-3 of Bidding Documents alongwith all the requisite documents mentioned therein and as per check-list contained therein to the Engineer In-Charge for its approval within 60 days of award of Contract.

Further, one of the conditions for release of first progressive payment / subsequent payment towards Services Contract shall be submission of 'Safety Plan' alongwith all requisite documents and approval of the same by the Engineer In-Charge.

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PC 22.6 Emergency Work (GC Clause 22.6)

Replace the words "Otherwise" with "In case such work is not in the scope of the Contractor", in the second last line of second paragraph of GC clause 22.6.

PC 23.3 Supplementing sub-clause GC 23.3

For notification of testing, four weeks shall be deemed as reasonable advance notice.

PC 23.7 Test and Inspection (GC Clause 23.7)

Replace the words "GC Sub-Clause 6.1" with "GC Sub-Clause 46.1", in the last line of GC clause 23.7.

PC 24 Replace the marginal words/headings 'Completion of the Facilities' with 'Pre Commissioning'

PC 24.5 Replace sub clause GC 24.5 with the following:

The Project Manager shall, within fourteen (14) days after receipt of the Contractor's notice under sub clause GC 24.4, notify the Contractor in writing of any defects and/or deficiencies.

If the Project Manager notifies the Contractor of any defects and/or deficiencies, the Contractor shall then correct such defects and/or deficiencies, and shall repeat the procedure described in sub clause GC 24.4. If the Project Manager is satisfied that the Facilities or that part thereof have passed Pre-commissioning, the Project Manager shall, within fourteen (14) days after receipt of the Contractor's notice/ seven (7) days after receipt of the Contractor's repeated notice, advise the Contractor to proceed with the Commissioning of the Facilities or that part thereof. If the Project Manager is not so satisfied, then it shall notify the Contractor in writing of any defects and/or deficiencies within seven (7) days after receipt of the Contractor's repeated notice, and the above procedure shall be repeated.

PC 24.6 Replacing Sub-Clause GC 24.6

If the Project Manager fails to advise the Contractor to proceed with the Commissioning of the Facilities or the relevant part thereof or inform the Contractor of any defects and/or deficiencies within fourteen (14) days after receipt of the Contractor's notice under GC Sub-Clause 24.4 or within seven (7) days after receipt of the Contractor's repeated notice under GC Sub-Clause 24.5, then the Facilities or that part thereof shall be deemed to have passed Precommissioning, as of the date of the Contractor's notice or repeated notice, as the case may be.

PC 24.7 Replace the word 'Completion' with 'Pre-commissioning' in the 1st line of sub clause GC 24.7

Tower Packages ASM-TW01 & ASM-TW02 for Assam associated with NER Power System Improvement Project

Annexure 17

Safety Plan

SAFETY PLAN

13. FORM OF SAFETY PLAN TO BE SUBMITTED BY THE CONTRACTOR WITHIN SIXTY DAYS OF AWARD OF CONTRACT

[TO BE EXECUTED ON A NON JUDICIAL STAMP PAPER WORTH RS. TWENTY ONLY]

SAFETY PLAN

THIS SAFETY PLAN is made this..... day of 20..... by a Company registered under the Companies Act, 1956/Partnership firm/proprietary concern having its Registered Office at[to be modified suitably for JV Contractor] (hereinafter called as 'Contractor' which expression shall include its successors and permitted assigns) for approval of(insert name of the Employer)....., a company incorporated under the Companies Act, 1956 having its Registered Office at (Insert registered address of the Employer)..... for its Contract for (Insert package name, project name along with Specification number of the Contract)..... WHEREAS..... (Abbreviated name of the Employer)..... has awarded to the Contractor the aforesaid Contract vide its Notification of Award/Contract No. datedand Amendment No. (Applicable when amendments have been issued(hereinafter called the "Contract")) in terms of which the Contractor is required to submit 'Safety Plan' along with certain documents to the Engineer In-Charge/Project Manager of the Employer within Sixty (60) days of Notification of Award for its approval.

NOW THEREFORE, the Contractor undertakes to execute the Contract as per the safety plan as follows:

1. THAT the Contractor shall execute the works as per provisions of Bidding Documents including those in regard to Safety Precautions / provisions as per statutory requirements.
2. THAT the Contractor shall execute the works in a well-planned manner from the commencement of Contract as per agreed mile stones of work completion schedule so that planning and execution of construction works goes smoothly and consistently throughout the contract duration without handling pressure in last quarter of the financial year/last months of the Contract and the shall be finalized in association with EMPLOYER Engineer In-charge/Project Manager from time to time as required.
3. THAT the Contractor has prepared the safe work procedure for each activity i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. to be executed at site, which is

enclosed at **Annexure – 1A (SP)** for acceptance and approval of Engineer In-charge/Project Manager. The Contractor shall ensure that on approval of the same from Engineer In-charge/Project Manager , the approved copies will be circulated to Employer’s personnel at site [Supervisor(s)/Executive(s)] and Contractor’s personnel at site [Gang leader, supervisor(s) etc.] in their local language / language understood by gang.

4. THAT the Contractor has prepared minimum manpower deployment plan, activity wise as stated above, which is enclosed at **Annexure – 1B (SP)** for approval of Engineer In- charge/Project Manager.

5. THAT the Contractor shall ensure while executing works that they will deploy minimum 25% of their own experienced work force who are on the permanent roll of the company and balance 75% can be a suitable mixed with the hired gangs / local workers / casual workers if required. The above balance 75% work force should be provided with at least 10 days training by the construction agencies at sites and shall be issued with a certificate. No worker shall be engaged without a valid certificate. Hired gang workers shall also follow safe working procedures and safety norms as is being followed by company’s workmen. It should also be ensured by the contractor that certified fitters who are climbing towers / doing stringing operations can be easily identifiable with a system like issue of Badge / Identification cards (ID cards) etc. Color identification batches should be worn by the workers. Contractor has to ensure that inexperience workers / unskilled workers should not be deployed for skilled job.

6. THAT the Contractor’s Gang leader / Supervisor / Senior most member available at every construction site shall brief to each worker daily before start of work about safety requirement and warn about imminent dangers and precautions to be taken against the imminent dangers (Daily Safety Drill). This is to be ensured without fail by Contractor and maintain record of each gang about daily safety instructions issued to workers and put up to EMPLOYER site In-charge for his review and record.

7. THAT the Contractor shall ensure that working Gangs at site should not be left at the discretion of their Gang Leaders who are generally hired and having little knowledge about safety. Gang leader should be experienced and well versed with the safe working procedures applicable for transmission line/ Sub Station works. In case gang is having Gang leader not on permanent roll of the company then additional Supervisor from company’s own roll having thorough knowledge about the works would be deployed so as to percolate safety instructions up to the grass root level in healthy spirits. Contractor has to ensure close supervision while executing critical locations of transmission lines / sub stations and ensures that all safety instructions are in place and are being followed.

8. THAT the Contractor shall maintain in healthy and working condition all kind of Equipments / Machineries / Lifting tools / Lifting tackles / Lifting gears / All kind of Ropes including wire ropes / Polypropylene ropes etc. used for Lifting purpose during

execution of the project and get them periodically examined and load tested for safe working load in accordance with relevant provisions and requirement of Building & other construction workers Regulation of Employment and Conditions of Services Act and Central Rule 1998, Factories Act 1948, Indian Electricity Act 2003 before start of the project. A register of such examinations and tests shall be properly maintained by the contractor and will be promptly produced as and when desired by the Engineer In-charge/Project Manager or by the person authorised by him. The Contractor has to ensure to give special attention on the formation / condition of eye splices of wire rope slings as per requirement of IS 2762 Specification for wire rope slings and sling legs.

9. THAT the Contractor has prepared a list of all Lifting machines, lifting Tools / Lifting Tackles / Lifting Gears etc. / All types of ropes and Slings which are subject to safe working load is **enclosed at Annexure – 2 (SP)** for review and approval of Engineer In-charge/Project Manager.

10. THAT the Contractor has to procure sufficient quantity of Personal Protective Equipment (PPE) conforming to Indian / International standards and provide these equipment to every workman at site as per need and to the satisfaction of Engineer-in-charge/Project Manager of EMPLOYER. The Contractor's Site Supervisor/ Project Manager has to ensure that all workmen must use Personal Protective Equipment at site. The Contractor shall also ensure that Industrial Safety helmets are being used by all workmen at site irrespective of their working (at height or on ground). The Contractor shall further ensure use of safety shoes by all ground level workers and canvas shoes for all workers working at height, Rubber Gum Boots for workers working in rainy season and concreting job, Use of Twin Lanyard Full body Safety Harness with attachment of light weight such as aluminum alloy etc. and having features of automatic locking arrangement of snap hook, by all workers working at height for more than three meters and also for horizontal movement on tower shall be ensured by contractor. The Contractor shall not use ordinary half body safety harness at site. The Contractor has to ensure use of Retractable type fall arrestors by workers for ascending / descending on suspension insulator string and other similar works etc., Use of Mobile fall arrestor for ascending / descending from tower by all workers. The contractor has to provide cotton / leather hand gloves as per requirement, Electrical Resistance Hand gloves for operating electrical installations / switches, Face shield for protecting eyes while doing welding works and Dust masks to workers as per requirement. The Contractor will have to take action against the workers not using Personal Protective Equipment at site and those workers shall be asked to rest for that day and also their Salary be deducted for that day. EMPLOYER may issue warning letter to Project Manager of contractor in violation of above norms.

11. THAT the Contractor shall prepare a detailed list of PPEs, activity wise, to commensurate with manpower deployed, which is enclosed at **Annexure – 3 (SP)** for

review and approval of Engineer In-charge/Project Manager. It shall also be ensured that the sample of these equipment shall be got approved from EMPLOYER supervisory staff before being distributed to workers. The contractor shall submit relevant test certificates as per IS / International Standard as applicable to PPEs used during execution of work. All the PPE's to be distributed to the workers shall be checked by EMPLOYER supervisory staff before its usage.

12. The Contractor also agrees for addition / modification to the list of PPE, if any, as advised by Engineer In-Charge/Project Manager.

13. THAT the Contractor shall procure, if required sufficient quantity of Earthing Equipment / Earthing Devices complying with requirements of relevant IEC standards (Generally IECs standards for Earthing Equipments / Earthing Devices are – 855, 1230, 1235 etc.) and to the satisfaction of Engineer In-Charge/ Project Manager and contractor to ensures to maintained them in healthy condition.

14. THAT the Contractor has prepared / worked out minimum number of healthy Earthing Equipments with Earthing lead confirming to relevant IS / European standards per gang wise during stringing activity/as per requirement, which is enclosed herewith at **Annexure – 4** (SP) for review and acceptance of Engineer In-Charge/ Project Manager prior to execution of work.

15. THAT the Contractor shall provide communication facilities i.e. Walky – Talkie / Mobile Phone, Display of Flags / whistles for easy communication among workers during Tower erection / stringing activity, as per requirement.

16. THAT the Contractor undertakes to deploy qualified safety personnel responsible for safety as per requirements of Employer/Statutory Authorities.

17. THAT the Contractor employing more than 250 workmen whether temporary, casual, probationer, regular or permanent or on contract, shall employ at least one full time officer exclusively as qualified safety officer having diploma in safety to supervise safety aspects of the equipment and workmen who will coordinate with Engineer In-charge /Project Manager/Safety Coordinator of the Employer. In case of work being carried out through sub-contractors the sub – contractor's workmen / employees will also be considered as the contractor's employees / workmen for the above purpose. If the number of workers are less than 250 then one qualified safety officer is to be deployed for each contract. He will report directly to his head of organization and not the Project Manager of contractor He shall also not be assigned any other work except assigning the work of safety. The curriculum vitae of such person shall be got cleared from EMPLOYER Project Manager / Construction staff.

18. The name and address of such safety officers of contractor will be promptly informed in writing to Engineer In-charge with a copy to safety officer - In-charge before start of work or immediately after any change of the incumbent is made during the

currency of the contract. The list is enclosed at **Annexure – 5A (SP)**.

19. THAT the Contractor has also prepared a list including details of Explosive Operator (if required), Safety officer / Safety supervisor / nominated person for safety for each erection

20. / stringing gang, list of personnel trained in First Aid Techniques as well as copy of organization structure of the Contractor in regard to safety. The list is enclosed at **Annexure – 5B (SP)**.

21. The Project Manager shall have the right at his sole discretion to stop the work, if in his opinion the work is being carried out in such a way that it may cause accidents and endanger the safety of the persons and/or property, and/or equipment. In such cases, the Contractor shall be informed in writing about the nature of hazards and possible injury/accident and he shall comply to remove shortcomings promptly. The Contractor after stopping the specific work can, if felt necessary, appeal against the order of stoppage of work to the Project Manager within 3 days of such stoppage of work and decision of the Project Manager in this respect shall be conclusive and binding on the Contractor.

22. THAT, if, any Employer's Engineer/ supervisor at site observes that the Contractor is failing to provide safe working environment at site as per agreed Safety Plan / EMPLOYER Safety Rule/ Safety Instructions / Statutory safety requirement and creates hazardous conditions at site and there is possibility of an accident to workmen or workmen of the other contractor or public or the work is being carried out in an un safe manner or he continues to work even after being instructed to stop the work by Engineer / Supervisor at site / RHQ / Corp. Centre, the Contractor shall be bound to pay a penalty of Rs. 10,000/- per incident per day till the instructions are complied and as certified by Engineer/ Supervisor of Employer at site. The work will remain suspended and no activity will take place without compliance and obtaining clearance / certification of the Site Engineer / Supervisor of the Employer to start the work.

23. THAT, if the investigation committee of Employer observes any accident or the Engineer In-charge/Project Manager of the Employer based on the report of the Engineer/Supervisor of the Employer at site observes any failure on the Contractor's part to comply with safety requirement / safety rules/ safety standards/ safety instruction as prescribed by the Employer or as prescribed under the applicable law for the safety of the equipment, plant and personnel and the Contractor does not take adequate steps to prevent hazardous conditions which may cause injury to its own Contractor's employees or employee of any other Contractors or Employer or any other person at site or adjacent thereto, or public involvement because of the Contractor's negligence of safety norms, the Contractor shall be liable to pay a compensation of Rs. 10,00,000/- (Rupees Ten Lakh only) per person affected causing death and Rs. 1,00,000/- (Rupees One Lakh only) per person for serious injuries / 25% or more permanent disability to the Employer for further disbursement to the deceased family/ Injured persons. The permanent disability

has the same meaning as indicated in Workmen's Compensation Act 1923. The above stipulations is in addition to all other compensation payable to sufferer as per workmen compensation Act / Rules

24. THAT as per the Employer's instructions, the Contractor agrees that this amount shall be deducted from their running bill(s) immediately after the accident, That the Contractor understands that this amount shall be over and above the compensation amount liable to be paid as per the Workmen's Compensation Act /other statutory requirement/ provisions of the Bidding Documents.

25. THAT the Contractor shall submit Near-Miss-Accident report along with action plan for avoidance such incidence /accidents to Engineer – In-charge/ Project Manager. Contractor shall also submit Monthly Safety Activities report to Engineer – In-charge/ Project Manager and copy of the Monthly Safety Activities report also to be sent to Safety In-charge at RHQ of the Employer for his review record and instructions.

26. THAT the Contractor is submitting a copy of Safety Policy/ Safety Documents of its Company which is enclosed at Annexure – 6 (SP) and ensure that the safety Policy and safety documents are implemented in healthy spirit.

27. THAT the Contractor shall make available of First Aid Box [Contents of which shall be as per Building & other construction workers (Regulation of Employment and Conditions of Services Act and Central Rule 1998 / EMPLOYER Guidelines)] to the satisfaction of Engineer In-Charge/ Project Manager with each gang at site and not at camp and ensures that trained persons in First Aid Techniques with each gang before execution of work.

28. THAT the Contractor shall submit an 'Emergency Preparedness Plan' for different incidences i.e. Fall from height, Electrocution, Sun Stroke, Collapse of pit, Collapse of Tower, Snake bite, Fire in camp / Store, Flood, Storm, Earthquake, Militancy etc. while carrying out different activities under execution i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. which is enclosed at Annexure – 7 (SP) for approval of the Engineer In-Charge/ Project Manager before start of work.

29. THAT the Contractor shall organize Safety Training Programs on Safety, Health and Environment and for safe execution of different activities of works i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. . For their own employees including sub-contractor workers on regular basis.

30. The Contractor, therefore, submits copy of the module of training program, enclosed at **Annexure – 9 (SP)**, to Engineer In-charge/Project Manager for its acceptance and approval and records maintained.

31. THAT the Contractor shall conduct safety audit, as per Safety Audit Check Lists

enclosed at **Annexure – 8 (SP)**, by his Safety Officer(s) every month during construction of Transmission Lines / Sub Stations / any other work and copy of the safety audit report will be forwarded to the Employer's Engineer In-charge / Site In-charge/Project Manager for his comments and feedback. During safety audit, healthiness of all Personal Protective Equipments (PPEs) shall be checked individually by safety officer of contractor and issue a certificate of its healthiness or rejection of faulty PPEs and contractor has to ensure that all faulty PPEs and all faulty lifting tools and tackles should be destroyed in the presence of EMPLOYER construction staff. Contractor has to ensure that each gang be safety audited at least once in two months. During safety audit by the contractor, Safety officer's feedback from EMPLOYER concerned shall be taken and recorded. The Employer's site officials shall also conduct safety audit at their own from time to time when construction activities are under progress. Apart from above, the Employer may also conduct surveillance safety audits. The Employer may take action against the person / persons as deemed fit under various statutory acts/provisions under the Contract for any violation of safety norms / safety standards.

32. THAT the Contractor shall develop and display Safety Posters of construction activity at site and also at camp where workers are generally residing.

33. THAT the Contractor shall ensure to provide potable and safe drinking water for workers at site / at camp.

34. THAT the Contractor shall do health check up of all workers from competent agencies and reports will be submitted to Engineer In-Charge within fifteen (15) days of health check up of workers as per statutory requirement.

35. THAT the Contractor shall submit information along with documentary evidences in regard to compliance to various statutory requirements as applicable which are enclosed at **Annexure – 10A (SP)**.

36. The Contractor shall also submit details of Insurance Policies taken by the Contractor for insurance coverage against accident for all employees are enclosed at Annexure – 10B (SP).

37. THAT a check-list in respect of aforesaid enclosures along with the Contractor's remarks, wherever required, is attached as Annexure – Check List herewith.

38. THE CONTRACTOR shall incorporate modifications/changes in this 'Safety Plan' necessitated on the basis of review/comments of the Engineer In-Charge/Project Manager within fourteen

39. (14) Days of receipt of review/comments and on final approval of the Engineer In-Charge/Project Manager of this 'Safety Plan', the Contractor shall execute the works under the Contract as per approved 'Safety Plan'. Further, the Contractor has also noted that the first progressive payment towards Services Contract shall be made on submission of 'Safety Plan' along with all requisite documents and approval of the same

by the Engineer In-Charge/Project Manager.

40. IN WITNESS WHEREOF, the Contractor has hereunto set its hand through its authorized representative under the common seal of the Company, the day, month and year first above mentioned.

For and on behalf of

M/s.....

WITNESS

1.

Signature.....

Signature.....

Name.....

Name.....

2.

Signature.....

Authorized representative

Name.....

(Common Seal)

Address.....

(In case of Company)

Note:

All the annexure referred to in this "Safety Plan" are required to be enclosed by the contractor as per the attached "Check List"

Safety Plan is to be executed by the authorized person and (i) in case of contracting Company under common seal of the Company or (ii) having the power of attorney issued under common seal of the company with authority to execute such contract documents etc., (iii) In case of (ii), the original Power of Attorney if it is specifically for this Contract or a Photostat copy of the Power of Attorney if it is General Power of Attorney and such documents should be attached to this Safety Plan.

For all safety monitoring/ documentation, Engineer In-charge / Regional In-charge of safety at RHQ will be the nodal Officers for communication.

Annexure 18

Sample Labor License

M/s EMC Limited



GOVERNMENT OF INDIA
MINISTRY OF LABOUR & EMPLOYMENT
OFFICE OF THE ASSISTANT LABOUR COMMISSIONER (CENTRAL)
KENDRIYA SADAN
CHIRUKANDI ROAD, RAMNAGAR, TARAPUR, SILCHAR-788 003, ASSAM
E-mail alc.sil-as@gov.in
TELEPHONE NO. 03842-268330

File / Online Licence No. CLRA/ALC SILCHER/2019/L-175

Dated - 08.07.2020

To

M/s EMC LIMITED

POWER GRID CORPORATION OF INDIA LIMITED CONTRACTOR
51, CANAL EAST ROAD, BELIAGHATA
KOLKATA-700085

REPRESENTED THROUGH: - SHRI MANOJ TOSHNIWAL, DIRECTOR
E. mail - pnair@emcpower.com / Mobile No. 09163317444.

Subject: Contract Labour (Regulation and Abolition) Act, 1970 and its Central Rules, 1971 -
Renewal of Licence No. CLRA/ALCSILCHER/2019/L-175 dated-22.07.2019.

Dear Sir,

Please refer to your Application No. Nil dated-21.07.2020 (received at this office on 21.07.2020) for Renewal of Licence along with Rs. 100/- (Rupees ONE HUNDRED) only deposited through online towards Renewal fee of the above noted Licence.

In this connection, please find enclosed herewith the original Licence duly **RENEWED UP TO 21. 07. 2021** under the provision of Section-13 (3) of the Contract Labour (Regulation and Abolition) Act, 1970 read with Rule-29 of its Central Rules, 1971.

Please acknowledge the receipt of the same.

Encls: 1



Yours faithfully,

(CHIRANJEEV SAIKIA)

Regional Labour Commissioner (Central)
DIBRUGARH

And Additional Charge of Assistant Labour Commissioner (Central)
Government of India

SILCHAR Chiranjeev Saikia

Regional Labour Commissioner (C)

& Registering / Licensing Officer

Under the Contract Labour Act, 1970

Copy forwarded to:

- (1) The Labour Enforcement Officer (Central), AGARTALA. A copy of the Form-II is enclosed.
- (2) The Deputy General Manager (NERPSIP), Power Grid Corporation of India Limited, House of Shri Utpal Dutta (Ground Floor), Ramanagar Road No.6, 3rd Crossing, Agartala-799002, Tripura (West) for information.

Regional Labour Commissioner (Central)
DIBRUGARH

And Additional Charge of Assistant Labour Commissioner (Central)
Government of India
SILCHAR



Form VI

**(Under Rule 25(1) of the Contract Labour (Regulation and Abolition) Central
Rules, 1971)****Government of India
Office of the Licensing Officer
LICENCE**Licence No: **CLRA/ALCSILCHER/2019/L-175**Date: **22-Jul-2019**

1. Licence is hereby granted to **M/s EMC LIMITED, 51, CANAL EAST ROAD, BELIAGHATA, Kolkata - 700085**, through **MANOJ TOSHNIWAL / DIRECTOR** under sub-section (1) of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) subject to the conditions specified in the Annexure.
2. Name and Location of work **Tower Package TW01 associated with NER Power System Improvement Project (Intra-State: Tripura) vide Contract Agreement No. CC-CS/86-NER/TW-3612/1/G4/CA-I/7336 DATED- 30.06.2017 & No. CC-CS/86-NER/TW-3612/G4/CA-II/7337 dated. 30.06.2017**, for **BAGAFA , BELONIA , UDAIPUR, SABROOM and SATCHAND, 78, NEW TOWN ROAD, RADHA KRISHNAPUR, UDAIPUR, South Tripura, Tripura - 799120**
3. Name of the principal employer: **S.I.SINGH / DY.GENERAL MANAGER, NERPSIP OFFICE, RAMNAGAR-06, 3RD CROSSING, AGARTALA, West Tripura, Tripura - 799002**
4. Registration Certificate no. **A-REG 07/2010-S/A** and date of **22-Jun-2010** of the principal employer.
5. The licence shall remain in force till **21-Jul-2020** (date to be indicated).
6. Maximum number of contract labour to be employed on a single day under the licence: **100**
7. Fee Paid Rs **INR 75** (Transaction Id : **1907190005123**)
8. Security Deposit **INR 9000** (Transaction Id : **1907190005222**)
9. Remarks by Licencing Officer: **Licence is granted**

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Licensing Officer.

10. A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
11. The contractor shall comply with all the provisions of the Act and these Rules.
12. The licensee shall, within fifteen days of the commencement and completion of each contract work, submit a return to the Inspector appointed under section 28 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) intimating the actual date of the commencement or, as the case may be, completion of such contract work in Form - VII.

eSign/DSC of Licensing Officer

Hari Om Gautam (ALC(C))

ALC SILCHER (ALCSILCHER)

alc.ghy-as@gov.in

Note: This is an online application summary applied on Shram Suvidha Portal.

Validity unknown

Digitally signed by User
Date: 2019.07.22 14:55:23 IST


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Licence No. CLRA/ALCSILCHER/2019/L-175

Dated-22.07.2019

RENEWAL

(Rule-29)

Date of Renewal	Fee paid for Renewal	Date of Expiry	Signature and Seal of Licensing Officer and Date
08-09-2020	Rs. 100/-	21. 07. 2021	

M/s SPML Infra – South Tripura Region

GOVERNMENT OF INDIA
MINISTRY OF LABOUR & EMPLOYMENT
OFFICE OF THE ASSISTANT LABOUR COMMISSIONER (CENTRAL)
KENDRIYA SADAN
CHIRUKANDI ROAD, RAMNAGAR, TARAPUR, SILCHAR-788 003, ASSAM
E-mail alc.sil-as@gov.in
TELEPHONE NO. 03842-268330

No. 46 (26)/2017 – S / A

Dated – 14. 02. 2020

To

M/s SPML INFRA LIMITED

P. G. C. I. L. CONTRACTOR

REPRESENTED THROUGH:

- (1) Mr. ANIL KUMAR SETHI, DIRECTOR
S/O SHRI PUNAM CHAND SETHI
- (2) Mr. SUSHIL KUMAR SETHI, DIRECTOR
S/O SHRI PUNAM CHAND SETHI

C/O PINKI SAHA, RAMNAGAR-5, NEAR MUKTISANGHA
P.O. RAMNAGAR, AGARTALA – 799002, TRIPURA (WEST)
E-mail ID – tripuragm@spml.co.in / Mobile No. 9485022162.

Subject: Contract Labour (Regulation and Abolition) Act, 1970 and its Central Rules, 1971 -
Renewal of Licence No. CLA / 25 / 2017 – S / A dated-10.02.2017.

Dear Sir,

Please refer to your Application No. Nil dated-Nil (received at this office on 06.02.2020)
for Renewal of Licence along with Rs. 100/- (Rupees ONE HUNDRED) only deposited through
bharatkosh.gov.in towards Renewal fee of the above noted Licence.

In this connection, please find enclosed herewith the original Licence duly
RENEWED UP TO 09. 02. 2021 under the provision of Section-13 (3) of the Contract
Labour (Regulation and Abolition) Act, 1970 read with Rule-29 of its Central Rules, 1971.

Please acknowledge the receipt of the same.

✓ Enclo: 1 (ONE) LICENCE.



Yours faithfully,

Assistant Labour Commissioner (Central)
Government of India

SILCHAR
Silchar & Registering/ Licensing Officer
Under C.L. (R&A) Act. 1970

Copy forwarded to:

- (1) The Labour Enforcement Officer (Central), AGARTALA. A copy of the Form-II is enclosed.
- (2) The Manager (RD), Power Grid Corporation of India Limited, Near Housing Board, Chanban, P.O. R.K. Pur, Udaipur-799120, Tripura (South) for information.

Assistant Labour Commissioner (Central)
Government of India
SILCHAR

**FORM-VI
(SEE RULE- 25(1))
GOVERNMENT OF INDIA
MINISTRY OF LABOUR & EMPLOYMENT
OFFICE OF THE LICENSING OFFICER
AND ASSISTANT LABOUR COMMISSIONER (CENTRAL)
COLLEGE ROAD, SILCHAR-788004, DIST. CACHAR, ASSAM**

LICENCE NO. CLA/25/2017-S/A
DATE: 10.02.2017

LICENCE FEE PAID	Rs.150.00 (RUPEES ONE HUNDRED FIFTY) ONLY	DEMAND DRAFT No. 425542 Dated - 08.02.2017 STATE BANK OF INDIA, AGARTALA BRANCH
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L I C E N C E




1. Licence is hereby granted to M/s SPML INFRA LIMITED, P. G. C. I. L. CONTRACTOR, REPRESENTED THROUGH: (1) Mr. ANIL KUMAR SETHI, DIRECTOR, S/O SHRI PUNAM CHAND SETHI (2) Mr. SUSHIL KUMAR SETHI, DIRECTOR, S/O SHRI PUNAM CHAND SETHI, C/O PINKI SAHA, RAMNAGAR-5, NEAR MUKTISANGHA, P.O. RAMNAGAR, AGARTALA - 799002, TRIPURA (WEST) under Section 12(1) of the Contract Labour (Regulation and Abolition) Act, 1970 subject to the conditions specified in the ANNEXURE.

2. The Licence is for doing the work - "Construction of Sub-Station Package TRP-SS-02 for Tripura, associated with NER Power System Improvement Project vide Contract Agreement Ref. No. CC-CS/86-NER/SS-2651/1/G1/NOA-I/7070 dated-04.11.2016 and CC-CS/86-NER/SS-2651/1/G1/NOA-II/7071 dated-04.11.2016" in the establishment of Manager (RD), Power Grid Corporation of India Limited, Near Housing Board, Chanban, P.O. R.K. Pur, Udaipur-799120, Tripura (South).

3. The Licence shall remain in force **TILL 09.02.2018**

Date: 10.02.2017
Signature and Seal of Licensing Officer


RENEWAL (Rule-29)

Date of Renewal	Fee paid for Renewal	Date of Expiry	Signature and Seal of Licensing Officer and Date
01-02-2018	Rs-100/-	09-02-2019	 ALC(C) SILCHAR
11-02-2019	Rs-100/-	09-02-2020	 ALC(C) SILCHAR
14-02-2020	Rs-100/-	09-02-2021	 ALC(C) SILCHAR

M/s Technofab Engineering Limited – Gomati Region



Form VI

(Under Rule 25(1) of the Contract Labour (Regulation and Abolition) Central Rules, 1971)

Government of India
Office of the Licensing Officer
LICENCE

Licence No: **CLRA/ALCSILCHER/2021/L-57**

Date: **18-Mar-2021**

1. Licence is hereby granted to **M/s. TECHNOFAB ENGINEERING LIMITED, 507 EROS APARTMENT, 56 NEHRU PLACE, New Delhi - 110019**, through **ARJUN GUPTA / MANAGING DIRECTOR** under sub-section (1) of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) subject to the conditions specified in the Annexure.
2. Name and Location of work **Service Contract for DMS Package for TRI-DMS / 3 associated with NER Power System Improvement Project Vide Notification of Award No-CC-CS/86-NER/REW-2986/1/G2/NOA-II/7169 DATED-22.02.2017 & Specification No.CC-CS/86-NER/REW-2986/1/G2. Dated-22.02.2017., for POWERGRID CORPORATION OF INDIA LTD, NEAR HOUSING BOARD, CHANBAN, P.O-R.K.PUR, UDAIPUR, Gomati, Tripura - 799120**
3. Name of the principal employer **S. I. SINGH / SR. GENERAL MANAGER, RAMNAGAR-06, 3RD CROSSING, AGARTALA, West Tripura, Tripura - 799002**
4. Registration Certificate no. **A-REG/02/2002-S/A** and date of **04-Feb-2002** of the principal employer.
5. The licence shall remain in force till **17-Mar-2022** (date to be indicated).
6. Maximum number of contract labour to be employed on a single day under the licence: **100**
7. Fee Paid Rs **INR 75** (Transaction Id : **2402210003925**)
8. Security Deposit **INR 9000** (Transaction Id : **2402210003991**)
9. Remarks by Licensing Officer: **License is granted**

ANNEXURE

1. The licence shall be non-transferable.
2. The numbers of workmen employed as contract labour in the establishment shall not, on any day, exceed the maximum number specified in the licence.
3. Except as provided in the rules, the fees paid for the grant or, as the case may be, for renewal of the licence shall be non-refundable.
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the Scheduled Employment under the Minimum Wages Act, 1948 (11 of 1948), where applicable, and where the rates have been fixed by agreement, settlement, award, or by the appropriate Government, not less than the rates so fixed.
5. (a). In case where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the principal employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of the contractor shall be the same as applicable to the workmen directly employed by the principal employer of the establishment on the same or similar kind of work; provided that in the case of any disagreement with regard to the type of work the same shall be decided by the Deputy Chief Labour Commissioner (Central) whose decision shall be final.
(b). In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
6. Every contract labour shall be entitled to allowances, benefits, facilities etc, as prescribed in the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and rules made there under.
7. In every establishment where 20 or more women are ordinarily employed as there shall be provided 2 rooms of reasonable dimension for the use of their children under the age of six years. One of such rooms would be used as a play room for the children and the other as bed room for the children. For this purpose the contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping room. The standard of construction and maintenance of the crèches may be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
8. No women shall be employed by any contractor before 6 a.m. or after 7 p.m.: Provided that this clause shall not apply to the employment of women in pit head baths, crèches and canteens and as mid-wives and nurses in hospitals and dispensaries.
9. The licensee shall notify any change in the number of workmen or the conditions of work to the

Licensing Officer.

10. A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
11. The contractor shall comply with all the provisions of the Act and these Rules.
12. The licensee shall, within fifteen days of the commencement and completion of each contract work, submit a return to the Inspector appointed under section 28 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) intimating the actual date of the commencement or, as the case may be, completion of such contract work in Form - VII.

eSign/DSC of Licensing Officer
Sudhir Kumar Chakma (ALC(C))
ALC SILCHER (ALCSILCHER)
alc.ghy-as@gov.in

Note: This is an online application summary applied on Shram Suvidha Portal.

Signature Not Verified

Digitally signed by User
Date: 2021.03.18 20:32:45 IST



M/s Technofab Engineering Limited – South Tripura Region



Form VI

**(Under Rule 25(1) of the Contract Labour (Regulation and Abolition) Central
Rules, 1971)**

**Government of India
Office of the Licensing Officer
LICENCE**

Licence No: **CLRA/ALCSILCHER/2021/L-58**

Date: **18-Mar-2021**

1. Licence is hereby granted to **M/s. TECHNOFAB ENGINEERING LIMITED, 507 EROS APRATMEN, 56 NEHRU PLACE, New Delhi - 110019**, through **ARJUN GUPTA / MANAGING DIRECTOR** under sub-section (1) of section 12 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) subject to the conditions specified in the Annexure.
2. Name and Location of work **Service Contract for DMS Package for TRI-DMS /2 associated with NER Power System Improvement Project Vide Notification of Award No-CC-CS/86-NER/REW-2985/1/G2/NOA-II/7146 DATED-20.01.2017 & Specification No.CC-CS/86-NER/REW-2985/1/G2. Dated-20.01.2017., for POWERGRID CORPORATION OF INDIA LTD, NEAR BANDHAN BANK, 3RD FLOOR AMAR BHAWAN, South Tripura, Tripura - 799155**
3. Name of the principal employer **S. I. SINGH / SR. GENERAL MANAGER, POWERGRID CORPORATION OF INDIA LTD, RAMNAGAR-06, 3RD CROSSING , AGARTALA, West Tripura, Tripura - 799002**
4. Registration Certificate no. **A-REG/02/2002-S/A** and date of **04-Feb-2002** of the principal employer.
5. The licence shall remain in force till **17-Mar-2022** (date to be indicated).
6. Maximum number of contract labour to be employed on a single day under the licence: **100**
7. Fee Paid Rs **INR 75** (Transaction Id : **2502210000350**)
8. Security Deposit **INR 9000** (Transaction Id : **2502210000362**)
9. Remarks by Licencing Officer: **License is granted**

ANNEXURE

1. The licence shall be non-transferable.
2. The numbers of workmen employed as contract labour in the establishment shall not, on any day, exceed the maximum number specified in the licence.
3. Except as provided in the rules, the fees paid for the grant or, as the case may be, for renewal of the licence shall be non-refundable.
4. The rates of wages payable to the workmen by the contractor shall not be less than the rates prescribed for the Scheduled Employment under the Minimum Wages Act, 1948 (11 of 1948), where applicable, and where the rates have been fixed by agreement, settlement, award, or by the appropriate Government, not less than the rates so fixed.
5. (a). In case where the workmen employed by the contractor perform the same or similar kind of work as the workmen directly employed by the principal employer of the establishment, the wage rates, holidays, hours of work and other conditions of service of the workmen of the contractor shall be the same as applicable to the workmen directly employed by the principal employer of the establishment on the same or similar kind of work; provided that in the case of any disagreement with regard to the type of work the same shall be decided by the Deputy Chief Labour Commissioner (Central) whose decision shall be final.
(b). In other cases the wage rates, holidays, hours of work and conditions of service of the workmen of the contractor shall be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
6. Every contract labour shall be entitled to allowances, benefits, facilities etc, as prescribed in the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and rules made there under.
7. In every establishment where 20 or more women are ordinarily employed as there shall be provided 2 rooms of reasonable dimension for the use of their children under the age of six years. One of such rooms would be used as a play room for the children and the other as bed room for the children. For this purpose the contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the sleeping room. The standard of construction and maintenance of the crèches may be such as may be specified in this behalf by the Deputy Chief Labour Commissioner (Central).
8. No women shall be employed by any contractor before 6 a.m. or after 7 p.m.: Provided that this clause shall not apply to the employment of women in pit head baths, crèches and canteens and as mid-wives and nurses in hospitals and dispensaries.
9. The licensee shall notify any change in the number of workmen or the conditions of work to the

Licensing Officer.

10. A copy of the licence shall be displayed prominently at the premises where the contract work is being carried on.
11. The contractor shall comply with all the provisions of the Act and these Rules.
12. The licensee shall, within fifteen days of the commencement and completion of each contract work, submit a return to the Inspector appointed under section 28 of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) intimating the actual date of the commencement or, as the case may be, completion of such contract work in Form - VII.

eSign/DSC of Licensing Officer


Sudhir Kumar Chakma (ALC(C))

ALC SILCHER (ALCSILCHER)

alc.ghy-as@gov.in

Note: This is an online application summary applied on Shram Suvidha Portal.

Validity unknown

Digitally signed by  Date: 2021.03.18 20:36:12 IST

Annexure 19

Checklist for Safety Plan

CHECK LIST FOR SAFETY PLAN

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
1.	Annexure – 1A (SP) Safe work procedure for each activity i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc. to be executed at site.	Yes/No	
2.	Annexure – 1B (SP) Manpower deployment plan, activity wise foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc.	Yes/No	
3.	Annexure – 2 (SP) List of Lifting Machines i.e. Crane, Hoist, Triflor, Chain Pulley Blocks etc. and Lifting Tools and Tackles i.e. D shackle, Pulleys, come along clamps, wire rope slings etc. and all types of ropes i.e. Wire ropes, Poly propylene Rope etc. used for lifting purposes along with test certificates.	Yes/No	
4.	Annexure – 3 (SP) List of Personal Protective Equipment (PPE), activity wise including the following along with test certificate of each as applicable: <ol style="list-style-type: none"> 1. Industrial Safety Helmet to all workmen at site. (EN 397 / IS 2825) with chin strap and back stay arrangement. 2. Safety shoes without steel toe to all ground level workers and canvas shoes for workers working on tower. 3. Rubber Gum Boot to workers working in rainy season / concreting job. 4. Twin lanyard Full Body Safety harness with shock absorber and leg strap arrangement 	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	<p>for all workers working at height for more than three meters. Safety Harness should be with attachments of light weight such as of aluminium alloy etc. and having a feature of automatic locking arrangement of snap hook and comply with EN 361 / IS 3521 standards.</p> <p>5. Mobile fall arrestors for safety of workers during their ascending / descending from tower / on tower. EN 353 -2 (Guided type fall arresters on a flexible anchorage line.)</p> <p>6. Retractable type fall arrestor (EN380: 2002) for ascending / descending on suspension insulator string etc.</p> <p>7. Providing of good quality cotton hand gloves / leather hand gloves for workers engaged in handling of tower parts or as per requirement at site.</p> <p>8. Electrical Resistance hand gloves to workers for handling electrical equipment / Electrical connections. IS : 4770</p> <p>9. Dust masks to workers handling cement as per requirement.</p> <p>10. Face shield for welder and Grinders. IS : 1179 / IS : 2553</p> <p>11. Other PPEs, if any, as per requirement etc.</p>		
5.	Annexure – 4 (SP) List of Earthing Equipment / Earthing devices with Earthing lead conforming to IECs for earthing equipments are – (855, 1230, 1235 etc.) gang wise for stringing activity/as per requirement	Yes/No	
6.	Annexure – 5A (SP) List of Qualified Safety Officer(s) along with their contact details	Yes/No	
7.	Annexure – 5B (SP) Details of Explosive Operator (if required), Safety officer / Safety supervisor for every erection / stringing gang, any other person nominated for safety, list of personnel trained in First Aid as well as brief information about safety set up by the	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	Contractor alongwith copy of organisation of the Contractor in regard to safety		
8.	Annexure – 6 (SP) Copy of Safety Policy/ Safety Document of the Contractor's company	Yes/No	
9.	Annexure – 7 (SP) 'Emergency Preparedness Plan' for different incidences i.e. Fall from height, Electrocution, Sun Stroke, Collapse of pit, Collapse of Tower, Snake bite, Fire in camp / Store, Flood, Storm, Earthquake, Militancy etc. while carrying out different activities under execution i.e. foundation works including civil works, erection, stringing (as applicable), testing & commissioning, disposal of materials at site / store etc.	Yes/No	
10.	Annexure – 8 (SP) Safety Audit Check Lists (Formats to be enclosed)	Yes/No	
11.	Annexure – 9 (SP) Copy of the module of Safety Training Programs on Safety, Health and Environment, safe execution of different activities of works for Contractor's own employees on regular basis and sub contractor employees.	Yes/No	
12.	Annexure – 10A (SP) Information along with documentary evidences in regard to the Contractor's compliance to various statutory requirements including the following:		
(i)	Electricity Act 2003 <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(ii)	Factories Act 1948	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	<u>[Name of Documentary evidence in support of compliance]</u>		
(iii)	Building & other construction workers (Regulation of Employment and Conditions of Services Act and Central Act 1996) and Welfare Cess Act 1996 with Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(iv)	Workmen Compensation Act 1923 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(v)	Public Insurance Liabilities Act 1991 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(vi)	Indian Explosive Act 1948 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(vii)	Indian Petroleum Act 1934 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(viii)	License under the contract Labour (Regulation & Abolition) Act 1970 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(ix)	Indian Electricity Rule 1956 and amendments if	Yes/No	

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
	any, from time to time. <u>[Name of Documentary evidence in support of compliance]</u>		
(x)	The Environment (Protection) Act 1986 and Rules. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(xi)	Child Labour (Prohibition & Regulation) Act 1986. <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(xii)	National Building Code of India 2005 (NBC 2005). <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(xiii)	Indian standards for construction of Low/ Medium/ High/ Extra High Voltage Transmission Line <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
(iv)	Any other statutory requirement(s) [please specify] <u>[Name of Documentary evidence in support of compliance]</u>	Yes/No	
13.	Annexure – 10B (SP) Details of Insurance Policies alongwith documentary evidences taken by the Contractor for the insurance coverage against accident for all employees as below:		

S. N.	Details of Enclosure	Status of Submission of information/ documents	Remarks
(i)	Under Workmen Compensation Act 1923 and Rules. <u>[Name of Documentary evidence in support of insurance taken]</u>	Yes/No	
(ii)	Public Insurance Liabilities Act 1991 <u>[Name of Documentary evidence in support of insurance taken]</u>	Yes/No	
(iii)	Any Other Insurance Policies <u>[Name of Documentary evidence in support of insurance taken]</u>	Yes/No	

EMPLOYER

SAMPLE COPY OF FILLED CHECKLIST

Safety Check List TL Const – 03, Revision-1(May, 2014)

**POWER GRID CORPORATION OF INDIA LTD.,
(CORPORATE OPERATION SERVICES)**

SITE SAFETY INSPECTION / AUDIT CHECK LIST

TOWER ERECTION

DATE OF INSPECTION: 27.02.2021 **NAME OF THE LINE:** Uderi Purto Amero Port T/L

LOCATION NO: 38/0 **CLASSIFICATION OF SOIL & TYPE OF TOWER:** Dct 0

NAME OF THE AGENCY: Teems India Towers Lines Pvt. Ltd.

SITE ENGINEER / SUPERVISOR OF THE AGENCY: Mrs. Agnino Holain

SAFETY OFFICER OF THE AGENCY: Suman Jena.

S.NO:	CHECK LIST	YES / NO	REMARKS, IF ANY
1	Check List to be verified by the Agency's Site supervisor / Gang leader is available at Site and updated.	Yes	
2	Safe Work Procedures / Instructions in the language understood by the workers available with Site supervisor / Gang leader and workers are aware of the safe work procedures.	Yes	
3	Pep talk on safety issues (importance of safety, inspection of T&P and PPEs, proper use of PPEs, safe tower erection practices, safe shut down practices / safe material handling / house keeping, etc.) to the workers being done by the Safety Stewards / Supervisor / Engineer / Safety Officer of the Agency.	Yes	
4	Adequate warning / protection to public / children moving nearby ensured (RED FLAGS / CAUTION TAPE / ROPE / BOARDS).	Yes	
5	Appropriate safety messages / warnings are displayed at site to caution the workers.	Yes	
6	Back filling of soil completed before taking up tower erection.	Yes	
7	All the workers are provided with good quality SAFETY HELMETS confirming to BIS Standard IS:2925.	Yes	Brand: Kemeim
8	The workers engaged in Tower Erection work at height are provided with good quality FULL BODY DOUBLE LANYARD SAFETY BELTS confirming to BIS Standard IS: 3521 / EN 361.	Yes	Brand: Kemeim Odyogi
9	Other PPEs provided to the workers: SAFETY SHOES / COTTON HAND GLOVES for material handling / ELECTRICAL SAFETY GLOVES for S/D works	Yes	
10	The workers engaged in Tower Erection work at height are provided with FALL PROTECTION SYSTEMS like Rope Grab Mobile Fall Arrestor for ascending / descending the Tower / Retractable Fall Arrestor (for vertical movement) / Horizontal Life Line Rope for moving from one member to another member (Horizontal movement within the Tower).	Yes	
11	The fitters working on the tower have been trained on safety for work at height before deployment for tower erection works and Training Records maintained.	Yes	
12	The workers engaged in Tower Erection work at height are anchoring the LIFE LINE Rope / Lanyard of the Safety Belts to rigid support.	Yes	

Contd..2..

- 2 -			
13	(a) First aid box with listed items as per BOCW Act, 1996 available. (b) Number of First Aid Trained persons and their names. (c) First Aid Register is available at site. (d) Nearby medical facilities for use during exigencies identified (Location / Phone No.).	Yes	
14	Shutdown of state EB Power Lines, wherever required, are taken, and no short cut methods used and chances taken.	N/A	Not-Required
15	All tie members / diagonal members and all bolts are fixed as the tower is erected progressively upwards to avoid uneven transmission of loads.	Yes	
16	All the nuts and bolts of STUB have been properly tightened.	Yes	
17	All step bolts have been properly tightned.	Yes	
18	Adequate guying arrangement provided at different levels to ensure proper stability of the tower being erected progressively.	Yes	
19	Atleast one vehicle (four wheeler) is available for use in case of emergencies.	Yes	
20	(a) Condition of derricks, pulleys and other load bearing T & Ps are found to be sound and free from any defect. (b) Whether all lifting T&P have been tested for safe working load and valid test certificates available and checked?	Yes	
21	The polypropylene / wire ropes are of adequate strength & free from any damage. The damaged / discarded ropes and steel wires are removed and not kept along with the other usable T&P, to prevent their use.	Yes	
22	The pulleys are of adequate strength / proper size (diameter). In open type pulleys, the locking arrangement and the safety pin are found to be healthy and fool proof.	Yes	
23	The derricks are provided with adequate guys and are properly tied to the tower main leg to prevent from slipping.	Yes	3 guys.
24	In case erection of tower is done with central derrick / Gin pole, adequate precautions are taken for guying / anchoring arrangement	Yes	
25	Adequate no. of fitters / ground helpers are deployed for the Tower Erection work.	Yes	
26	Whether the persons working in the ground are sufficiently away from the tower when erection is in progress?	Yes	
27	Whether adequate precautions are taken when working near Road / Rail / River / adjoining Power Line?	Yes	

SIGNATURE / NAME / DESIGNATION
OF POWERGRID REPRESENTATIVE

Copy To: ले. उदयपुर / NER, UDAIPUR

- (1) Regional In-charge / POWERGRID / _____
 (2) Projects In-charge (Region) / POWERGRID / _____
 (3) Site Incharge / POWERGRID / _____
 (4) Project Incharge / AGENCY / Zashub

SIGNATURE / NAME / DESIGNATION
OF AGENCY'S REPRESENTATIVE





Safety Check List TL Const – 04, Revision-1(May, 2014)

**POWER GRID CORPORATION OF INDIA LTD.,
(CORPORATE OPERATION SERVICES)**
SITE SAFETY INSPECTION / AUDIT CHECK LIST
STRINGING
DATE OF INSPECTION: 13.04.21 **NAME OF THE LINE:** Udeni Pur to Ameno Pur

REACH / LOCATION NO: AP-1810-18AP-18101

NAME OF THE AGENCY: Teem India Towerline Pvt. Ltd.

SITE ENGINEER / SUPERVISOR OF THE AGENCY: M.K. Sanny

SAFETY OFFICER OF THE AGENCY: Luman Jana.

S.NO:	CHECK LIST	YES / NO	REMARKS, IF ANY
1	Check List to be verified by the Agency's Site supervisor / Gang leader is available at Site and updated.	YES	
2	Safe Work Procedures / Instructions in the language understood by the workers available with Site supervisor / Gang leader and workers are aware of the safe work procedures.	YES	
3	Pep talk on safety issues (importance of safety, inspection of T&P and PPEs, proper use of PPEs, safe stringing practices, safe shut down practices, safe material handling / house keeping , safety to public / children, etc.) to the workers being done by the Safety Stewards / Supervisor / Engineer / Safety Officer of the Agency.	YES	
4	Adequate warning / protection to public / children moving nearby ensured (RED FLAGS / CAUTION TAPE / ROPE / BOARDS).	YES	
5	Flag men are posted at all the intermediate Spans / Towers with proper SIGNALING FLAGS AND COMMUNICATION GADGETS and they are keeping watch over the movement of general public / children and warning them when they come close.	YES	
6	Number of walkie Talkie available at Site & their healthiness.	NO	Not Available
7	All the workers are provided with good quality SAFETY HELMETS confirming to BIS Standard, IS:2925.	YES	Brand: Karoam
8	The workers engaged in Tower Erection work at height are provided with good quality FULL BODY DOUBLE LANYARD SAFETY BELTS confirming to BIS Standard IS:3521 / EN 361.	YES	Brand: Karoam
9	Other PPEs provided to the workers: SAFETY SHOES / COTTON HAND GLOVES for material handling / ELECTRICAL SAFETY GLOVES for S/D works	YES	As per Life Requirement
10	The workers engaged in work at height are provided with FALL PROTECTION SYSTEMS like Rope Grab Mobile Fall Arrestor for ascending / descending the Tower / Retractable Fall Arrestor (for vertical movement from cross arm to conductor / roller) / Horizontal Life Line Rope for moving from one member to another member (Horizontal movement within tower).	YES	
11	The fitters working on the tower have been trained on safety for work at height before deployment for tower erection works and Training Records maintained.	YES	
12	Life Line Rope / Lanyard of the Safety Belts are properly anchored / looped while the person is working at height / moving along the insulator string / conductor.	YES	
13	Whether the Towers have been permanently earthed?	YES	

Contd..2..

- 2 -			
14	(a) First aid box with listed items as per BOCW Act, 1996 available. (b) Number of First Aid Trained persons and their names. (c) First Aid Register is available at site. (d) Nearby medical facilities for use during exigencies identified (Location / Phone No.).	Yes	
15	Before commencing stringing activity, all Tower Members and Bolt & Nuts are fixed and the Bolts properly tightened. WRITTEN CLEARANCE to take up stringing obtained.	Yes	
16	Before commencing stringing activity, it is ensured that all missing Tower Members and Bolt & Nuts are replaced. RECORDS OF CONFIRMATION OF LIQUIDATION OF DEFECTS MAINTAINED.	Yes	
17	Proper fixing of split pins and their verification before hoisting the Insulator String is being ensured.	Yes	
18	Adequate number of BACK STAYS, depending on type of conductors (TWIN / QUAD / HEXA), are provided for all the cross arms of the end Tower, and are properly fixed to the deadman before taking up Tensioning.	Yes	
19	Shutdown of state EB power lines, wherever required, are taken with PTW, and no short cut methods used and chances taken.	N/A	Not Required
20	(a) Adequate capacity local earths suitable for appropriate voltage power lines are used to prevent any electric shock while working on or near charged EB Lines / Power Line crossings. These earths are properly fixed to ensure proper contact with the conductors. Healthiness of discharge rods / cables found OK. (b) Whether a person is stationed near EB Power Line isolating points, especially in LT Lines, to prevent inadvertent charging before return of PTW. (c) Name of the Engineer / Supervisor available / responsible at Site for ensuring proper fixing of local earths and their removal during power line shut downs & normalising.	N/A	as in
21	Atleast one vehicle (four wheeler) is available for use in case of emergencies.	Yes	
22	The polypropylene / wire ropes are of adequate strength & free from any damage. The damaged / discarded ropes and steel wires are removed and not kept along with the other usable T&P, to prevent their use.	Yes	
23	(a) Condition of Load bearing links such as D-shackles, Come-along clamps, steel ropes, pulleys, etc., are found to be sound and free from any defect. (b) Whether all lifting T&P have been tested for safe working load and valid test certificates available and checked?	Yes	
24	The Stringing M/C / Tensioner / Puller are properly anchored and also properly earthed to prevent any electric shock due to induction / lightning to the operators.	Yes	
25	Whether Braking arrangement of TSE Machines / conductor drum stand / E/W Turn table is proper?	Yes	
27	Proper scaffolding arrangements are made during stringing of conductor at Road crossings and Railway crossings.	N/A	Not Required
28	Whether FINAL SAG operation is being done by WINCH M/C.		

SIGNATURE / NAME / DESIGNATION
OF POWERGRID REPRESENTATIVE

Copy To:

- (1) Regional In-charge / POWERGRID / _____
- (2) Projects In-charge (Region) / POWERGRID / _____
- (3) Site Incharge / POWERGRID / _____
- (4) Project In-charge / AGENCY / Zashaf

SIGNATURE / NAME / DESIGNATION
OF AGENCY'S REPRESENTATIVE

(Signature)
Rajendra Kumar
17-1-2018

Annexure 20

Sample Site Inspection Report

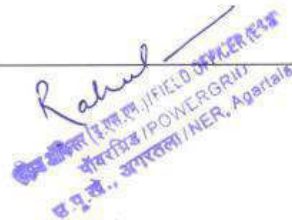
132kV Bagafa S/S

SITE INSPECTION REPORT

SUBSTATION	PACKAGE	EXECUTING AGENCY	DATE OF INSPECTION
132/33kV Bagafa Substation	TRP-SS-01	M/s. SPML Infra Limited	18 th March, 2020

S.I. NO.	OBSERVATIONS
1.	No recent Medical Health Check-up conducted. However, Medical Health Check-up Record of 02 No. site workers conducted earlier on 28/01/2020 available at site. <i>(Sample Medical Health Check-up Record of site worker enclosed)</i>
2.	Induction Training & Daily Tool Box Meeting record of workers maintained. <i>(Sample Record of Induction Training & Daily Tool Box Meeting enclosed)</i>
3.	01 No. Sand Filter for workers & staffs/ third party drinking water portability test report of water from Sand Filter available at site. <i>(Photograph of Sand Filter & Water Test Report enclosed)</i>
4.	Separate Toilet facility each for Gents & Ladies available at site. However, the contractor has been instructed to sanitize & clear the bushes around the toilet facility immediately. <i>(Photograph of Toilet Facility at site enclosed)</i>
5.	First Aid Box with necessary medicines available at site. <i>(Photograph of First Aid Box at site enclosed)</i>
6.	First-Aid/ Incidence & Accident Register available at site. <i>(Photograph of First Aid/ Incidence & Accident Register at site enclosed)</i>
7.	Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site. <i>(Photographs of Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site enclosed)</i>
8.	Record of workers deployed, along with their self attested copies of ID proofs available at site. <i>(Photograph of Register & Sample Self-attested ID proof of Worker enclosed)</i>
9.	01 No. Fire Extinguisher & 02 No. Fire Buckets installed at site. <i>(Photograph of Fire Extinguisher at site enclosed)</i>
10.	Grievance Register & Complain Box available at site. However, GRC Banner not displayed at site. Contractor has been instructed to prepare & display the GRC Banner as soon as possible. <i>(Photograph of Grievance Register enclosed)</i>
11.	01 No. Dustbin available at site. <i>(Photograph of Dustbin at site enclosed)</i>


RAKESH MISHRA

SPML

Rahul
 जिला प्रमुख, क्षेत्र-1, POWERGRID
 नॉर्थ ईस्ट, अगारवाला / NER, Agartala

12.	01 No. Ladder of sufficient height available at site. <i>(Photograph of Ladders at site enclosed)</i>
13.	<u>Statutory Documents</u> a. Labor License expired on 09/02/2020. However, M/s. SPML has already applied & renewal waited from Labor Department. b. Registration against BOCW found valid. c. Marine In-land & Erection All Risk policy found valid as on date. However, installments which were due on 17/02/2020 had been paid by M/s. SPML on 26/02/2020. Therefore, the Gap of 08 days between the due date of installment & the date of payment has been observed.

Rakesh
RATNESH MISHRA

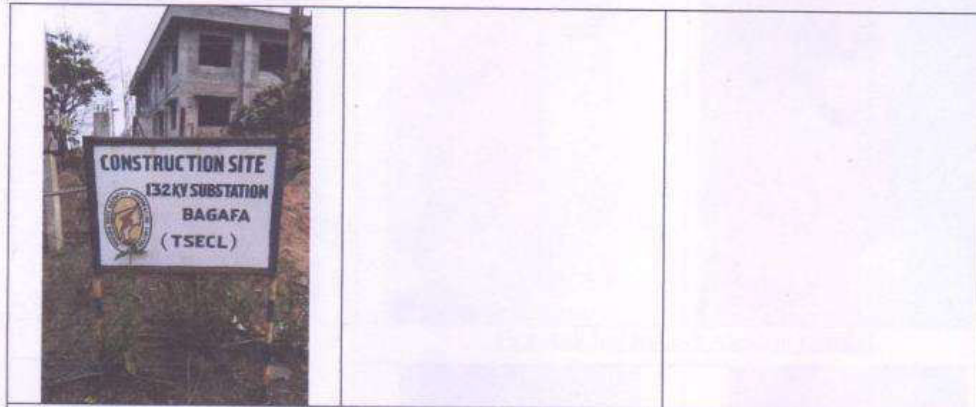


Rash



Rahul
रिजिस्ट्रार (मिलर) / JHEED OFFICER (C.A.)
पावरग्रिड / POWERGRID
ब.पू.खे., अगरतला / NER, Agartala

ANNEXURE



Medical Health Check-up Record

<p>Page 1 of 3</p> <p>132KV SUBSTATION BAGAF (TSECL)</p> <p>Medical Health Check-up Record</p> <p>Page 1 of 3</p>	<p>Page 2 of 3</p> <p>Medical Health Check-up Record</p> <p>Page 2 of 3</p>	<p>Page 3 of 3</p> <p>Medical Health Check-up Record</p> <p>Page 3 of 3</p>
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Induction Training/ Daily Tool Box Meeting Record







<p>Page 1 of 3</p> <p>Induction Training/ Daily Tool Box Meeting Record</p> <p>Page 1 of 3</p>	<p>Page 2 of 3</p> <p>Induction Training/ Daily Tool Box Meeting Record</p> <p>Page 2 of 3</p>	<p>Page 3 of 3</p> <p>Induction Training/ Daily Tool Box Meeting Record</p> <p>Page 3 of 3</p>
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Rahul
SPML INFRA LTD.
TRIPURA



Rahul

Rahul
SPML INFRA LTD. / POWERGRID
TRIPURA, AGARTALA / NER, Agartala



Emergency Contact Numbers		Labor Wage Banner																									
 <table border="1"> <thead> <tr> <th>Sl no.</th> <th>Contact Person</th> <th>Contact Number</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Site In-charge</td> <td>7320837473/7640999793</td> </tr> <tr> <td>2</td> <td>HR & Admin Dept.</td> <td>8837410576/908906668</td> </tr> <tr> <td>3</td> <td>Safety Dept.</td> <td>7874399415</td> </tr> <tr> <td>4</td> <td>Security</td> <td>03823362248</td> </tr> <tr> <td>5</td> <td>Hospital / Ambulance</td> <td>03823362231</td> </tr> <tr> <td>6</td> <td>Police</td> <td>03823362244</td> </tr> <tr> <td>7</td> <td>Fire</td> <td></td> </tr> </tbody> </table>		Sl no.	Contact Person	Contact Number	1	Site In-charge	7320837473/7640999793	2	HR & Admin Dept.	8837410576/908906668	3	Safety Dept.	7874399415	4	Security	03823362248	5	Hospital / Ambulance	03823362231	6	Police	03823362244	7	Fire			
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7	Fire																										
Workmen Details Register/ Sample Self attested ID Proof of Worker		Fire Extinguisher																									
																											
Grievance Register/ Complain Box																											
																											



<p><u>Dustbin</u></p> 	<p><u>Ladder</u></p> 	<p><u>HOD Visit Register</u></p> 
<p><u>Statutory Documents</u></p>		
 <p>भारतीय गैर-न्यायिक पचास रुपये FIFTY RUPEES Rs.50 INDIA NON-JUDICIAL</p>	<p>Government of India Receipt Portal</p> <p>Receipt</p> <p>Transaction Ref No: 201200001711 Received from: M/S. SPIN INFRA LTD Amount: INR 100,000/- Date: Jan 27, 2020 11:58AM with Transaction Ref No: 220100000121 Date: Jan 27, 2020 11:58AM, the sum of INR 100,000/- hundred only, through internet based Online payment in the account of License Fee under CL 18 and A 18.1270, Renewal Fee under License No. CAA10/2017/54, D.O. 01.05.12 Disclaimer:- This is a system generated electronic receipt, hence no physical signature is required for the purpose of authentication Printed On: 27-01-2020 14:29</p>	 <p>BOCW</p>
<p><u>Safety Plan</u></p> 	<p><u>Labor License</u></p> 	<p><u>WC Policy</u></p> 
<p><u>Marine Policy</u></p> 	<p><u>Erection All Risk Policy</u></p> 	<p><u>WC Policy</u></p> 

Stamp: INFRALTD TRIPURA
Signature: Rakesh KATAJESHI

Stamp: INFRALTD TRIPURA
Signature: Rakesh KATAJESHI

Stamp: INFRALTD TRIPURA
Signature: Rakesh KATAJESHI
Handwritten: Rakesh KATAJESHI
Handwritten: INFRALTD TRIPURA
Handwritten: POWERGRID
Handwritten: NERPSIP

Site Inspection Report – 132kV Satchand S/S

SITE INSPECTION REPORT

SUBSTATION	PACKAGE	EXECUTING AGENCY	DATE OF INSPECTION
132/33kV Satchand Substation	TRP-SS-01	M/s. SPML Infra Limited	18 th February, 2020

S.I. NO.	OBSERVATIONS
1.	Medical Health Check-up of 05 (five) No. site workers conducted on 01/02/2020. Records available at site. <i>(Sample Medical Health Check-up Record of site worker enclosed)</i>
2.	Induction Training & Daily Tool Box Meeting record of workers maintained. <i>(Sample Record of Daily Tool Box Meeting enclosed)</i>
3.	01 No. Sand Filter for workers & staffs/ third party drinking water portability test report of water from Sand Filter available at site. <i>(Photograph of Sand Filter & Water Test Report enclosed)</i>
4.	Toilet facility unavailable at site. Contractor has been instructed to construct Toilet separately for Gents & Ladies on priority basis.
5.	First Aid Box with necessary medicines available at site. <i>(Photograph of First Aid Box at site enclosed)</i>
6.	First-Aid/ Incidence & Accident Register available at site. <i>(Photograph of First Aid/ Incidence & Accident Register at site enclosed)</i>
7.	Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site. <i>(Photographs of Safety Banners, Labor Wage Banner & Emergency Contact Numbers displayed at site enclosed)</i>
8.	Record of workers deployed, along with their self attested copies of ID proofs available at site. <i>(Photograph of Register & Sample Self-attested ID proof of Worker enclosed)</i>
9.	01 No. Fire Extinguisher available at site. <i>(Photograph of Fire Extinguisher at site enclosed)</i>
10.	Sufficient PPEs for workers available at site. <i>(Photograph of PPE Issue Register & Stock of PPEs in Site Store enclosed)</i>
11.	Grievance Register available at site. However, GRC Banner not displayed at site. Contractor has been instructed to prepare & display the GRC Banner as soon as possible. <i>(Photograph of Grievance Register enclosed)</i>
12.	01 No. Dustbin available at site. <i>(Photograph of Dustbin at site enclosed)</i>



Rahul
 क्षेत्र अधिकारी (T&D) / FIELD OFFICER (T&D)
 पावरग्रिड / POWERGRID
 उ.प.दे., अमरकान्तक / NER, Agartala.

13.	02 No. Ladders of sufficient height available at site. <i>(Photograph of Ladders at site enclosed)</i>
14.	<u>Statutory Documents</u> a. Labor License expired on 09/02/2020. However, M/s. SPML has already applied & renewal waited from Labor Department. b. Registration against BOCW found valid. c. Marine In-land & Erection All Risk policy found valid as on date. However, installments which were due on 17/02/2020 have still not been paid by M/s. SPML. M/s. SPML has been instructed to immediately pay the installment premium & submit the copy of receipt to NERPSIP, POWERGRID, Agartala Office.




Rahul
FIELD OFFICER (E&T)
POWERGRID / NERPSIP, Agartala

Rahul
कर्मचारी / कर्मचारी / FIELD OFFICER TEL
गोदावरी / POWERGRU
उप. उ. अग्रवाल / NER. Aggrawal



<p>Emergency Contact Numbers</p> 	<p>Labor Wage Banner</p> 	
<p>Workmen Details Register/ Sample Self attested ID Proof of Worker</p> 		<p>Fire Extinguisher</p> 
<p>PPE Issue Register/ Stock of PPEs in Site Store</p> 		<p>Grievance Register</p> 

Chitra
SPML INFR
TRIPURA

[Signature]
SPML INFR
TRIPURA

Rajesh
SPML INFR
TRIPURA
POWERGRID
NERPSIP
असम/असम/असम

Dustbin	Ladder	Stacking of Material
		
Statutory Documents		
		
Safety Plan	Labor License	BOCW
		
Marine Policy	Erection All Risk Policy	
		

Rahul K. Pal
 मंच अधिकारी (T&D) / I.E. & E. / POWERGRID
 स.प.वे. अंगारतला / NER, Agartala

Annexure 21

HSE Audit

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)
Donglieh, Lower Nongrah, Lapalng, (Shillong)-793006
Phone: (0364) 2536178, Fax: (0364) 2536397, Email: nerts_os@yahoo.in

उत्तर-पूर्वी क्षेत्रीय मुख्यालय: प्रचालन सेवा; NERTS RHQ: Operation Services

Date: 06.01.2021

REF: NESH/Safety/Audit/113/2020/

To,
The General Manager (Projects)
M/s SPML Infra Limited,
Ramnagar- 05 (Near Mukti Sangha Club)
Agartala, Tripura West,
Tripura - 799002

Sub: Safety Check / Audit.

Dear Sir,


Under signed has visited construction work of 132/33kV Gokul Nagar & 132/33kV Udaypur Sub-station Construction Site (Package-II) as on 02nd January'2021. The Safety check / Audit has been carried out along with your safety officer / site engineers. During the Safety Check / Audit, some lapses pertaining to safety related aspects have been observed.

The observations are mentioned as under:

1. During audit it has been observed that the Safety Officer against the package-II is not available since 01st Jan.'2019. As per terms & conditions of contract, Safety Officer shall be deputed against each contract. Site shall take the actions as per the terms & conditions of the contract.
2. It has been observed that Excavated pit at construction site kept open & without barricading, which shall be properly barricaded.
3. Caution tape / Safety posters / Entry restriction board not displayed at construction site, which shall be displayed for visual safety awareness.
4. During audit it has been observed that the stock of PPEs is very less. Adequate PPEs shall be procured.
5. 'Emergency Contact Numbers' not displayed at construction site, which shall be displayed.
6. Height pass for working at height has not been issued to new fitters, which shall be issued after medical health checkup/fitness and induction training. The record of the same shall be maintained at site.

You are requested to look in to the matter seriously and comply the observations immediately. Failing of which, action shall be taken as per terms and condition of contract. The compliance report shall be submitted to the Regional Safety, Shillong through concern site in-charge /site engineer of POWERGRID. Further, it is requested to ensure the implementation of proper safety measures at working site to avoid any untoward incidence.

Thanking you,


(Pulakesh Roy)

Regional Safety officer, Shillong.

Copy to:

1. CGM (NERPSIP), Guwahati- For kind information
2. Sr. GM (NERPSIP), Agartala- For kind information
3. GM (FQA & Safety), Guwahati- For kind information
4. Sr. DGM(NERPSIP), Udaypur- For kind information



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. No. NEAGT/NERPSIP-500/2020-21/43A

Date: 06.01.2021

To,

SPML Infra Limited,
22, Camac Street, Block-A
3rd Floor, Kolkata-700016

Kind Attention: Sh. M.K. Chakraborty, Executive V.P.
Sh. D.B. Dandapat, DGM (Projects)

Sub: Deployment of Permanent Safety Officer for Substation Package TRP-SS-02 – Reg.

CC-CS/86-NER/SS-2651/1/G1/NOA-I/7070 dated 04.11.2016

NOA No. CC-CS/86-NER/SS-2651/1/G1/NOA-II/7071 dated 04.11.2016

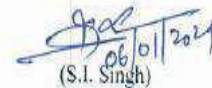
Sir,

It is to bring to your kind notice that there is no permanent Safety Officer for package TRP-SS-02 since 01.01.2019. M/s. SPML in the Safety meeting held at POWERGRID Agartala office on 30.04.2019 agreed to deploy Safety Officer for package TRP-SS-02 & intimate POWERGRID latest by 31.05.2019. However, even after several reminders, M/s. SPML has not taken necessary action to depute permanent Safety Officer for package TRP-SS-02. Construction work of 132/33kV substations of package TRP-SS-02 is already going on. Such negligence of M/s. SPML and non-availability of Safety Officer may lead to major safety lapses at sites and this cannot be permitted by POWERGRID. The matter was also pointed out by our Regional Safety Officer vide letter ref. no. NESH/Safety/Audit/113/2020/ dated 06.01.2021.

In view of above you are once again requested to deploy independent Safety Officer for package TRP-SS-02 immediately failing which contractual action/ recovery as deemed fit will be taken against M/s. SPML Infra Limited as per the contract agreement.

Thanking you,

Yours faithfully,



Sr. General Manager (NERPSIP)
POWERGRID, Agartala

Copy to:

1. CGM (NERPSIP), POWERGRID, Guwahati for kind information please
2. Sr. GM (PESM), POWERGRID, Guwahati for kind information please
3. GM (Projects), SPML, Agartala for kind information & necessary action
4. Sr. DGM (NERPSIP), POWERGRID, Udaipur for kind information
5. Chief Manager (NERPSIP), POWERGRID, Agartala for kind information
6. Sr. Manager, SPML, Udaipur for kind information & necessary action

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्घम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Dongtich, Lower Nongrah, Lapalng, (Shillong)-793006
Phone: (0364) 2536178, Fax: (0364) 2536397, Email: nerts_os@yahoo.in

उत्तर-पूर्वी क्षेत्रीय मुख्यालय: प्रचालन सेवा; NERTS RHQ: Operation Services

REF: NESH/Safety/Audit/113/2020/

Date: 06.01.2021

To,

The Project Manager

M/s Teams India Towerlines Pvt. Ltd.,
Ground Floor, 9, Purba Para Ward no.-9,
Santir Bazaar, South Tripura,
Tripura- 799144

Sub: Safety Check / Audit.

Dear Sir,

Under signed has visited construction work of Udaypur-Amarpur TL Construction Site {Loc. 18/0 (DD+6)} of as on 02nd January'2021. The Safety check / Audit has been carried out along with your safety officer / site engineers. During the Safety Check / Audit, some lapses pertaining to safety related aspects have been observed. The observations are as follows:

The observations are mentioned as under:

1. During audit it has been observed that the excavated soil kept just near to pits, which shall be kept at appropriate distance (at least half of the depth of the pit) from the edge of the pit.
2. Concrete mixer machine not place at appropriate distance from the pit. It shall be placed at minimum distance equal to 'Half of Depth of the Pit' and if site constraints do not permit then proper back stay to mixer machine shall be provided.

The following pts shall be taken care prior to start 'Tower Erections/Stringing works -

1. Third Party Load Testing of all the 'Tools & Plants (T&Ps)' shall be carried out prior to be utilized at construction site.
2. Prior to engage the fitters to work at height it shall be ensured that height pass has been issued by the agency after medical health checkup/fitness and induction training. The record of same shall be maintained at site.
3. Safety Steward shall be deputed for strict safety supervision at construction site.
4. Availability of fall arresters like Free fall arrester, Retractable type fall arrester, Horizontal life line, Full body safety harness with double lanyard etc. shall be ensured.
5. Section wise tower erection procedure shall be ensured.
6. Availability of sufficient nos. of Discharge rods & Earthing leads shall be ensured.
7. Rope grab fall arrester lock shall be provided to each individual fitters for safe ascending / descending the towers.
8. First aid box shall be made available in each working location & labour camp area.
9. Snake repellent / Carbolic acid shall be made available & ensured that same is sprayed regularly in & around the labour camp area.

You are requested to look in to the matter seriously and comply the observations immediately. Failing of which, action shall be taken as per terms and condition of contract. The compliance report shall be submitted to the Regional Safety, Shillong through concern site in-charge /site engineer of POWERGRID. Further, it is requested to ensure the implementation of proper safety measures at working site to avoid any untoward incidence.

Thanking you,


(Pulakesh Roy)
Regional Safety officer, Shillong.

Copy to:

1. CGM (NERPSIP), Guwahati- For kind information
2. Sr. GM (NERPSIP), Agartala- For kind information
3. GM (FQA & Safety), Guwahati- For kind information
4. Sr. DGM(NERPSIP), Agartala- For kind information

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
उ. पू. क्षे. पा. प्र., अगरतला



अंतर कार्यालय ज्ञापन

प्रेषक : Sr. GM (NERPSIP), Agartala सेना में : Sh. Pulakesh Roy, Chief Manager (Safety); RHQ Shillong

सन्दर्भ : NEAGT/NERPSIP-350/ 2020-21/ **62**

दिनांक : 25/01/2021

विषय : Forwarding the Safety Audit Compliance Report of M/s. TEEMS.

With reference to your observations vide letter ref. no. NESH/Safety/Audit/113/2020/ dated 06/01/2021 please find enclosed herewith the Safety Audit Compliance Report submitted by M/s. TEEMS. The Safety Audit Compliance Report has been checked and found in order. M/s. TEEMS has been advised to comply strictly the Safety norms in future construction activities.

This is for your kind information and necessary action at your end.


(S.I. Singh)



Teems India Towerlines Pvt Ltd (TITPL)
Compliance Report of Power Grid Safety Audit

Letter Ref. No. : NESH / Safety / Audit / 113 / 2020

Name of The site/Project : Udaypur - Amarapur TL, Tripura


Date of site visit : 02 / 01 / 2021

Location : Location: 18 / 0, DD + 6, (Foundation) - Tripura

Audit Team : Mr. Pulakesh Roy, Regional- EHS (PGCIL), Shillong,
: Mr Rahul Mishra (Safety Officer, EHS - PGCIL, Mr D P Singh (Manager - PGCIL)

Name of Site Safety Officer : Mr. Suman Jana - Teems India (TITPL)

➤ **Findings/observations:**

Sr No	Observations by PGCIL - EHS - Shillong	Photographic evidence	Compliance by Teems India - EHS
01	During audit it has been observed that the excavated soil kept just near to pits, which shall be kept at appropriate distance (at least half of the depth of the pit) from the edge of the pit		<p>Excavated soil of the four sides dumped 1.5 m away from the edges of pit.</p> <p>We are doing Excavation work by using JCB machine which is placed in a safe distance and maintaining 1.5 MTRs distance from the pit.</p>

Ujjal Roy Chowdhury
UJJAL ROY CHOWDHURY
ASST. ENGINEER
TEEMS INDIA

Rahul
राहुल मिश्रा/RAHUL MISRA
क्षेत्रीय अधिकारी (उ. पू. क्षेत्र) / REGIONAL OFFICER (ESM)
पावरग्रिड / POWERGRID
उ. पू. क्षेत्र, अगरतला / NER AGARTALA

Ranjit Sarkar
रजित सारकर / RANJIT SARKAR
उप प्रबंधक / Dy. MANAGER
पावरग्रिड / POWERGRID
उ. पू. क्षेत्र, उदयपुर / NER UDAIPUR

02	Concrete mixer machine not place at appropriate distance from the pit. It shall be placed at minimum distance equal to "Half of Depth of the Pit" and if site constraints do not permit then proper back stay to mixture machine to be provided.	 <p>Concrete Mixer Machine Safe distance Maintain from the PIT</p>	Concrete Mixture machine is placed at safe distance from the Pit.

NOTE:- The Same Observation Will be maintain in each & every location.



Rahul
राहुल मिश्रा/RAHUL MISRA
क्षेत्रीय अधिकारी (इ.एस.एम) FIELD OFFICER (ESM)
पावरग्रिड / POWERGRID
उ.पू.क्ष. अगस्तला/NER AGARTALA

Zashyab
M. R. KASHYAP
Sr. Manager-Projects
TEEMS. INDIA.

Chowdhury
UJJAL ROY CHOWDHURY
ASST. ENGINEER
TEEMS INDIA

Ranjit
22/01/21
रंजित सरकार / RANJIT SARKAR
उप प्रबंधक / Dy. MANAGER
पावरग्रिड / POWERGRID
उ.पू.क्ष. उदयपुर / NER UDAPUR



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. No. NEAGT/NERPSIP-700/2020-21/ **72**

Date: 04/02/2021

To,

1. Technofab Engineering Limited
Plot No. 5, Sector 27C, Mathura Road
Faridabad-121003 (NCR), Haryana, India

2. Supreme & Co. (P) Ltd.
53, Justice Chandra Madhav Road
Kolkata-700020, West Bengal, India

Kind Attn: Sh. Suresh Kumar; COO

Kind Attn: Sh. Harish Agarwal; MD
Sh. Kapil Singhal; VP

Sub: Safety Officers for DMS Packages TRI-DMS-01, TRI-DMS-02, TRI-DMS-03, TRI-DMS-04 & TRI-DMS-05.

Sir,

The construction activity of DMS substations & lines has already been started since November, 2020. However, the package Safety Officers has not reported till date.

In view of above you are hereby requested to forward us the names of package wise Safety Officers along with the copy of their relevant qualification certificates & instruct them to report at POWERGRID, Agartala office for further instructions regarding the implementation of Safety norms at the construction sites.

Thanking you,

Yours faithfully,


(S.I. Singh)

Sr. General Manager (NERPSIP)
POWERGRID, Agartala

Copy to:-

1. Sr. General Manager (PESM), POWERGRID, Guwahati for kind information
2. General Manager, Supreme, Agartala for kind information
3. Manager (Projects), Technofab, Agartala for kind information

NERPSIP Office, Ramnagar-06 (Middle), 3rd Crossing, Agartala- 799002, Tripura (West)
Tel: 0381-2330045



पावर ग्रिड कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Ref. No. NEAGT/NERPSIP-500/2020-21/74

Date: 04/02/2021

To,

SPML Infra Limited,
22, Camac Street, Bloack-A
3rd Floor, Kolkata-700016

Kind Attention: Sh. M.K. Chakraborty; Executive VP

Sub: Safety Officer for Substation Package TRP-SS-01 & TRP-SS-02 – Reg.

CC-CS/86-NER/SS-2650/1/G1/NOA-I/7068 dated 04/11/2016
CC-CS/86-NER/SS-2650/1/G1/NOA-II/7069 dated 04/11/2016
NOA No. CC-CS/86-NER/SS-2651/1/G1/NOA-I/7070 dated 04.11.2016
CC-CS/86-NER/SS-2651/1/G1/NOA-II/7071 dated 04.11.2016

Sir,

It is to bring to your kind notice that the Safety officer for package TRP-SS-01 is unavailable to give his services since November, 2020. On further enquiry it is learnt that the Safety officer for package TRP-SS-01 has recently resigned. Also, the Safety officer for package TRP-SS-02 is unavailable since January, 2019 & no replacement has been given by M/s. SPML till date. The same was already pointed out by our Regional Safety Officer who visited Tripura in the month of January, 2020 & a letter was issued to M/s. SPML vide letter ref. no. NESH/Safety/Audit/113/2020/ dated 06/01/2021. The construction activity of 132kV Substations is going on in full swing & the non-availability of Safety officer may lead to major safety lapses at sites which cannot be permitted by POWERGRID.

In view of above you are requested to deploy Safety Officer for package TRP-SS-01 & TRP-SS-02 immediately failing which contractual action/ recovery as deemed fit will be taken against M/s. SPML Infra Limited as per the contract agreement.

Necessary action may be taken accordingly.

Thanking you,

Yours faithfully,


(S.I. Singh)

Sr. General Manager (NERPSIP)
POWERGRID, Agartala

Copy to:

1. Sr. GM (PESM), POWERGRID, Guwahati for kind information
2. GM (Projects), SPML, Agartala for kind information please
3. Sr. DGM (NERPSIP), POWERGRID, Udaipur for kind information

NERPSIP Office, Ramnagar-06 (Middle), 3rd Crossing, Agartala- 799002, Tripura (West)
Tel: 0381-2330045

Annexure 22

GRC Details

TRIPURA STATE ELECTRICITY CORPORATION LIMITED

(A Govt. of Tripura Enterprise)



No. F. 5(85) / TSECL/2016-17/ 3308-40

dated, Agartala, the 27th February, 2017

To
The General Manager (NERPSIP)
Power Grid Corporation of India Ltd.
Royal Centre Flat No. 102
G.S. Road, Ulubari
Guwahati - 781007.

Sub : - Constitution of Site Level Grievance Redressal Committee (GRC) for NER Power
System Improvement Project (NERPSIP) : Tripura

Ref : - NEAGT/NERPSIP / Grievance / 313, dated 19.01.2017.

Sir,

In inviting reference to the letter above, Site Level Grievance Redressal Committee (GRC) has been constituted and attached herewith in line with the State Specific ESPPF adopted by TSECL for the work covered under Tranche - I of ongoing World Bank aided NER Power System Improvement Project (NERPSIP) pertaining to the State of Tripura, to provide a trusted way to resolve environmental and social concerns of the Project and also to effectively address person / community / stake holder complaints arising out of the project implementation.

Yours faithfully,

(S.G. Choudhuri)

Director (Finance) & Company Secretary,
TSECL, Agartala.

Copy to :-

- 1) The P.S. to the CMD, TSECL, Agartala.
- 2) The GM (Technical), TSECL, Agartala.
- 3) The AGM (Transmission), TSECL, Agartala.
- 4-10) The AGM, EC - Gomati / Belonia / Sepahijala / II, Agartala / Khowai / Dhalai / Unokoti.
- 11-13) The DGM, TD, Agartala / Udaipur / Kumarghat.
- 14-16) The DGM (Civil) / DGM (P-II) / DGM (P-III), Transmission Circle, Agartala.
- 17-32) The DGM, ED - Amarpur / Bagafa / Udaipur / Belonia / Sabroom, Jampuijala / Sonamura / Bishalgarh / Mohanpur / Teliamura / Jirania / Khowai / Ambassa / Manu / Kamalpur / Kailashahar.

Director (Finance) & Company Secretary

Bidyut Bhavan, North Banamalipur, Agartala - 799 001, Tripura
Phones: 0381-222-8001 / 232-5843 / 222-6613 FAX: 0381-2319427 / 222-5356

SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE

FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA

A. 132 KV sub-station :

Package No.	Sl. No.	Sub-station	Site Level Grievance Redressal Committee	
			Nominated Official of TSECL	Nominated Official of PowerGrid
SS01	1	Belonia	1) DGM, TD, Udaipur, 2) Mgr. Belonia S/S.	Dy. Mgr, PGCIL, Belonia
	2	Bagafa	1) DGM, TD, Udaipur, 2) Mgr. Bagafa S/S.	
	3	Sabroom	1) DGM, TD, Udaipur, 2) Mgr. Sabroom S/S.	Dy. Mgr, PGCIL, Satchand
	4	Satchand	1) DGM, TD, Udaipur, 2) Mgr. Satchand S/S.	
SS02	5	Rabindranagar	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr. Rabindranagar S/S	Manager, PGCIL, Udaipur
	6	Gokulnagar	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr. Gokulnagar S/S	Dy. Mgr, PGCIL, Agartala
	7	Jirania	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr. Mgr. Jirania S/S	
	8	Udaipur	1) DGM, TD, Udaipur, 2) Sr.Mgr. Udaipur S/S.	Manager, PGCIL, Udaipur
	9	Rokhia	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr. TSD, Agartala	Manager, PGCIL, Udaipur
SS03	10	Mohonpur	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala	Dy. Mgr, PGCIL, Agartala
	11	Amarpur	1) DGM, TD, Udaipur, 2) Mgr. Amarpur S/S	Manager, PGCIL, Udaipur
	12	Manu	1) DGM, TD, Kumarghat, 2) Sr.Mgr. Ambassa S/S	Asstt. GM, PGCIL, Kumarghat
	13	Ambassa		
	14	Dhalabil	1) DGM, TD, Agartala, 2) Sr.Mgr. Dhalabil S/SS/S	Dy. Mgr, PGCIL, Agartala
	15	Kailashahar	1) DGM, TD, Kumarghat, 2) Sr.Mgr. Kailashahar S/S	Asstt. GM, PGCIL, Kumarghat
	16	Dharmanagar	1) DGM, TD, Kumarghat, 2) Sr.Mgr. Dharmanagar S/S	



SITE LEVEL GRIEVANCE REDRESSEL COMMITTEE

FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE - I): TRIPURA

B. 132 KV line :

Package No.	Sl. No.	Line	Site Level Grievance Redressel Committee	
			Nominated Official of TSECL	Nominated Official of PowerGrid
TW01	1	Bagafa - Belonia	1) DGM, TD, Udaipur, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr, TSD, Agartala.	Dy. Mgr, PGCIL, Belonia
	2	Belonia - Sabroom		
	3	Bagafa - Satchand		
TW02	4	Rabindranagar - Rokhia	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr, Rabindranagar S/S	Manager, PGCIL, Udaipur
	5	Rabindranagar - Belonia	1) DGM, TD, Udaipur, 2) DGM(Civil),TC	
	6	Udaipur - Bagafa	3) Sr. Mgr, TSD, Agartala	
	7	LILO of Surjamaninagar – Rokhia at Gokulnagar	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr. Mgr, TSD,Agartala	Dy. Mgr, PGCIL, Agartala
TW03	8	Kailashahar - Dharmanagar	1) DGM, TD, Kumarghat, 2) Sr.Mgr, Dharmanagar S/S	Asstt GM, PGCIL, Kumarghat
	9	Udaipur - Amarpur	1) DGM, TD, Udaipur, 2) DGM(Civil),TC, Agartala 3) Sr.Mgr, TSD,Agartala	Manager, PGCIL, Udaipur
	10	LILO of Grid 79 Tilla - Dhalabil at Mohonpur	1) DGM, TD, Agartala, 2) DGM (Civil), TC, Agartala 3) Sr.Mgr, TSD,Agartala	Dy. Mgr, PGCIL, Agartala
	11	LILO of Ambassa – P. K. Bari at Manu	1) DGM, TD, Kumarghat, 2) Sr.Mgr, Ambassa S/S	Asstt GM, PGCIL, Kumarghat



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE - I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS 01	1	Karbook	Rani	LILO of Tirthamukh - Silachari at Karbook	Jolaibari - Bagafa	1) DGM,ED-Amarpur 2) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
	2	Muhuripur	Jolaibari	LILO of Jolaibari - Bagafa at Muhuripur	Silachari - Tirthamukh	1) DGM,ED-Bagafa 2) DGM, ED - Amarpur 3) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Belonia
	3	Dalak (Chelagang)		Amarpur 132/33 KV S/S - Dalak		1) DGM,ED-Amarpur, 2) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
	4	Garjee		Jatanbari - Dalak		1) DGM, ED - Udaipur, 2) DGM,TD,Udaipur	
	5	Chittamara		Belonia Existing 33/11 kV S/s- Chittamara		1) DGM,TD,Udaipur, 2) DGM ED-Belonia	Dy. Mgr, PGCIL, Belonia
	6	Maharani		Garjee - Chittamara		1) DGM,ED-Udaipur, 2) DGM,TD,Udaipur	
	7	Chechua		Udaipur 132/33 kV s/s - Maharani		1) DGM,ED-Amarpur, 2) DGM, ED - Udaipur, 3) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
				Garjee - Maharani			
				Amarpur 132/33 KV S/S - Chechua		1) DGM,ED-Amarpur, 2) DGM,TD,Udaipur	
DMS 02	8	Ekinpur	Hrishyamukh	Sabroom 132 KV S/s - Manughat	Belonia - Hrishyamukh	1) DGM,ED- Belonia 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Belonia
	9	Manughat	Rajnagar	Manughat - Srinagar	Belonia - Rajnagar		Dy. Mgr, PGCIL, Satchand
	10	Rupaichari		Satchand 132/33 KV S/S - Srinagar		1) DGM,ED- Sabroom 2) DGM,TD,Udaipur	
	11	Barpathari		Tapping point on existing Belonia - Hrishyamukh line - Srinagar		1) DGM,ED- Belonia 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Belonia
	12	Gabardi		Satchand 132/33 KV S/S - Rupaichari		1) DGM,ED- Jampuijala 2) DGM,TD,Agartala, 3) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala
	13	Srinagar		Rajnagar - Ekinpur		1) DGM,ED- Belonia 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Satchand
				LILO of existing Belonia - Rajnagar line at Barpathari Jolaibari - Silachari		1) DGM,ED-Sabroom 2) DGM,TD,Udaipur	Manager, PGCIL, Udaipur
				Jolaibari - Proposed Satchand		1) DGM,ED-Sabroom 2) DGM,TD,Udaipur	Dy. Mgr, PGCIL, Satchand
				Proposed Rupaichari - proposed Sabroom		1) DGM,ED-Sabroom 2) DGM,TD,Udaipur	
				LILO of existing Suraj Mani Nagar -Takarjala line at Gabardi		1) DGM,ED- Jampuijala 2) DGM,TD,Agartala, 3) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS03	14	Sekerkote	Madhupur	LILO of Badharghat - Jangalia line at Sekerkote	Badharghat - Jangalia	1) DGM,ED- Bishalgarh 2) DGM, ED - Sonamura 3) DGM,TD,Agartala, 4) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala
	15	Golaghati	Melaghar	Proposed Gokul Nagar - Golaghati	Rabindranagar - Kathalia		
	16	Durganagar	Kathalia	Takarjala - Golaghati	Rabindranagar - Melaghar		
	17	Nidaya	Takarjala	Proposed Gokul Nagar - Durganagar	Badharghat - SM Nagar	1) DGM,ED- Sonamura 2) DGM,TD,Agartala, 3) DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Belonia
	18	Nalchar		Madhupur - Durganagar	SM Nagar - Takarjala		Manager, PGCIL, Udaipur
				Kathalia - Nidaya		1)DGM,ED- Sonamura 2) DGM,TD, Agartala, 3)DGM(Civil),TC, Agartala	
				Melaghar - Nalchar			
				Bishramganj - Nalchar			
				Proposed Gokul Nagar 132/33 KV S/S - Tapping at Madhupur- Jangalia line		1)DGM,ED- Bishalgarh 2)DGM,TD,Agartala, 3)DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Agartala
				Bishramganj - Jangalia			
				Rajnagar - Nidaya		1)DGM,ED- Sonamura 2)DGM,TD,Agartala, 3)DGM(Civil),TC, Agartala	Dy. Mgr, PGCIL, Belonia



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS04	19	Simna	Hezamara	Dhalabil –Khowai	Teliamura – Kalyanpur	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur	Dy. Mgr, PGCIL, Agartala
	20	Barkathal	Khayerpur	Ampura – Khowai	Dhalabil – Kalyanpur	1)DGM,TD,Agartala 2)DGM,ED-Mohanpur 3) DGM, ED-Teliamura	
	21	Bamutia		Hezamara -Simna	Mohonpur – Hezamara	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur	
	22	Champak -Nagar		Tapping point on Mohanpur - Hezamara line to Simna	Mohonpur – Agartala	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Jirania	
	23	Mungia -kami		Hezamara -Barkathal	Khayerpur – Jirania	1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Jirania	
	24	Taidu		Proposed Mohanpur -Barkathal		1)DGM,TD,Udaipur, 2)DGM,ED-Amarpur 3)DGM, ED- Mohanpur	
	25	Lembu -cherra		Durjoyanagar – Bamutia		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur	
	26	Khowai		Lembucherra -Bamutia		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Khowai	
	27	ADC Head Qtr		LILO of existing Agartala - Mohanpur at Lembucherra		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM, ED – Jirania 4) DGM, ED – Mohanpur	
	28	Ranir -bazar		Jirania –Champaknagar			
				LILO of existing Khayerpur - Jirania line at Ranirbazaar			
				Jirania –ADC Hear Qtr		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Mohanpur 4)DGM, ED - Khowai	
				Champak Nagar –ADC			
				Hezamara -Dhalabil			
			LILO of existing Ambassa - Teliamura at Mungiakami		1)DGM,TD,Agartala, 2)DGM(Civil),TC, Agartala 3)DGM,ED-Teliamura		
			Teliamura –Taidu		1)DGM,TD,Udaipur 2)DGM,ED-Amarpur		
			Chechua – Taidu				



**SITE LEVEL GRIEVANCE REDRESSAL COMMITTEE
FOR NER POWER SYSTEM IMPROVEMENT PROJECT (TRANCHE – I): TRIPURA**

C. 33 KV Sub-station and 33 KV lines :

Package No.	Sl. No.	New sub-station	Augmentation Sub-station	New 33 KV line	Renovation 33 KV line	Site Level Grievance Redressal Committee	
						Nominated Official of TSECL	Nominated Official of PowerGrid
DMS05	29	Tilla Bazar	Gandacherra	Ambassa - Jawhamagar	Ambassa - Teliamura	1)DGM, TD,Kumarghat, 2)DGM,ED-Kailashahar 3) DGM, ED-Ambassa	Asstt. GM, PGCIL, Kumarghat
	30	JawharNagar	Salema	LIFO of existing Chhamanu-Manu line at Chailengta		1)DGM, TD,Kumarghat, 2)DGM,ED- Ambassa 3) DGM, ED -Manu	
	31	Chailengta	Rangrung	Proposed Jawhar Nagar - Dhumacherra			
	32	Dhumachhera		Proposed Manu 132/33 KV S/S - Dhumacherra		1)DGM, TD,Kumarghat, 2)DGM,ED- Manu	
	33	82 mile		Proposed Manu 132/33 KV S/S - 82 mile			
	34	Durga Chowmohani		P K Bari - 82 mile		1)DGM, TD,Kumarghat, 2)DGM,ED- Manu, 3)DGM, ED -Kamalpur	
				Kalaisahar existing 132/33 kV s/s -Tillabazaar		1)DGM, TD,Kumarghat, 2) DGM,ED- Manu, 3) DGM, ED-Kailashahar	
				Proposed Manu 132/33 KV S/S- tapping at Chawmanu - Manu line			
				LIFO of existing Salema - Kamalpur Line		1)DGM, TD,Kumarghat, 2)DGM,ED- Manu, 3) DGM, ED -Kamalpur	



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

**POWER GRID CORPORATION
OF INDIA LIMITED**

(A Government of India Enterprise)



दुरभाष : (0381)2330045 (क)

NERPSIP Office,

Ramnagar 06(Middle); 3rd Crossing, Agartala - 799002.

उत्तर पूर्वीय क्षेत्र / NORTH EASTERN REGION

Ref. No. NEAGT/NERPSIP-102/2017-18/477

Date: 19.06.2017

To,

The AGM (Transmission)
Tripura State Electricity Corporation Limited
79 Tilla, Transmission Circle
Agartala-799006, Tripura (West)

Sub: Nominations from local administration, panchayat/ADC, affected persons etc. as local representative for site level Grievance Redressal Committee (GRC).

Reference: - No. F. 5(85) / TSECL/2016-17/3308-40, dated 27.02.2017

Dear Sir,

With reference to the subject cited above, you may be aware that site level Grievance Redressal Committee (GRC) with members from POWERGRID and TSECL has already been constituted (*copy enclosed*). However as per the requirement of World Bank, the nominations from local administration, panchayat/ADC, affected persons etc. as local representative is also mandatory. This has already been discussed with World Bank during the meeting held on 01st - 02nd March, 2017 at Guwahati (*copy of World Bank Aide-Memoire enclosed*).

In view of above, you are kindly requested to arrange to get the nominations from local administration, panchayat/ADC, affected persons etc. as local representative for site level GRC.

On receipt of nominations, compliance will be communicated to the World Bank.

Thanking you,

Encls: Asabove

Copy to:

E. GM (NERPSIP), POWERGRID, Guwahati for kind information please



Yours faithfully,


DGM (NERPSIP)
POWERGRID, Agartala

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का उद्यम)
**POWER GRID CORPORATION
OF INDIA LIMITED**
(A Government of India Enterprise)



दूरभाष : (0381)2330045 (क)
NERPSIP Office,
Ramnagar-06(Middle); 3rd Crossing,, Agartala - 799002.
उत्तर पूर्वीय क्षेत्र / NORTH EASTERN REGION

Ref. No. NEAGT/NERPSIP-102/2018-19/ 587

Date: 27.03.2019

To,

→ The AGM (Transmission)
Tripura State Electricity Corporation Limited
79 Tilla, Transmission Circle
Agartala-799006, Tripura (West)

Sub: Nominations from local administration, panchayat/ADC, affected persons etc. as local representative for
site level Grievance Redressal Committee (GRC) – Reminder-2

Reference: - No. F. 5(85) / TSECL/2016-17/3308-40, dated 27.02.2017

Dear Sir,

With reference to the subject cited above, you may be aware that site level Grievance Redressal Committee (GRC) with members from POWERGRID and TSECL has already been constituted (*copy enclosed*). However as per the requirement of World Bank, the nominations from local administration, panchayat/ADC, affected persons etc. as local representative is also mandatory. This has already been discussed with World Bank during the 5th Project Steering Committee meeting held on 12th November, 2018 at Guwahati (*copy of World Bank Aide-Memoire enclosed*).

In view of above, you are once again requested to arrange to get the nominations from local administration, panchayat/ADC, affected persons etc. as local representative for site level GRC.

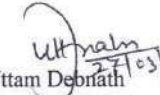
On receipt of nominations, compliance will be communicated to the World Bank.

Thanking you,

Encl: As above



Yours faithfully,


Uttam Debnath
Manager (NERPSIP)
POWERGRID, Agartala

Copy to:

1. Sr. GM (NERPSIP), POWERGRID, Agartala for kind information please
2. CGM (NERPSIP), POWERGRID, Guwahati for kind information please

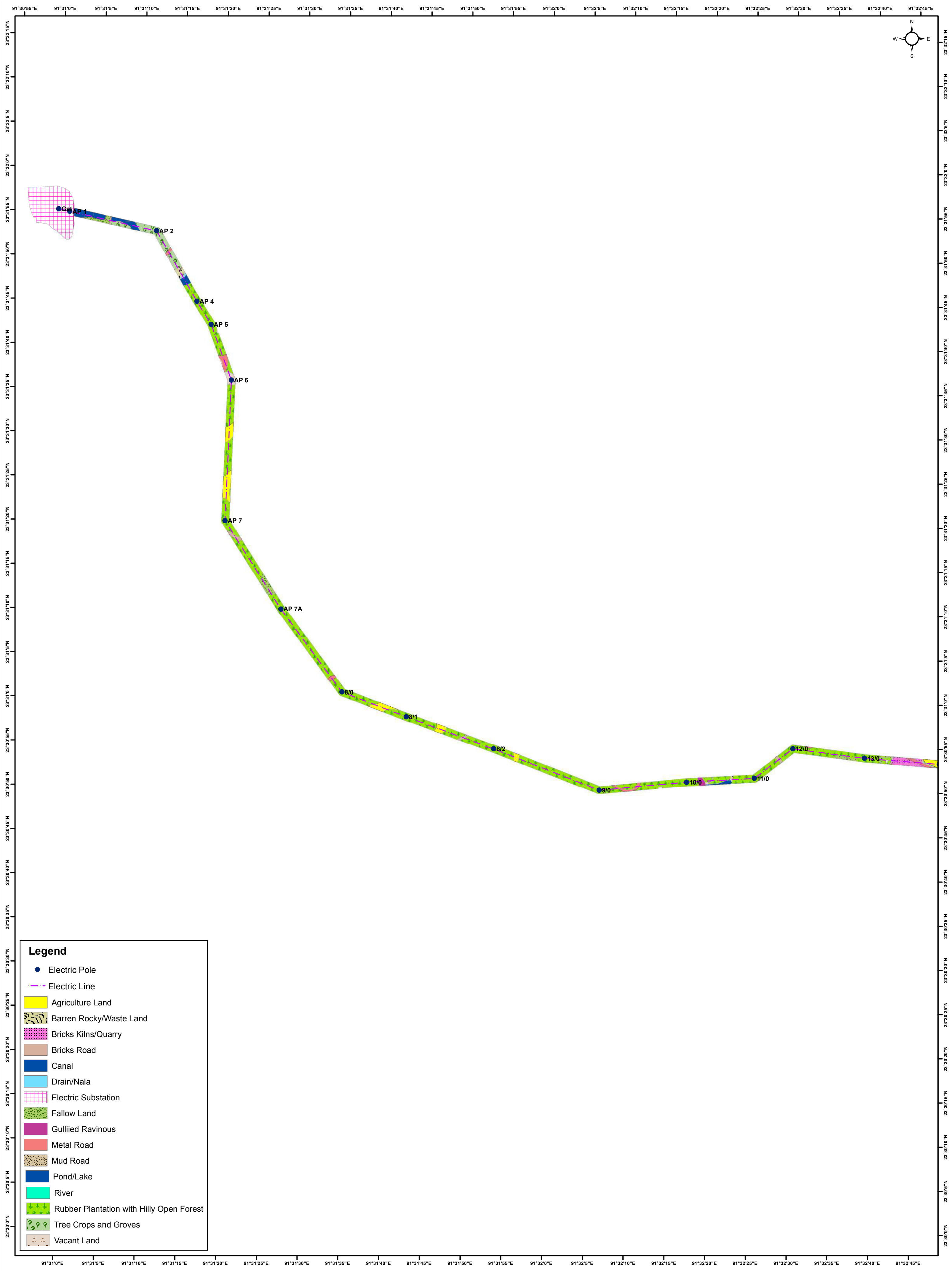
Annexure

A and B

LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

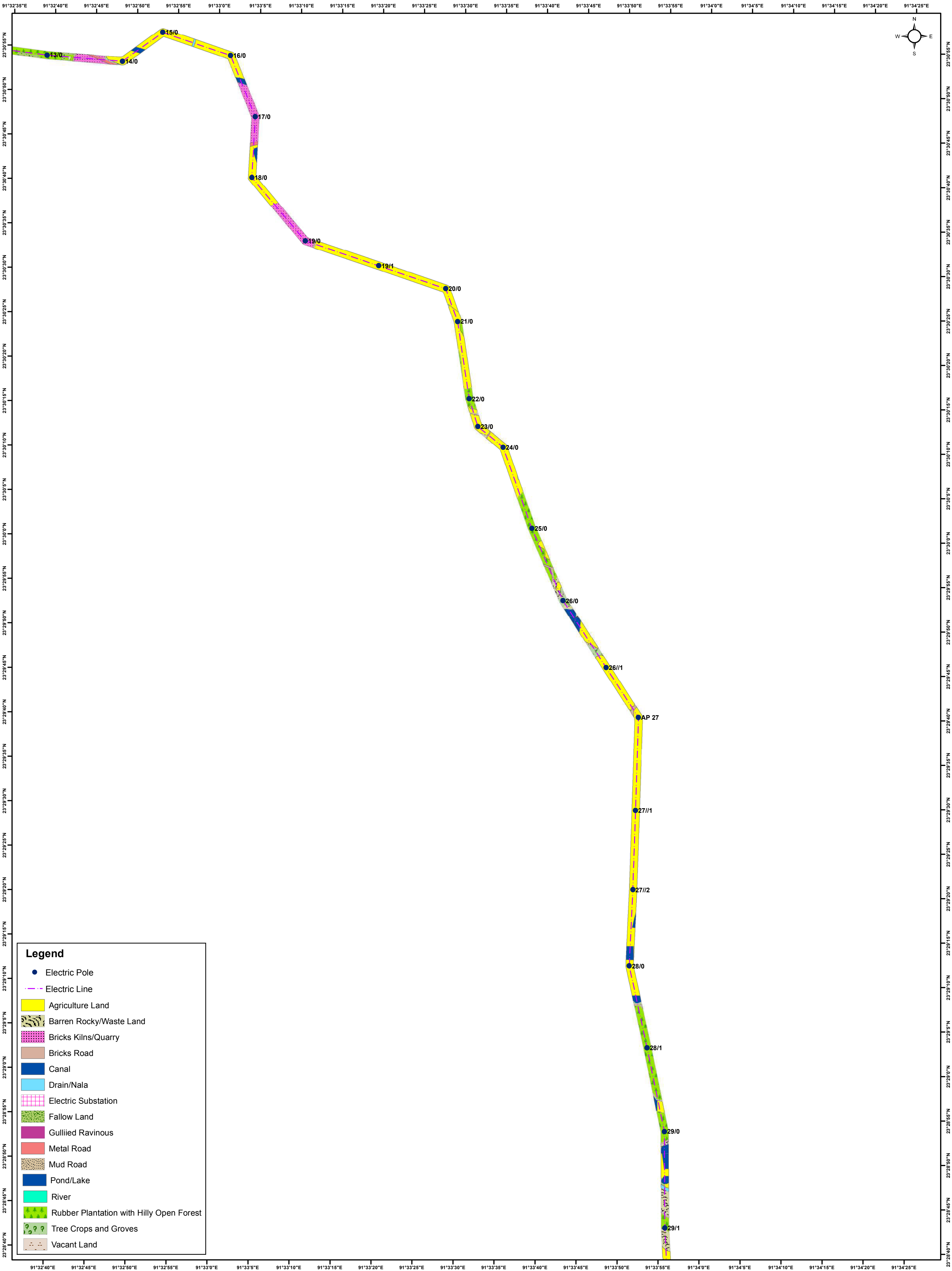
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

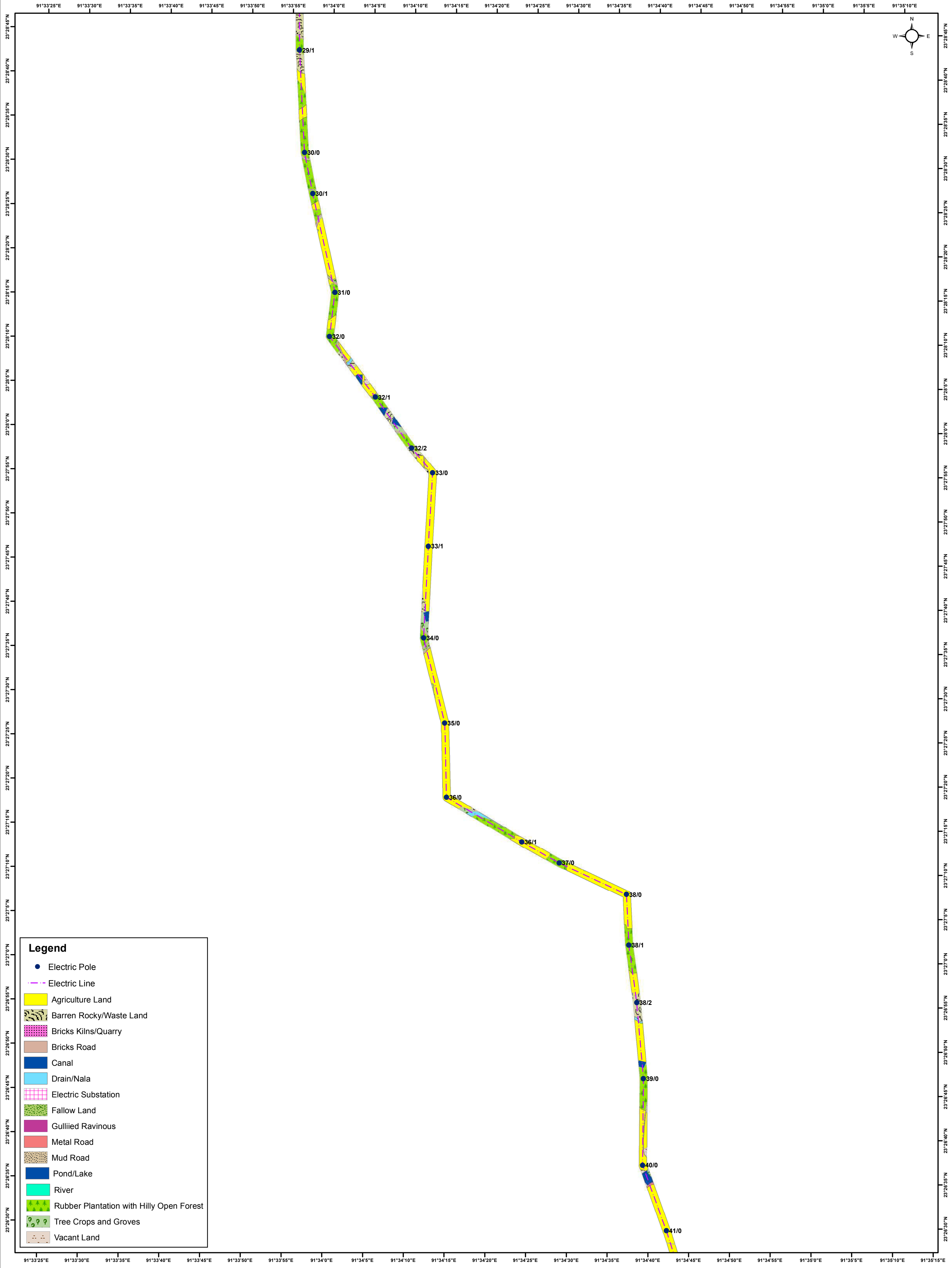
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LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

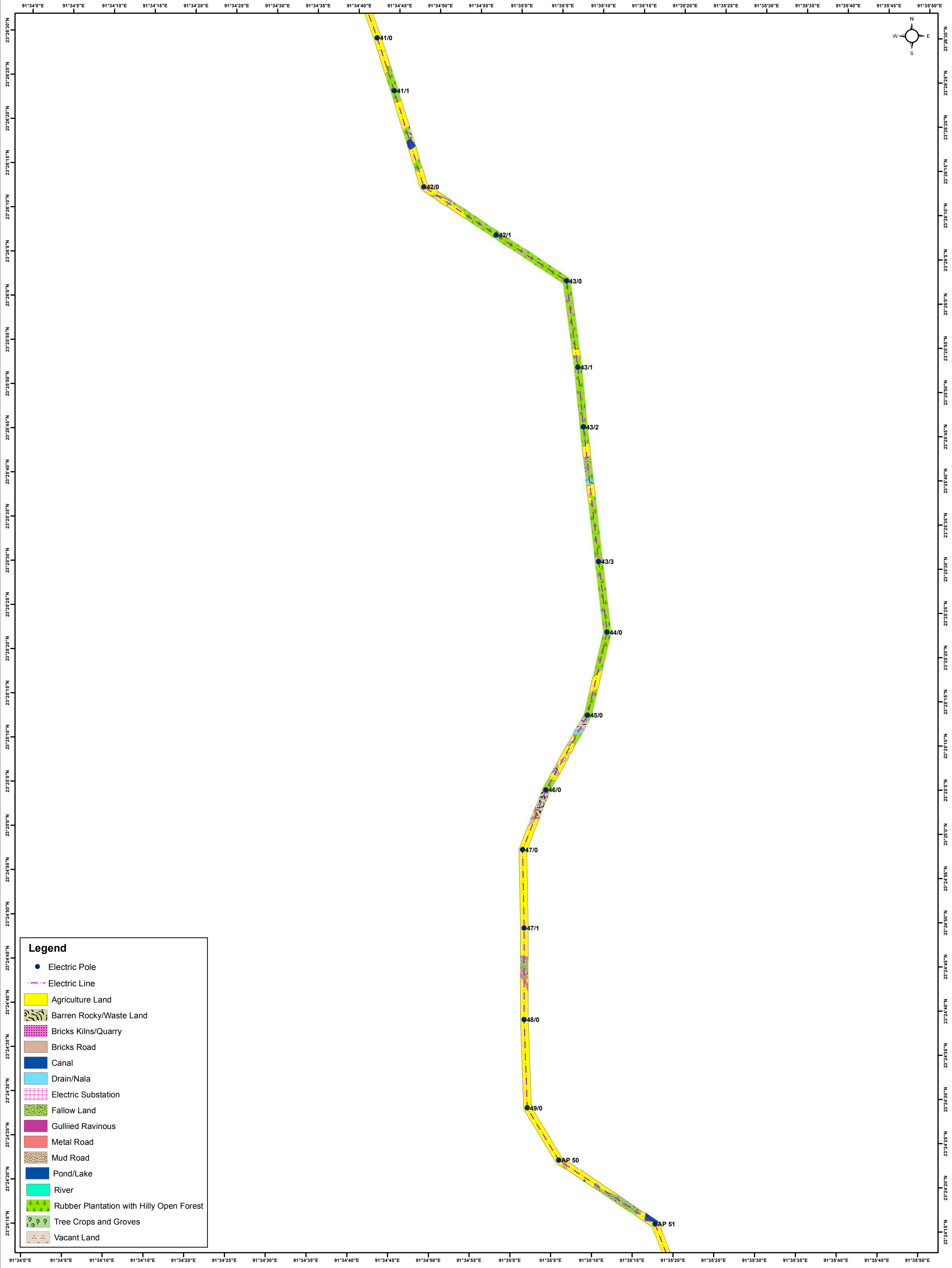
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

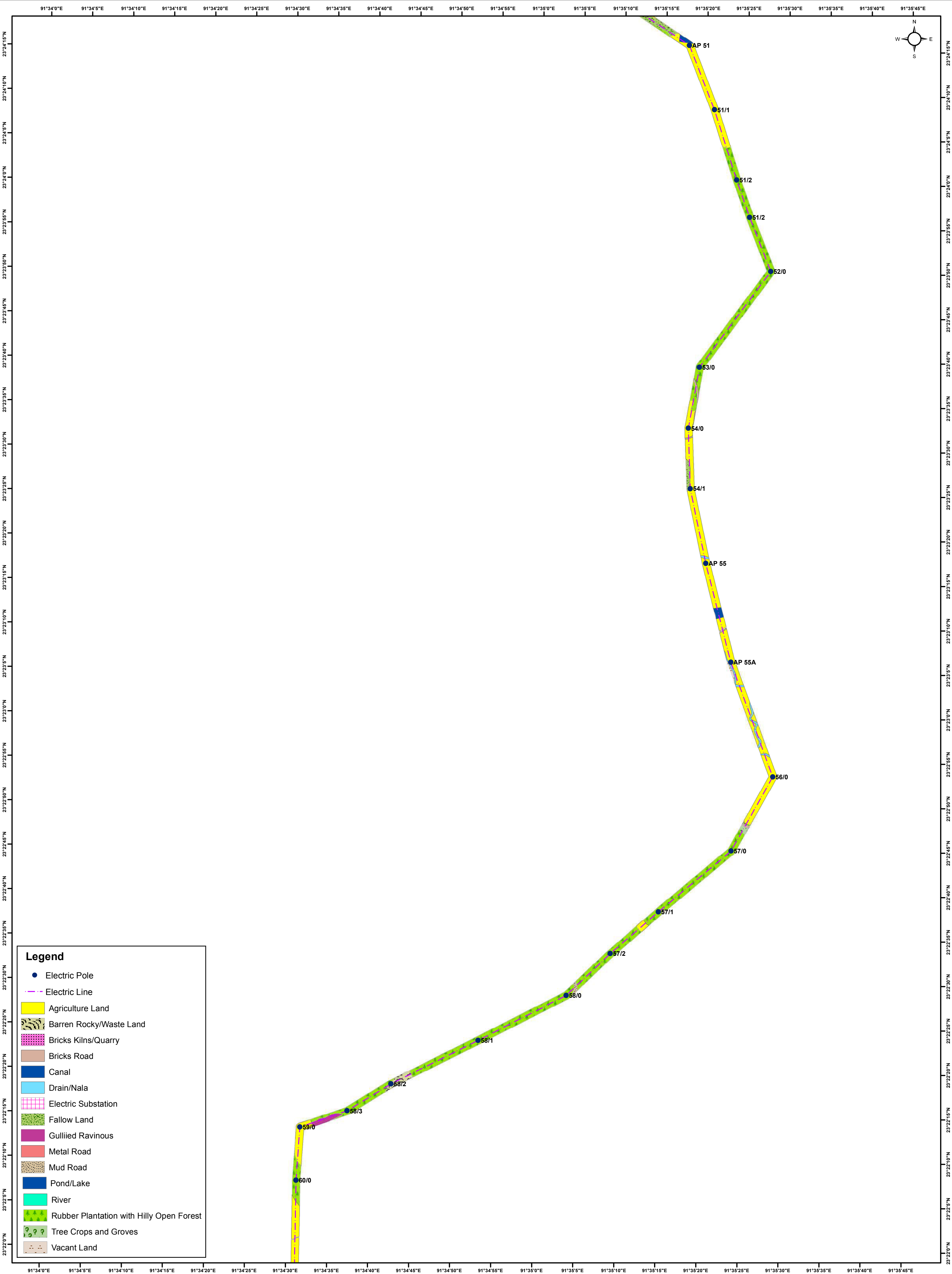
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LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

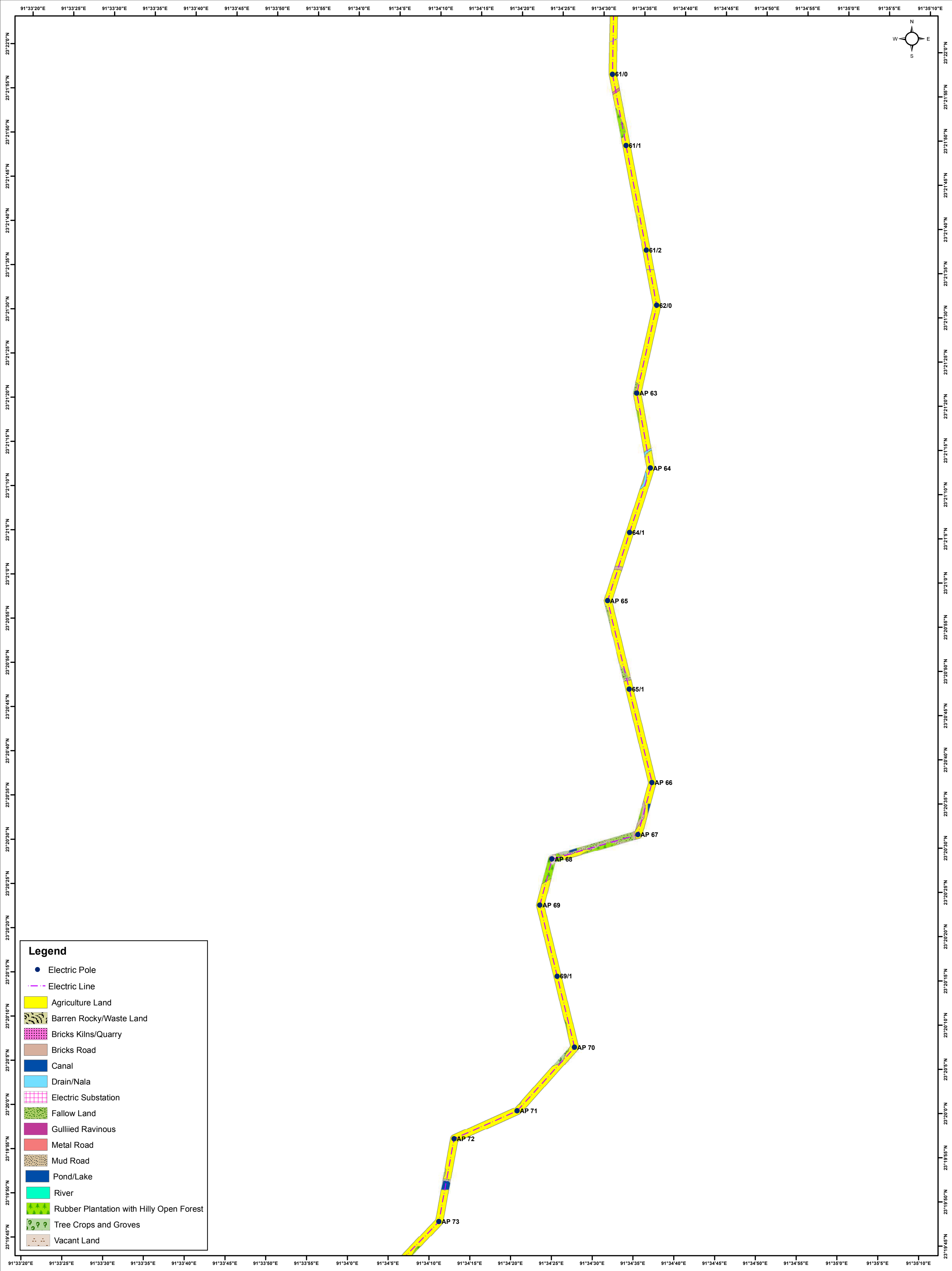
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LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

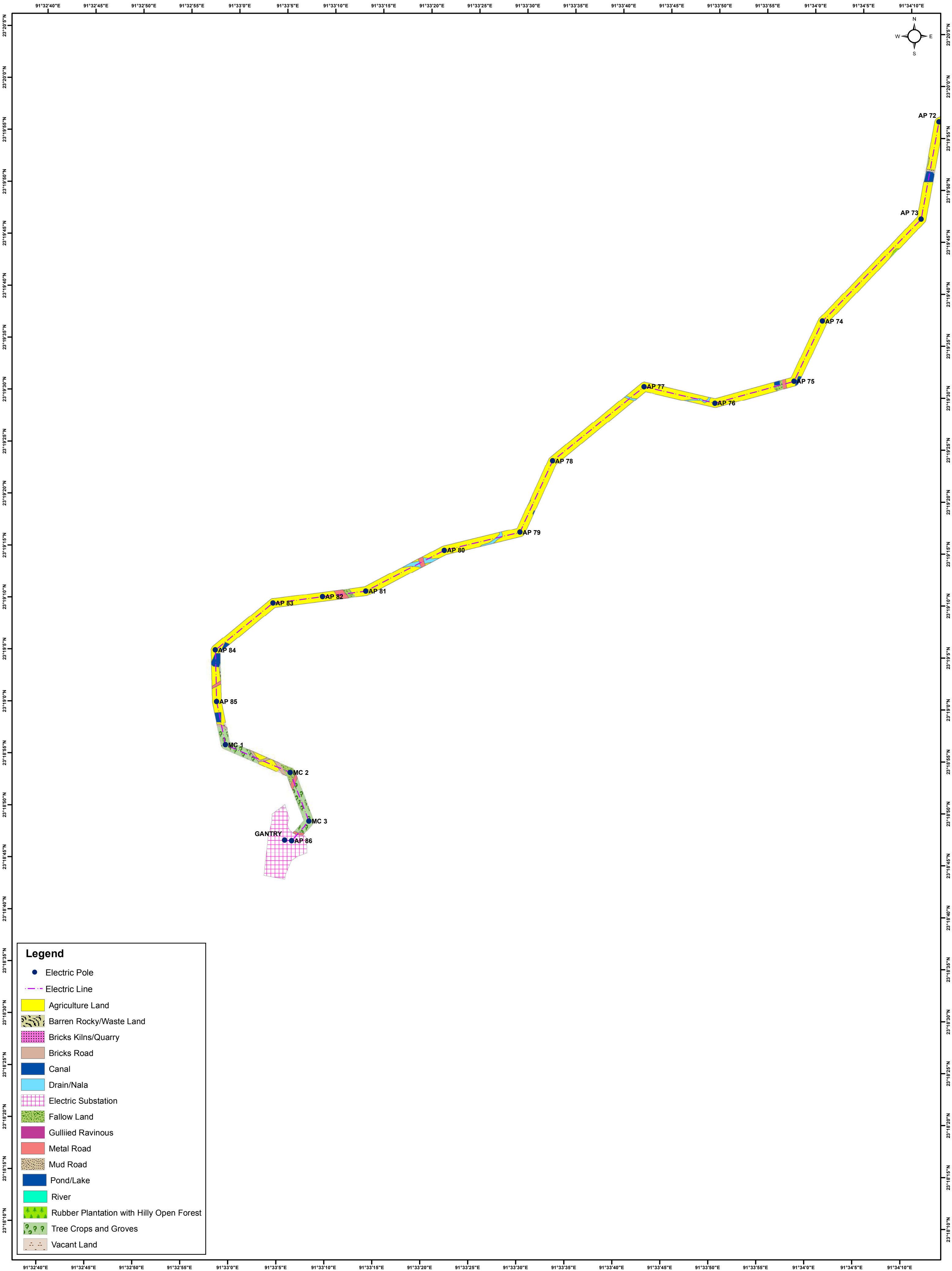
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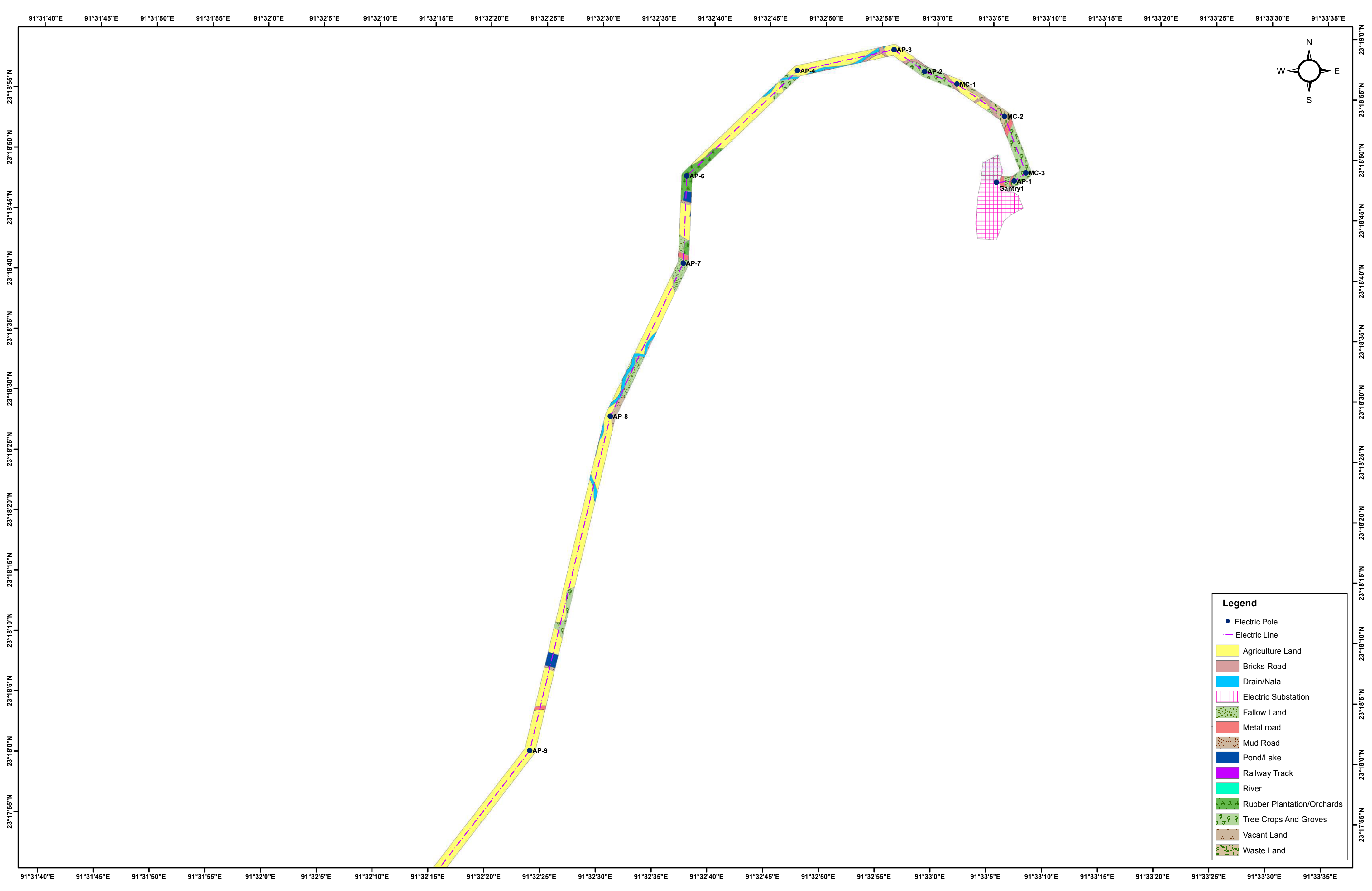
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR- BAGAFA TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

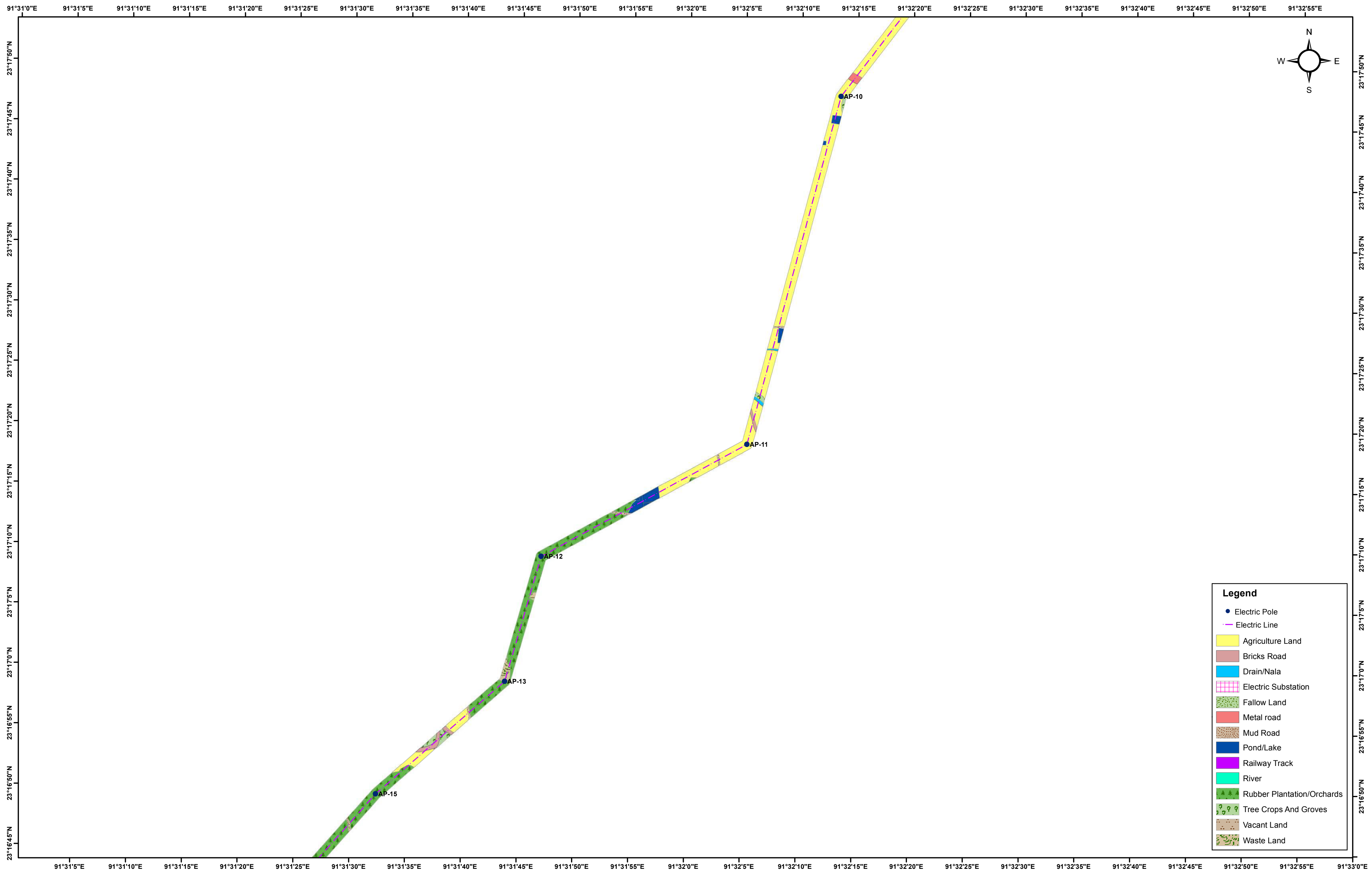
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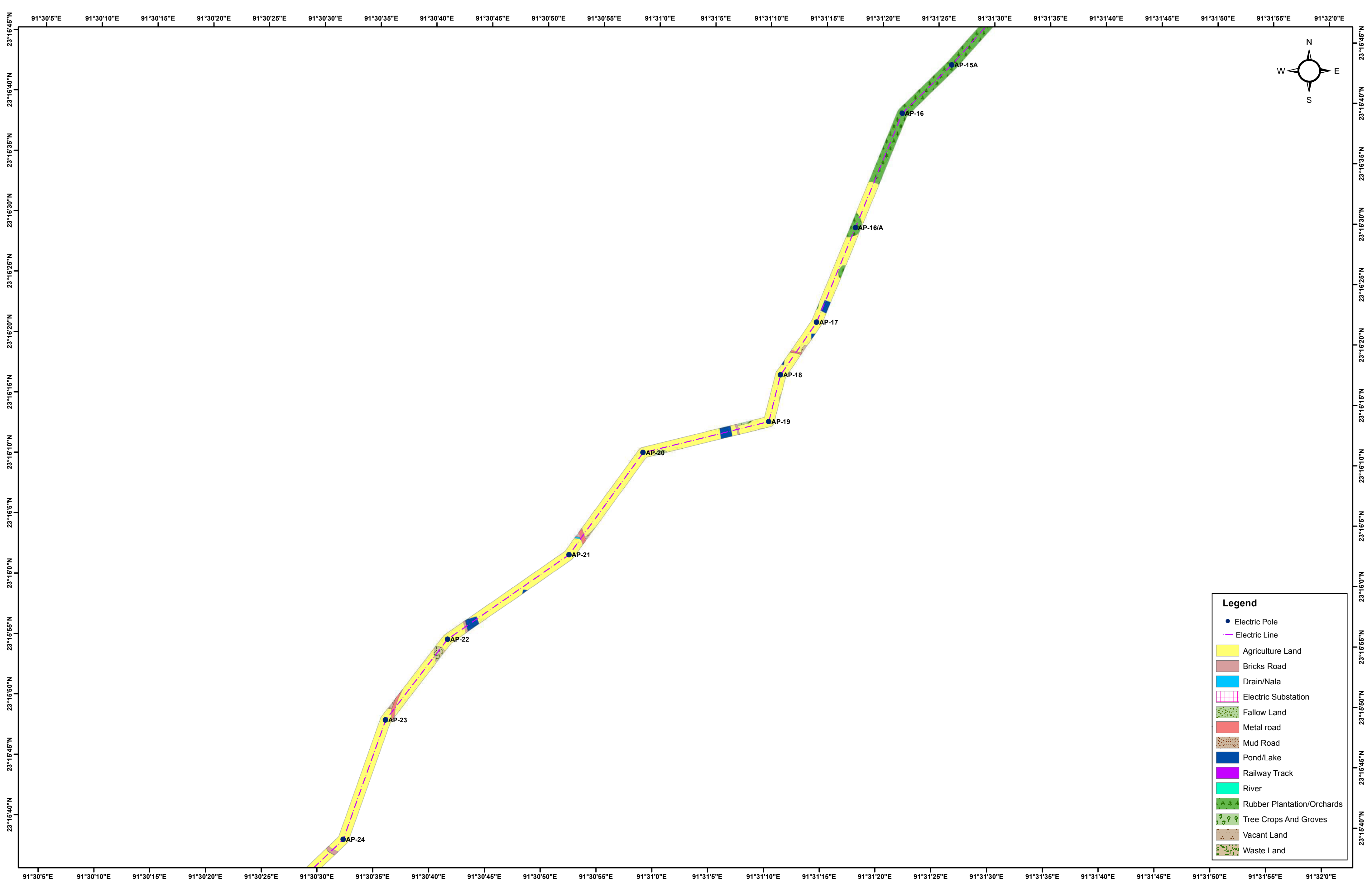
LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAF A - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



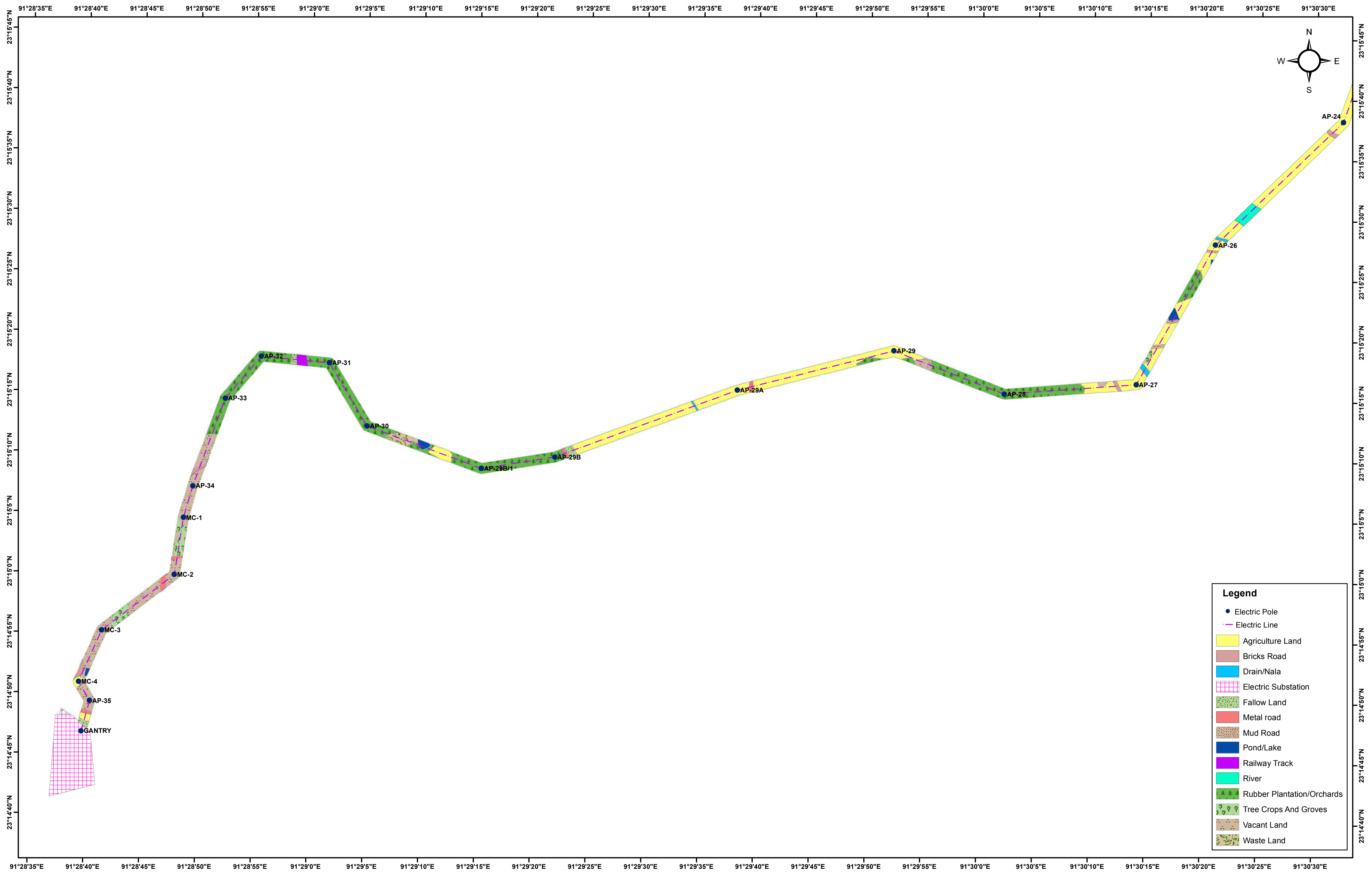
LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAFI - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAF A - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



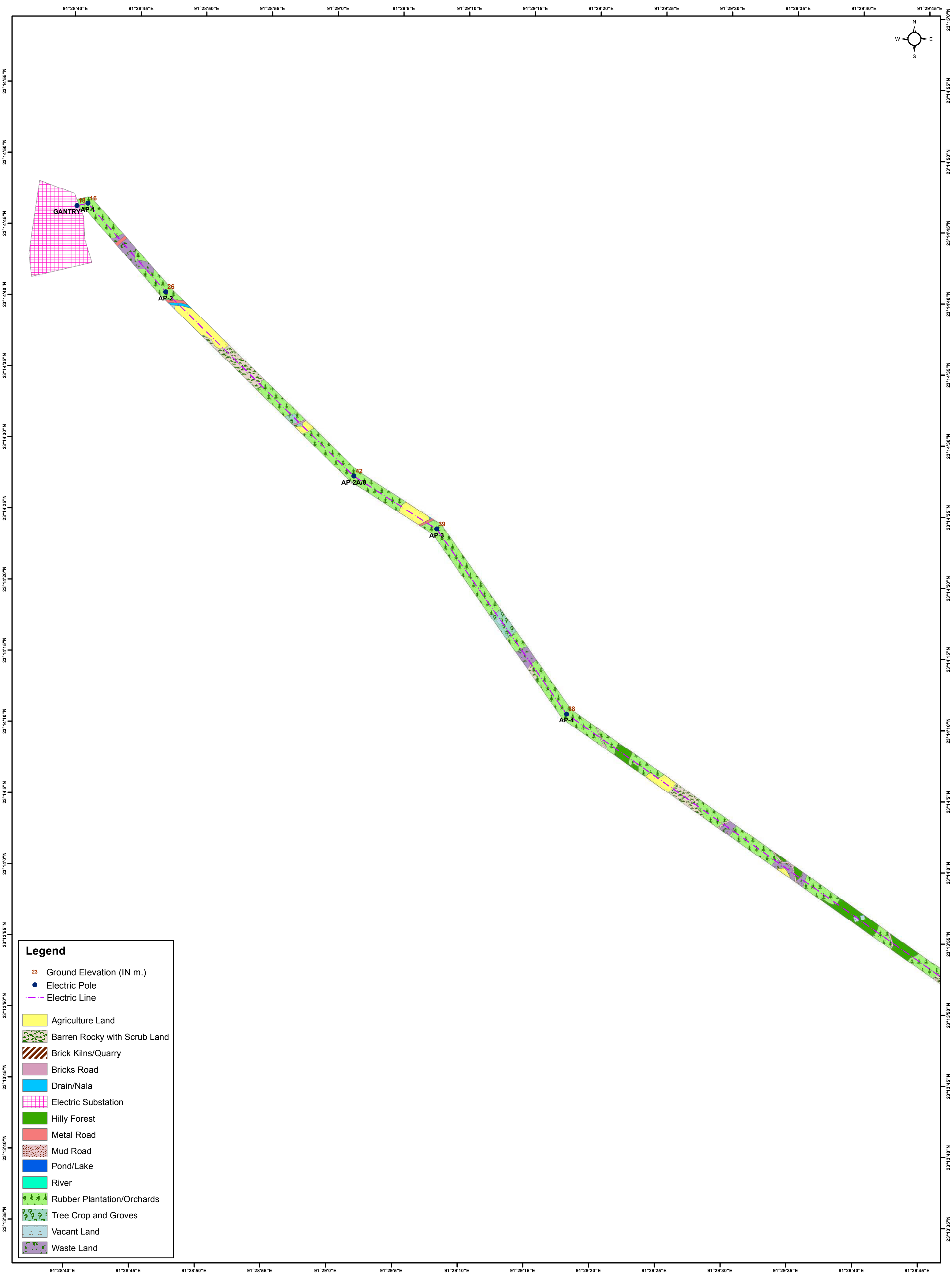
LAND USE/LAND COVER DETAILS OF 132 KV D/C BAGAF A - BELONIA TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

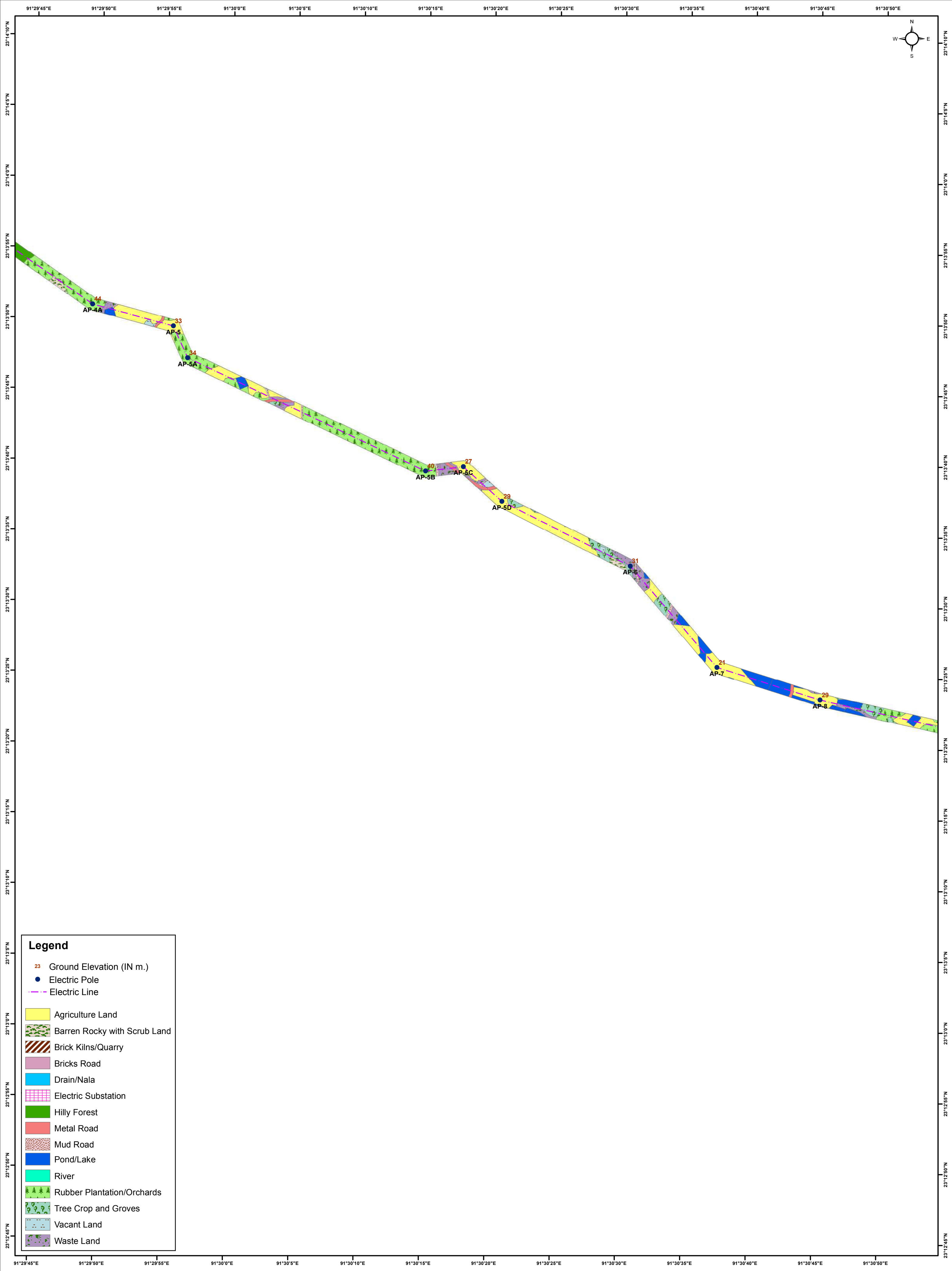
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

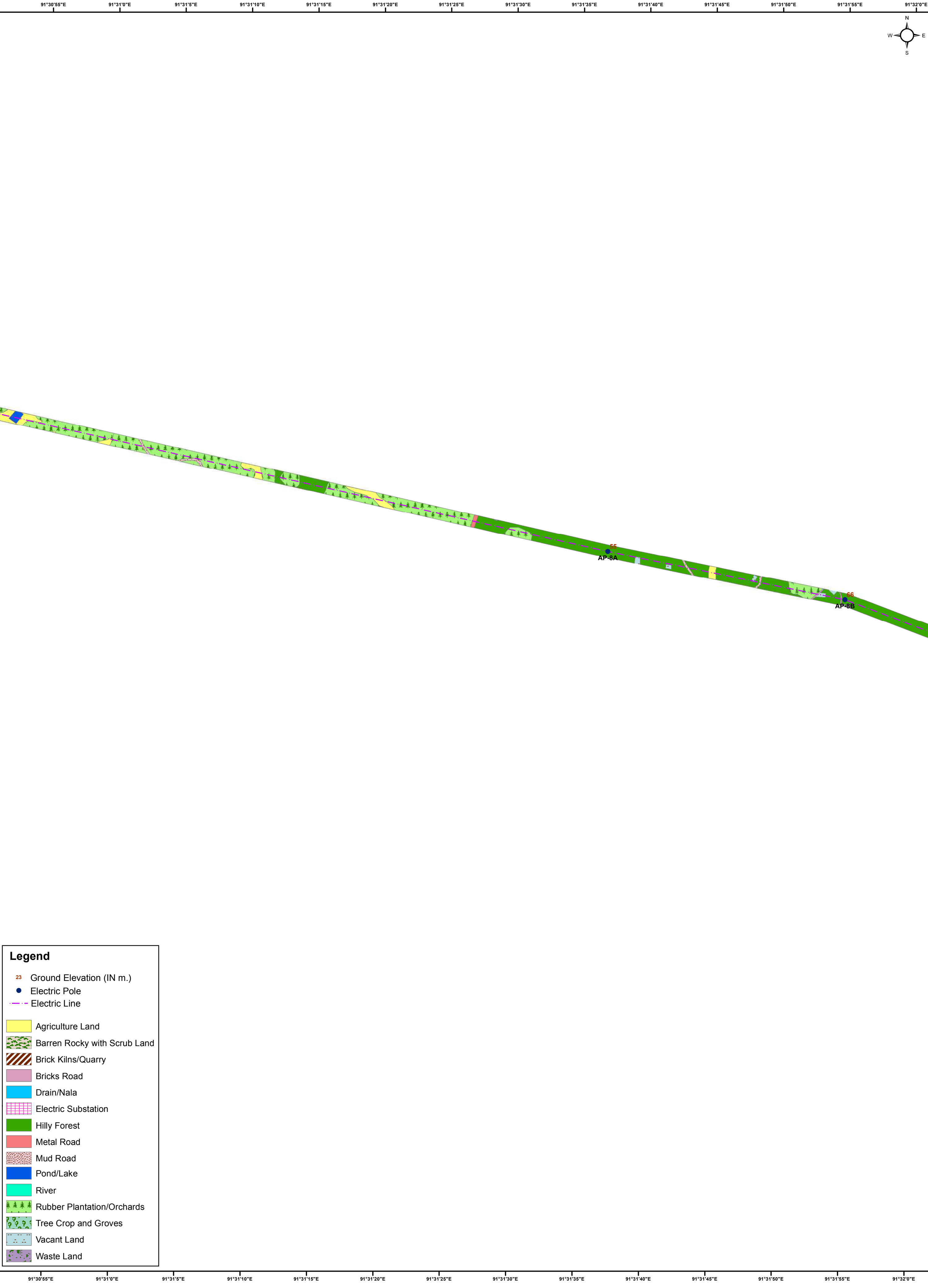
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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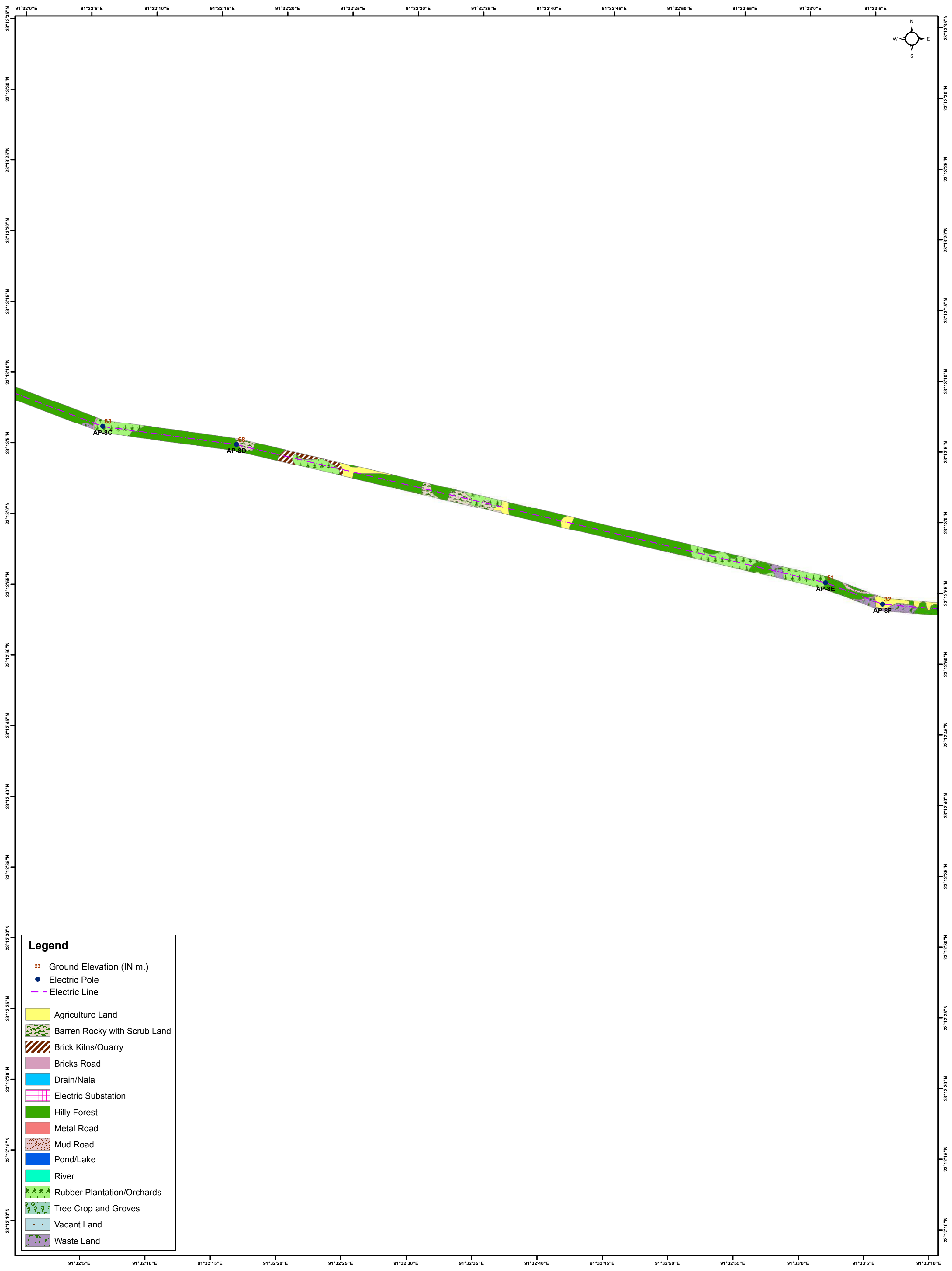
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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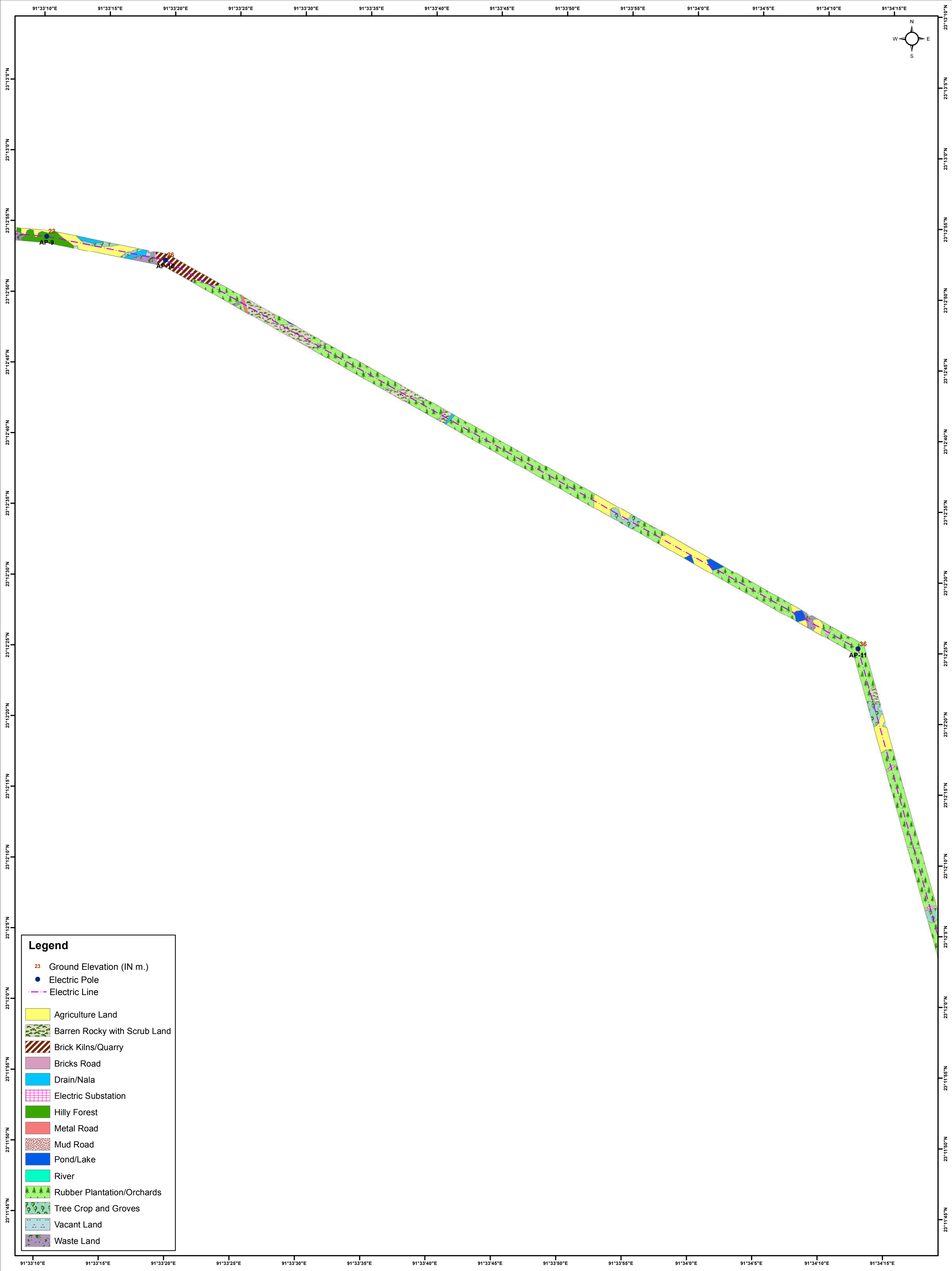
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

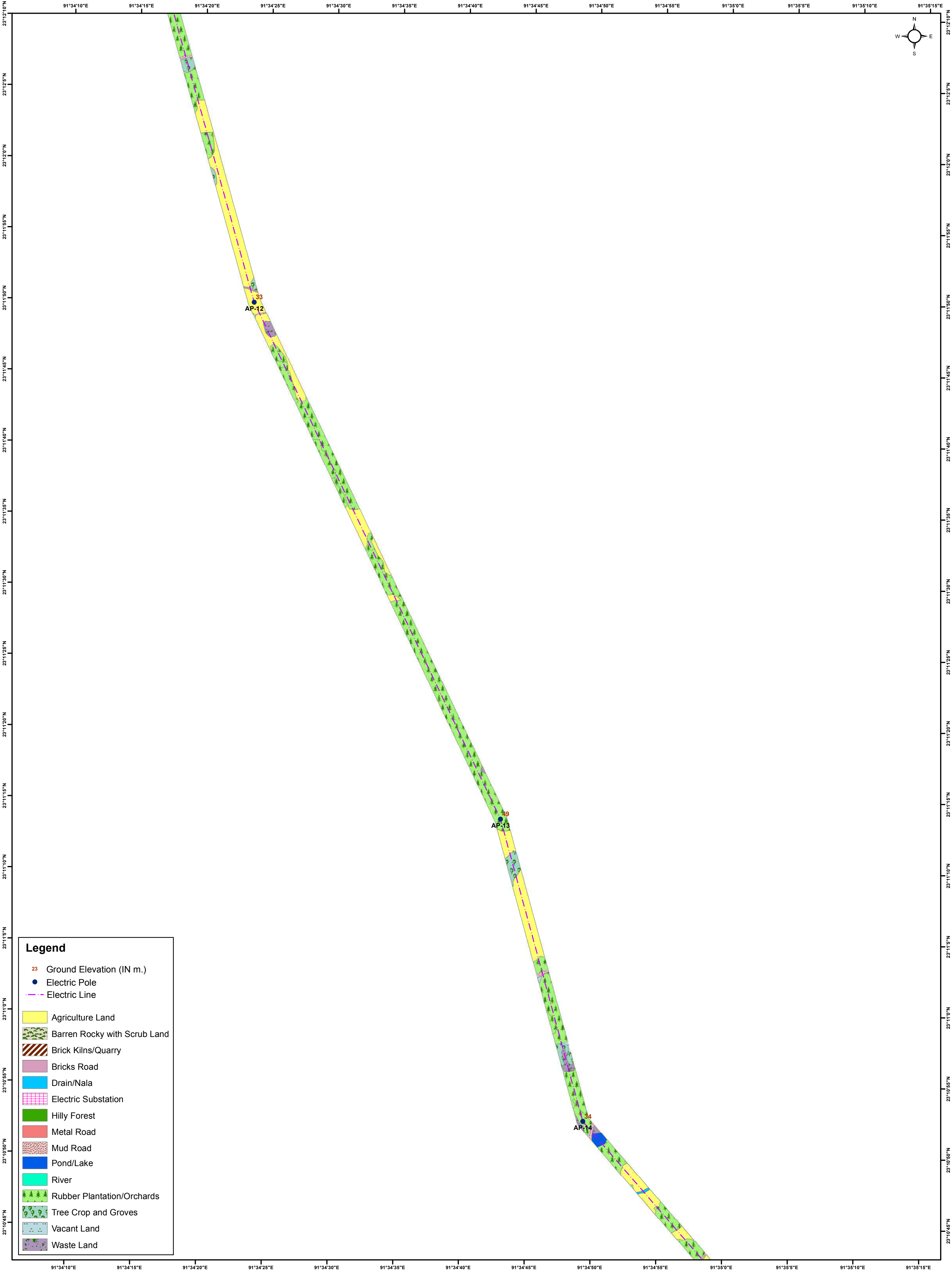
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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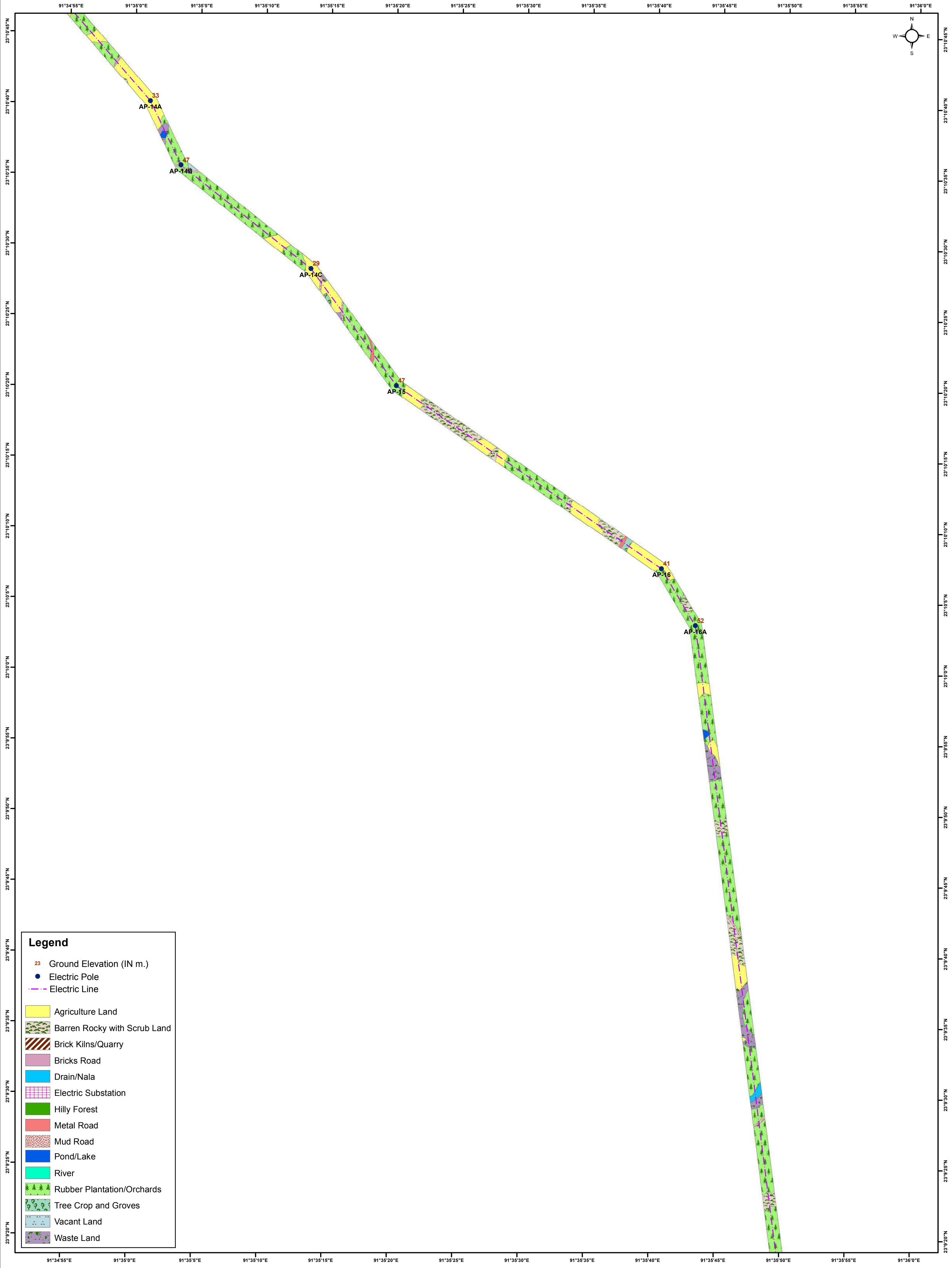
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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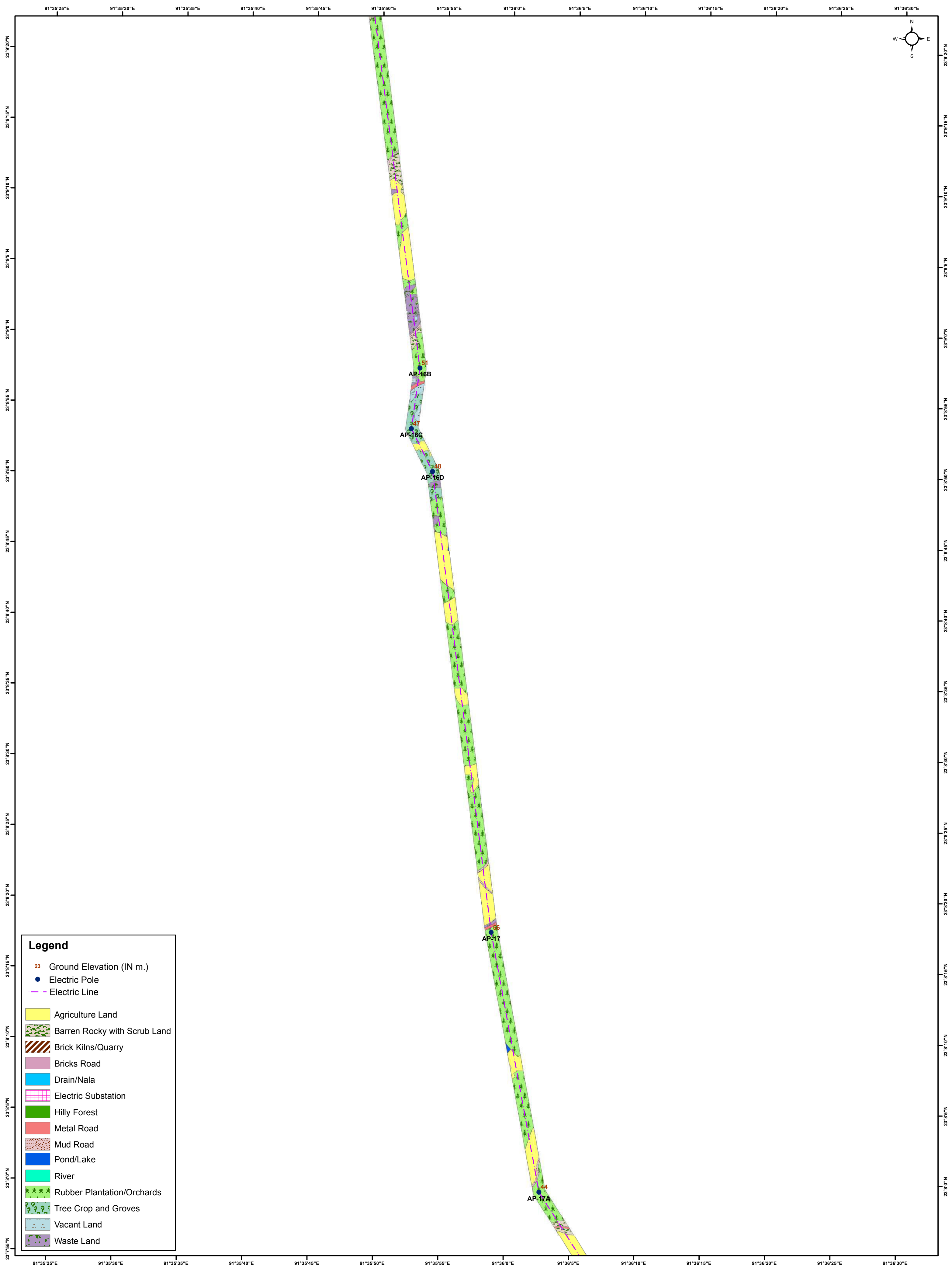
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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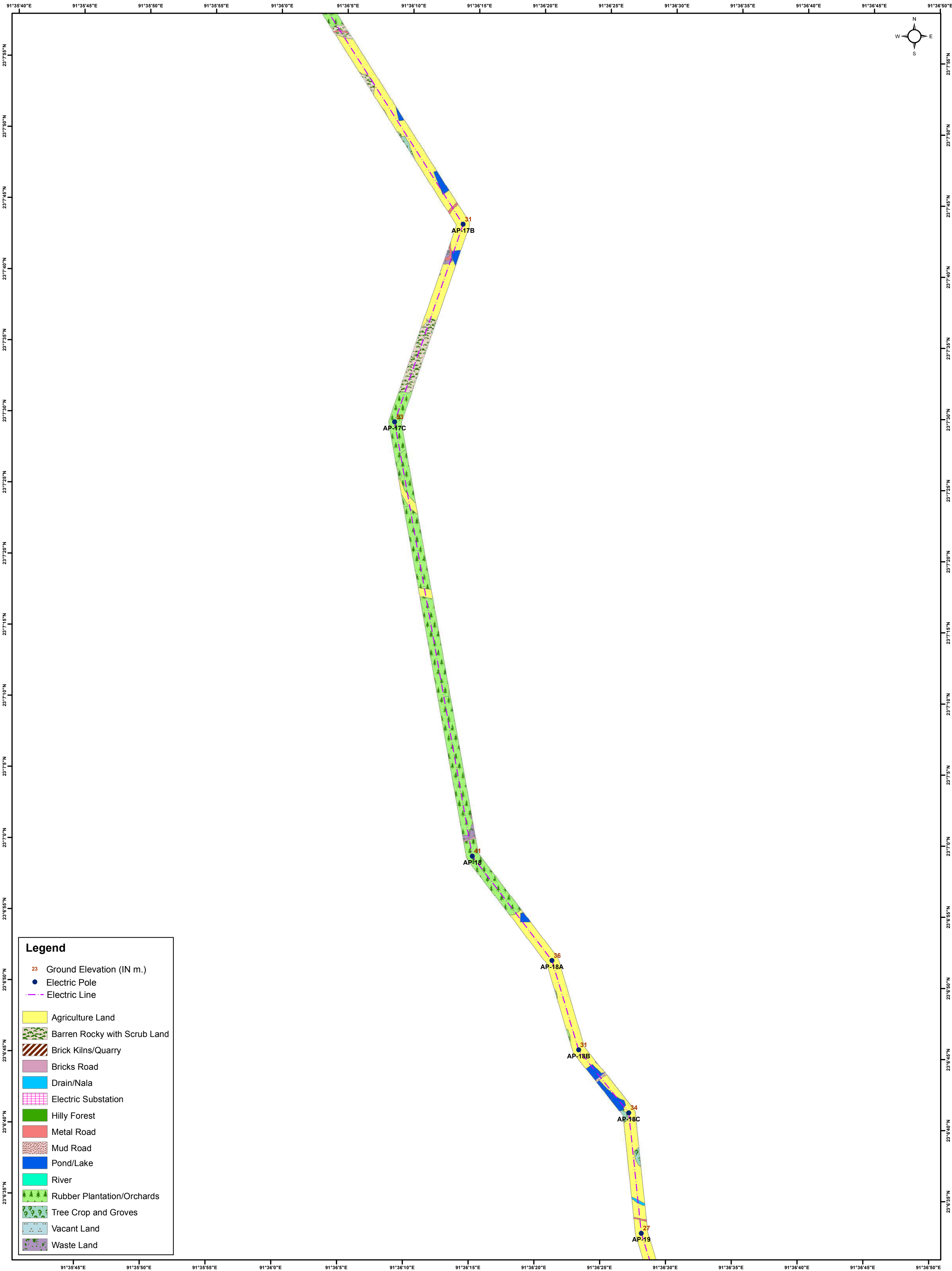
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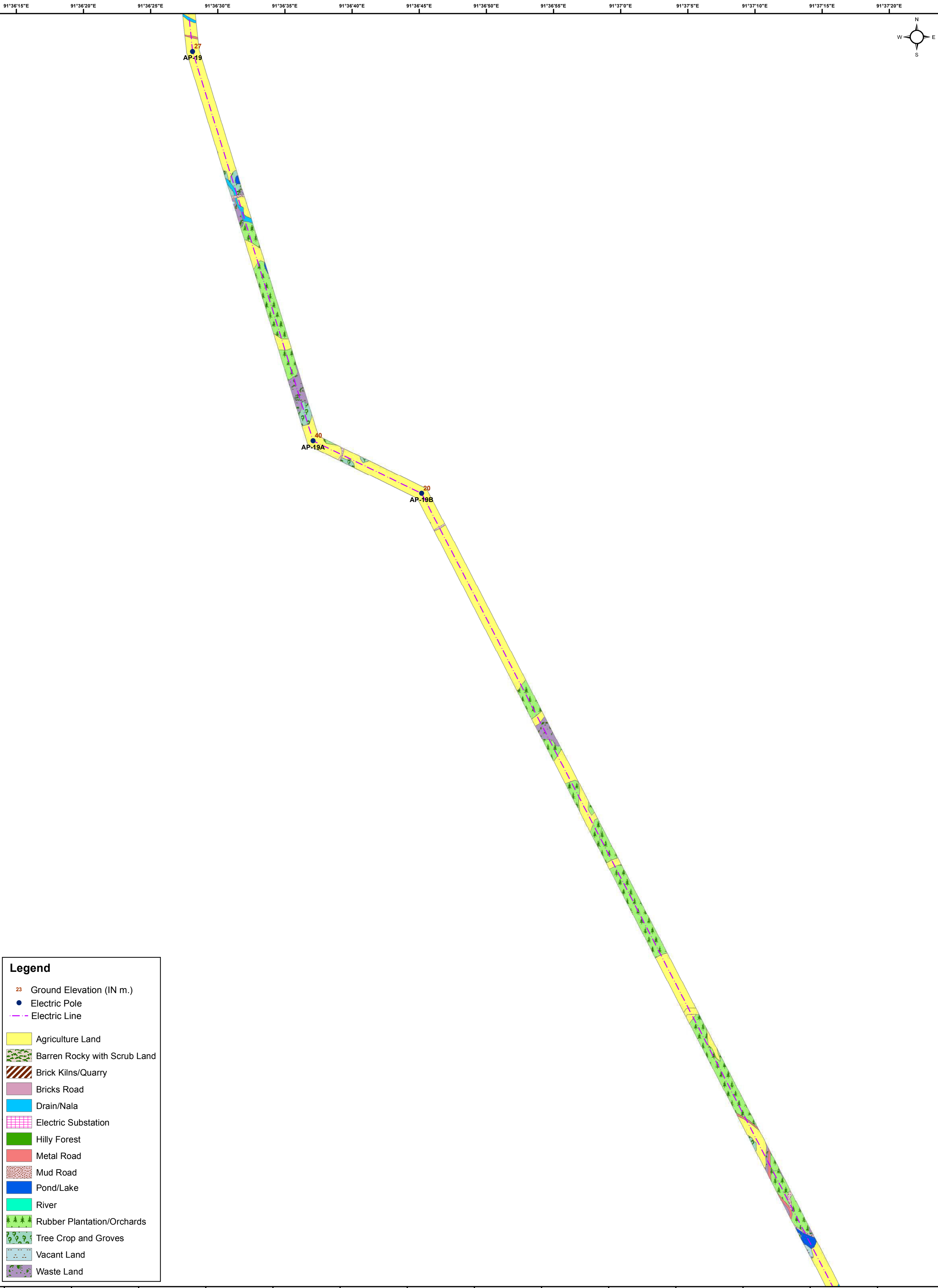
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

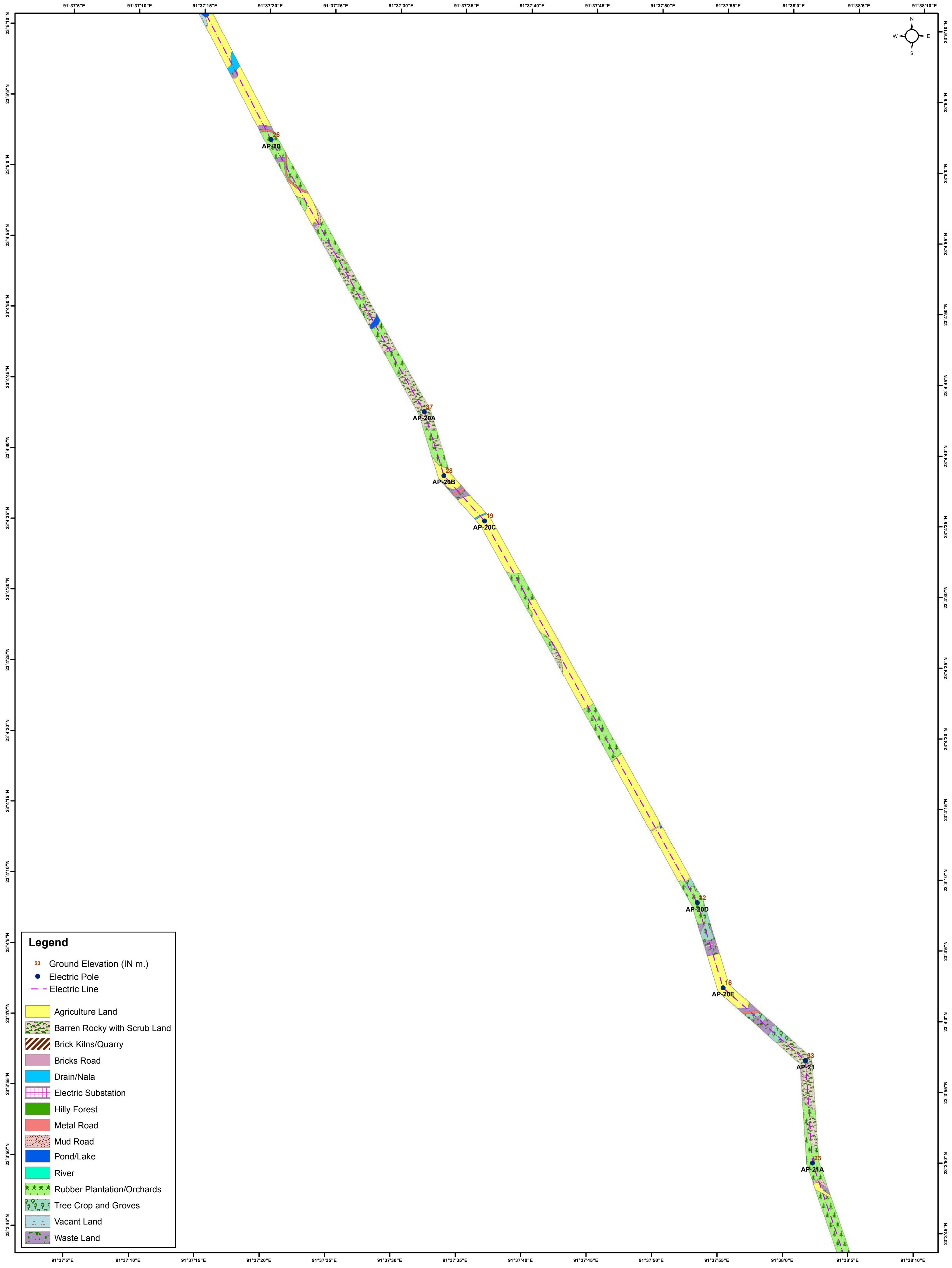
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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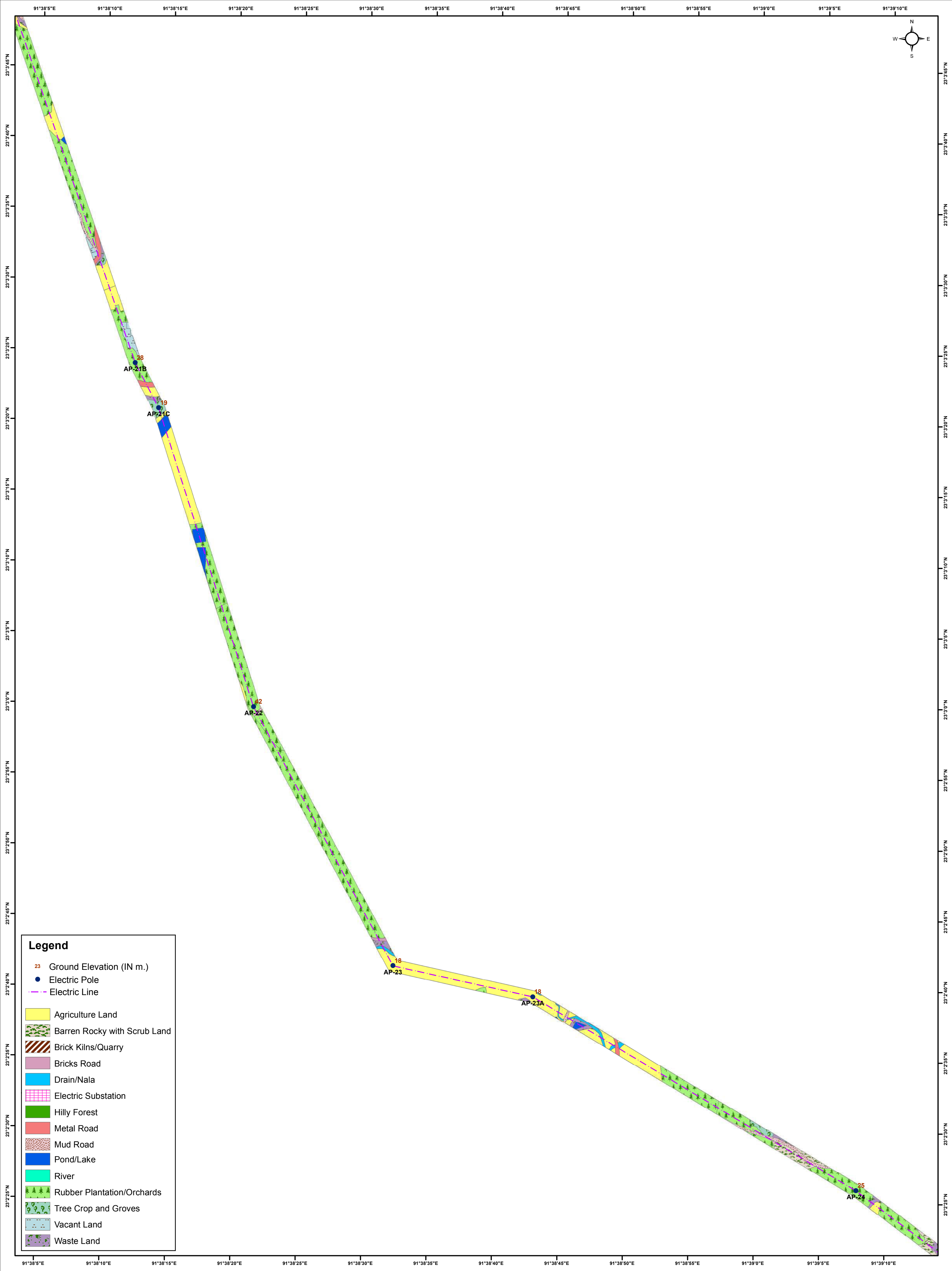
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

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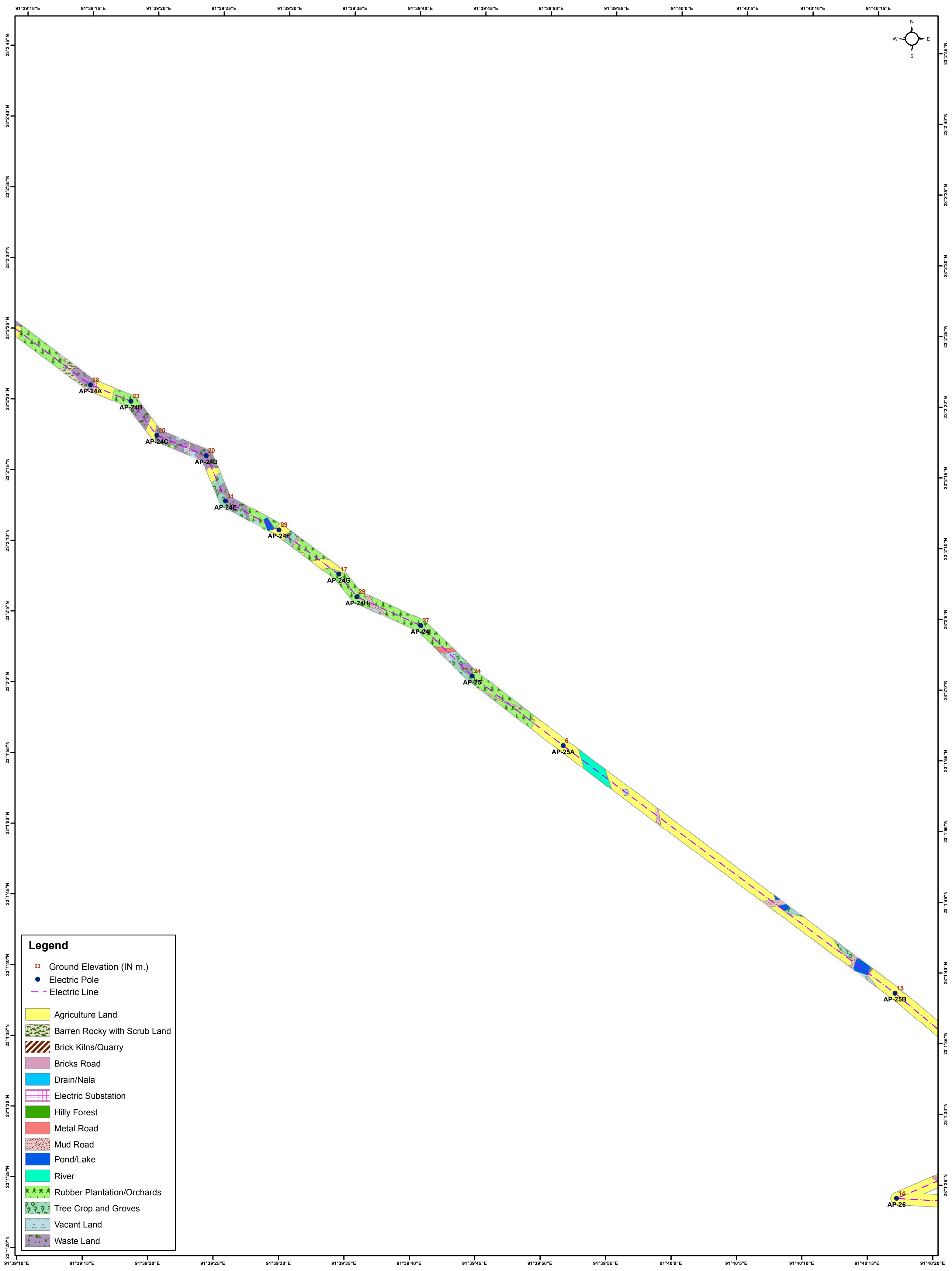
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

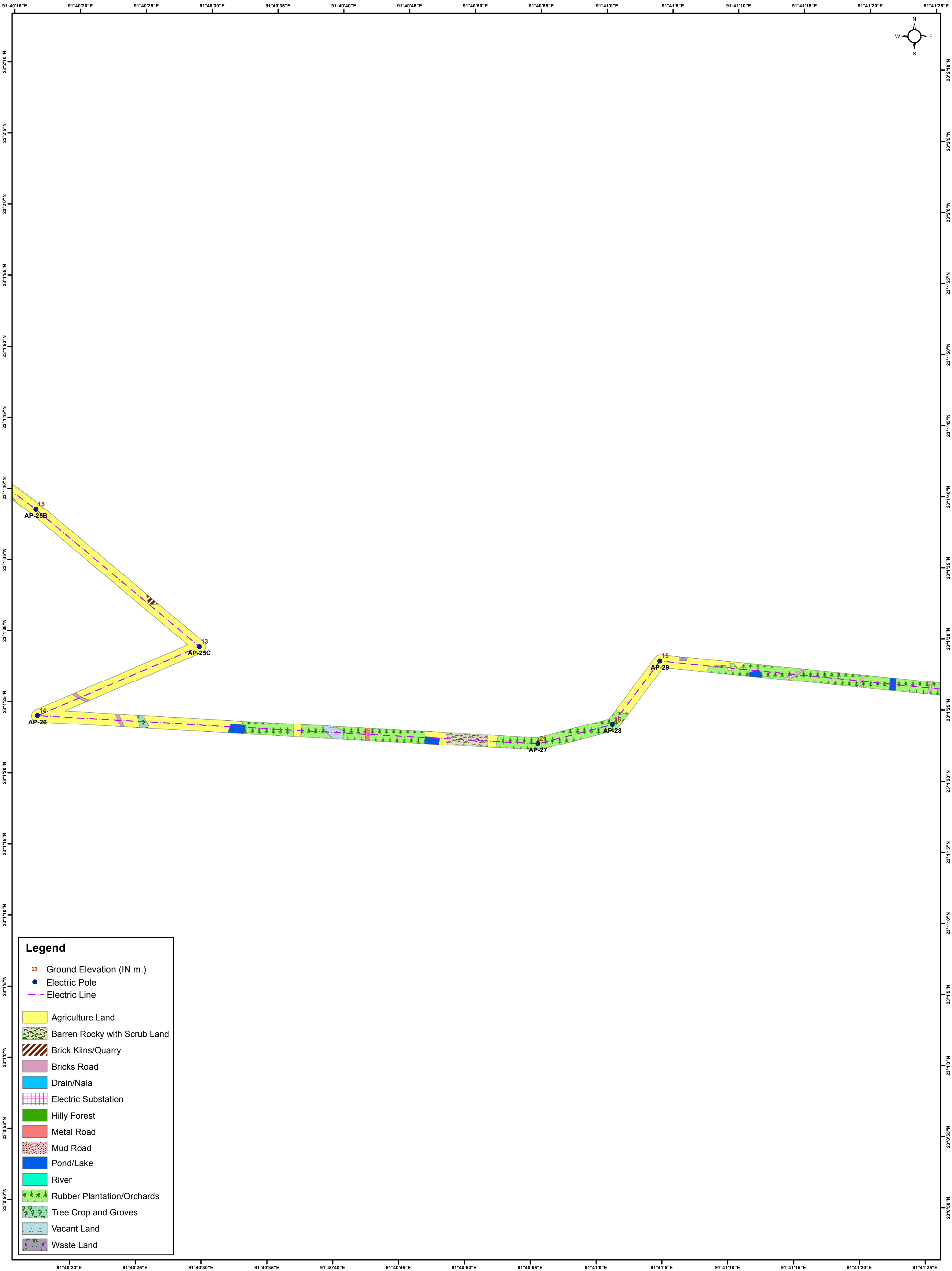
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

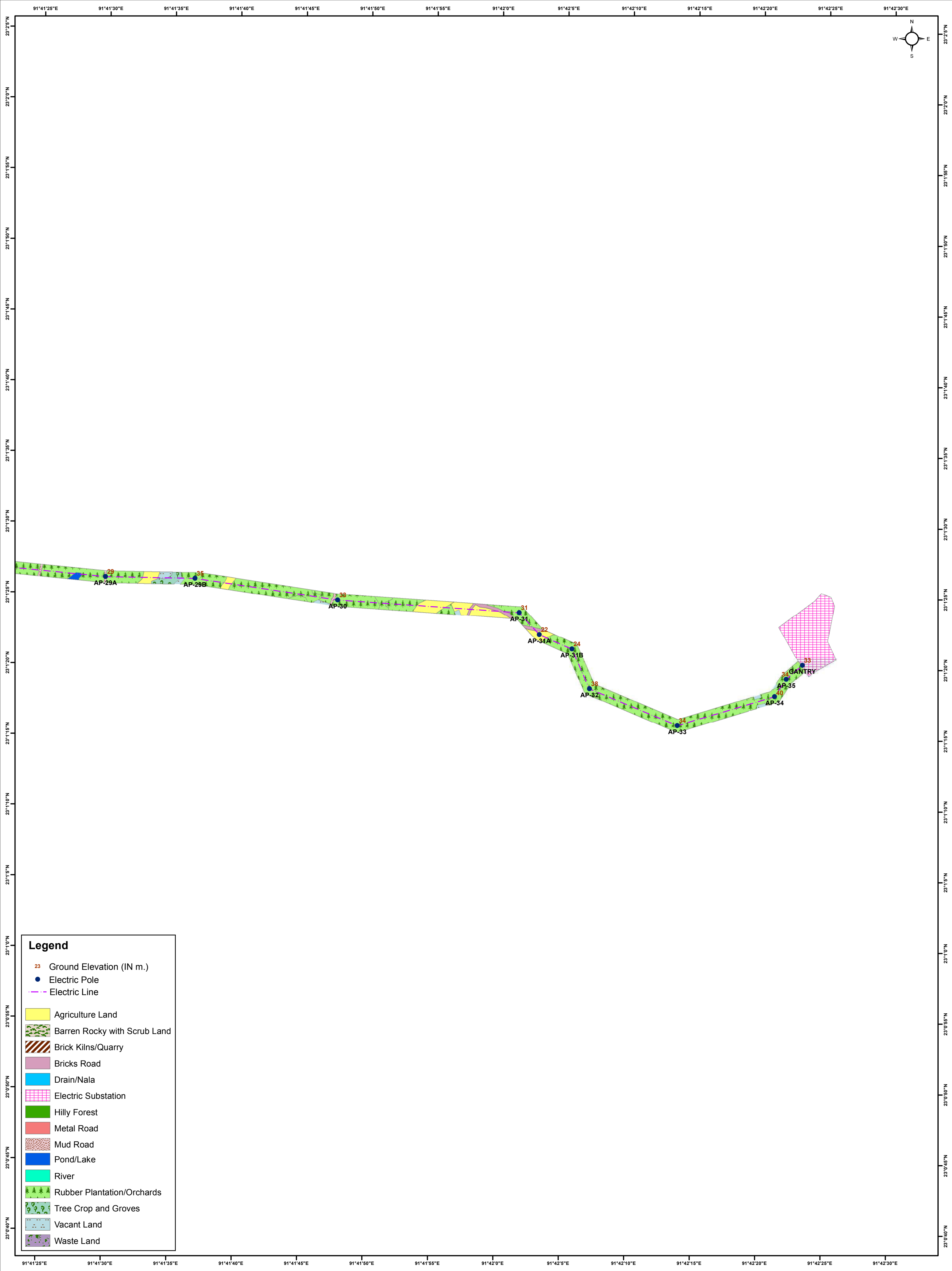
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LAND USE/LAND COVER DETAILS OF 132 KV D/C BELONIA- SABROOM TRANSMISSION LINE

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

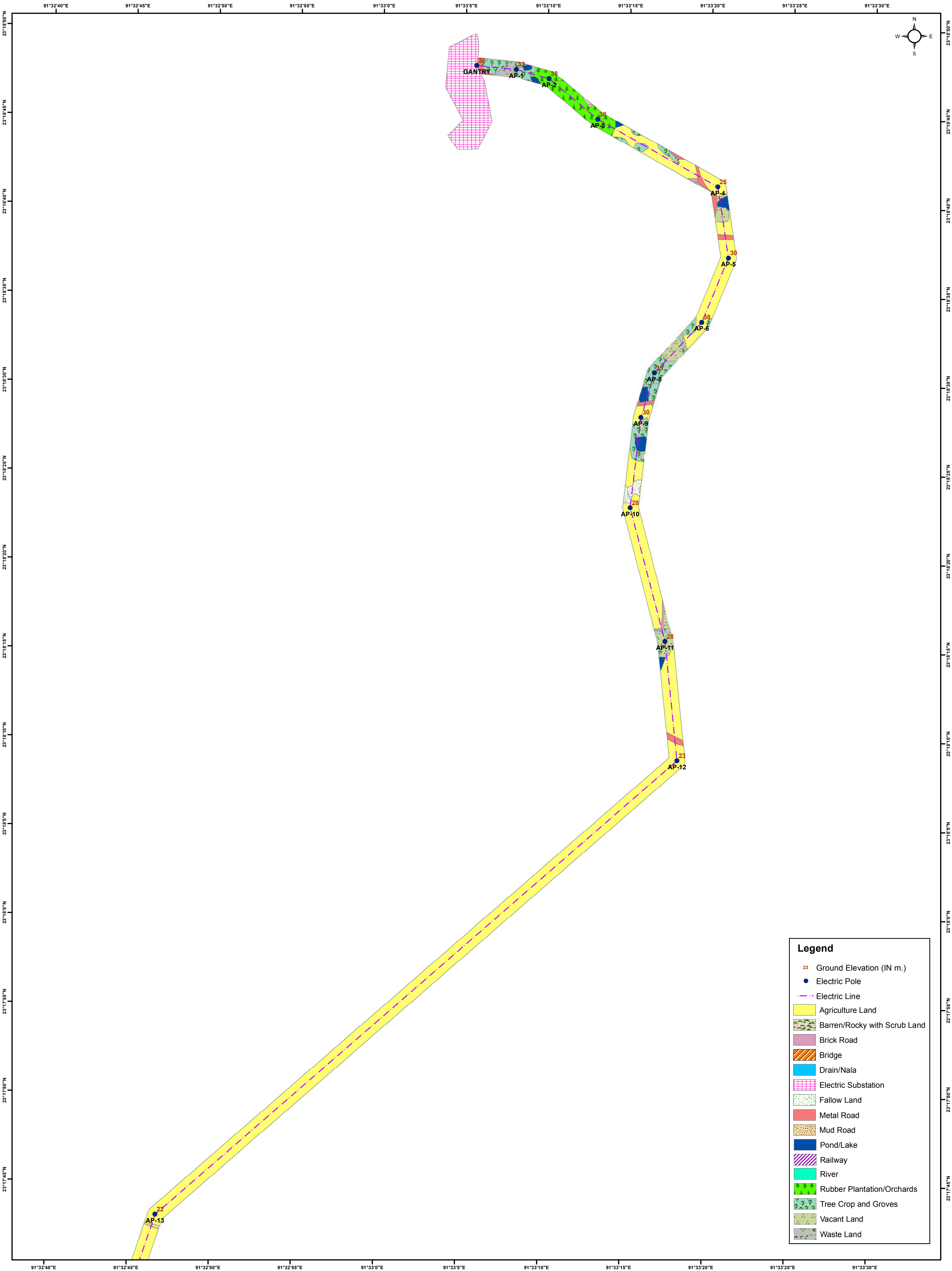
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

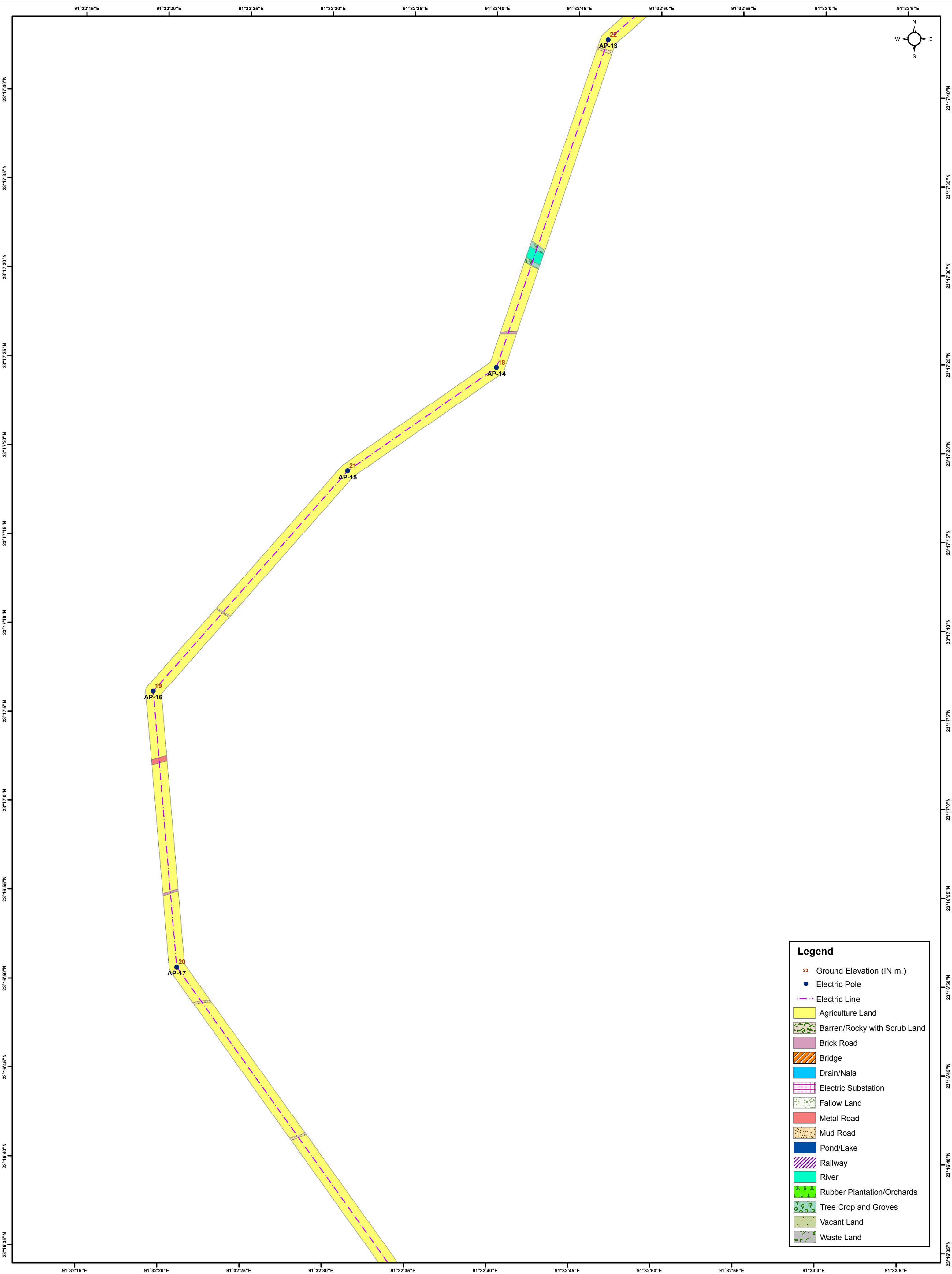
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

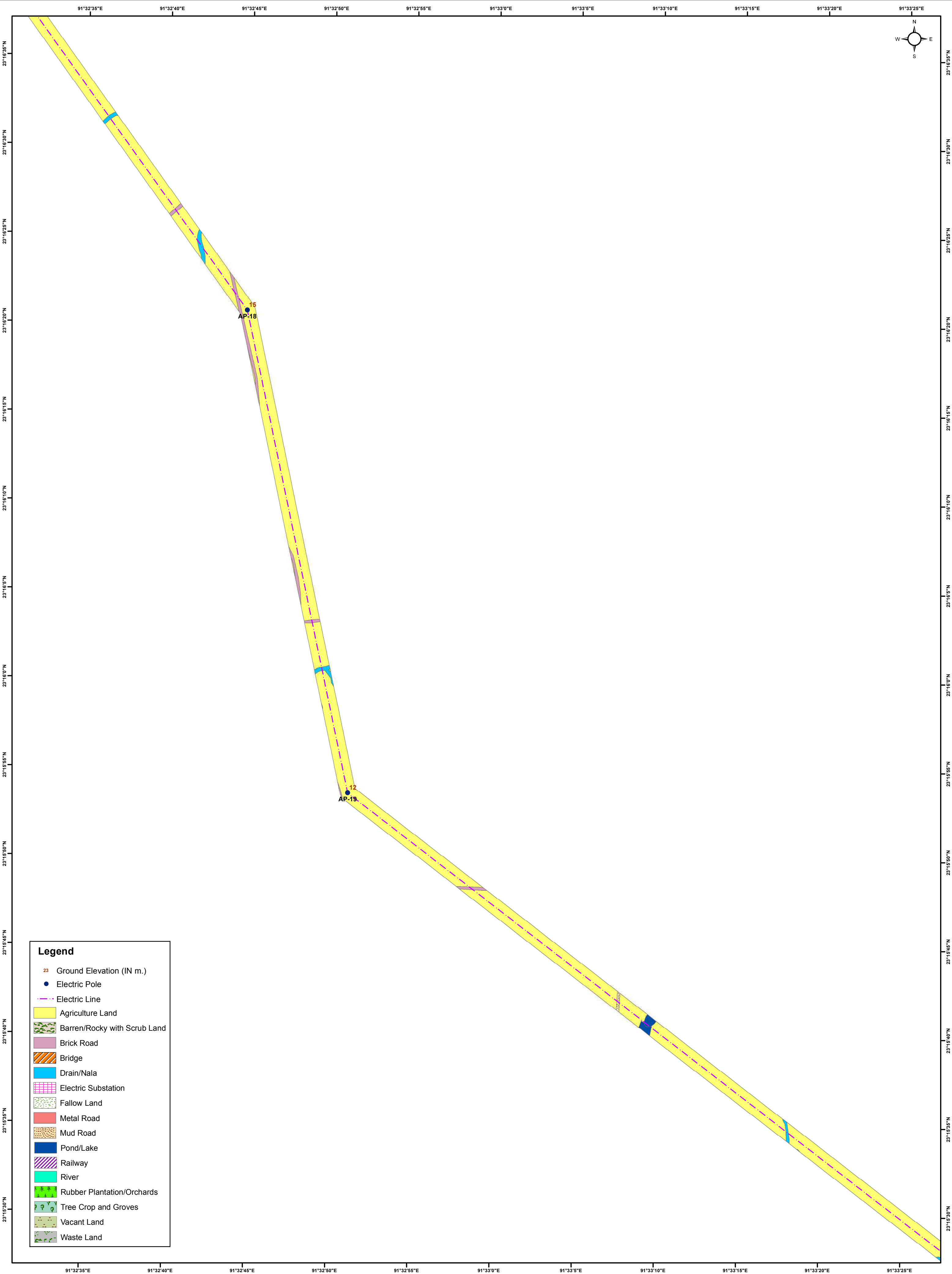
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

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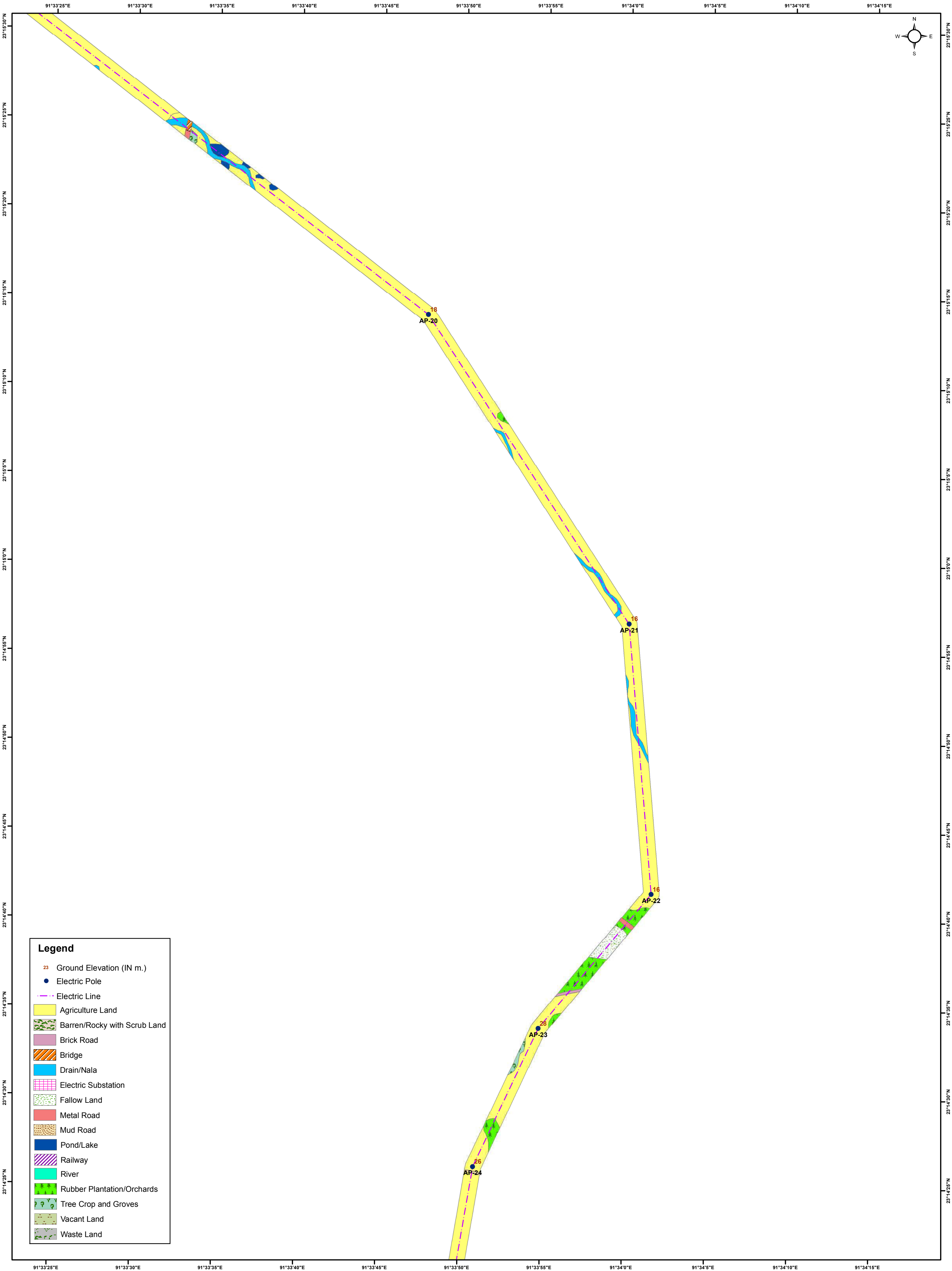
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFI-SATCHAND

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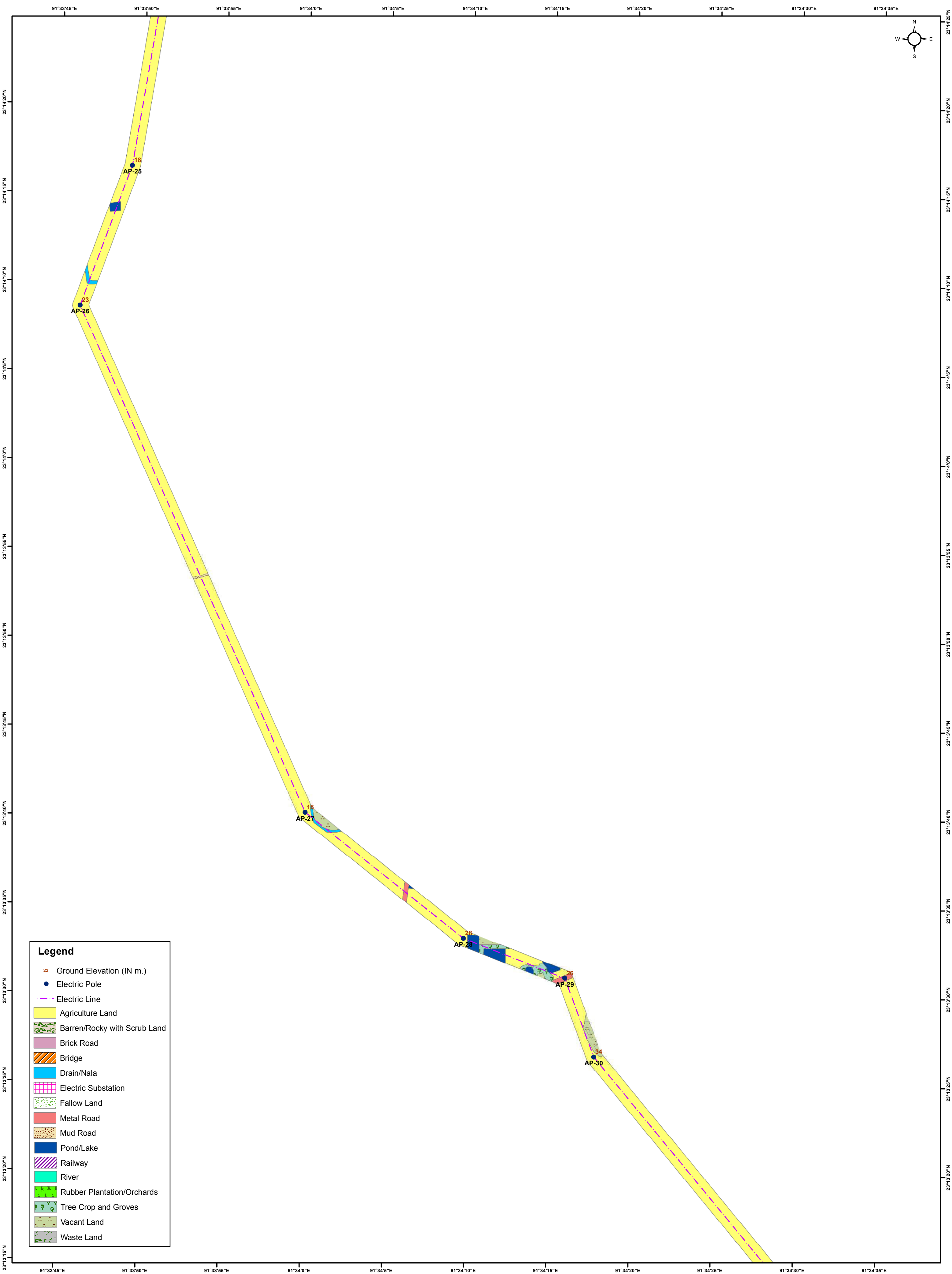
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LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

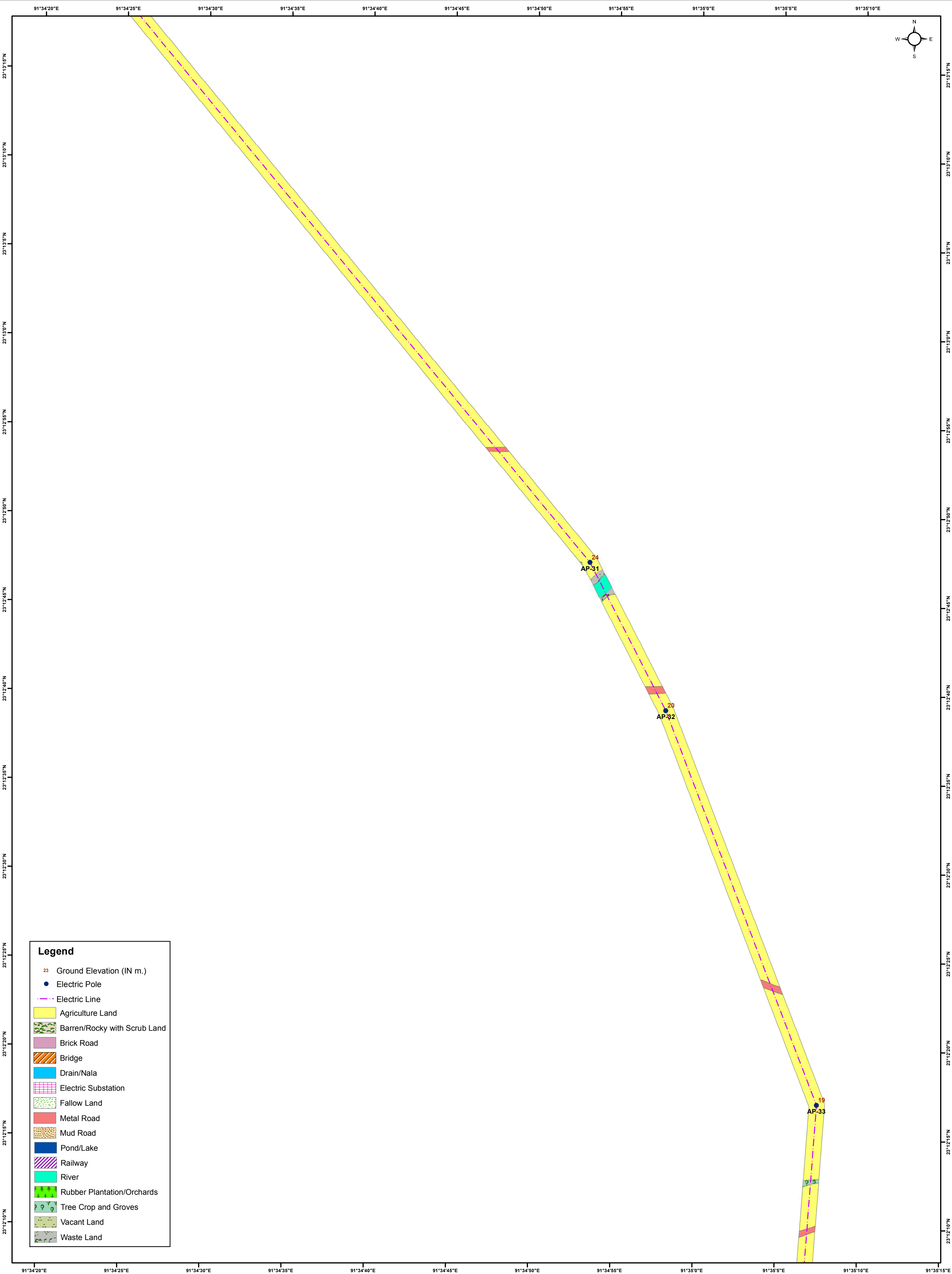
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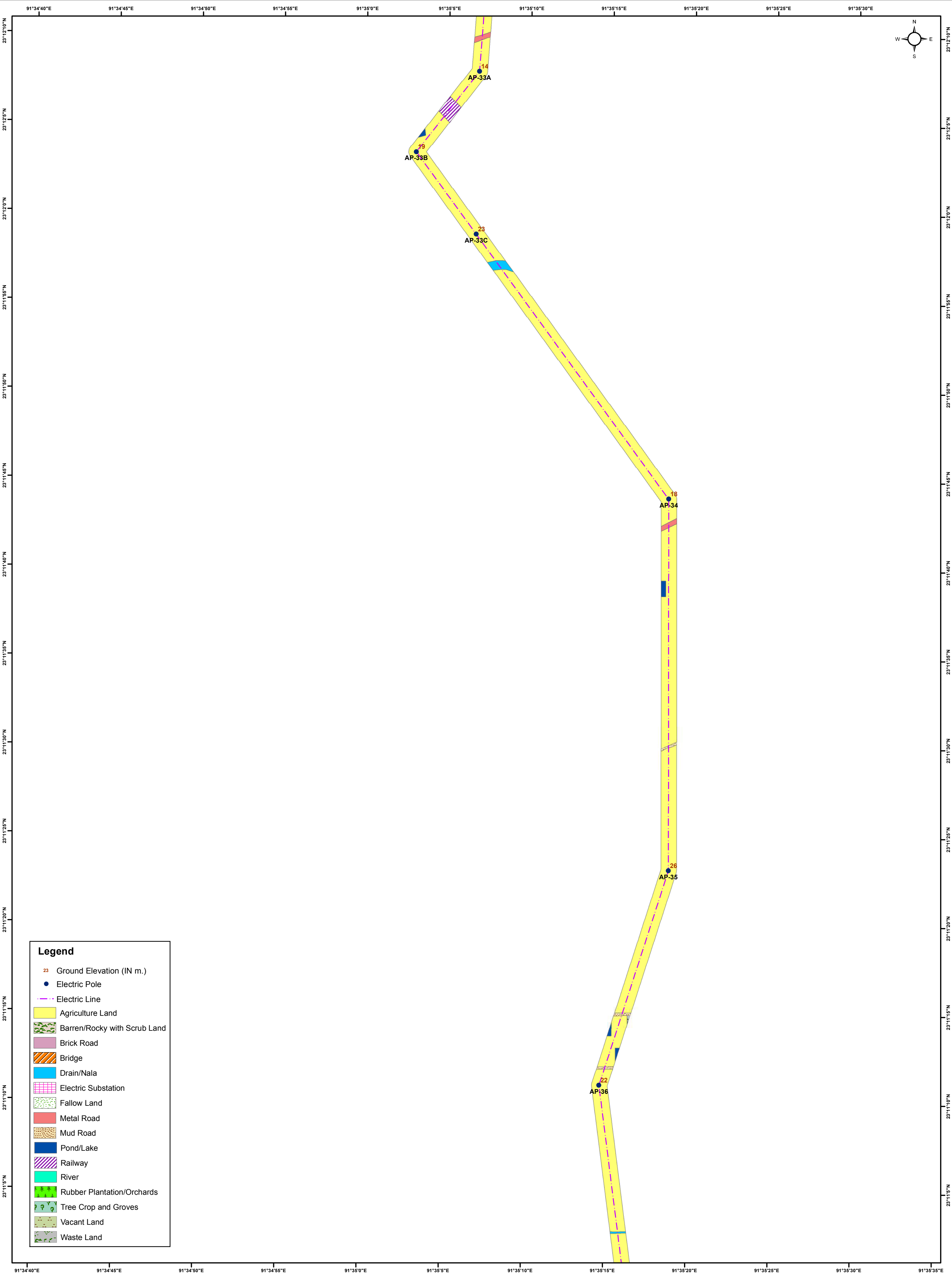
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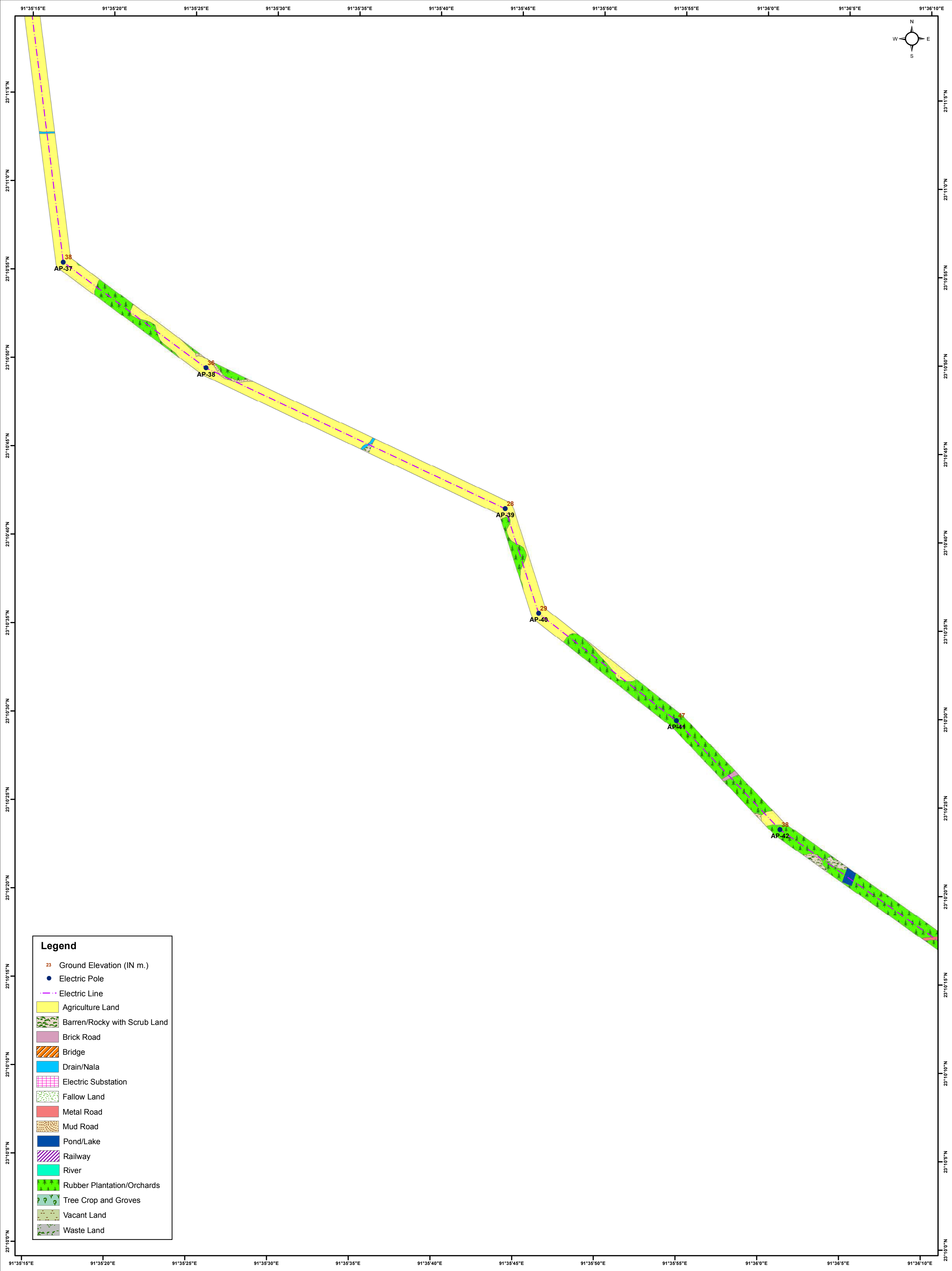
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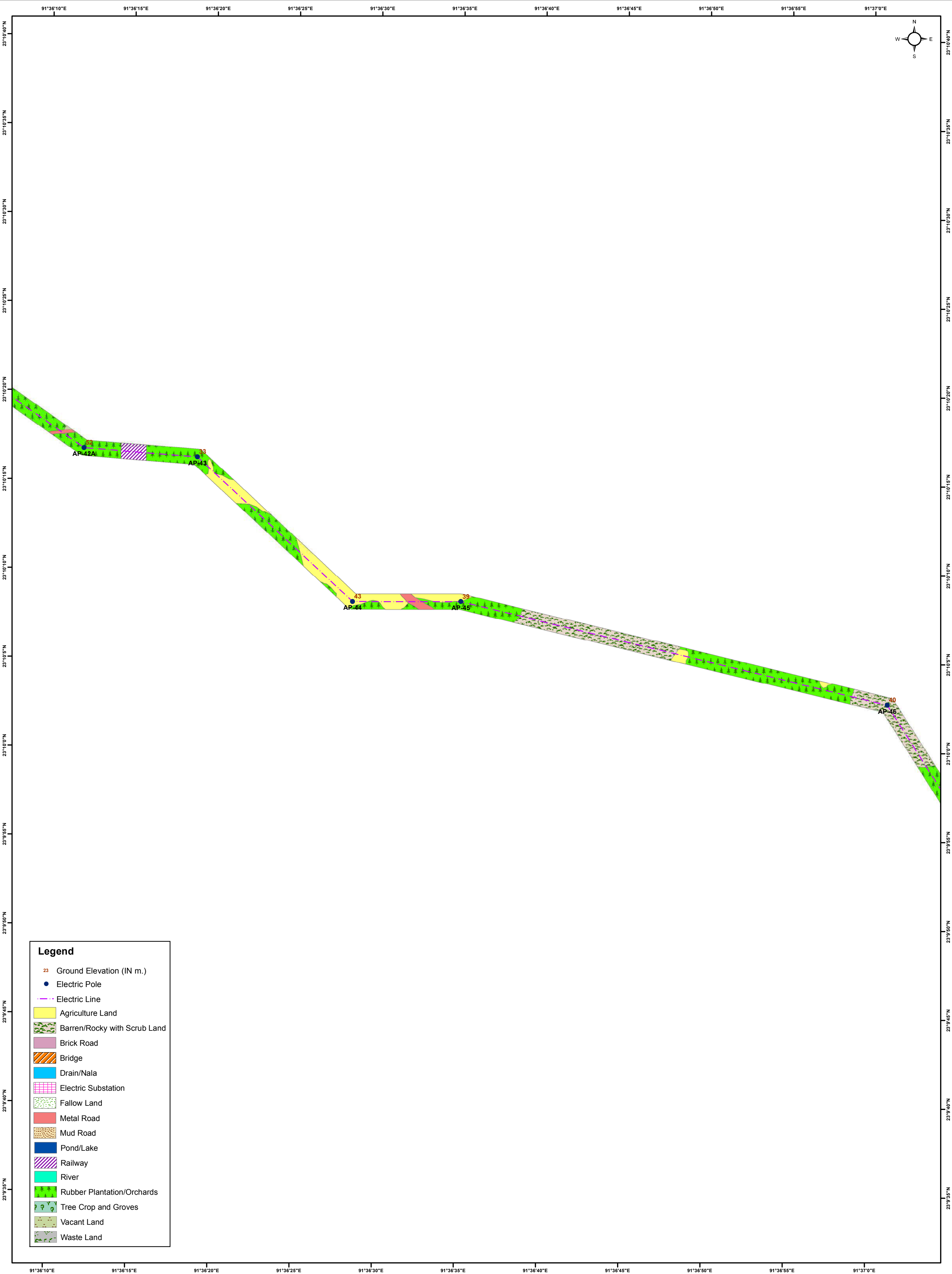
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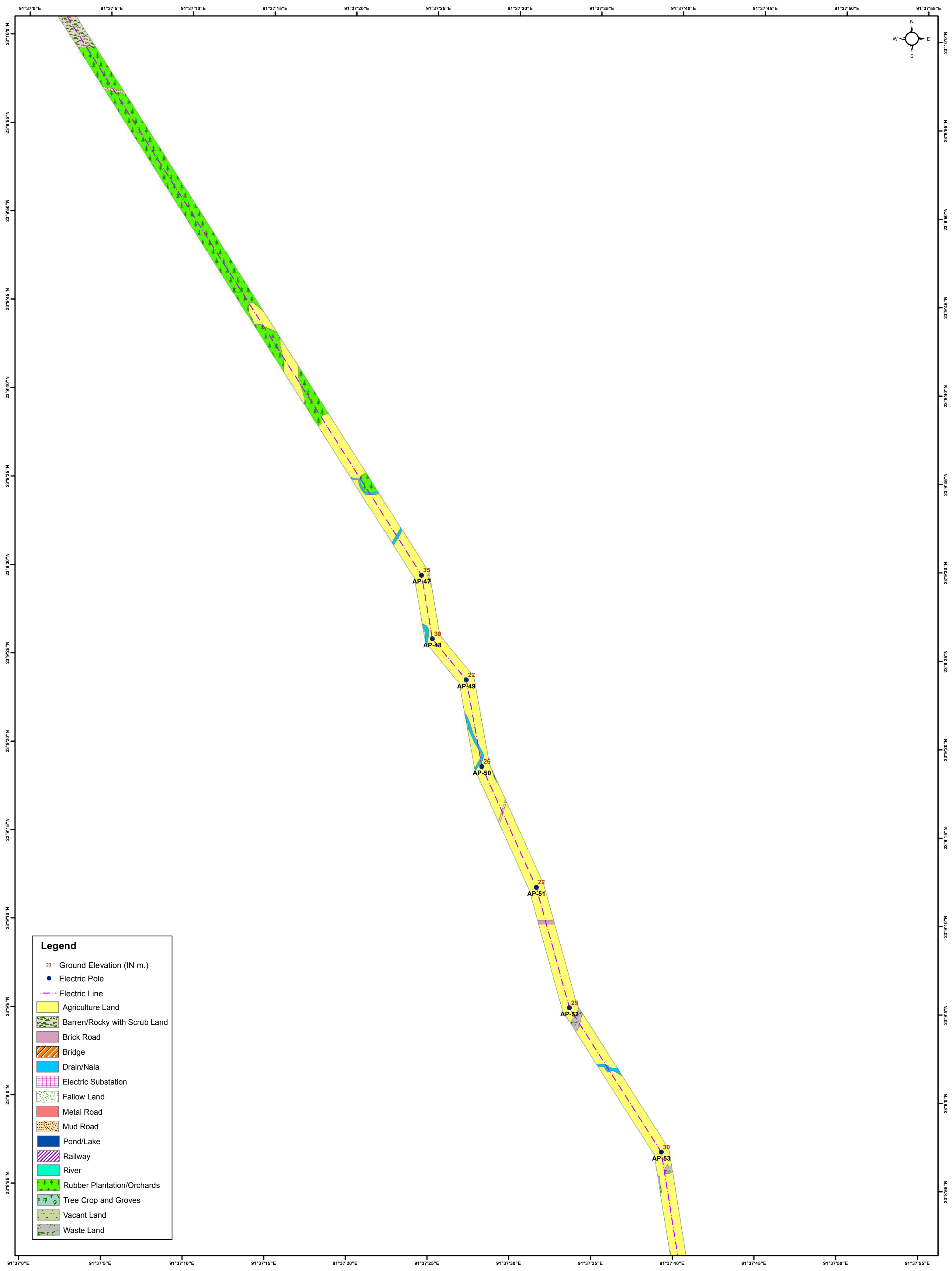
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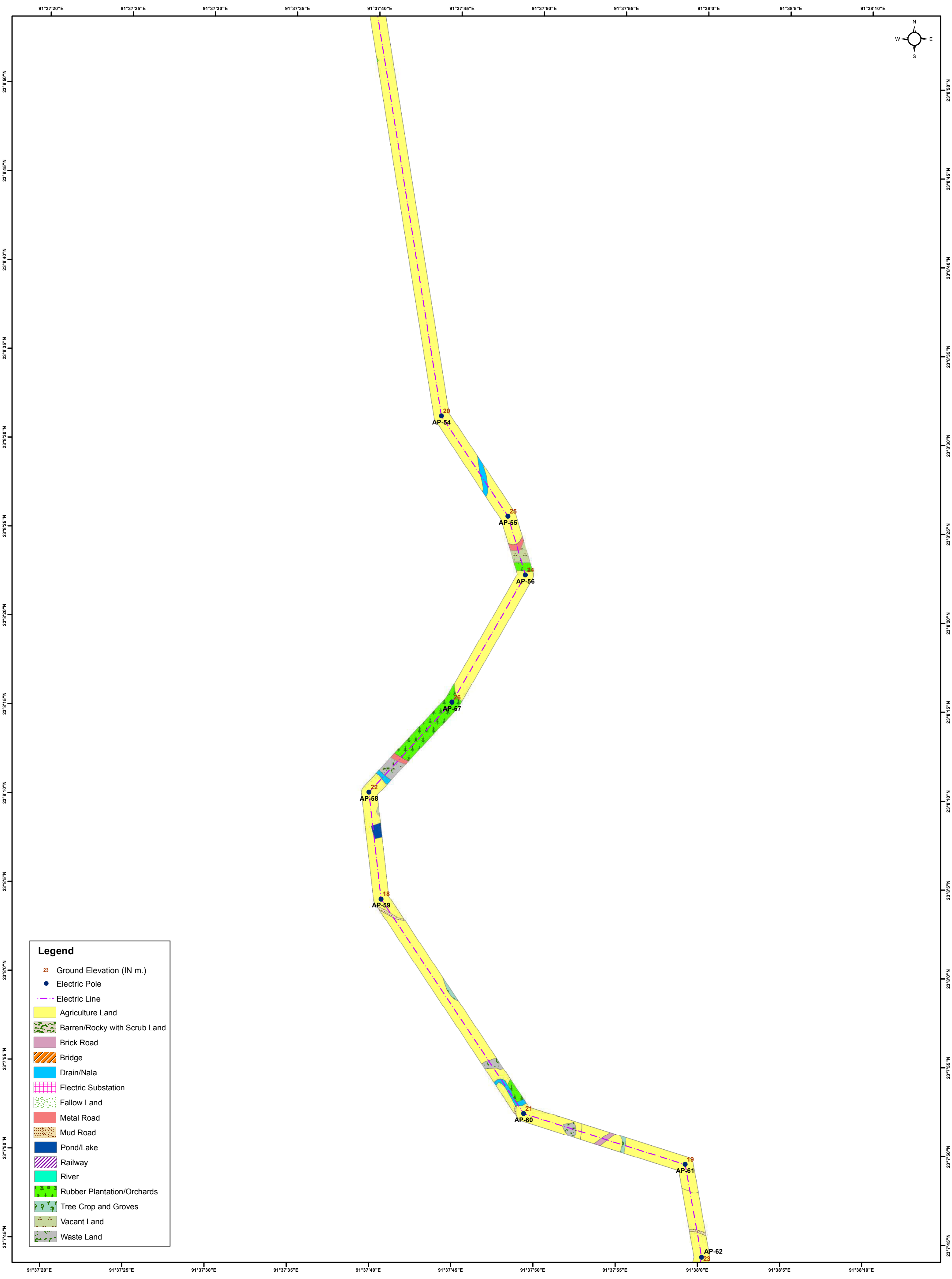
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAF-A-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

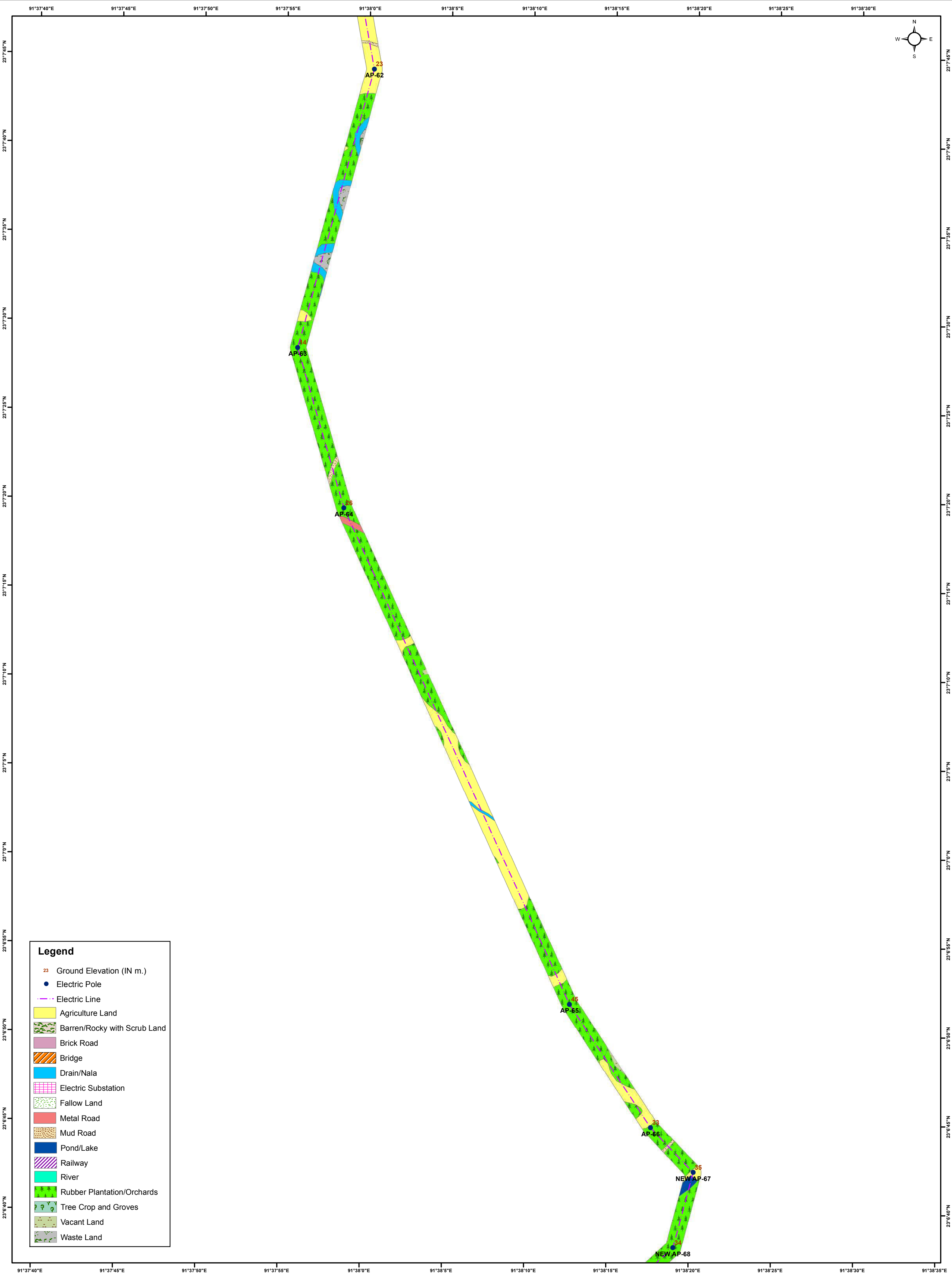
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAF-A-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

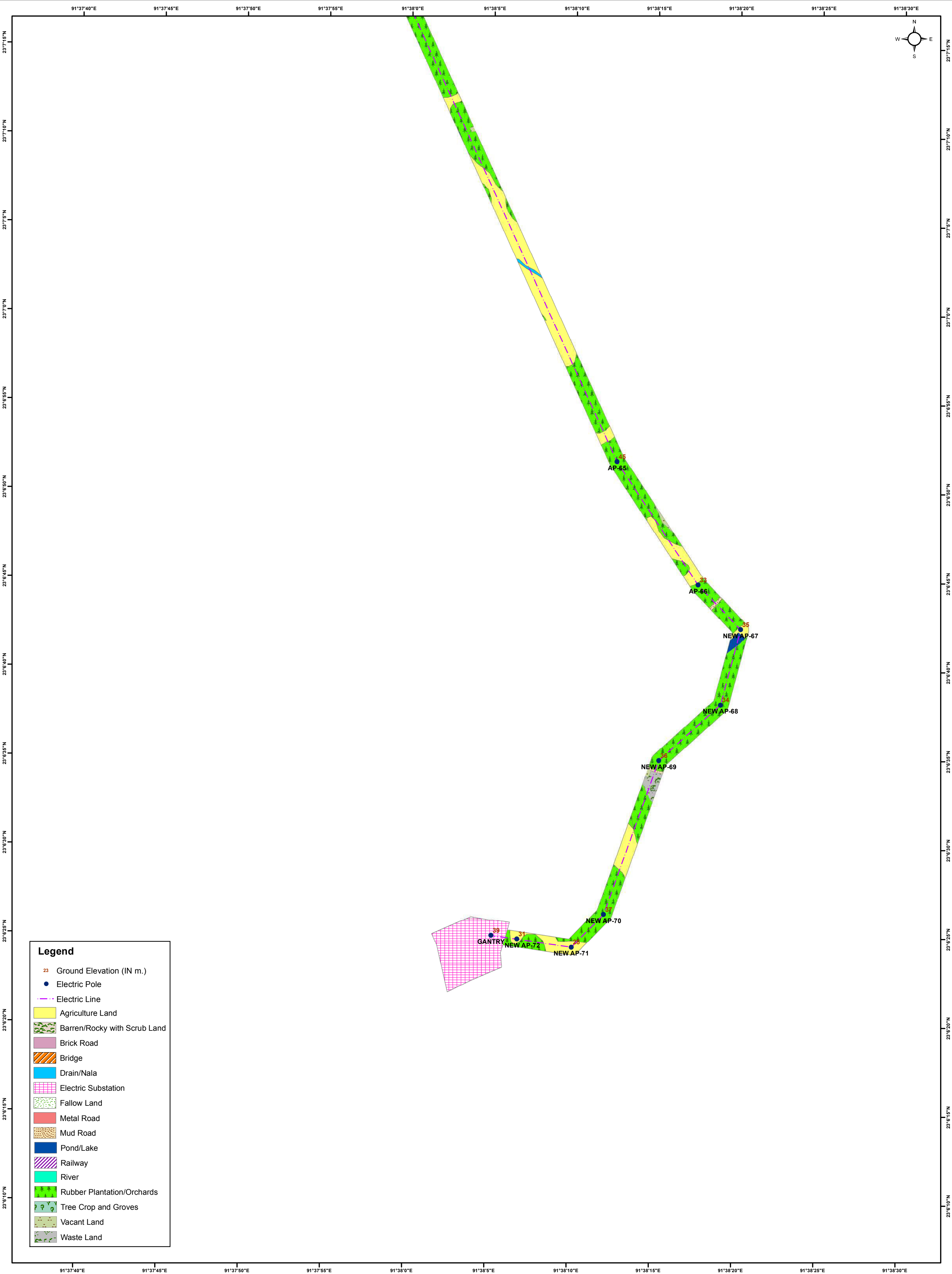
PREPARED BY GREEN CIRCLE INC,



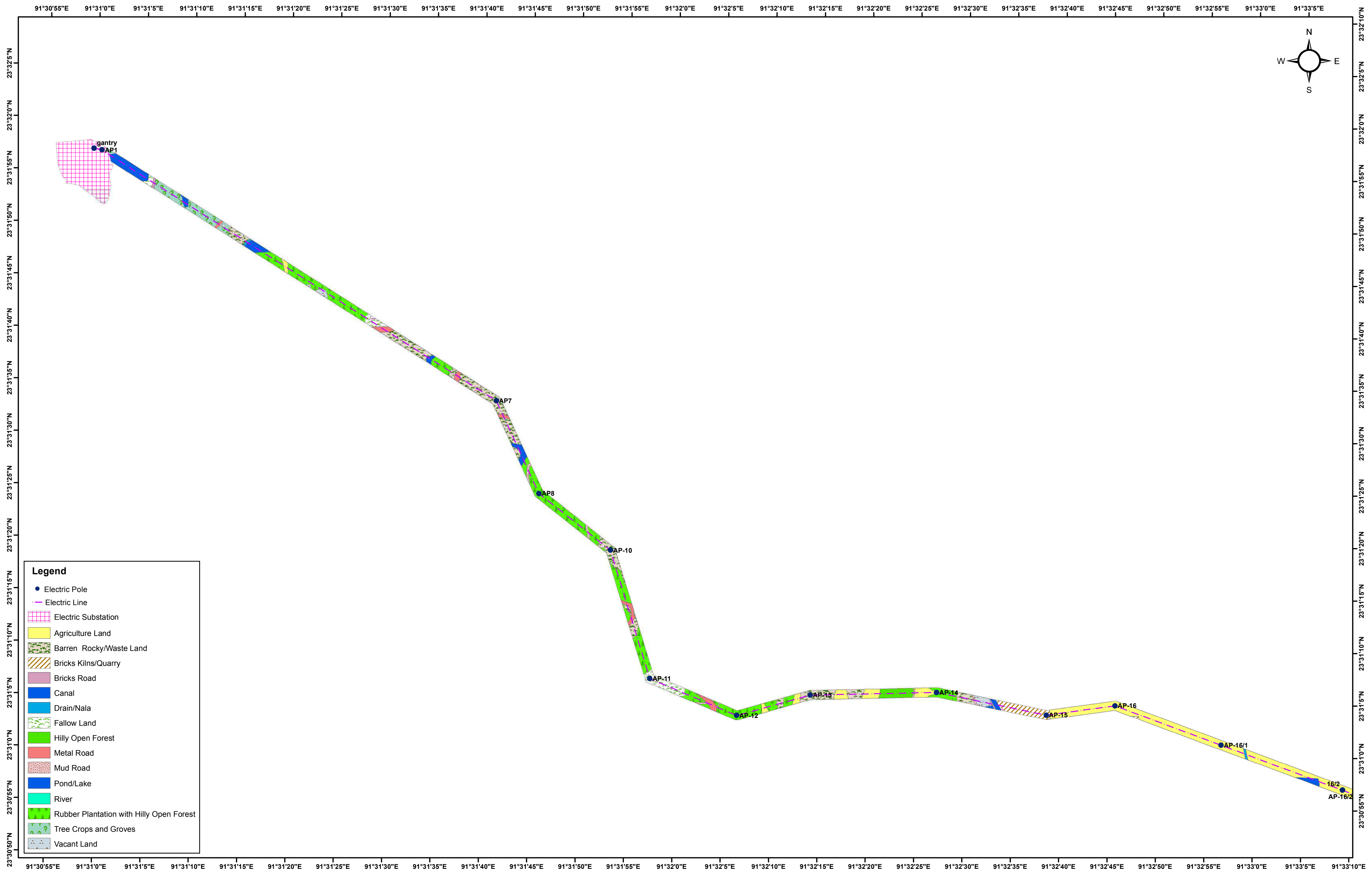
LAND USE/LAND COVER DETAILS OF 132 KV D/C TRANSMISSION LINE FROM BAGAFSA-SATCHAND

CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED

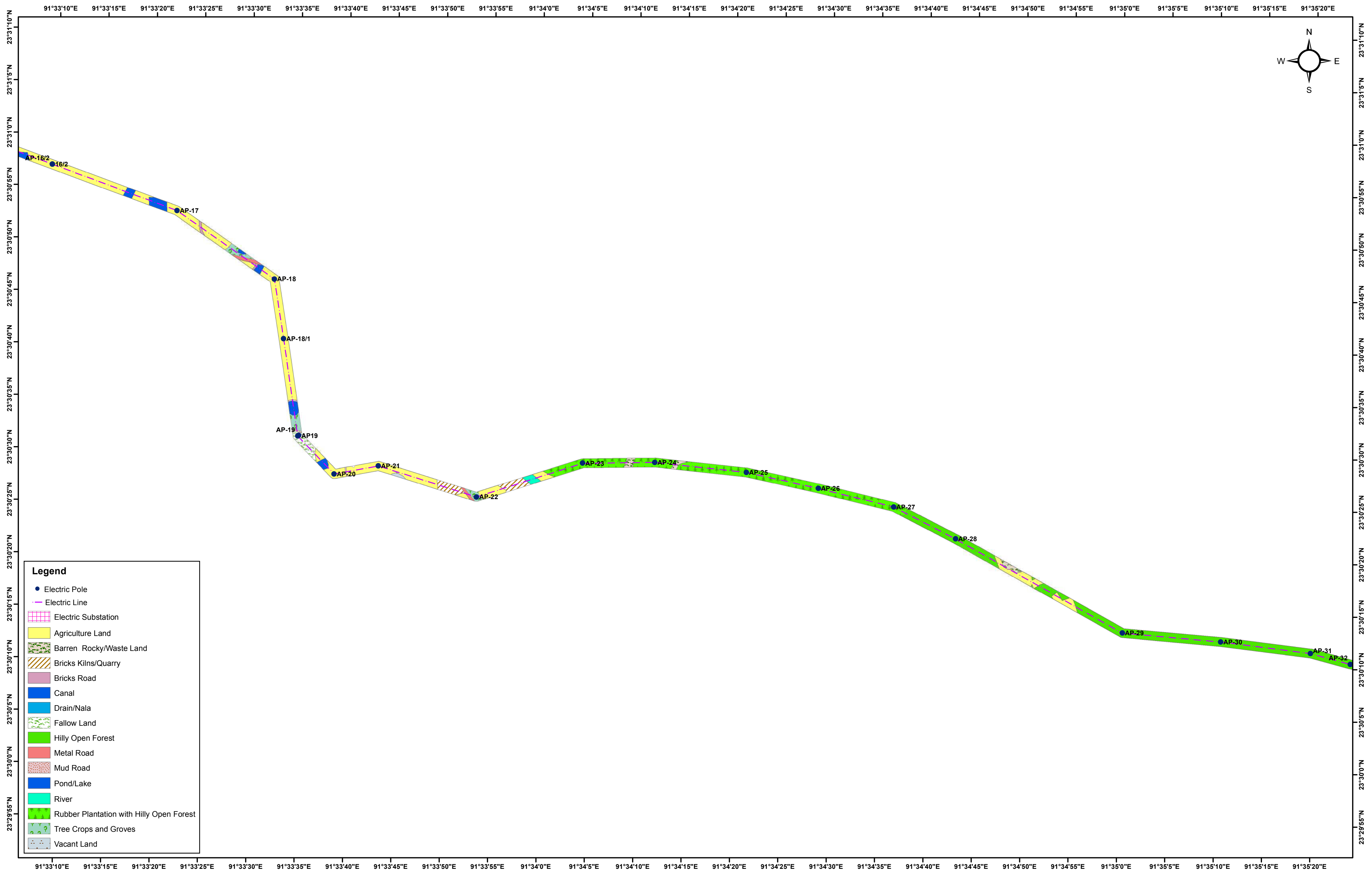
PREPARED BY GREEN CIRCLE INC,



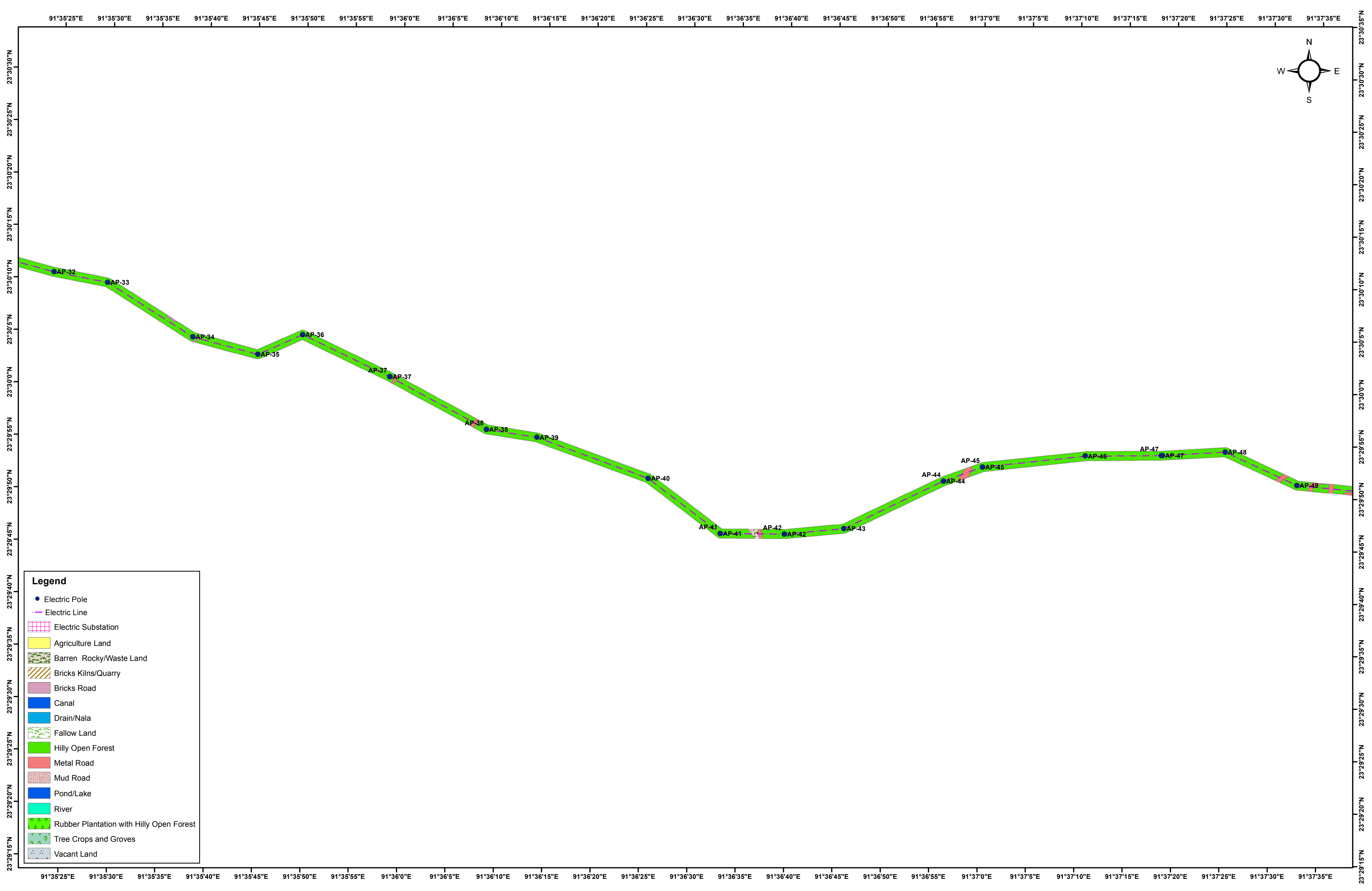
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



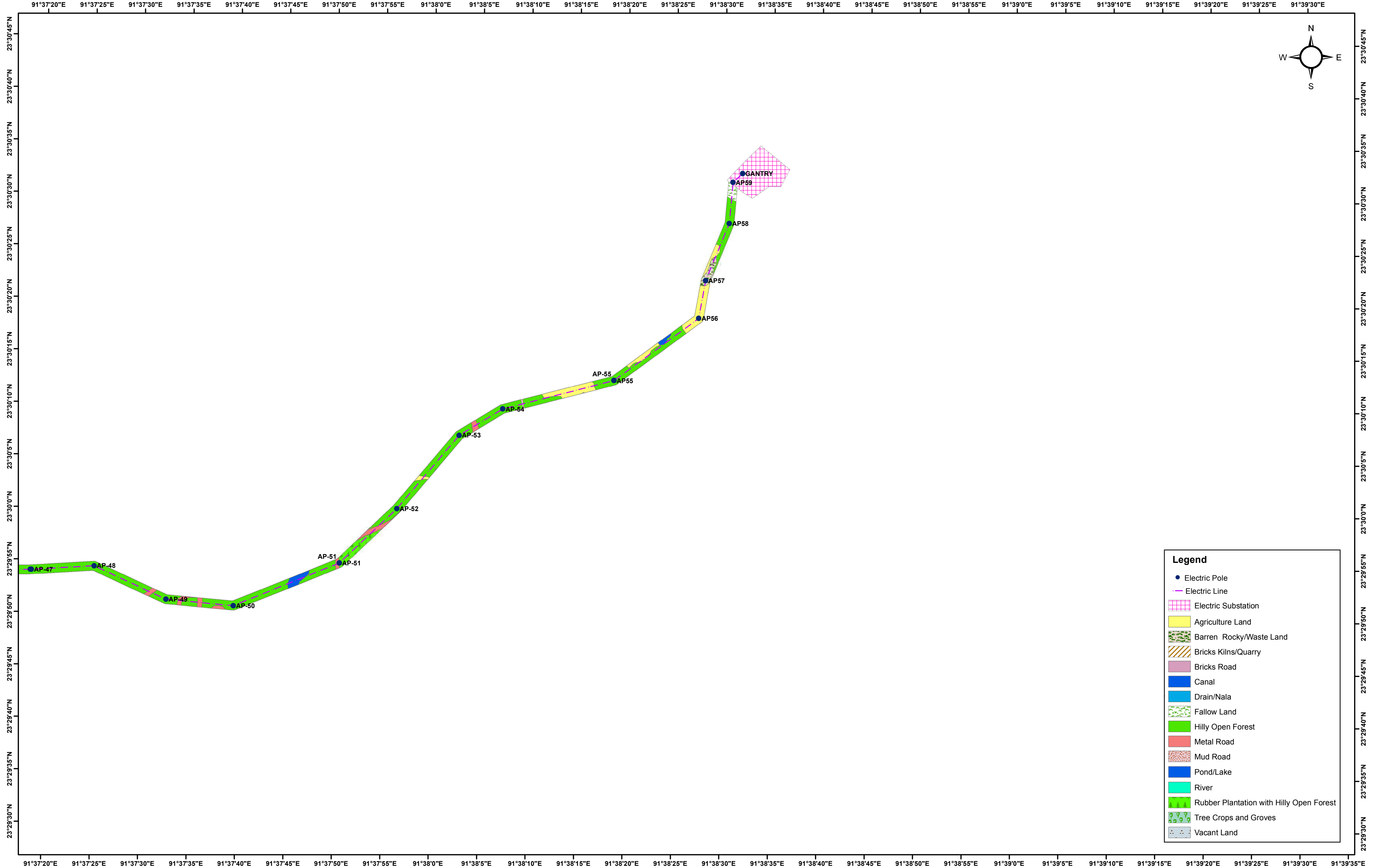
LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



LAND USE/LAND COVER DETAILS OF 132 KV D/C UDAIPUR - AMARPUR TRANSMISSION LINE
CLIENT :- POWER GRID CORPORATION OF INDIA LIMITED
PREPARED BY GREEN CIRCLE INC,



Annexure B1

[illegible]

[illegible]

38/2	46 Barren Rocky/Waste Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
41/1	46 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
42/1	84 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
43/1	73 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
43/2	97 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
43/3	90 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
51/2	91 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
51/2	100 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
52/0	108 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
57/1	64 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
57/2	84 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
58/1	82 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
58/2	78 Barren Rocky/Waste Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
58/3	62 Rubber Plantation with Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
61/1	43 Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill → Shallow	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
61/2	32 Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill → Shallow	Medium Landslide	Medium Flood Prone	Earthquake, Landslide & Wind
47/1	56 Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
48/0	44 Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind
49/0	45 Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Medium Landslide	Very Low Flood Prone	Earthquake, Landslide & Wind

Annexure B2

AP_NO	Ground Elevation of EP	EP Fall in Feature	Rocks Type	Rock Structure	Landslide Study	Flodd Study	Type of Agend for Hazard
Gantry1	39	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-1	32	Tree Crops And Groves	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-3	37	Tree Crops And Groves	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-2	41	Waste Land	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-1	30	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-2	43	Tree Crops And Groves	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-3	29	Agriculture Land	Shaly Sandstone	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-4	22	Agriculture Land	Shaly Sandstone	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-6	38	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-7	30	Fallow Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-8	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-9	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-10	20	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill ㄗ Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-11	20	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Medium Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-12	60	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-13	50	Waste Land	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-15	54	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-15A	64	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-16	58	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	Low Flood Prone	Earthquake, Flood & Wind
AP-16/A	36	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-17	28	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-18	33	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-19	25	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-20	36	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-21	28	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Medium Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-22	20	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-23	23	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-24	17	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-26	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-27	15	Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Low Landslide	High Flood Prone	Earthquake, Flood & Wind
AP-28	45	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Low Landslide	High Flood Prone	Earthquake, Low Flood & Wind
AP-29	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-29A	14	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-29B	23	Rubber Plantation/Orchards	Shaly Sandstone	Alluvial Younger Shallow	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-29B/1	48	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-30	46	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-31	46	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-32	52	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-33	48	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-34	27	Playground	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-1	21	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-2	25	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-3	27	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
MC-4	22	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
AP-35	24	Vacant Land	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind
GANTRY	17	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	Low Landslide	Low Flood Prone	Earthquake, Low Flood & Wind

Annexure B3

AP_No	Ground Elevation Of EP	EP Fall in Feature	Rock_Type	Rock_Type2	Landslide Study	Flood Study	Hazard Type
GANTRY	18	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-1	16	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-2	26	Rubber Plantation/Orchards	Shaly Sandstone	Fracture/Fault Line Valley	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-2A/0	42	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-3	39	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-4	38	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-4A	44	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-5	33	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-5A	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-5B	40	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-5C	27	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-5D	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-6	31	Waste Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	None	None	Earthquake, Wind Storm
AP-7	21	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-8	29	Agriculture Land	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-8A	55	Hilly Forest	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8B	66	Hilly Forest	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8C	83	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8D	68	Hilly Forest	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8E	51	Rubber Plantation/Orchards	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-8F	32	Agriculture Land	Shale with sandstone/ limestone bands	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-9	23	Hilly Forest	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-10	26	Brick Kilns/Quarry	Shale with sandstone/ limestone bands	Fracture/Fault Line Valley	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-11	36	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-12	33	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-13	49	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-14	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-14A	33	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-14B	47	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-14C	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-15	47	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16	41	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16A	52	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16B	51	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-16C	47	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-16D	48	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-17	56	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-17A	44	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-17B	31	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-17C	53	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-18	41	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-18A	36	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-18B	31	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-18C	34	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-19	27	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-19A	40	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-19B	20	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-20	26	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-20A	37	Barren Rocky with Scrub Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-20B	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake, Wind Storm
AP-20C	19	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	None	Earthquake, Wind Storm
AP-20D	32	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	Moderate Landslide	None	Earthquake, Wind Storm and Land Slide

AP-20E	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήρÇò Shallow	None	None	Earthquake, Wind Storm
AP-21	33	Barren Rocky with Scrub Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-21A	23	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-21B	28	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-21C	19	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-22	42	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-23	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήρÇò Shallow	None	None	Earthquake, Wind Storm
AP-23A	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήρÇò Shallow	None	None	Earthquake, Wind Storm
AP-24	25	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24A	28	Waste Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24B	23	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24C	20	Waste Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24D	20	Waste Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24E	31	Tree Crop and Groves	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-24F	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	ήρÇò Shallow	None	None	Earthquake, Wind Storm
AP-24G	17	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24H	29	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-24I	27	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-25	24	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-25A	6	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-25B	15	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-25C	13	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-26	14	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Alluvial Younger Shallow		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-27	21	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-28	15	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		High Landslide	None	Earthquake, Wind Storm and Land Slide
AP-29	15	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	Moderate Flood Prone Area	Earthquake, Wind Storm and Flood
AP-29A	29	Mud Road	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-29B	35	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-30	33	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-31	31	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-31A	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		None	None	Earthquake, Wind Storm
AP-31B	24	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-32	38	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-33	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-34	40	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
AP-35	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide
GANTRY	33	Electric Substation	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected		Moderate Landslide	None	Earthquake, Wind Storm and Land Slide

Annexure B4

AP_No	Ground Elevation Of EP	EP Fall in Feature	Rock_Type	Rock_Type2	Landslide Study	Flood Study	Hazard Type
GANTRY	35	Electric Substation	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-1	32	Tree Crop and Groves	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-2	38	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-3	30	Rubber Plantation/Orchards	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-4	25	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-5	30	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-6	38	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-8	35	Tree Crop and Groves	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-9	30	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	None	Earthquake and Wind Storm
AP-10	28	Agriculture Land	Shaly Sandstone	Denudational Hills-Less dissected	None	Moderate Flood	Wind Storm and Flood
AP-11	28	Vacant Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-12	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-13	22	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-14	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-15	21	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-16	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-17	20	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-18	15	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-19	12	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-20	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-21	16	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	High Flood	Wind Storm and Flood
AP-22	16	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-23	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-24	26	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-25	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-26	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-27	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-28	28	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-29	26	Metal Road	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-30	34	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	High Flood	Wind Storm and Flood
AP-31	24	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-32	20	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-33	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	High Flood	Wind Storm and Flood
AP-33A	14	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-33B	19	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-33C	23	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-34	18	Agriculture Land	Shaly Sandstone	Alluvial Younger Shallow	None	Moderate Flood	Wind Storm and Flood
AP-35	26	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood	Wind Storm and Flood
AP-36	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood	Wind Storm and Flood
AP-37	38	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-38	36	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-39	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill -éřÇô Shallow	None	Moderate Flood	Wind Storm and Flood
AP-40	29	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-41	47	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-42	38	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-42A	52	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-43	33	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm

AP-44	43	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-45	39	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-46	40	Barren/Rocky with Scrub Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-47	35	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-48	30	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-49	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-50	26	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-51	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-52	25	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-53	30	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Earthquake and Wind Storm
AP-54	20	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-55	25	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-56	24	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-57	26	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-58	22	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-59	18	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	Moderate Flood Wind Storm and Flood
AP-60	21	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	Moderate Flood	Wind Storm and Flood
AP-61	19	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	None Earthquake and Wind Storm
AP-62	23	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Valley Fill	éřÇô Shallow	None	None Earthquake and Wind Storm
AP-63	14	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-64	26	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-65	45	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
AP-66	33	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-67	35	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-68	34	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-69	36	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-70	37	Rubber Plantation/Orchards	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-71	28	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
NEW AP-72	31	Agriculture Land	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm
GANTRY	39	Electric Substation	Sandstone/ pebble bed/ conglomerate	Structural Hills-Moderately dissected	None	None	Earthquake and Wind Storm

Annexure B5

[illegible]

AP-31	122 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Low Landslide	Medium Flood Prone	Earthquake, Flood & Wind
AP-32	118 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Low Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-33	106 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Low Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-34	113 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-35	114 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-36	117 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	Medium Flood Prone	Earthquake, Severe Landslide & Wind
AP-37	113 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-38	140 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-39	128 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-40	141 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-41	155 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-42	155 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-43	153 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-44	156 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-45	147 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-46	140 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind
AP-47	132 Hilly Open Forest	Shale with sandstone/ limestone bands	Structural Hills-Highly Dissected	Severe Landslide	None	Earthquake, Severe Landslide & Wind

Appendix

Appendix A

Environmental Monitoring Reports

A. Water Quality Reports:

MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE

TEST RESULTS OF WATER SAMPLE (SATCHAND S/S)

Source : Work Site
Date of sampling : 08.01.18
I/Mark : NEAGT/NERPSIP-3000/water/2
Period of testing : 09.01.18 to 12.01.18

Physical Parameters:

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.7	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Unobjectionable	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	48 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	24 mg/l	-
7.	Dissolved solids	IS 3025 (Pt- 16)	25 mg/l	-

Chemical Parameters

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	43 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	32 mg/l as CaCO ₃	-
3	Chloride	IS 3025 (Pt - 32)	37 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	43 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.5 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.1 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.

----- End of report -----

Authorized Signatory
Authorized Signatory
Material Testing Laboratory &
Quality Management Centre

Testing Officer
Testing Officer
MTL & QMC

Page 3 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
Tel & Fax : 03842-224572 :: M : 9435503592 :: e-mail: ms.nikhileshpaul@rediffmail.com

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MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE
TEST RESULTS OF WATER SAMPLE (BELONIA S/S)

Source: Work site

I/Mark: NEAGT/NERPSIP-3000/water/1

Date of sampling: 08.01.18

Period of testing: 09.01.18 to 12.01.18

Physical Parameters:

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.4	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	44 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	24 mg/l	—
7.	Dissolved solids	IS 3025 (Pt- 16)	20 mg/l	—

Chemical Parameters

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	48 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	34 mg/l as CaCO ₃	—
3	Chloride	IS 3025 (Pt - 32)	42 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	45 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.2 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.12 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.

(Signature)
Testing Officer
Testing Officer
MTL & QMC

Page 2 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
Tel & Fax : 03842-224572 :: M : 9435503592 :: e-mail: ms.nikhileshpaul@rediffmail.com

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MATERIAL TESTING LABORATORY & QUALITY MANACEMENT CENTRE

TEST RESULTS OF WATER SAMPLE (BAGAF A S/S)

Source: Work site

I/Mark: NEAGT/NERPSIP-350/water/1

Date of sampling: 15.02.18

Period of testing: 16.02.18 to 20.02.18

Physical Parameters:

SL No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.6	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	42 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	20 mg/l	—
7.	Dissolved solids	IS 3025 (Pt- 16)	22 mg/l	—

Chemical Parameters

SL No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	46 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	36 mg/l as CaCO ₃	—
3	Chloride	IS 3025 (Pt - 32)	45 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	48 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.1 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.14 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.

Cam
Testing Officer
Testing Officer
MTL & QMC

Page 2 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
Tel & Fax : 03842-224572 :: M : 9435503592 :: e-mail: ms.nikhilshpaul@rediffmail.com

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MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE

Format No. MTL/45

TEST RESULTS OF WATER SAMPLE (UDAIPUR EXTN. S/S)

Source: Work site

Sample supplied: 1 Sealed bottle

Date of sampling: 07.04.18

Period of testing: 08.04.18 to 12.04.18

I/Mark: NEAGT/NERPSIP-350/water/1

Physical Parameters:

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.7	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	46 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	24 mg/l	-
7.	Dissolved solids	IS 3025 (Pt- 16)	22 mg/l	-

Chemical Parameters

Sl. No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	45 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	36 mg/l as CaCO ₃	-
3	Chloride	IS 3025 (Pt - 32)	48 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	46 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.1 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.13 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.


Testing Officer
 Testing Officer
 MTL & QMC

Page 2 of 3

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar, Assam
 Tel & Fax : 03842-224572 :: M : 9435503592 :: e-mail: ms.nikhileshpaul@rediffmail.com

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MATERIAL TESTING LABORATORY & QUALITY MANAGEMENT CENTRE

TEST RESULTS OF WATER SAMPLE (SABROOM S/S)

Source : Work Site

Date of sampling : 23.06.18

I/Mark : NEAGT/NERPSIP-350/water/1

Period of testing : 25.06.18 to 27.06.18

Physical Parameters:

Sl No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1.	Colour	IS 3025 (Pt- 4)	Nil	5
2.	pH	IS 3025 (Pt- 11)	6.8	6.5 - 8.5
3.	Taste	IS 3025 (Pt- 7 & 8)	Nil	Agreeable
4.	Smell	IS 3025 (Pt- 5)	Nil	Agreeable
5.	Total solids	IS 3025 (Pt- 16)	47 mg/l	500 mg/l
6.	Suspended Solid	IS 3025 (Pt- 16)	22 mg/l	-
7.	Dissolved solids	IS 3025 (Pt- 16)	25 mg/l	-

Chemical Parameters

Sl No.	Characteristic	Method of test	Results	Drinking water specification as per IS 10500 :2012
1	Alkalinity	IS 3025 (Pt - 23)	41 mg/l as CaCO ₃	200 mg/l, Max
2	Acidity	IS 3025 (Pt - 22)	34 mg/l as CaCO ₃	-
3	Chloride	IS 3025 (Pt - 32)	40 mg/l as CaCO ₃	250 mg/l, Max
4	Hardness	IS 3025 (Pt - 21)	45 mg/l as CaCO ₃	200 mg/l, Max
5	Fluoride	IS 3025 (Pt - 60)	0.1 mg/l	1.0 mg/l, Max
6	Nitrate	IS 3025 (Pt - 34)	Nil	45 mg/l, Max
7	Iron	IS 3025 (Pt - 53)	0.10 mg/l	0.3 mg/l, Max
8	Sulphate	IS 3025 (Pt - 24)	Trace	200 mg/l, Max

Inference: Water is suitable for drinking purpose. It is advised to use small dose of lime to increase pH value.

[Signature]
Authorised Signatory
Authorized Signatory
Material Testing Laboratory &
Quality Management Centre

Page 2 of 2

[Signature]
Testing Officer
Testing Officer
MTL & QMC

MTL & QMC, Sib-bari Road, Athalbasti, P.O. Ghungoor (SMC), Silchar-788 014, Dist. Cachar,
Assam Tel & Fax : 03842-224572 :: e-mail: ms.nikhileshpaul@rediffmail.com

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Received S.I. No. 301
dt. 16/10/2018

REGISTERED OFFICE
507 Eros Apartments, 56 Nehru Place
New Delhi-110 019, India
Tel : +91-11-26411931, 26415961
Fax : + 91-11-26221521
Email : info@technofabengineering.com
CIN:L74210DL1971PLC005712



**TECHNOFAB
ENGINEERING LIMITED**

Letter Ref. no.: PGCIL/DMS04/Technofab/2018-19/

Date: Oct 16, 2018

To,
The Deputy General Manager,
Powergrid Corporation of India Limited
Rammagar-6 (3rd Crossing)
Agartala 799002

Kind Attn.: Shri S. I. Singh

NOA No.: CC-CS/86-NER/REW-2987/1/G2/NOA-I&II/7147&7148 DT: Feb.27.2017 (DMS 04)

Subject: Reason for not testing of drinking water supplied to the workers & staff at all sites

Dear Sir,

This is for your kind information that, we are purchasing 20 liter package drinking Water available in the market and supplying them to all worker and staff at the site. Therefore we are not testing the drinking water which is supplied to them. We are enclosing the bills of drinking water that is supplied to all the workers and staffs.

Thank you and assuring you the best service ever.

For Technofab Engineering Limited

M K RAI
(Asst. General Manager)

Encl.: The bills of the mineral water that is supplied to the workers and staffs in the sites.

CORPORATE, ENGINEERING & PROJECTS OFFICE
Plot No. 5, Sector 27C, Mathura Road
Faridabad-121003 (NCR) Haryana, India



Tel: +91-129-2270202, 2275310
Fax: +91-129-2270201
www.technofabengineering.com



B. Noise Monitoring – Jan to March 2020



Ref. No: SPML/0216/OC-242 TO 247/A-01/TRIPURA /UDP- 141

Date: 02/05/2020

To

SR. General Manager
Power Grid Corporation of India Ltd.,
Ramnagar – 6th Lane, 3rd Crossing,
Agartala, Tripura (West) – 799002

Ref. No.:
1. CC-CS/86-NER/SS-2651/1/G1/CA-I/7070 Dated: 02.12.2016
2. CC-CS/86-NER/SS-2651/1/G1/CA-II/7071, Dated: 02.12.2016
3. CC-CS/86-NER/SS-2652/1/G1/CA-I/7072, Dated: 02.12.2016
4. CC-CS/86-NER/SS-2652/1/G1/CA-II/7073, Dated: 02.12.2016

Subject: Submission of EHS Noise test Records of NERPSIP Sub-station Tripura.

Dear Sir,

With reference to the above subject, we are here by submitting documents related to EHS Noise test report as per safety plan the details of month mention below for respective site. This is for your acceptance.

Details of Noise report submission				
Sl. NO	NAME OF SUB-STATION	JAN-2020	FEB-2020	MARCH-2020
1	UDAIPUR	YES	YES	YES
2	AMARPUR	NO	NO	NO
3	BELONIA	YES	YES	YES
4	BAGAFA	YES	YES	NO
5	SABROOM	YES	YES	YES
6	SATCHAND	YES	YES	YES

Thanking you and assuring you our best services at all times.

Yours faithfully,



For SPML Infra Limited
(Authorized Signatory)

SPML INFRA LIMITED

CIN : L40108DL1981PLC012228
22, Camac Street, Block - A, 3rd Floor, Kolkata - 700 016
Tel : 91-033-4099 1200, Fax No. : 033- 4099 1303
E-mail : info@spml.co.in, Website : www.spml.co.in
Regd. Office : F-27/2, Okhla Industrial Area, Phase II
New Delhi-110020



SPML Engineering Life

C/O: Power Grid Corporation of India Limited

Noise Test Report

(132/33/11KV Sub-Station:- UDAIPOK) Month:- 4th JAN-2020

Sl.No.	Noise Reading						Remarks
	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	-	-	-	-	-	-	The Noise level observed below allowable maximum limit which is 90 db for 8 hr shift work.
2ND	41.07 41.02 39.08	40.09db	58.09 55.04 60.02	58.16db	-	-	
3RD	-	-	-	-	-	-	
4TH	39.02 42.01 42.02	41.34db	59.02 59.08 61.02	60.06db	-	-	Working Area

Reading Taken By: RATNESH MISHRA [SPML] Site Incharge: [Signature] Power Grid Engineer: [Signature]

(Stamps: SPML INFRATEL TRIPIURA, POWER GRID ENGINEER, NERPSIP, AGARTALA)

SPML Engineering Life

C/O: Power Grid Corporation of India Limited


Noise Test Report


(132/33/11KV Sub-Station:- BOLONIA) Month:- JAN. 2020







Sl.No.	Noise Reading						Remarks
	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	-	-	-	-	-	-	The Noise level observed below allow maximum limit which is 90 db for 8 hr shift work.
2ND	41.04 40.82 39.09	40.05db	58.09 57.04 60.01	58.08db	-	-	
3RD	-	-	-	-	-	-	
4TH	-	-	-	-	-	-	Working Area





Reading Taken By: RATNESH MISHRA [SPML] Site Incharge: [Signature] Power Grid Engineer: [Signature]

(Stamps: SPML INFRATEL TRIPIURA, POWER GRID ENGINEER, NERPSIP, AGARTALA)

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>Barpara</u>						Month:- <u>JAN-2020</u>	
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	41.02	42.66db	58.09	58.98db	—	—	This noise level observed below allowable maximum limit which is 90 db for 08 Hrs Safe Working Area.
	44.08		59.01		—		
	40.02		59.08		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	38.04	38.91db	57.04	58.05db	—	—	
	39.04		57.09		—		
	39.01		60.02		—		
Reading Taken By: <u>RAMESH MISHRA [SPML]</u>			Site Incharge		Power Grid Review		

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>Subyotin</u>						Month:- <u>JAN-2020</u>	
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	41.03db	—	61.08db	—	—	This noise level observed below allow maximum limit which is 90 db for 08 Hrs working area.
2ND	41.09		59.09		—		
	40.09		62.04		—		
	40.08	63.01	—				
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	40.09	40.09db	62.02	61.96db	—	—	
	41.07		61.04		—		
	40.01		61.08		—		
Reading Taken By: <u>RAMESH MISHRA [SPML]</u>			Site Incharge		Power Grid Review		





S.P.M.I. Engineering Life							
C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11KV Sub-Station:- <u>Sakrand</u>)					Month:- <u>JAN-2020</u>		
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	This Noise level observed is below allowable maximum limit which is 90 db for 8 hrs working area
2ND	49.09 50.02 40.04	40.15db	59.06 59.01 60.02	59.66db	—	—	
3RD	—	—	—	—	—	—	
4TH	40.07 38.04 41.03	40.13db	62.04 62.01 58.09	61.3db	—	—	  
Reading Taken By: <u>RATNESH MEHRA</u>			Site Incharge		Power Grid Incharge		
							


S.P.M.I. Engineering Life							
C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/10KV Sub-Station:- <u>Udaipur</u>)					Month:- <u>FEB-2020</u>		
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	This Noise level observed below allowable maximum limit which is 90 db for 8 hrs safe working area
2ND	42.06 39.08 39.07	40.05db	55.09 58.02 58.05	57.53db	—	—	
3RD	—	—	—	—	—	—	
4TH	—	—	—	—	—	—	  
Reading Taken By: <u>RATNESH MEHRA (same)</u>			Site Incharge		Power Grid Incharge		
							


SPML Engineering Life						
C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- <u>Bokaria</u>						Month:- <u>Feb-2020</u>
SLNo.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	
1ST	40.04	40.03db	65.02	65.01db	—	This noise level observed below allowable maximum limit which is 90 db for 05 hrs Safe Working Area
	41.03		66.08		—	
	39.02		64.03		—	
2ND	—	—	—	—	—	
	—		—		—	
	—		—		—	
3RD	—	—	—	—	—	
	—		—		—	
	—		—		—	
4TH	39.03	39.03db	69.02	66.09db	—	
	40.03		65.08		—	
	39.07		65.07		—	
Reading Taken By: <u>RATNESH MISHRA [SPML]</u>			Site Incharge <u>[Signature]</u>		Power Grid Incharge <u>[Signature]</u>	









SPML Engineering Life						
C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- <u>132/33/11 KV Bagaha</u>						Month:- <u>Feb-2020</u>
SLNo.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	
1ST	39.02	39.03db	52.04	54.76db	—	This noise level observed below allowable maximum limit which is 90 db for 05 hrs Safe Working Area
	39.08		56.07		—	
	40.01		55.02		—	
2ND	—	—	—	—	—	
	—		—		—	
	—		—		—	
3RD	38.04	38.66db	60.03	60.46db	—	
	39.02		61.08		—	
	38.01		59.03		—	
4TH	—	—	—	—	—	
	—		—		—	
	—		—		—	
Reading Taken By: <u>RATNESH MISHRA [SPML]</u>			Site Incharge <u>[Signature]</u>		Power Grid Incharge <u>[Signature]</u>	









 S P M I Engineering Life						
C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- <u>Sakond</u>					Month:- <u>Feb-2020</u>	
Sl.No.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	
1ST	—	—	—	—	—	—
2ND	—	—	—	—	—	—
3RD	—	—	—	—	—	—
4TH	41.08 40.02 40.01	40.09 db	60.09 61.04 62.07	62 db	—	—
Reading Taken By:		Site Incharge		Power Grid Officer		
<u>RATNESH MISHRA (SPMI)</u> 				<u>Ratnesh Mishra</u> 		

 S P M I Engineering Life						
C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- <u>Sakond</u>					Month:- <u>Feb-2020</u>	
Sl.No.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	
1ST	—	—	—	—	—	—
2ND	—	—	—	—	—	—
3RD	—	—	—	—	—	—
4TH	38.04 39.01 39.04	38.96 db	60.04 61.08 60.06	60.09 db	—	—
Reading Taken By:		Site Incharge		Power Grid Officer		
<u>RATNESH MISHRA (SPMI)</u> 				<u>Ratnesh Mishra</u> 		

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>KADAM Belong</u>						Month:- MARCH-20	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	39.24	40.56 db	56.08	53.46 db	—	—	The noise level observed is below allowable maximum limit which is 90 db for 08 hrs safe working Area.
	40.04		56.02		—		
	41.04		59.04		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY: RATNESH MISHRA			Site Incharge RABIN DAS (SR. PM)			Power Grid Review Rahul Sr. Engineer in Charge District POWERGRID NERPSIP, Tripura	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- <u>SADROOM</u>						Month:- MARCH-20	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	The noise level observed is below maximum limit which is 90 db for 08 hrs working Area.
	—		—		—		
	—		—		—		
2ND	42.08	49.86 db	62.03	64.86 db	—	—	
	42.06		65.04		—		
	43.02		66.09		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY: RATNESH MISHRA			Site Incharge RABIN DAS (SR. PM)			Power Grid Review Rahul Sr. Engineer in Charge District POWERGRID NERPSIP, Tripura	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- UDAIPUR						Month:- MARCH-20	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	41.04	41.09 db	58.07	60.36 db	-	-	This Noise level observed below allowed maximum limit which is 90 db for 08 hrs working area. 
	41.09		59.08		-		
	42.04		62.04		-		
2ND	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
3RD	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
4TH	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
Reading Taken BY: RATNESH MISHRA				Site Incharge RABIN DAS (SR. PM)		Power Grid Review	
 				 		 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- MARCH-20	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	-	-	-	-	-	-	This Noise level observed below allowable maximum limit which is 90 db for 08 hrs working area. 
	-		-		-		
	-		-		-		
2ND	42.04	42.02 db	62.04	64.63 db	-	-	
	41.03		65.08		-		
	42.07		65.07		-		
3RD	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
4TH	-	-	-	-	-	-	
	-		-		-		
	-		-		-		
Reading Taken BY: RATNESH MISHRA				Site Incharge RABIN DAS (SR. PM)		Power Grid Review	
 				 		 	

Noise Monitoring – Jan to March 2019

Received 13/04/19 488



Ref. No: SPML/0216/OC-242 TO 247/A-01/TRIPURA /UDP-

Date:-10-04-2019

To

General Manager
Power Grid Corporation of India Ltd.,
Ramnagar – 6th Lane, 3rd Crossing,
Agartala, Tripura (West) – 799002

Ref. No. :
1. CC-CS/86-NER/SS-2651/1/G1/CA-I/7070 Dated: 02.12.2016
2. CC-CS/86-NER/SS-2651/1/G1/CA-II/7071, Dated: 02.12.2016
3. CC-CS/86-NER/SS-2652/1/G1/CA-I/7072, Dated: 02.12.2016
4. CC-CS/86-NER/SS-2652/1/G1/CA-II/7073, Dated: 02.12.2016

Subject: Submission of EHS Noise test Records of NERPSIP Sub-station Tripura.

Dear Sir,

With reference to the above subject, we are here by submitting documents related to EHS Noise test report as per safety plan the details of month mention below for respective site. This is for your acceptance.

Details of Noise report submission

SL NO	NAME OF SUB-STATION	FEB-2019	MARCH-19
1	UDAIPUR	YES	YES
2	AMARPUR	YES	YES
3	BELONIA	YES	YES
4	BAGAFI	YES	YES
5	SABROOM	YES	YES
6	SATCHAND	YES	YES

Thanking you and assuring you our best services at all times.






Yours faithfully,







For SPML Infra Limited






SPML INFRA LIMITED


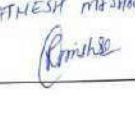
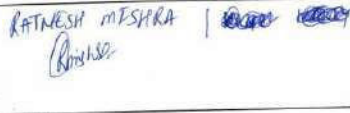
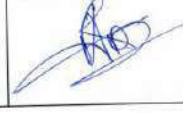
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22, Camac Street, Block - A, 3rd Floor, Kolkata - 700 016
Tel : 91-033-4009 1200, Fax No. : 033- 4009 1303
E-mail : info@spml.co.in, Website : www.spml.co.in
Regd. Office : F-27/2, Okhla Industrial Area, Phase-II
New Delhi-110020








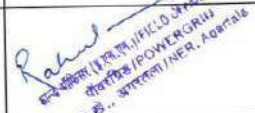
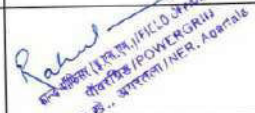





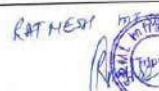





 C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- UDAIPUR						Month:- FEB-2019	
S.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines		Total Average Reading
1ST	39.4	39.73 db	45.4	47.16 db	—	—	This Noise level observed is below from allowable maximum limit which is 90 db for 8 hrs in the working area Ratnesh 
	39.7		48.3		—		
	40.1		47.8		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	40.3	39.2 db	48.7	47.66 db	—	—	
	38.4		48.9		—		
	38.9		45.4		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken By:			Site Incharge		Power Grid Review		
RATNESH 					Ratnesh 		



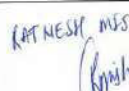



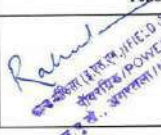
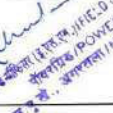
 C/O: Power Grid Corporation of India Limited							
Noise Test Report							
(132/33/11)KV Sub-Station:- UDAIPUR						Month:- MARCH-2019	
S.No.	Noise Reading					Remarks	
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines		Total Average Reading
1ST	36.4	38.46 db	47.3	48.83 db	—	—	This Noise level observed is below from allowable maximum limit which is 90 db for 8 hrs in the working area RATNESH MISRA 
	39.7		49.9		—		
	39.3		49.3		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	40.1	40.2 db	48.3	47.66 db	—	—	
	40.4		45.3		—		
	41.6		49.4		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken By:			Site Incharge		Power Grid Review		
RATNESH 					Ratnesh 		






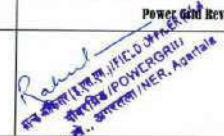

 C/O: Power Grid Corporation of India Limited Noise Test Report									
(132/33/11)KV Sub-Station:- AMARPUR						Month:- MARCH-2019			
SNo.	Noise Reading					Remarks			
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines		Total Average Reading		
1ST	41.3	42.16db	48.9	49.76db	60.1	64.03db	The Noise level observed is below from allowable maximum limit which is 90 db for 08 hrs in the working Area. 		
	42.9		49.1		66.7				
	42.3		51.3		65.3				
2ND	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
3RD	39.2	39.96db	52.1	51.45	69.3	68.83db			
	42.7		50.7		68.3				
	37.9		50.2		68.9				
4TH	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
Reading Taken BY:			Site Incharge			Power Grid Review			
RATNESH MISHRA 						Ratnesh Mishra 33, 33, 11KV Sub-Station Gomati / POWERGRID Tripura, Agartala			







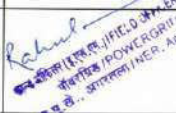

 C/O: Power Grid Corporation of India Limited Noise Test Report									
(132/33/11)KV Sub-Station:- AMARPUR						Month:- FEB-2019			
SNo.	Noise Reading					Remarks			
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines		Total Average Reading		
1ST	36.4	38.13db	50.9	51.43db	69.3	70.53db	This noise level observed is below from allowable maximum limit which 90 db for 08 hrs in the working Area. RATNESH MISHRA 		
	38.4		50.1		71.4				
	39.6		53.3		71.9				
2ND	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
3RD	37.4	40.43db	52.1	51.43db	68.3	70.86db			
	42.3		50.3		72.04				
	41.4		51.9		71.09				
4TH	—	—	—	—	—	—			
	—		—		—				
	—		—		—				
Reading Taken BY:			Site Incharge			Power Grid Review			
RATNESH MISHRA 						Ratnesh Mishra 33, 33, 11KV Sub-Station Gomati / POWERGRID Tripura, Agartala			







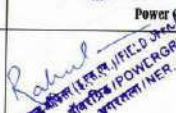

 C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- BAGAJA						Month:- MARCH-2019
SLNo.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	
1ST	40.1	39.33 db	52.1	52.7 db	—	This noise level observed is below from allowable maximum limit which is 90 db for 08 Hrs in the working Area.  
	38.1		52.04		—	
	39.8		52.6		—	
2ND	38.4	40.46 db	54.6	54.76 db	—	
	41.3		57.2		—	
	41.7		52.4		—	
3RD	—	—	—	—	—	
	—		—		—	
	—		—		—	
4TH	—	—	—	—	—	
	—		—		—	
	—		—		—	
Reading Taken BY:			Site Incharge		Power Grid Review	
 			 		 	









 C/O: Power Grid Corporation of India Limited						
Noise Test Report						
(132/33/11)KV Sub-Station:- BELONIA						Month:- MARCH-2019
SLNo.	Noise Reading					Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	
1ST	—	—	—	—	—	This noise level observed is below from allowable maximum limit which is 90 db for 08 Hrs working area.  
	—		—		—	
	—		—		—	
2ND	—	—	—	—	—	
	—		—		—	
	—		—		—	
3RD	—	—	—	—	—	
	—		—		—	
	—		—		—	
4TH	38.1	38.7 db	49.3	51.16 db	—	
	38.7		52.4		—	
	39.3		51.0		—	
Reading Taken BY:			Site Incharge		Power Grid Review	
 			 		 	









 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- BELONIA						Month:- FEB-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	38.1	38.6 db	51.3	50.43 db	—	—	This Noise Level observed is below from allowable maximum limit i.e. 90 db for 8 Hrs in the working Area 
	38.4		49.8		—		
	39.3		50.2		—		
2ND	38.9	38.53 db	47.9	50.33 db	—	—	
	37.4		52.3		—		
	39.3		51.4		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY:				Site Incharge		Power Grid Review	
 				 		 	






 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- FEB-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	42.1	41.1 db	49.3	52.08 db	—	—	This Noise Level observed is below from allowable maximum limit i.e. 90 db for 8 Hrs working Area 
	40.8		54.5		—		
	40.4		54.6		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	36.5	37.9 db	54.3	55.3 db	—	—	
	38.3		56.4		—		
	38.9		55.2		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY:				Site Incharge		Power Grid Review	
				 		 	






 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- MARCH-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	
	—	—	—	—	—	—	
	—	—	—	—	—	—	
2ND	—	—	—	—	—	—	This Noise level observed is below from 90 db for 08 Hrs
	—	—	—	—	—	—	
	—	—	—	—	—	—	
3RD	—	—	—	—	—	—	Working Area 
	—	—	—	—	—	—	
	—	—	—	—	—	—	
4TH	39.4 38.3 37.4	38.36 db	52.1 52.3 53.4	52.93 db	—	—	
Reading Taken BY:			Site Incharge			Power Grid Review	
 			 			 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SABROOM						Month:- MARCH-2019	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	
	—	—	—	—	—	—	
	—	—	—	—	—	—	
2ND	—	—	—	—	—	—	
	—	—	—	—	—	—	
	—	—	—	—	—	—	
3RD	—	—	—	—	—	—	This Noise level observed is below from allowable maximum limit which is 90 db for 08 Hrs Working Area
	—	—	—	—	—	—	
	—	—	—	—	—	—	
4TH	39.4 38.3 38.1	38.66 db	52.3 53.4 54.1	52.26 db	—	—	
Reading Taken BY:			Site Incharge			Power Grid Review	
 			 			 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SABROOM						Month:- FEB-2019	
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	—	—	—	—	—	—	This noise level observed is below from allowable maximum limit which is 90 db for 8 hrs working hrs
2ND	37.3	38.73 db	39.3	50.7 db	—	—	
	38.4		55.4		—		
	38.5		53.4		—		
3RD	—	—	—	—	—	—	
4TH	—	—	—	—	—	—	
	—	—	—	—	—	—	
Reading Taken BY:			Site Incharge		Power Grid Review		
 			 		  RAMESH SIKHA Jt. Asstt. (T&D) / FIELD OFFICER NERPSIP / POWERGRID 333333, Agartala / NER, Agartala		

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- BAGAFI						Month:- FEB-2019	
S.No.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area With Heavy Machines	Total Average Reading	
1ST	42.1	38.93 db	55.1	52.6 db	—	—	This noise level observed is below from allowable maximum limit which is 90 db for 8 hrs in the working hrs
	37.3		50.3		—		
	37.4		52.4		—		
2ND	36.4	38.23 db	50.9	52.3 db	—	—	RAMESH SIKHA 
	39.5		54.3		—		
	38.8		51.7		—		
3RD	—	—	—	—	—	—	
4TH	—	—	—	—	—	—	
	—	—	—	—	—	—	
Reading Taken BY:			Site Incharge		Power Grid Review		
RAMESH 			 		  RAMESH SIKHA Jt. Asstt. (T&D) / FIELD OFFICER NERPSIP / POWERGRID 333333, Agartala / NER, Agartala		

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- BELONIA						Month:- SEP-19	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	36.05	36.94db	48.05	49.45	—	—	This noise level observed is below from allowable maximum limit which is 90db for 08 Hrs in the working Area. 
	36.09		48.06		—		
	37.05		49.09		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
Reading Taken BY: RATNESH MISRA [SPML] 			Site Incharge RABIN DAS [SPML] 			Power Grid Review Rahul [SPML] 	

 C/O: Power Grid Corporation of India Limited Noise Test Report							
(132/33/11)KV Sub-Station:- SATCHAND						Month:- OCT-19	
SLNo.	Noise Reading						Remarks
Week	Area Without Machines	Total Average Reading	Area With Light Machines	Total Average Reading	Area with Heavy Machines	Total Average Reading	
1ST	40.05	40.93db	59.09	51.93db	—	—	The noise level observed is below from allowable maximum limit 90db for 08 Hrs working Area. 
	41.07		51.06		—		
	40.06		51.08		—		
2ND	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
3RD	—	—	—	—	—	—	
	—		—		—		
	—		—		—		
4TH	39.07	39.73db	50.06	53.06db	—	—	
	39.02		54.09		—		
	40.03		53.07		—		
Reading Taken BY: RATNESH MISRA [SPML] 			Site Incharge RABIN DAS [SPML] 			Power Grid Review Rahul [SPML] 	

C. Soils Taxonomic Classification in Project Districts

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
1	Deep, somewhat excessively drained, loamy skeletal soils on very steeply sloping side slopes of high relief structural hills having loamy surface with very severe erosion hazard	Loamy skeletal Typic Dystrochrepts Fine loamy Typic Dystrochrepts	32.9	3.1
	Associated with: Deep to very deep, well drained, fine loamy soils on steeply sloping ridges with severe erosion hazard			
2	Deep to very deep, somewhat excessively drained, fine loamy skeletal soils on steeply sloping hill summits having loamy surface with severe erosion hazard	Fine loamy Typic Udorthents Fine loamy Typic Dystrochrepts	42.6	4.1
	Associated with: Deep, somewhat excessively drained, fine loamy soils on side slopes of high relief structural hill with severe erosion hazard and slight stoniness			
3	Deep, well drained, loamy skeletal soils on steeply sloping side slopes of high relief structural hills having loamy surface with very severe erosion hazard and moderate stoniness	Loamy skeletal Typic Dystrochrepts Fine loamy Typic Haplumbrepts	10.9	1.0
	Associated with: Deep to very deep well drained, fine loamy soils on moderately steeply sloping hill summit with severe erosion hazard and slight stoniness	Fragmental Lithic Udorthents		
4	Deep to very deep, well drained, fine loamy soils on moderately dissected side slopes of ridges having loamy surface with severe erosion hazard	Fine loamy Typic Hapludults Fine loamy Umbric Dystrochrepts	63.1	6.0
	Associated with: Deep, somewhat excessively drained, fine loamy soils on moderately steeply sloping ridge top with moderate erosion hazard and slight stoniness			
5	Very deep, excessively drained, Coarse loamy soils on the slopes of moderately sloping medium relief having loamy surface with severe erosion hazard	Coarse loamy Typic Udorthents Loamy over sandy Typic Dystrochrepts	20.2	1.9
	Associated with: Deep, well drained, loamy over sandy soils on moderately sloping side slopes of the hills with moderate erosion hazard	Fine Loamy Typic Dystrochrepts		
6	Deep, well drained, fine loamy soils on the side slopes of parallel ridges, moderately steeply sloping having loamy surface with severe erosion hazard	Fine Typic Dystrochrepts Coarse loamy over sandy Typic Udorthents	58.8	5.6
	Associated with: Deep, well drained, coarse loamy over sandy soils on steeply sloping side slopes of the hills with moderate erosion hazard	Fine loamy Typic Hapludults		
7	Very deep, well drained, fine loamy soils on the moderately steeply sloping hill top having loamy surface with severe erosion hazard	Fine loamy Typic Dystrochrepts Fragmental lithic Udorthents	39.6	3.8
	Associated with: shallow, well drained, fragmental soils very steeply sloping parallel ridges, with severe erosion hazard and severe stoniness	Fine loamy Typic Haplumbrepts		
8	Deep to very deep, excessively drained, fine loamy soils on the moderately sloping side slopes of medium relief parallel ridges having loamy surface with severe erosion hazard and slight stoniness	Fine loamy Typic Dystrochrepts Fine loamy Typic Haplumbrepts	23.4	2.2

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	Associated with: Deep, well drained, fine loamy soils on moderately sloping side slopes of the hills with moderate erosion hazard	Coarse loamy Typic Udorthents		
9	Deep, somewhat excessively drained, fine loamy soils on the steeply sloping hill top having loamy surface with severe erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Udorthents	10.2	1.0
	Associated with: moderately Deep, excessively drained, coarse loamy soils on steeply sloping side slopes of the hills with severe erosion hazard and slight stoniness	Fine loamy Typic Hapludults		
10	Deep to very deep, well drained, fine loamy soils on the moderately steeply sloping hill top having loamy surface with moderate erosion hazard	Fine Typic Dystrochrepts Fine loamy Typic Dystrochrepts	31.2	3.0
	Associated with: Deep, well drained, fine loamy soils on gently sloping side slopes with moderate erosion hazard	Fine loamy Typic Paleudults		
11	Very deep, somewhat excessively drained, coarse loamy soils on moderately steeply sloping hill slopes having loamy surface with severe erosion hazard	Fine loamy Typic Udorthents Fine Loamy Typic Haplumbrepts	3.6	0.4
	Associated with: very Deep, well drained, fine loamy soils on moderately sloping hill top with moderate erosion hazard	Fine Loamy Umbric Dystrochrepts		
12	Very deep, well drained, loamy skeletal soils on the steeply sloping sides of ridges having loamy surface with moderate erosion hazard and moderate stoniness	Loamy skeletal Umbric Dystrochrepts Fine loamy Typic Dystrochrepts	24.4	2.3
	Associated with: Deep, well drained, fine loamy soils moderately sloping sides slopes with moderate erosion hazard			
13	Moderately Deep, somewhat excessively drained, coarse loamy soils on the moderately steeply sloping side slopes of ridges having loamy surface with severe erosion hazard	Coarse loamy Typic Udorthents Fine loamy Umbric Dystrochrepts	16.5	1.6
	Associated with: Deep, well drained, fine loamy soils on moderately sloping hill tops with moderate erosion hazard	Fine loamy Typic Dystrochrepts		
14	Deep to very deep, well drained, fine loamy soils on the moderately steeply sloping side slopes of low relief hills having loamy surface with severe erosion hazard	Fine Typic Dystrochrepts Coarse loamy Typic Udorthents	0.7	0.1
	Associated with: Deep, somewhat excessively drained, coarse loamy soils on moderately sloping ridge tops with severe erosion hazard	Fine Loamy Umbric Dystrochrepts		
15	Deep, well drained, fine loamy soils on moderately sloping flat topped denudation hills having clay loam surface with moderate erosion hazard	Fine loamy Typic Kandiodalts Fine loamy Typic Dystrochrepts	51.7	5.0
	Associated with: Deep, well drained, fine loamy soils on gently sloping flat topped denudation hills having clay loam surface with moderate erosion hazard	Fine Loamy Umbric Dystrochrepts		
16	Deep, well drained, fine loamy soils on moderately to gently sloping flat topped denudation hills having clay loam surface with moderate erosion hazard	Fine loamy Typic Kandiodalts Fine loamy	25.4	2.4

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	Associated with: Deep, imperfectly drained, fine loamy soils on gently sloping hill top with moderate erosion hazard	Aquic Dystrochrepts Fine Typic Dystrochrepts		
17	Deep, well drained, coarse loamy soils on gently sloping low-lying residual hills having sandy loam surface with moderate erosion hazard	Coarse loamy Typic Dystrochrepts Fine loamy	7.9	0.8
	Associated with: very Deep, well drained, fine loamy soils on moderately sloping low-lying residual hills with moderate erosion hazard	Typic Hapludults Clay Loamy Skeletal typic Dystrochrepts		
18	Deep, well drained, fine loamy soils on moderately sloping low-lying residual hills having clay loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy	4.8	0.5
	Associated with: very Deep, imperfectly drained, coarse loamy soils on gently sloping narrow interhall basin under poor to moderate cultivation of paddy	Aquic Udorthents Fine Loamy Aquic Dystrochrepts		
19	Deep, moderately well drained, fine loamy soils on gently to moderately sloping undulating plains with low mounds having clay loam surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Fine loamy Typic Epiaquepts Coarse loamy Typic Dystrochrepts	39.2	3.7
	Associated with: moderately shallow, poorly to imperfectly drained, fine loamy soils on very gently sloping narrow valleys with slight flooding hazard and slight erosion hazard			
20	Deep, well drained, fine loamy soils on gently to moderately sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine Typic Dystrochrepts Coarse loamy over sandy	6.0	0.6
	Associated with: very deep, well drained, coarse loamy over sandy soils on side slopes of moderately sloping low mounds with moderate erosion hazard	Typic Dystrochrepts Fine loamy Typic Hapludults		
21	Deep, moderately well drained, fine loamy soils on gently sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Fine Loamy Aquic Dystrochrepts Fine Loamy Oxyaquic Dystrochrepts	130.0	12.4
	Associated with: deep to very deep, poorly or imperfectly drained, fine loamy soils with slight erosion hazard			
22	Deep, moderately well drained, fine loamy soils on gently to moderately sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Fine Loamy Oxyaquic Dystrochrepts	12.0	1.0
	Associated with: Deep to very deep, imperfectly drained, fine loamy soils with slight erosion hazard	Course Loamy Typic Udorthents		
23	Moderately deep, well drained, fine loamy soils on moderately sloping undulating plains with low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Kandiodalts Fine silty over sandy loamy	9.0	0.8
	Associated with: Deep to very deep, imperfectly to poorly drained, fine silty over sandy soils with slight erosion hazard	Aquic Dystrochrepts Course Loamy Typic Udorthents		
24	Very Deep, well drained, fine loamy soils on gently sloping low lands having loamy surface with moderate erosion hazard	Fine Loamy Oxyaquic Dystrochrepts Fine Loamy Aquic Udorthents	1.9	0.2
	Associated with: very deep, poorly drained, fine loamy soils with slight erosion hazard			

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
25	Very Deep, moderately well drained, fine loamy soils on gently sloping low mounds having loamy surface with moderate erosion hazard	Fine loamy Typic Kandiodalts	3.5	0.3
	Associated with: very deep, poorly drained, fine loamy soils on gently sloping low mounds with moderate erosion hazard	Fine loamy Umbric Dystrochrepts Fine Loamy Typic Udorthents		
26	Deep, moderately well drained, clayey soils on upland of gently to very gently sloping interhall valleys having fine loamy surface with moderate to slight erosion hazard	Fine Typic Dystrochrepts Fine Loamy Aquic Dystrochrepts	26.6	2.5
	Associated with: very deep, imperfectly drained, fine loamy soils on very gently sloping narrow interhall valleys with slight erosion hazard	Fine Loamy Typic Epiaquepts		
27	Very Deep, well drained, fine loamy soils on the upland of gently to very gently sloping interhill valleys having clay loamy surface with moderate erosion hazard	Fine loamy Typic Haplumbrepts Fine Loamy Dystrochrepts	19.2	1.8
	Associated with: very deep, well drained, fine loamy soils on gently sloping interhill valleys with moderate erosion hazard			
28	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhill valleys having coarse loamy surface with moderate to slight erosion hazard	Fine loamy Fluventic Umbric Haplumbrepts Fine silty Epiaquepts	8.3	0.8
	Associated with: very deep, poorly drained, fine silty soils on very gently sloping narrow interhill valleys with occasional flooding hazard and slight erosion hazard			
29	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhall valleys having fine loamy surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Dystrochrepts	86.2	8.2
	Associated with: very deep, well drained, coarse loamy soils on the upland of gently sloping interhill with moderate erosion hazard	Fine loamy Typic Hapludults		
30	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhill valleys having clay loam surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Dystrochrepts	6.8	0.7
	Associated with: very deep, well drained, coarse loamy soils on the gently sloping interhill valleys with moderate erosion hazard	Coarse loamy Typic Udorthents		
31	Deep, well drained, fine loamy soils on upland of gently to very gently sloping interhill valleys having clay loam surface with moderate erosion hazard	Fine loamy Typic Dystrochrepts Coarse loamy Typic Dystrochrepts	10.4	1.0
	Associated with: very deep, well drained, coarse loamy soils on the gently sloping interhill valleys with moderate erosion hazard	Coarse loamy Typic Hapludults		
32	Deep, poorly to imperfectly drained, coarse loamy soils on gently to very gently sloping interhill valleys having sandy loam surface with moderate erosion hazard	Coarse loamy Aquic Udorthents Fine loamy Typic Dystrochrepts	1.5	0.1
	Associated with: very deep, well drained, clayey soils on the upland of gently sloping interhill valleys with moderate erosion hazard			
33	Deep, imperfectly drained, coarse loamy soils on gently to moderately gently sloping interhill valleys	Fine loamy Aeric Dystrochrepts	1.0	0.1

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	having sandy loam surface with moderate erosion hazard and occasional flooding hazard	Fine loamy Aquic Dystrochrepts		
	Associated with: very deep, poorly drained, fine loamy soils on gently sloping interhill valleys with slight erosion hazard and occasional flooding hazard			
34	Moderately Deep, imperfectly drained, fine loamy soils on gently sloping interhill valleys having clay loam surface with slight erosion hazard and occasional flooding hazard	Fine loamy Aquic Dystrochrepts Coarse loamy Fluventic Dystrochrepts	7.4	0.7
	Associated with: very deep, moderately well drained, coarse loamy soils on gently sloping interhill valleys with slight erosion hazard and occasional flooding hazard			
35	Deep, imperfectly to poorly drained, fine loamy soils on very gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard and slight erosion hazard	Fine Aerice Epiaquepts Fine Loamy Typic Epiaquepts	12.1	1.1
	Associated with: very deep, very poorly drained, fine loamy soils on gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard			
36	Deep, imperfectly to poorly drained, fine loamy soils on very gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard and slight erosion hazard	Fine Aerice Epiaquepts Fine Loamy Typic Epiaquepts Sandy Over Loamy Typic Epiaquepts	29.7	2.8
	Associated with: very deep, very poorly drained, fine loamy soils on gently sloping alluvial plain having loamy surface with moderate to severe flooding hazard			
37	Very Deep, imperfectly drained, clayey soils developed on very gently sloping alluvial plain having silty clay surface with moderate flooding hazard and slight erosion hazard	Fine loamy Aquic Dystrochrepts Fine Typic Epiaquepts	1.9	0.2
	Associated with: very deep, very poorly drained, clayey soils on very gently sloping alluvial plain with moderate flood hazard			
38	Very Deep, imperfectly drained, coarse loamy developed on gently sloping alluvial plain having sandy loam surface with occasional flooding hazard and slight erosion hazard	Coarse Loamy Aerice Epiaquepts Fine Loamy Aquic Dystrochrepts Typic Udipsamments	1.0	0.1
	Associated with: very deep, imperfectly drained, fine loamy soils on gently sloping alluvial plain with occasional flooding hazard			
39	Deep, very poorly drained, clayey soils on gently sloping floodplain having silty clay surface with severe to very severe flooding hazard and slight erosion hazard	Fine Loamy Typic Epiaquepts Fine Loamy over Sandy Typic Epiaquepts	13.2	1.2
	Associated with: very deep, imperfectly drained, fine silty soils on very gently sloping flood plain with severe to very severe flooding hazard and slight erosion hazard			
40	Very Deep, very poorly drained, clayey soils on very gently sloping floodplain having clay loam surface with severe flooding hazard and very slight erosion hazard	Fine Typic Epiaquepts Fine Loamy Typic Epiaquepts	32.6	3.1

Soil Unit	Description	Taxonomic Classification	Area (in'000 ha)	Area (%)
	Associated with: very deep, poorly to very poorly drained, fine loamy soils	Coarse loamy over Sandy Typic Fluvaquentic Dystrochrepts		
41	Very Deep, moderately well to imperfectly drained, fine loamy soils on very gently sloping floodplain having clay loam surface with moderate flooding hazard and very slight erosion hazard	Fine Aquic Dystrochrepts Fine Oxyaquic Dystrochrepts	72.9	7.0
	Associated with: very deep, moderately well drained, clayey soils on very gently sloping flood plain with occasional flooding hazard	Fine Aquic Dystrochrepts		
42	Very peep, poorly to very poorly drained, fine loamy soils on very gently sloping floodplain having clay loam surface with moderate to severe flooding hazard and very slight erosion hazard	Fine Typic Epiaquepts Fine Loamy Aeris Epiaquepts	35.9	3.5
	Associated with: very deep, poorly drained, fine loamy soils on very gently sloping flood plain with moderate to very severe flooding hazard and slight erosion hazard			
43	Very Deep, moderately well to imperfectly drained, fine loamy soils on very gently sloping floodplain having clay loam surface with moderate flooding hazard and very slight erosion hazard	Fine loamy Typic Haplumbrepts Fine Loamy Pachic Haplumbrepts	7.5	0.8
	Associated with: very deep, moderately well drained, clayey soils on very gently sloping flood plain with occasional flooding hazard	Fine Typic Dystrochrepts		

D: Flora of Project Area Recorded during Site Survey

Sr. No.	Name of plant Species	Family	Conservation status IUCN (2020.1)
1.	<i>Hevea brasiliensis</i>	Euphorbiaceae	Least Concern
2.	<i>Shorea robusta</i>	Dipterocarpaceae	Least Concern
3.	<i>Pterospermum acerifolium</i>	Malvaceae	Least Concern
4.	<i>Acacia auriculiformis</i>	Fabaceae	Least Concern
5.	<i>Mangifera indica</i>	Anacardiaceae	Least Concern
6.	<i>Magnifera sylvatica</i>	Anacardiaceae	Least Concern
7.	<i>Borassus flabellifer</i>	Arecaceae	Least Concern
8.	<i>Bambusa vulgaris</i>	Poaceae	Least Concern
9.	<i>Cassia fistula</i>	Fabaceae	Least Concern
10.	<i>Areca catechu</i>	Arecaceae	Not Evaluated
11.	<i>Melia azedarach</i>	Meliaceae	Least Concern
12.	<i>Kumara plicatilis</i>	Aloaeae	Least Concern
13.	<i>Terminalia bellirica</i>	Combretaceae	Not Evaluated
14.	<i>Nauclea diderrichii</i>	Rubiaceae	Least Concern
15.	<i>Diospyros melanoxylon</i>	Ebenaceae	Least Concern
16.	<i>Tectona grandis</i>	Lamiaceae	Least Concern
17.	<i>Abrus Precatorius</i>	Fabaceae	Least Concern
18.	<i>Quercus semecarpifolia</i>	Fagaceae	Not Evaluated
19.	<i>Vitex penduncularis</i>	Lamiaceae	Least Concern
20.	<i>Mesua ferrea</i>	Calophyllaceae	Least Concern
21.	<i>Chukrasia tabularis</i>	Meliaceae	Least Concern
22.	<i>Tamarindus indica</i>	Fabaceae	Least Concern
23.	<i>Elaeocarpus serratus</i>	Elaeocarpaceae	Low Risk-Least Concerned
24.	<i>Pistacia integerrima</i>	Anacardiaceae	Least Concern
25.	<i>Couroupita guianensis</i>	Lecythidaceae	Least Concern
26.	<i>Eucalyptus umbra</i>	Myrtaceae	Least Concern
27.	<i>Erythrina crista-galli</i>	Fabaceae	Least Concern
28.	<i>Ziziphus mauritiana</i>	Rhamnaceae	Least Concern
29.	<i>Cedrus deodara</i>	Pinaceae	Least Concern
30.	<i>Citrus indica</i>	Rutaceae	Least Concern
31.	<i>Cocos nucifera</i>	Arecaceae	Not evaluated
32.	<i>Artocarpus heterophyllus</i>	Moraceae	Least Concern
33.	<i>Albizia lebbeck</i>	Fabaceae	Least Concern
34.	<i>Pterocarpus marsupium</i>	Fabaceae	Vulnerable
35.	<i>Holoptelea integrifolia</i>	Ulmaceae	Least Concern
36.	<i>Ficus racemosa</i>	Moraceae	Least Concern
37.	<i>Psidium guajava</i>	Myrtaceae	Least Concern
38.	<i>Aegle marmelos</i>	Rutaceae	Near Threatened
39.	<i>Carica papaya</i>	Caricaceae	Least Concern
40.	<i>Azadirachta indica</i>	Meliaceae	Least Concern
41.	<i>Dillenia indica</i>	Dilleniaceae	Least Concern
42.	<i>Musa paradisiaca</i>	Musaceae	Least Concern
43.	<i>Ficus religiosa</i>	Moraceae	Least Concern
44.	<i>Anacardium occidentale</i>	Anacardiaceae	Least Concern
45.	<i>Delonix regia</i>	Fabaceae	Least Concern
46.	<i>Manilkara zapota</i>	Sapotaceae	Least concern
47.	<i>Alstonia scholaris</i>	Apocynaceae	Least concern
48.	<i>Coffee senna</i>	Fabaceae	Not Evaluated
49.	<i>Neolamarckia cadamba</i>	Rubiaceae	Least concern
50.	<i>Vaccinium spp.</i>	Ericaceae	Least Concern
51.	<i>Moringa oleifera</i>	Moringaceae	Least concern
52.	<i>Bombax ceiba</i>	Malvaceae	Least Concern
53.	<i>Cinnamomum glanduliferum</i>	Lauraceae	Least concern

Sr. No.	Name of plant Species	Family	Conservation status IUCN (2020.1)
54.	<i>Aphanamixis polystachya</i>	Meliaceae	Least concern
55.	<i>Actinodaphne angustifolia</i>	Lauraceae	Least concern
56.	<i>Lagerstroemia speciosa</i>	Lythraceae	Least concern
57.	<i>Dysoxylum binectarderum</i>	Meliaceae	Least concern
58.	<i>Michelia champaca</i>	Magnoliaceae	Least concern
59.	<i>Aquilaria malacensis</i>	Thymelaeaceae	Least concern
60.	<i>Holigarna caustic</i>	Anacardiaceae	Least concern
61.	<i>Bambusa pallida</i>	Fabaceae	Least concern
62.	<i>Syzygium cumini</i>	Myrtaceae	Least concern
63.	<i>Phlogacanthus thrsiflorus</i>	Acanthaceae	Least concern
64.	<i>Phrynium capitatum</i>	Marantaceae	-
65.	<i>Calamus leptospadix</i>	Arecaceae	Not known
66.	<i>Apostasia wallichii</i>	Orchidaceae	Not known
67.	<i>Zeuxine strateumatia</i>	Orchidaceae	Not known
68.	<i>Mesua ferra</i>	Calophyllaceae	Not known
69.	<i>Dysoxylum binectariferum</i>	Meliaceae	Least concern
70.	<i>Artocarpus chaplasha</i>	Moraceae	Least concern
71.	<i>Cryptocarya amygdalina</i>	Lauraceae	Least concern
72.	<i>Gmelina arborea</i>	Lamiaceae	Least concern
73.	<i>Schima wallichii</i>	Theaceae	Least concern
74.	<i>Chukrasia tabularis</i>	Meliaceae	Least concern
75.	<i>Albizia chiensis</i>	Fabaceae	Least concern
76.	<i>Mallotus philippensis</i>	Euphorbiaceae	Least concern
77.	<i>Phyllanthus emblica</i>	Phyllanthaceae	Least concern
78.	<i>Dalbergia stipulacea</i>	Fabaceae	Least concern
79.	<i>Stephania glandulifera</i>	Menispermaceae	Least concern
80.	<i>Osbeckia chinensis</i>	Melastomataceae	Least concern
81.	<i>Clerodendrum viscosum</i>	Lamiaceae	Least concern
82.	<i>Desmodium heterocarpon</i>	Fabaceae	Least concern
83.	<i>Holorrhea pubescens</i>	Apocynaceae	Least concern
84.	<i>Hydrocarpus kurzi</i>	Labiatae	Least concern
85.	<i>Justica adhatida</i>	Acanthaceae	Least concern
86.	<i>Marsilea minuta</i>	Acanthaceae	Least concern
87.	<i>Ocimum tenuiflorum</i>	Labiatae	Least concern
88.	<i>Phlogacanthus thyriflorus</i>	Acanthaceae	Least concern
89.	<i>Rawfia serpentina</i>	Apocynaceae	Least concern
90.	<i>Orphiorrhiza villosa</i>	Rubiaceae	Least concern
91.	<i>Cycas pectinata</i>	Cycadaceae	Least concern
92.	<i>Dischidia benghalensis</i>	Asclepiadaceae	Least concern
93.	<i>Saraca asoca</i>	Fabaceae	Least concern
94.	<i>Dischidia major</i>	Asclepiadaceae	Least concern
95.	<i>Gnetum montanum</i>	Gnetaceae	Least concern
96.	<i>Gnetum oblongum</i>	Gnetaceae	Least concern
97.	<i>Torenia mucronulata</i>	Scrophulariae	Least concern
98.	<i>Wallichia caryotoides</i>	Arecaceae	Least concern
99.	<i>Jasminum listeri</i>	Oleaceae	Least concern
100.	<i>Phoenix dactylifera</i>	Arecaceae	Least Concern
101.	<i>Terminalia chebula</i>	Combretaceae	Least Concern
102.	<i>Streblus asper</i>	Moraceae	Least Concern
103.	<i>Schleichera oleosa</i>	Sapindaceae	Least Concern
104.	<i>Pongamia pinnata</i>	Fabaceae	Least Concern
105.	<i>Ficus benghalensis</i>	Moraceae	Not evaluated
106.	<i>Limonia acidissima</i>	Rutaceae	Not evaluated
107.	<i>Pogostemon cablin</i>	Lamiaceae	Least Concern
108.	<i>Senna occidentalis</i>	Fabaceae	Not Evaluated

Sr. No.	Name of plant Species	Family	Conservation status IUCN (2020.1)
109.	<i>Lantana Camara</i>	Verbenaceae	Not Evaluated

Appendix B

Public Consultation and PAP Meeting



पावरग्रिड
POWERGRID

FEAR for T&D subprojects in Gomati and South
Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING

Public Consultation Enroute of Transmission Lines

Sr. No.	Village Name	Person Attended
1	Bagafa	1
2	Belonia	5
3	Udaypur	4
4	Amarpur	1



Bagafa



Belonia



Udaipur



Amarapur

	<p>FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura</p>	
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Public Consultations with POWERGRID

PROJECT SUMMARY



প্রকল্পের সারমর্ম



In order to strengthen the power scenario of the North Eastern States including Tripura, the Government of India with the financial assistance of the WORLD BANK, has formulated the North Eastern Region Power System Improvement Project (NERPSIP) which envisages in construction of new power Sub-stations, Transmission & Distribution lines and simultaneously augmentation/expansion of the existing Sub-stations and Transmission lines.

The NERPSIP in the state of Tripura broadly aims at:-

- Load enhancement of the transmission and distribution network of Tripura as well as reducing the transmission and distribution (T & D) loss.
- To adequately address the demand side management for ensuring adequate supply of electricity.

For implementation of project under North Eastern Region Power System Improvement Project (NERPSIP) construction of different 132 kV substation and transmission & distribution line have been planned to be taken up in this area. For construction of transmission line under this project, any damage caused will be compensated as per the Government norms.

We hope that implementation of the North Eastern Power System Improvement Project (NERPSIP) in the state of Tripura will definitely contribute in the socio-economic development of the state.

ত্রিপুরা সহ উত্তর-পূর্ব রাজ্যগুলির বিদ্যুৎ ব্যবস্থার উন্নতির জন্য ভারত সরকার-বিশ্বব্যাংকের আর্থিক সহায়তায় উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) গঠন করেছে, যার মূল উদ্দেশ্য হল নতুন বিদ্যুৎ সাবস্টেশন, নতুন বিদ্যুৎ পরিবাহী ও বন্টন লাইন তৈরী করা এবং পাশাপাশি বর্তমান সাবস্টেশন এবং লাইনগুলির ক্ষমতা বৃদ্ধি ও সম্প্রসারণ করা।

উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) ত্রিপুরাতে আনার উদ্দেশ্য হল :-

- বিদ্যুৎ পরিবাহী ও বন্টন লাইনের ক্ষমতা বৃদ্ধি করা তথা পরিবাহী ও বন্টন ব্যবদ অপচয় হ্রাস করা।
- চাহিদার উপযোগী বিদ্যুৎ যোগান দেওয়া।

উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্পের (NERPSIP) অধীনে ত্রিপুরা রাজ্যের প্রকল্প গুলি বাস্তবায়নের লক্ষ্যে এই এলাকায় ১৩২ কেভি সাবস্টেশন, বিদ্যুৎ পরিবাহী ও বন্টন লাইন তৈরী করার উদ্যোগ নেওয়া হয়েছে। এই প্রকল্পটি বাস্তবায়নে সরকারী নিয়ম অনুযায়ী নির্ধারিত ক্ষতিপূরণ প্রদান করা হবে।

আমরা আশা করি ত্রিপুরার সামাজিক ও অর্থনৈতিক উন্নয়নে উত্তর-পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) অনন্য অবদান রাখবে।



**পাওয়ারগ্রিড
POWERGRID**

FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING/জনসম্মেলন সভার বিবরণ

Subject/বিষয়

Construction of 132 kV Udaipur – Bagafa Line ,132kV Bagafa- Satchand Line,132kV Bagafa – Belonia Line & associated distribution lines(with financial assistance of WORLD BANK) under NERPSIP Project

NERPSIP প্রকল্পের আওতায় (বিশ্ব ব্যাংকের আর্থিক সহায়তায়) 132kV উদয়পুর- বাগাফা, 132kV বাগাফা - সাতচান্দ ও 132kV বাগাফা - বীলোনিয়া পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ

Place of Meeting/সভার স্থান

Bagafa RD Block(BDO Office Conference Hall)/ বাগাফা ব্লক (BDO অফিস কনফারেন্স হল)

Date of Meeting/সভার তারিখ

15.09.2014 / ১৫.০৯.২০১৪

Name of the dignitary present in the meeting/ সভায় উপস্থিত মর্যাদাপূর্ণ ব্যক্তিদের নাম

A. Tripura Government/ ত্রিপুরা সরকার

- 1) Sh. Himangsu Roy, Sabhaadhipati, Belonia, South Tripura District
- 2) Sh.Sankar Majumdar, chairman Bagafa Block.
- 3) Sh. Parikshit Mora Singh, BAC Chairman
- 4) Sh. Arpan Dutta, Vice-Chairman
- 5) Sh. Hiralal Debbarma, Sr. DM
- 6) Sh. Ashish Dutta, BDO, Bagafa

B. TSECL Officials/ TSECL কর্মকর্তাবা

1. Sh. Ratan Das, DGM, TSECL

C. POWERGRID Officials/ পাওয়ার গ্রিড কর্মকর্তাবা

1. Sh. N. Dube, DGM, POWERGRID
2. Sh. D.N.Brahma, Chief Manager, POWERGRID
3. Sh. Uttam Debnath, Sr. Engineer, POWERGRID

People present in the meeting/ সভায় উপস্থিত জনসাধারণ

200-250 nos. of local village and some common public .(Attendance Sheet Enclosed)
200-250 জন স্থানীয় গ্রাম এবং কিছু সাধারণ পাবলিক (উপস্থিত ব্যক্তিবর্গের সাক্ষর)

Point addressed to the people/ জনসাধারণের উদ্দেশ্য ভাষণ:

A brief of the NORTH EASTERN REGION POWER SYSTEM IMPLEMENTATION PROJECT(NERPSIP) under the world bank assistance has been deliberated at the beginning of the meeting by Sh. Rattan Das, DGM,TSECL. Importance & necessity of the project, necessity for upgradation of existing transmission & distribution network, various environment & Social issues associated with the project have been briefly discussed and appraised to the public present in the meeting.

আলোচনা সভার শুরুতে TSECL এর ডেপুটি জেনারেল ম্যানেজার শ্রী রতন দাস মহাশয় বিশ্ব ব্যাংকের আর্থিক সহায়তায় উত্তর পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প(NERPSIP) সম্বন্ধে জনসাধারণের উদ্দেশ্যে সংক্ষিপ্ত তথ্য দিলেন। তাছাড়া প্রকল্পের প্রয়োজনীয়তা ও গুরুত্ব, বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন এর ক্ষমতা বৃদ্ধির প্রয়োজনীয়তা, প্রকল্পের সঙ্গে যুক্ত বিভিন্ন পরিবেশ ও সামাজিক বিষয়, সম্বন্ধে সংক্ষিপ্ত জ্ঞানমূল্যবান উত্থাপন করলেন উপস্থিত জনসাধারণের উদ্দেশ্যে।

Response from Public/ জনসাধারণের থেকে প্রতিক্রিয়া

Representatives from the public also responded and raised various concerns about the project. The various issues raised by public are summarised as below:-

- ✓ Whether this line will improve the power supplies in our village and remove frequent interruption/outage
- ✓ Whether these lines are safe for the nearby dwellers without any problems of electrocution while working in the fields
- ✓ What is compensation policy for the standing crops damaged and compensation for the land occupied by the tower footings

জনসাধারণের পক্ষ থেকেও প্রতিনিধিরা প্রতিক্রিয়া এবং প্রকল্প সম্পর্কে বিভিন্ন উদ্বেগ উত্থাপিত করলেন। জনসাধারণ দ্বারা উত্থাপিত কিছু গুরুত্বপূর্ণ বিষয় নীচের সংক্ষিপ্ত করা হলো :-

- এই প্রকল্প এর জন্য আমাদের গ্রামে বিদ্যুৎ সরবরাহ উন্নত হবে কিনা এবং ঘন ঘন বিদ্যুত বিচ্যুত মুহুর্তে ফেলা যাবে কিনা ?
- এই লাইন এর জন্য নিকটবর্তী গ্রামবাসীরা তাদের জমিতে কাজ করার সময় ভরিতাহত হয়ে কোনো ক্ষতিগ্রস্ত হবে কিনা ?
- ক্ষতিগ্রস্ত ফসলের ক্ষতিপূরণের জন্য ক্ষতিপূরণ নিয়ম কি হবে এবং টাওয়ার বানানোর জন্য যে জমি লাগবে তার ক্ষতিপূরণের কি নিয়ম হবে ?

Conclusion/ উপসংহার

However all the public present have unanimously agreed to the necessity and importance of the project and assured their co-operation during the implementation of the project.

TSECL/POWERGRID has assured that all the genuine issues will be duly taken care of during the implementation of the project. Further

- This transmission line along with associated distribution line planned to be constructed for improvement of electricity supply and minimize the power cut in your village
- Sufficient electrical clearance will be maintained while construction of these line and hence no electrocution while working in the field.
- For damaged crops,trees sufficient compensation will be given as per the rate provided by district revenue authority. Further no land will be acquired while constructing the tower but sufficient surface compensation will be provided.

The meeting has been concluded with a request to all public for their support in completion of the project.

তবে সবশেষে উপস্থিত জনসাধারণ সর্বসম্মতিক্রমে প্রকল্পের প্রয়োজনীয়তা এবং গুরুত্ব নিয়ে একমত প্রকাশ করেছেন এবং প্রকল্প বাস্তবায়ন সময় তাদের সহযোগিতা নিশ্চিত করেছেন।

TSECL / পাওয়ার গ্রিড কর্মকর্তারা সমস্ত বাস্তব সমস্যা উপর প্রকল্প বাস্তবায়নের সময় যথাযত নজর দেয়ার আশ্বাস দিয়েছেন. তাছাড়া

- এই বিদ্যুৎ পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ এর ফলে এই এলাকার বিদ্যুৎ বেবস্থার উন্নতি হবে এবং ঘন ঘন বিদ্যুৎ কাটা বন্ধ হবে।
- বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন নির্মাণের সময় যথেষ্ট বৈদ্যুতিক ব্যবধান রক্ষণাবেক্ষণ করা হবে যাতে বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন কাছাকাছি বা নিকটবর্তী মাঠে কাজ করা লোকদের কোনো ভরিতারহতর সম্ভাবনা না থাকে।
- ক্ষতিগ্রস্ত ফসলের ও গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে। টাওয়ার বানানোর জন্য কোনো ভূমি অধিগ্রহণ করা হবে না কিন্তু টাওয়ার বানানোর ফলে যে গাছ বা ফসল ক্ষতি হবে তার ক্ষতি পূরণ দেওয়া হবে

প্রকল্প বাস্তবায়নে জনসাধারণের সহযোগিতার অনুরোধের সঙ্গে সভা সমাপ্তির ঘোষণা করা হয়েছে

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Bagafa Line, 132kV

Name of Line:- Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date- 15.09.2014

Venue- BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
১)	Soma Das	Longang	House wife	Soma Das
২)	প্রবাল কিশোর পাণ্ডা	Longang	- do -	Prabal
৩)	সুখা (স্ব)	Longang	"	Sukha
৪)	শ্রী পরাগজি	Longang	"	Shri Parag
৫)	মঞ্জা আলী খান	Longang	"	Mansa Ali Khan
৬)	সুজা মন্ডল	Subashchay	"	Sujan Mondal
৭)	আমল গুপ্তা	- do -	"	Amal Gupta
৮)	মাসুম মন্ডল	Longang	"	Masum Mondal
৯)	অরুণ দাস	- do -	Business	Arjun Das
১০)	দিলীপ মন্ডল	- do -	"	Dilip Mondal
১১)	অরুণ সান্যাল (কম)	Longang	"	Arjun Sanjal

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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Bagafa Line, 132kV

Name of Line:- Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date- 15.09.2014

Venue- BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
১২)	প্রমোদ চন্দ্র	Garachang	Farmer	Prasmod Chandra
১৩)	অনুল ধোনি	Garachang	HFV	Anul Bhowmik
১৪)	নির্মাল ত্রিপুরা	Garachang	Farmer	Nirmal Tripathi
১৫)	সুজা মন্ডল	Longang	HFV	Sujan Mondal
১৬)	মুন্সী চন্দ্র	Ruk. Gang	Farmer	Munsi Chandra
১৭)	আরুণ মন্ডল	DO -	Aloruni Bhowmik	Arjun Mondal
১৮)	অরুণ (কম)	DO	HFV	Arjun Das
১৯)	অরুণ মন্ডল	DO	HFV	Arjun Das
২০)	অরুণ মন্ডল	Betage	HFV	Arjun Mondal
২১)	অরুণ মন্ডল	Betage	HFV	Arjun Mondal

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Name of Line:- Construction of 132 kV Udaipur - Bagafa Line, 132kV
Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
associated distribution lines (with financial assistance
of WORLD BANK) under NERPSIP Project

Date- 15.09.2014

Venue- BAGAFa

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
21	MILAN DAS	LONGAM	H/W	Milans
23	MOHAN MOHAN	Betaga	Business	Satyajit
24	PAWANKUMAR	Betaga	"	Nikhil
25	RAJ KUN	Betaga	"	Rinad
26	RAJ KUN	Betaga	"	Nripendra
27	Bimal Ch. Das	Kandanaagar	"	Bimal Chandra
28	Sibendu Das (475)	Kandanaagar	H/W	Sibendu Das
29	Subir Das	DO	Business	Subir Das
30	Nan' Gopal Das	DO	Business	Nan' Gopal Das
31	Pankaj Das	DO	Business	Pankaj Das
32	Topan Das	Subhoshida	Business	Topan Das

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**Public Consultation Meeting
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Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date- 15.09.2014

Venue- BAGAFa

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
33	Sailapati Chakraborty	Kandanaagar	Business	Sailapati Chakraborty
34	Monchal Maj	"	H/W	21.09.2014
35	Sinia Debbar	West Khatola	"	Sinia Debbar
36	Shipra Pedder (Dey)	"	"	Shipra Pedder (Dey)
37	Jaraki Reang	"	"	Jaraki Reang
38	Kabi's Reang	"	Business	Kabi's Reang
39	Bimal Dutta	"	"	Bimal Dutta
40	Sukhes Das	"	"	Sukhes Das
41	Nikhil Monax	"	"	Nikhil Monax
42	Anup Chandra	"	"	Anup Chandra
43	Pankaj Nain	Betaga	"	Pankaj Nain

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**Public Consultation Meeting
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Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
Name of Line:- associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date: 15.09.2014

Venue: BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
44	Shefali Rani Dhar	Bagafa	H/W	Shefali Rani Dhar
45	Swarna Debnath	"	"	Swarna Debnath
46	Madhuri Das	"	"	Madhuri Das
47	Sirha Das	"	"	Sirha Das
48	Suparna Das	East Bagafa	Ranchayat	Suparna Das
49	Neeraj Mog	Gardhang	H/W	Neeraj Mog
50	Milan Das	"	H/W	Milan Das
51	Priya Mog	"	Business	Priya Mog
52	Sujit Tripathi	Gardhang	"	Sujit Tripathi
53	Angh Mog	Subhas Colony	"	Angh Mog
54	Parimal Ch. Das	"	"	Parimal Ch. Das

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**Public Consultation Meeting
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Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
Name of Line:- associated distribution lines (with financial assistance of
WORLD BANK) under NERPSIP Project

Date: 15.09.2014

Venue: BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
55	Prabir Debnath	Bagafa	P/S	Prabir Debnath
56	Ranga Mohan	"	Business	Ranga Mohan
57	Raghunath Tripathi	"	"	Raghunath Tripathi
58	Dwijendra Rong	"	"	Dwijendra Rong
59	Smita Debnath	R.K. Gang	Prodhun	Smita Debnath
60	Smriti Nandi	Ranchanagar	Business	Smriti Nandi
61	Ranjati Janalia	Kanu	"	Ranjati Janalia
62	Biswapati Dhar	South Takur	"	Biswapati Dhar
63	Suresh Dhar	Kajapur	"	Suresh Dhar
64	Pangla Kishan	Takurachan	"	Pangla Kishan
65	Parulaxmi Tripathi	Gardhang	"	Parulaxmi Tripathi

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Bagafa Line, 132kV
Name of Line:- Bagafa- Satchand Line, 132kV Bagafa - Belonia Line &
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WORLD BANK) under NERPSIP Project.

Date- 15.09.2014

Venue- BAGAFI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
66	Malati Tripathy	Takmasen	H/W	Malati Tripathy
67	Rishnu Priyadarshi (N.H.)	Bagafa	Business	Rishnu Priyadarshi
68	Prayabasi Rudhapa	Bagafa	"	Prayabasi Rudhapa
69	Ajit Das	R.K. Gang	"	Ajit Das
70	Shyamal Datta	Kandian Naga	"	Shyamal Datta
71	Nirapada Bar.	Tripura State Control Society	"	Nirapada Bar.
72	Suman Das	Post Bagafa	"	Suman Das
73	Nanda Barua		"	Nanda Barua
74				
75				
76				



FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING/জন মতামত সভার বিবরণ

Subject/ বিষয়
Construction of 132 kV Udaipur - Amarpur Line ,132kV Udaipur - Bagafa Line & associated distribution lines(with financial assistance of WORLD BANK) under NERPSIP Project NERPSIP প্রকল্পের আওতায় (বিশ্ব ব্যাংকের আর্থিক সহায়তায়) 132kV উদয়পুর- অমরপুর, 132kV উদয়পুর -বাগাফা পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ
Place of Meeting/সভার স্থান
Matabari RD Block(BDO Office Conference Hall)/ মাতাবারী ব্লক (BDO অফিস কনফারেন্স হল)
Date of Meeting/সভার তারিখ
20.09.2014 / ২০.০৯.২০১৪
Name of the dignitary present in the meeting/ সভায় উপস্থিত মর্যাদাপূর্ণ ব্যক্তিদের নাম
A. Tripura Government/ ত্রিপুরা সরকার 1) Smt. Nivedita Bhaumik, BDO 2) Sri Roy Ramkrishna Bhowmik, Chairman 3) Sri Madhusudan Bhowmik, Vice-Chairman 4) Sri Daharam Reang, BAC Chairman
B. TSECL Officials/ TSECL কর্মকর্তাবা 1. Sh. Ratan Das, DGM,TSECL
C. POWERGRID Officials/ পাওয়ার গ্রিড কর্মকর্তাবা 1. Sh. N. Dube, DGM, POWERGRID 2. Sh. D.N.Brahma, Chief Manager, POWERGRID 3. Sh. Uttam Debnath, Sr. Engineer, POWERGRID
People present in the meeting/ সভায় উপস্থিত জনসাধারণ
150-200 nos. of local village and some common public .(Attendance Sheet Enclosed) 150-200 জন স্থানীয় গ্রাম এবং কিছু সাধারণ পাবলিক (উপস্থিত ব্যক্তিবর্গের সাক্ষর)

Point addressed to the people/ জনসাধারণের উদ্দেশ্য ভাষন:

A brief of the NORTH EASTERN REGION POWER SYSTEM IMPLEMENTATION PROJECT(NERPSIP) under the world bank assistance has been deliberated at the beginning of the meeting by Sh. Rattan Das, DGM,TSECL. Importance & necessity of the project, necessity for upgradation of existing transmission & distribution network, various environment & Social issues associated with the project have been briefly discussed and appraised to the public present in the meeting.

আলোচনা সভার শুরুতে TSECL এর ডেপুটি ডিরেক্টর ম্যানুজার শ্রী রতন দাস মহাশয় বিশ্ব ব্যাংকের আর্থিক সহায়তায় উত্তর পূর্ব ক্ষেত্র বিদ্যুৎ বাবস্থা উন্নতিকরণ প্রকল্প(NERPSIP) সম্বন্ধে জনসাধারণের উদ্দেশ্যে সংক্ষিপ্ত তথ্য দিলেন। তাছাড়া প্রকল্পের প্রয়োজনীয়তা ও গুরুত্ব, বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন এর ক্ষমতা বৃদ্ধির প্রয়োজনীয়তা, প্রকল্পের সঙ্গে যুক্ত বিভিন্ন পরিবেশ ও সামাজিক বিষয়, সম্বন্ধে সংক্ষিপ্ত জানামত প্রদান করলেন উপস্থিত জনসাধারণের উদ্দেশ্যে।

Response from Public/ জনসাধারণের থেকে প্রতিক্রিয়া

Representatives from the public also responded and raised various concerns about the project. The various issues raised by public are summarised as below:-

- ❖ What is compensation policy for the standing crops damaged and compensation for the land occupied by the tower footings
- ❖ What about employment for local people and procedure for same
- ❖ What is the width of ROW for cutting trees? How much compensation for the trees will be given and when.

জনসাধারণের পক্ষ থেকেও প্রতিনিধিরা প্রতিক্রিয়া এবং প্রকল্প সম্পর্কে বিভিন্ন উদ্বেগ উত্থাপিত করলেন। জনসাধারণ দ্বারা উত্থাপিত কিছু গুরুত্বপূর্ণ বিষয় নীচের সংক্ষিপ্ত করা হলো :-

- ❖ ক্ষতিগ্রস্ত ফসলের ক্ষতিপূরণের জন্য ক্ষতিপূরণ নিয়ম কি হবে এবং টাওয়ার বানানোর জন্য যে জমি লাগবে তার ক্ষতিপূরণের কি নিয়ম হবে ?
- ❖ এই প্রকল্পের জন্য স্থানীয় মানুষ এর কর্মসংস্থান এবং নিয়োগ নীতির কি নিয়ম হবে ?
- ❖ লাইন বানানোর সময় গাছ কাটার করিডোর/প্রস্থ কি হবে ? কখন এবং কি পরিমাণ ক্ষতিপূরণ দেওয়া হবে গাছের জন্য ?

Conclusion/উপসংহার

However all the public present have unanimously agreed to the necessity and importance of the project and assured their co-operation during the implementation of the project.

TSECL/POWERGRID has assured that all the genuine issues will be duly taken care of during the implementation of the project. Furthermore

- ❖ For damaged crops,trees sufficient compensation will be given as per the rate provided by district revenue authority. Further no land will be accrued while constructing the tower but sufficient surface compensation will be provided.
- ❖ Local people will be engaged during the construction of line and the engagement will be as per their skill.
- ❖ The width of ROW of cutting trees will be 27 M and sufficient compensation will be given as per the rate provided by district revenue authority during the construction.

The meeting has been concluded with a request to all public for their support in completion of the project.

তবে সবশেষে উপস্থিত জনসাধারণ সর্বসম্মতিক্রমে প্রকল্পের প্রয়োজনীয়তা এবং গুরুত্ব নিয়ে একমত প্রকাশ করেছেন এবং প্রকল্প বাস্তবায়ন সময় তাদের সহযোগিতা নিশ্চিত করেছেন ।

TSECL / পাওয়ার গ্রিড কর্মকর্তারা সমস্ত বাস্তব সমস্যা উপর প্রকল্প বাস্তবায়নের সময় যথাযত নজর দেয়ার আশ্বাস দিয়েছেন. জনসাধারণের প্রশ্নের উত্তরে POWERGRID/TSECL কর্মকর্তারা বলেন

- ❖ ক্ষতিগ্রস্ত ফসলের ও গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে। টাওয়ার বালালের জন্য কোনো জমি অধিগ্রহণ করা হবে না কিন্তু টাওয়ার বালালের ফলে যে গাছ বা ফসল ক্ষতি হবে তার ক্ষতি পূরণ দেওয়া হবে
- ❖ প্রকল্প কাজের রূপায়নের সময় গ্রামের তথ্য স্থানীয় কারিগর/ শ্রমিক দের তাদের যুগ্যতা অনুযায়ী নিয়োগ করা হবে
- ❖ লাইন বালালের সময় গাছ কাটার প্রশ্ন হবে ২৭ মিটার এবং ক্ষতিগ্রস্ত গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে।

প্রকল্প বাস্তবায়নে জনসাধারণের সহযোগিতার অনুরোধের সঙ্গে সভা সমাপ্তির ঘোষণা করা হয়েছে

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)

Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur -
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project
Date- 20.09.2014 Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
1	Chameli Das	Pitua	H/W	Chameli Das
2	Malati Nandi	Pitua	H/W	Malati Nandi
3	Kajal Rani Das	Rajnagar	H/W	Kajal Rani Das
4	Jabbar Miza	Rajnagar	Business	Jabbar Miza
5	Karnu chandra Das	Putamati	Teachers	Karnu chandra Das
6	Selinara Begum	Putamati	capa handan	Selinara Begum
7	Putul Day	Putamati	H/W	Putul Day
8	Nand Lal Adhikari	Putamati	panchayat member	Nand Lal Adhikari
9	Manglu Day	Kilpara	H/W	Manglu Day
10	Kunima chakraborty	Kilpara	H/W	Kunima chakraborty
11	Haron ch. Paul	Lakshminipati	Former	Haron ch. Paul
12	Milan Sarkar	Putamati	Business	Milan Sarkar

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Date- 20.09.2014 Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
13	Sajal Paul	Purba Kungabam	Business	Sajal Paul
14	Sital Ch. Sarkar Das	Purba Kungabam	Farmer	Sital Ch. Sarkar Das
15	Dipali Das	Purba Kungabam	H/W	Dipali Das
16	Bhela Rani Debbarma	Purba Kungabam	H/W	Bhela Rani Debbarma
17	Apur Shell	Uttar chandrapur	H/W	Apur Shell
18	Chaya Rani Das	Matabari	H/W	Chaya Rani Das
19	Pratap Chakraborty	- Do -	Business	Pratap Chakraborty
20	Sukumar Chhail	Pitua		Sukumar Chhail
21	Suparna Das	- Do -		Suparna Das
22	Prmit Das	U. chandrapur	Handan	Prmit Das
23	Mita Das Laskar	11		Mita Das Laskar
24	Kalpana Majumdar			Kalpana Majumdar

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)

**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur -
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project

Date:- 20.07.2014

Venue:- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
25	Sepati Das	W. Kungaba		সেপতি দাস
26	Sepati Das	- DO -		সেপতি দাস
27	Kelu Das	- DO -		কলু দাস
28	Putabi Saha	- DO -		পুতুবি সাহা
29	Manika Majumdar (Sarkar)	Kata Bari		Manika Majumdar
30	Archana Debnath	- DO -		Archana Debnath
31	Sahalan Nija Sarkar	Uttar Mahara	Member	Sahalan Nija Sarkar
32	Kalipa Kallan	- DO -		কলিপা কলান
33	Sayanad Majumdar	Portamati	proadham	Sayanad Majumdar
34	Ratna Majumdar	W. Katabari		Ratna Majumdar
35	Manidar Begun	W. Katabari		Manidar Begun
36	Kanu Guda	W. DO -		Kanu Guda

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur -
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project

Date:- 20.07.2014

Venue:- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
37	Habibul Nigam	W. Katabari	member	Habibul Nigam
38	Sabita Nana	Kata Bari		Sabita Nana
39	Kela Sarkar Das	Ful Kumari		Kela Sarkar Das
40	Sujan Das	Matabari		Sujan Das
41	Lakshmi Chakrabarty	S. DO -		Lakshmi Chakrabarty
42	Pran Krishna Das	S. DO -		Pran Krishna Das
43	Abhisit Das			Abhisit Das
44	Mitu Rani Das	Rajnagar		Mitu Rani Das
45	Anima Das	- DO -		Anima Das
46	Mitu Rani Das	- DO -		Mitu Rani Das
47	Gouri Rani Singh	Maharani		Gouri Rani Singh
48	Lakshmi Das	- DO -		Lakshmi Das



Name of Line: Construction of 132 KV Udaipur - Amarpur Line, 132kV Udaipur - Bagafa Line & associated distribution lines (with financial assistance of WORLD BANK) under NERPSIP Project

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
49	Prabhu Ghosh	Maharuni		Babur Ghosh
50	Dulal Majumdar	- DO -		2 marks
51	Sabira Prisi	- DO -		2 marks
52	Narain Chakraborty	- DO -		Narain Chakraborty
53	Hemangshu Das	- DO -		2 marks
54	Safali Pal	Kelpara		Safali Pal
55	Chitra Hazra	Mata Bini		Chitra Hazra
56	Renu Nag	Pal Kumari		Renu Nag
57	Goparani Das	- DO -		Goparani Das
58	Durani Das	- DO -		5 marks
59	Prabir Majumdar	- DO -		Prabir Majumdar
60	Subash Sharma	S. Katabani		Subash Sharma

Name of Line:- Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur - Bagafa Line & associated distribution lines(with financial assistance of WORLD BANK) under NERPSIP Project

Venue- MATABARI

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TRIPURA STATE ELECTRICITY CORPORATION LTD
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Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project
Venue- MATABARI

Date- 25.04.2019

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
64	Pradip Sil	Uttar Chandraipur		Pradip Sil
65	Dinkali Jey Deb	"		Dinkali Jey Deb
66	Dipali Banik Das	"		Dipali Banik Das
67	Rafik Mia	"		Rafik Mia
68	Suapam Ch Majumdar	Pitra		Suapam Ch Majumdar
69	Narash Ch Das	- Do -		Narash Ch Das
70	Biswajit Bhattacharya	Laxmi pati		Biswajit Bhattacharya
71	Abul Basar	Uttar Mahamni		Abul Basar
72	Rabindra Kr Das	- Do -		Rabindra Kr Das
73	Abdul Hanif	- Do -		Abdul Hanif
74	Rafik Mia	- Do -		Rafik Mia
75	Jharna Debbarma	"		Jharna Debbarma

TRIPURA STATE ELECTRICITY CORPORATION LTD
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Public Consultation Meeting ATTENDANCE SHEET

Construction of 132 kV Udaipur - Amarpur Line, 132kV
Name of Line:- Udaipur - Bagafa Line & associated distribution lines(with
financial assistance of WORLD BANK) under NERPSIP Project

Date- 25.04.2019

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
76	Prerna Rani Dhar	Uttar Mahamni		Prerna Rani Dhar
77	Shipra Datta	Uttar Mahamni		Shipra Datta
78	Inam Uddin	M/L Pura		Inam Uddin
79	Uma Sankar Ghosh	"		Uma Sankar Ghosh
80	Sahar Mia	"		Sahar Mia
81	Nepal Ch Das	Pitra		Nepal Ch Das
82	Nakul Begam	- Do -		Nakul Begam
83	Priya Krishna Das	Matabari		Priya Krishna Das
84	Ashenjit K Sarker	Rajnagar		Ashenjit K Sarker
85	Suapam Bhattacharya	"		Suapam Bhattacharya
86	Lalita Chandra	Laxmi pati		Lalita Chandra
87	Jabita Das	"		Jabita Das

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV Udaipur
Name of Line:- Bagafa Line & associated distribution lines(with financial
assistance of WORLD BANK) under NERPSIP Project

Date- 20.07.2014

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
88	SUKLA RANI YUGI	Laxmibati		<i>[Signature]</i>
89	Rina Sarkar	Maharai		<i>[Signature]</i>
90	Sadhana Das	"		<i>[Signature]</i>
91	Roy Sahajit Bhawanik	"		<i>[Signature]</i>
92	AKKASE MIAH	"		<i>[Signature]</i>
93	Jatan Ch. Bhawanik	"		<i>[Signature]</i>
94	Biswanandhu Datta	South Matabari		<i>[Signature]</i>
95	DIPAK ROY	Pitra		<i>[Signature]</i>
96	Kuntal Das	South Matabari		<i>[Signature]</i>
97	Ranjit Choudhary	Pitra		<i>[Signature]</i>
98	Bi plab Dey	Darshin Matabari		<i>[Signature]</i>
99	Giribala Das	Matabari		<i>[Signature]</i>

TRIPURA STATE ELECTRICITY CORPORATION LTD
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**Public Consultation Meeting
ATTENDANCE SHEET**

Construction of 132 kV Udaipur - Amarpur Line, 132kV
Name of Line:- Udaipur - Bagafa Line & associated distribution lines(with
financial assistance of WORLD BANK) under NERPSIP Project

Date- 20.07.2014

Venue- MATABARI

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
100	Alpana Das (Deb)	Matabari		<i>[Signature]</i>
101	Shafali Datta	Khilpara		<i>[Signature]</i>
102	Jadulal Das	Matabari		<i>[Signature]</i>
103	Sukhla Das (Bani)	Rajnagar	P. Samiti Member	<i>[Signature]</i>
104	Latan Kanti Sen	Kunjaban		<i>[Signature]</i>
105	Sujit Das	- DO -		<i>[Signature]</i>
106	Johal Palaeas	Paschim Khilpara	Member	<i>[Signature]</i>
107	Subash Karmakar	Kunjaban		<i>[Signature]</i>
108	Aba Dey	Pat Kumari		<i>[Signature]</i>
109	Soma Nath Das	M. Khilpara		<i>[Signature]</i>
110	M. K. Dhal	Vidhata Mahan Samiti		<i>[Signature]</i>
111	Ratna Rani Sutar	Kunjaban		<i>[Signature]</i>



**পাওয়ারগ্রিড
POWERGRID**

FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



DETAILS OF PUBLIC CONSULTATION MEETING/জন মতামত সভার বিবরণ

Subject/ বিষয়
Construction of 132kV Bagafa- Satchand Line, 132kV Belonia - Sabroom Line & associated distribution lines (with financial assistance of WORLD BANK) under NERPSIP Project NERPSIP প্রকল্পের আওতায় (বিশ্ব ব্যাংকের আর্থিক সহায়তায়) 132kV বাগাফা - সাতচান্দ ও 132kV বীলোনিয়া - সাক্রম পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ
Place of Meeting/সভার স্থান
Satchand RD Block(BDO Office Conference Hall)/ সাতচান্দ ব্লক (BDO অফিস কনফারেন্স হল)
Date of Meeting/সভার তারিখ
26.09.2014 / ২৬.০৯.২০১৪
Name of the dignitary present in the meeting/ সভায় উপস্থিত মর্যাদাপূর্ণ ব্যক্তিদের নাম
A. Tripura Government/ ত্রিপুরা সরকার
1) Sh. Himangsu Roy, Sabhaadhipati, Belonia, South Tripura District 2) Sh. Hiralal Debbarma, Sr. DM 3) Sh. Goutam Chakraborty, BDO, Satchand
B. TSECL Officials/ TSECL কর্মকর্তাবা
1. Sh. Ratan Das, DGM, TSECL
C. POWERGRID Officials/ পাওয়ারগ্রিড কর্মকর্তাবা
1. Sh. N. Dube, DGM, POWERGRID 2. Sh. Anupam Acharya, Engineer, POWERGRID
People present in the meeting/ সভায় উপস্থিত জনসাধারণ
150-200 nos. of local village and some common public .(Attendance Sheet Enclosed) 150-200 জন স্থানীয় গ্রাম এবং কিছু সাধারণ পাবলিক (উপস্থিত ব্যক্তিবর্গের সাক্ষর)

Point addressed to the people/ আনা সাধারণের উদ্দেশ্য ভাষন:

A brief of the NORTH EASTERN REGION POWER SYSTEM IMPLEMENTATION PROJECT (NERPSIP) under the world bank assistance has been deliberated at the beginning of the meeting by Sh. Rattan Das, DGM, TSECL. Importance & necessity of the project, necessity for upgradation of existing transmission & distribution network, various environment & Social issues associated with the project have been briefly discussed and appraised to the public present in the meeting.

আলোচনা সভার শুরুতে TSECL এর ডেপুটি জেনারেল ম্যানেজার শ্রী রতন দাস মহাশয় বিশ্ব ব্যাংকের আর্থিক সহায়তায় উত্তর পূর্ব ক্ষেত্র বিদ্যুৎ ব্যবস্থা উন্নতিকরণ প্রকল্প (NERPSIP) সম্বন্ধে জনসাধারণের উদ্দেশ্যে সংক্ষিপ্ত তথ্য দিলেন। তাছাড়া প্রকল্পের প্রয়োজনীয়তা ও গুরুত্ব, বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন এর ক্ষমতা বৃদ্ধির প্রয়োজনীয়তা, প্রকল্পের সঙ্গে যুক্ত বিভিন্ন পরিবেশ ও সামাজিক বিষয়, সম্বন্ধে সংক্ষিপ্ত জানামত প্রদান উপস্থিত জনসাধারণের উদ্দেশ্যে।

Response from Public/ আনা সাধারণের থেকে প্রতিক্রিয়া

Representatives from the public also responded and raised various concerns about the project. The various issues raised by public are summarised as below:-

- ✚ Whether this line will improve the power supplies in our village and remove frequent interruption/outage?
- ✚ Whether these lines are safe for the nearby dwellers without any problems of electrocution while working in the fields?
- ✚ What is compensation policy for the standing crops damaged and compensation for the land occupied by the tower footings?
- ✚ What about employment for local people and procedure for same?

জনসাধারণের পক্ষ্য থেকেও প্রতিনিধিরা প্রতিক্রিয়া এবং প্রকল্প সম্পর্কে বিভিন্ন উদ্বেগ উত্থাপিত করলেন। জনসাধারণ দ্বারা উত্থাপিত কিছু গুরুত্বপূর্ণ বিষয় নীচের সংক্ষিপ্ত করা হলো :-

- ✚ এই প্রকল্প এর জন্য আমাদের গ্রামে বিদ্যুৎ সরবরাহ উন্নত হবে কিনা এবং ঘন ঘন বিদ্যুত বিচ্ছিন্নতা মুছে ফেলা যাবে কিনা ?
- ✚ এই লাইন এর জন্য নিকটবর্তী গ্রামবাসীরা তাদের জমিতে কাজ করার সময় ভরিতা হতে পারে কিনা ক্ষতিগ্রস্ত হবে কিনা ?
- ✚ ক্ষতিগ্রস্ত ফসলের ক্ষতিপূরণের জন্য ক্ষতিপূরণ নিয়ম কি হবে এবং টাওয়ার বানানোর জন্য যে জমি লাগবে তার ক্ষতিপূরণের কি নিয়ম হবে ?
- ✚ এই প্রকল্পের জন্য স্থানীয় মানুষ এর কর্মসংস্থান এবং নিয়োগ নীতির কি নিয়ম হবে ?

Conclusion/ উপসংহার

However all the public present have unanimously agreed to the necessity and importance of the project and assured their co-operation during the implementation of the project.

TSECL/POWERGRID has assured that all the genuine issues will be duly taken care of during the implementation of the project.

- ✚ This transmission line along with associated distribution line planned to be constructed for improvement of electricity supply and minimize the power cut in your village
- ✚ Sufficient electrical clearance will be maintained while construction of these line and hence no electrocution while working in the field.
- ✚ For damaged crops,trees sufficient compensation will be given as per the rate provided by district revenue authority. Further no land will be accrued while constructing the tower but sufficient surface compensation will be provided.
- ✚ Local people will be engaged during the construction of line and the engagement will be as per their skill.

The meeting has been concluded with a request to all public for their support in completion of the project.

ভাবে সবশেষে উপস্থিত জনসাধারণ সর্বসম্মতিক্রমে প্রকল্পের প্রয়োজনীয়তা এবং গুরুত্ব নিয়ে একমত প্রকাশ করেছেন এবং প্রকল্প বাস্তবায়ন সময় তাদের সহযোগিতা নিশ্চিত করেছেন।

TSECL / পাওয়ার গ্রিড কর্মকর্তারা সমস্ত বাস্তব সমস্যা উপর প্রকল্প বাস্তবায়নের সময় যথাযত নজর দেয়ার আশ্বাস দিয়েছেন। জনসাধারণের প্রশ্নের উত্তরে POWERGRID/TSECL কর্মকর্তারা বলেন,

- ✚ এই বিদ্যুৎ পরিবাহী লাইন এবং সংযুক্ত বন্টন লাইন নির্মাণ এর ফলে এই এলাকার বিদ্যুৎ বেবস্তার উন্নতি হবে এবং ঘন ঘন বিদ্যুৎ কাটা বন্ধ হবে।
- ✚ বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন নির্মাণের সময় যথেষ্ট বৈদ্যুতিক ব্যবধান রক্ষণাবেক্ষণ করা হবে যাতে বিদ্যুৎ পরিবাহী লাইন এবং বন্টন লাইন কাছাকাছি বা নিকটবর্তী মাঠে কাজ করা লোকদের কোনো ভারিভাষ্যের সম্ভাবনা না থাকে।
- ✚ ক্ষতিগ্রস্ত ফসলের ও গাছ এর জন্য জেলা রাজস্ব কর্তৃপক্ষ দ্বারা উপলব্ধ হার অনুযায়ী ক্ষতিপূরণ দেওয়া হবে। টাওয়ার বানানোর জন্য কোনো জমি অধিগ্রহণ করা হবে না কিন্তু টাওয়ার বানানোর ফলে যে গাছ বা ফসল ক্ষতি হবে তার ক্ষতি পূরণ দেওয়া হবে
- ✚ প্রকল্প কাজের রূপায়নের সময় গ্রামের তথা স্থানীয় কারিগর/ শ্রমিক দের তাদের যুগ্যতা অনুযায়ী নিয়োগ করা হবে।

প্রকল্প বাস্তবায়নে জনসাধারণের সহযোগিতার অনুরোধের সঙ্গে সভা সমাপ্তির ঘোষণা করা হয়েছে

TRIPURA STATE ELECTRICITY CORPORATION LTD
(A GOVERNMENT OF TRIPURA ENTERPRISE)



**Public Consultation Meeting
ATTENDANCE SHEET**

Name of Line: Construction of 132kV Bagafa- Satchand Line, 132kV Belonia -
Sabroom Line & associated distribution lines

Venue- SATCHAND

Date- 26.07.2014

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
1	Shrawan Das	Thakur	Member	
2	Subinjit Tripathy	Uttar-gharib	Member	Monaji Tripathy
3	Swapna Das	Dakshin, Ghatololi	Member	Swarna Das
4	Kanchanmali Tripathy	Kalachara	Member	Kanchan Tripathy
5	Halita Das	Nakagrav	Member	Halita Das
6	Khokan Ray	Kalachara	Upa - Pradhan	Khokan Ray
7	Gravesh Ch. Ray	-do-	Member	Gravesh Ch. Ray
8	Nivedita Nandi Bhawmik	Purba Harin	Pradhan	Nivedita Nandi (Bhawmik)
9	Usha Rani Ray	Purba Harin	Member	Usha Rani Ray
10	Santibata Shil	Purba Harin	Member	Santibata Shil
11	Ratna Debnath	-do-	-do-	Ratna Debnath
12	Kamal Krishna Debnath	-do-	-do-	Kamal Krishna Debnath

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Date- 26.07.2014

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
13	Subal Das	Purba Harin	Member	Subal Das
14	Shrinang Ch. Tripathy	Satchand	Member	Shrinang Ch. Tripathy
15	Sri. Subinjit Ch. Das	Mamukata	Member	Sri. Subinjit Ch. Das
16	Smt. Tharina Das (Name)	-do-	Member	Tharina Das
17	Smt. Swapna Das	-do-	-do-	Swapna Das
18	Smt. Bapi Majumdar	Satchand	-do-	Bapi Majumdar
19	Smt. Lipika Das Majumdar	-do-	-do-	Lipika Das Majumdar
20	Smt. Laxmi Banik	Mamukata	-do-	Laxmi Banik
21	Sri. Srijamal Choudhary	-do-	-do-	Sri. Srijamal Choudhary
22	Smt. Shipra Das	-do-	-do-	Shipra Das
23	Smt. Saranwati Karmakar	-do-	-do-	Saranwati Karmakar
24	" Kanchan Mali Tripathy	Purba Harin	-do-	Kanchan Mali Tripathy



FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



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Name of Line:- Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
25	Sh. Jadar Lal D/Mithi	South Govatala	Member	[Signature]
26	Sh. Manik Das	Satchand	Chairperson	[Signature]
27	Sh. Rana Kishore Kumar Pradhan		Chairman	Rana Kishore Kumar
28	Sh. Manohar Sarkar pengukhara		Member	
29	" Pratik Das Saha	Manik Das	- Do -	mandrasankar
30	Sh. Subrata Majumdar	Manik Das (Andamanagar)	- Do -	Subrata Majumdar
31	" Ganesh Ch. Debnath	Andamanagar	- Do -	Ganesh Ch. Debnath
32	Sh. Praba Datta Majumdar	- Do -	- Do -	Prabha Datta Majumdar
33	" Rajal Majumdar	- Do -	- Do -	Rajal Majumdar
34	" Shipra Das	- Do -	- Do -	SHI PRADIP DAS

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Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
35	Sh. Shipra Das Patwari	Chalita Chari A.D. village	Pradhan	Shipra Das Patwari
36	" Suparna Paul Majumdar	W. Manik	Member	Suparna Paul (Majumdar)
37	" Namita Sarkar (Mrs)	- Do -	Pradhan	Namita Sarkar (Mrs)
38	" Naichai Mog	Katapani	Pradhan	Naichai Mog
39	" Nime Mog	- Do -	Member	Nime Mog
40	Sh. Apra Mog	- Do -	- Do -	Apra Mog
41	Sh. Jarna Sarkar	- Do -	- Do -	Jarna Sarkar
42	" Archana Sarkar	Nabagram	Pradhan	Archana Sarkar
43	" Gita Sarkar	- Do -	Member	Gita Sarkar
44	Sh. Manindra Das	- Do -	- Do -	Manindra Das
45	" Binmal Das	Satchand	- Do -	Binmal Das
46	" Dinesh Das	N. Govatala Das Para	- Do -	Dinesh Das

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Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
47	Sh. Anup choudhury	Kalapani	Member	Anup Choudhury
48	Sh. Lipi Roy Das	B. K. Pally, Panchajit	Upa Pradhan	Lipi Roy Das
49	Sh. Akren Paul	Nabagram	- DO -	Akren Paul
50	Sh. Krishna Dutta	Satchand	Member	Krishna Dutta
51	Sh. Jayapati Tripathi	- DO -	- DO -	Jayapati Tripathi
52	Sh. Rajat Kumar Das	Nabagram	- DO -	Rajat Kumar Das
53	Sh. Manohar Choudhary	Satchand	- DO -	Manohar Choudhary
54	Sh. Pradip Kumar Tripathi	- DO -	- DO -	Pradip Kumar Tripathi
55	Sh. Satish Kumar Tripathi	Satchand	Chair Person	Satish Kumar Tripathi
56	Sh. Tota Ram Das	Kalachara	Member	Tota Ram Das
57	Sh. Bishwanath Ray	Nabagram	- DO -	Bishwanath Ray
58	Sh. Dipak Banik	Kanai Nagar	Member	Dipak Banik

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Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
59	Sh. Raj Kumar Das	Satchand	Pradhan	Raj Kumar Das
60	Sh. Roshni D. Das	- DO -	Member	Roshni D. Das
61	Sh. Gouri Paul	- DO -	- DO -	Gouri Paul
62	Sh. Subir Kumar	Satchand	- DO -	Subir Kumar
63	Sh. Mani Das	Satchand	- DO -	Mani Das
64	Sh. Ratan Sarkar	Nabagram	- DO -	Ratan Sarkar
65	Sh. Lalita Das	- DO -	- DO -	Lalita Das
66	Sh. Archana Debbarth	Gopabali	- DO -	Archana Debbarth
67	Sh. Phol Rati	- DO -	- DO -	Phol Rati
68	Sh. Jyotsna Debbarth	Kalapani	- DO -	Jyotsna Debbarth
69	Sh. Sanjit Das	Nabagram	- DO -	Sanjit Das
70	Sh. Parimal Patra	Gopabali	- DO -	Parimal Patra



**पावरग्रिड
POWERGRID**

FEAR for T&D subprojects in Gomati and South Tripura District under NERPSIP in Tripura



TRIPURA STATE ELECTRICITY CORPORATION LTD
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Public Consultation Meeting ATTENDANCE SHEET

Name of Line: Construction of 132kV Bagafa- Satchand Line, 132kV Belonia- Sabroom Line & associated distribution lines

Date: 26.04.2014 Venue: SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
71	Sh. Partha Debbarma	N. Patara	Member -	71.2.20
72	" Khatesh Ch. Das	N. Gomati	- do -	Khatesh Ch. Das
73	" Dulal Das	N. Harina	- do -	Dulal Das
74	Sh. Shepra Devi (Wife)	B. K. Pally	- do -	Sh. Shepra Devi
75	" Rakhi Das	- do -	- do -	Rakhi Das
76	" Sukhla Debbarma	- do -	- do -	Sukhla Debbarma
77	" Omkar Ch. Das	- do -	- do -	Omkar Ch. Das
78	" Bhupal Das	- do -	- do -	Bhupal Das
79	Sh. Lakshmi Basak	Dan Dama	- do -	Lakshmi Basak
80	" Anu Rajumdar (Bani K)	- do -	- do -	Anu Rajumdar
81	Sanjoy Choudhury	Sureth Beharal	- do -	Sanjoy Choudhury
82	Sanjoy D. Nath	- do -	- do -	Sanjoy D. Nath

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Date: 26.04.2014 Venue: SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
83	Sh. Parimal Debbarma	Rajibnagar	Member -	Parimal Debbarma
84	Sh. Jyotsna Chakrabarti	Kaladara	- do -	Jyotsna Chakrabarti
85	Sh. Jayanta Bhosman	Battala	- do -	Jayanta Bhosman
86	" Shiba Rayan Das	- do -	"	Shiba Rayan Das
87	" Paroma Nanda	N. Dalakar	"	Paroma Nanda
88	" Tapan Majumdar	Battala	"	Tapan Majumdar
89	Sh. Maya Rani Nath	- do -	"	Maya Rani Nath
90	" Debbarma Das	S. Harina	"	Debbarma Das
91	" Renuka Das	- do -	"	Renuka Das
92	" Pulut Das	Jalapa	"	Pulut Das
93	" Parimal Chell	E. Jalapa	Member	Parimal Chell
94	Sh. Jayanta Tripathi	- do -	Member	Jayanta Tripathi

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Date- 26.09.2014

Venue- SATCHAND

Sl. no.	Name of the Present Villager	Name of Village/Address	Work/Profession	Sign.
95	Smt - Ratna Sharma	E-Jalapa	member	Ratna Sharma
96	Sh. Jahanul Haque	Nandigram	- do -	Jahanul Haque
97	" Ganajoy Deb Nath	Rajibnagar	- do -	Ganajoy Deb Nath
98	" Arun Ch. Das	Lokanta Palla	- do -	Arun Ch. Das
99	" Narayan Deb Nath	- do -	"	Narayan Deb Nath
100	" Chintan Kumar Das	- do -	Pradhan	Chintan Kumar Das
101	Smt. Shikha Das Majumdar	Rajibnagar	member	Shikha Das Majumdar
102	Sh. Bishunjit Majumdar	- do -	"	Bishunjit Majumdar
103	" Rajib Sarkar	- do -	"	Rajib Sarkar
104	" Babatosh Majumdar	- do -	"	Babatosh Majumdar
105	Smt. Medhu Sarkar	- do -	"	Medhu Sarkar
106	" Rina Subudhar	- do -	"	Rina Subudhar

Photographs of Public Consultation held on 15th Sep'2014 at Bagafa



Photographs of Public Consultation held on 20th Sep'2014 at Udaipur



Photographs of Public Consultation held on 26th Sep'2014 at Satchand



Appendix C

TOWER SCHEDULE

Udaipur to Bagafa 132 kV D/C TL - 31.943 Km

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GRANTRY (UDAIPUR) TO AP-4/0 (TOTAL LENGTH:- 0.631 KM.)

AS PER DETAIL SURVEY						AS PER CHECK SURVEY										REMARKS									
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)		REDUCE LEVEL (M)	HOT WEIGHT SPAN (M)	COLD WEIGHT SPAN (M)	COORDINATE					
1	GAT	GAT	GAT		08°25'41"	40	40.0	1	GAT	GAT	GAT		08°25'41"	40	40.0	32.130	0.0	26.1	26.1	0.0	23.5	23.5	245563	2601195	
2	AP1	3/0	DB+0	0	00°00'00"	80	80.0	2	AP1	3/0	DB+0	0	00°00'00"	80	80.0	22.230	3.9	45.1	51.2	35.5	27.2	43.7	245602	2601186	132KV Line to be Dismantle, Road 110kV LT Line to be Dismantle, Road 110kV Line
3	AP2	2/0	DB+1	3	48°28'08" (RT)	80	80.0	3	AP2	2/0	DB+1	3	48°28'08" (RT)	80	80.0	54.445	27.1	82.5	82.5	262.8	309.7	302.5	245624	2601118	132KV Line, LT Line, Road, Pond, 50kV Line
4	AP4	4/0	DB+1	9	2°17'25" (LT)	280	280.0	4	AP4	4/0	DB+1	9	2°17'25" (LT)	280	280.0	53.952	181.5	8.8	193.3	171.3	8.8	371.3	349244	2603873	
TOTAL						631.0		TOTAL						631.0											

TOWER SUMMARY

TYPE OF TOWER	EXTENSION				TOTAL	GRAND TOTAL
	0	3	6	9		
DA	0	0	0	0	0	3
DB	0	0	0	0	0	
DC	0	0	0	0	0	
DD	1	1	0	1	3	

Approved
Note:- ① The approved doesn't assume responsibility of contractor.

FOR TEEMS INDIA			FOR EMC		FOR POWER GRID CORPORATION OF INDIA LTD.		
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED		Checked by	RECOMMENDED BY	APPROVED BY
<i>Bromendal</i>	<i>Amor Sin</i>	<i>Vishal</i>	<i>FOR EMC LIMITED</i>		<i>Rajin Sankar</i> 19/5/20	<i>Rajin Sankar</i> 19/5/20	<i>W.M. 19/5/20</i>
CHENNAI			CHENNAI		CHENNAI		

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP-4/0 TO AP-5/0 (TOTAL LENGTH:- 0.095 KM.)

AS PER DETAIL SURVEY						AS PER CHECK SURVEY										REMARKS										
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)		REDUCE LEVEL (M)	HOT WEIGHT SPAN (M)	COLD WEIGHT SPAN (M)	COORDINATE	VILLAGE NAME					
1	AP-4	4/0	DB+3	9	02°17'25" (LT)	75	75	1	AP-4	4/0	DB+3	9	02°17'25" (LT)	75	75	53.912	188.5	188.5	376.5	171	265	458.3	33°31'48.83"	91°31'15.80"	SATRAPHANG	CARET WIRE REMOVE
2	AP-5	5/0	DB+0	0	12°53'04" (RT)	95	95	2	AP-5	5/0	DB+0	0	12°53'04" (RT)	95	95	53.506	86	3	87	130	75	260	25°31'42.33"	91°31'15.93"	SATRAPHANG C.P.D. - 2M	
TOTAL						95		TOTAL						95												

TOWER SUMMARY

TYPE OF TOWER	EXTENSION				TOTAL	GRAND TOTAL
	+0	+3	+6	+9		
DA	0	0	0	0	0	2
DB	1	0	0	1	2	
DC	0	0	0	0	0	
DD	0	0	0	0	0	

FOR TEEMS INDIA			FOR EMC		FOR POWER GRID CORPORATION OF INDIA LTD.		
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED		Checked by	RECOMMENDED BY	APPROVED BY
<i>Bromendal</i>	<i>Amor Sin</i>	<i>Vishal</i>	<i>FOR EMC LIMITED</i>		<i>Rajin Sankar</i> 15/5/20	<i>Rajin Sankar</i> 15/5/20	<i>W.M. 15/5/20</i>
CHENNAI			CHENNAI		CHENNAI		

Approved
Note:- ① The approved doesn't assume responsibility of contractor.

अखिल पाकम / A.K.M. CHAK - 16
कनिष्ठ अभियंता / J.E.
पावरग्रिड / POWERGRID
उ.पु.क्षेत्र उदयपुर / NE R UDAIPUR


$$\begin{aligned} R &= 207.731 \\ R &= 39.524 \\ R &= 164.287 \\ R &= 258.425 \end{aligned}$$

एम. के. नाग / M.K.NAG
उप महाप्रबंधक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
उ. प. भे. उदयपुर / NER UDAIPUR

LINE NAME: 10KV DC TRANSMISSION LINE FROM UDAIPUR TO BAGATA CONTRACTOR: TEEMS INDIA POWERLINES PRIVATE LIMITED CHECK SURVEY REPORT (From AP-34 to AP-44 & AP-45 to AP-46, Total -21.075)																									
AS PER DETAIL SURVEY										AS PER CHECK SURVEY															
AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	ADA Type	Wind Span	Reduced Level	Coordinate		AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	ADA Type	Wind Span	Reduced Level	Coordinate					
									Northing	Easting										Northing	Easting	Remarks	CPD / BENCHMARK	Village Name	
18	AP-345	240	DC-1	18°37'39"	120						AP-34	240	DC-1	17°40'54" LT	180.904	177.600	127.380	333.79	56.026	22°27'36.30"	91°54'11.78"	Wdgs Road, RP, PPF			
19	AP-356	250	DB-0	18°37'39"	302	504	282.80	105.83	22°27'36.00"	91°54'13.20	AP-35	250	DB-0	17°37'51" RT	216.809	166.904	163.175	261.80	42.654	22°27'36.10"	91°54'14.52"	Vd Road, RP, PPF		Exhaustive	
20	AP-360	240	DB-0	18°37'39"	302	576	288.00	107.41	22°27'36.00"	91°54'13.80	AP-36	240	DB-0	18°11'10" LT	216.809	163.383	261.80	43.312	22°27'36.20"	91°54'14.52"	2nd Vd Road, Tm, RP, PPF				
21	AP-361	240	DB-0	18°37'39"	302		452	220.02	105.94		AP-37	240	DB-0	18°11'10" LT	306.300		452.409	226.93	42.264	22°27'36.30"	91°54'14.99"		RT, PPF	Exhaustive	
22	AP-370	270	DB-0	18°37'39"	302	452	397	106.24	115.43	22°27'36.00"	91°54'13.80	AP-37	270	DB-0	18°11'10" LT	306.300		452.409	226.93	42.264	22°27'36.30"	91°54'14.99"		RT, PPF	Exhaustive
23	AP-380	280	DB-0	18°37'39"	302	561	443	121.56	116.07	22°27'36.00"	91°54'15.76	AP-38	280	DB-0	18°11'10" LT	259.003	440.823	226.41	43.986	22°27'36.40"	91°54'16.30"		RT, PPF	Exhaustive	
24	AP-381	280	DB-0	18°37'39"	302	378	109.06	122.34			AP-39	280	DB-0	18°11'10" LT	278.209	440.823	226.41	43.986	22°27'36.40"	91°54'16.30"		RT, PPF	Exhaustive		
25	AP-382	280	DB-0	18°37'39"	302	463	234.70	117.56			AP-40	280	DB-0	18°11'10" LT	382.210	440.823	226.41	43.986	22°27'36.40"	91°54'16.30"		RT, PPF	Exhaustive		
26	AP-390	300	DB-0	18°37'39"	302	645	506	281.40	122.43	22°27'36.00"	91°54'16.50	AP-41	300	DB-0	18°11'10" LT	443.522	505.566	280.908	58.498	22°27'36.50"	91°54'16.30"	1st Vd Road, RP, PPF		Exhaustive	
27	AP-409	400	DC-1	18°37'39"	302	360	346	273.00	122.43	22°27'36.00"	91°54'16.50	AP-42	400	DC-1	22°33'31" LT	245.58	380.835	245.233	273.12	47.429	22°33'31.00"	91°54'16.54"	2nd Motor Road, UG, PPF		
28	AP-410	410	DB-1	18°37'39"	302	345	438	210.00	111.17	22°27'36.00"	91°54'16.50	AP-43	410	DB-1	18°37'39" RT	245.58	438.722	219.56	46.992	22°33'31.00"	91°54'16.54"		RT, PPF	Exhaustive	
29	AP-411	410	DB-1	18°37'39"	302	543	370.00	123.95			AP-44	410	DB-1	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°33'31.00"	91°54'16.54"		RT, PPF	Exhaustive	
30	AP-420	420	DB-0	18°37'39"	302	543	452	120.00	115.40	22°27'36.00"	91°54'16.50	AP-45	420	DB-0	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°33'31.00"	91°54'16.54"		RT, PPF	Exhaustive
31	AP-421	420	DB-0	18°37'39"	302	799	295.50	147.23			AP-46	420	DB-0	18°37'39" RT	296.112		680.008	300.00	81.063	22°33'31.00"	91°54'17.14"		RT, PPF	Exhaustive	
32	AP-434	434	DB-0	18°37'39"	304	199	398	293.30	149.17	22°27'36.00"	91°54'16.50	AP-47	434	DB-0	18°37'39" RT	400.628	499.022	298.31	81.866	22°33'31.00"	91°54'17.80"	LT, Loc, RT		Exhaustive	
33	AP-435	434	DB-0	18°37'39"	304	317	258.50	152.79			AP-48	434	DB-0	18°37'39" RT	513.144	257.87	81.866	22°33'31.00"	91°54'17.80"		RT, PPF	Exhaustive			
34	AP-436	434	DB-0	18°37'39"	304	600	341.70	156.53			AP-49	434	DB-0	18°37'39" RT	678.311	338.66	80.93	22°33'31.00"	91°54'18.00"		RT, PPF	Exhaustive			

Plush Kanti Chatterjee
PLUSH KANTI CHATTERJEE
ASST PROJECT ENGINEER
TEEMS INDIA
 13/11/19

Raju Shreedharan
RAJU SHREEDHARAN
Chief Project Manager.

Abhijit Deo
(ABHIJIT DEO)
PROJECT MANAGER
 एम. के. नाग / M.K.NAG
 उपायुक्त / GENERAL MANAGER
 पावरग्रिड / POWERGRID
 उ.पू. से. उदयपुर / NER UDAIPUR

LINE NAME: 10KV DC TRANSMISSION LINE FROM UDAIPUR TO BAGATA CONTRACTOR: TEEMS INDIA POWERLINES PRIVATE LIMITED CHECK SURVEY REPORT (From AP-34 to AP-44 & AP-45 to AP-46, Total -21.075)																					
AS PER DETAIL SURVEY										AS PER CHECK SURVEY											
AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	ADA Type	Wind Span	Reduced Level	Coordinate		AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	ADA Type	Wind Span	Reduced Level	Coordinate	
									Northing	Easting										Northing	Easting
35	AP-405	400	DB-0	18°37'39"	302	702	504	282.80			AP-41	400	DB-0	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
36	AP-406	400	DB-0	18°37'39"	302	702	504	282.80			AP-42	400	DB-0	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
37	AP-407	400	DB-0	18°37'39"	302	702	504	282.80			AP-43	400	DB-0	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
38	AP-408	400	DB-0	18°37'39"	302	702	504	282.80			AP-44	400	DB-0	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
39	AP-409	400	DB-0	18°37'39"	302	702	504	282.80			AP-45	400	DB-0	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
40	AP-410	410	DB-1	18°37'39"	302	702	504	282.80			AP-46	410	DB-1	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
41	AP-411	410	DB-1	18°37'39"	302	702	504	282.80			AP-47	410	DB-1	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
42	AP-412	410	DB-1	18°37'39"	302	702	504	282.80			AP-48	410	DB-1	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
43	AP-413	410	DB-1	18°37'39"	302	702	504	282.80			AP-49	410	DB-1	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"
44	AP-414	410	DB-1	18°37'39"	302	702	504	282.80			AP-50	410	DB-1	18°37'39" RT	193.142	347.39	438.722	219.56	46.992	22°27'36.10"	91°54'14.52"

Plush Kanti Chatterjee
PLUSH KANTI CHATTERJEE
ASST PROJECT ENGINEER
TEEMS INDIA
 13/11/19

Raju Shreedharan
RAJU SHREEDHARAN
Chief Project Manager.

Abhijit Deo
(ABHIJIT DEO)
PROJECT MANAGER
 एम. के. नाग / M.K.NAG
 उपायुक्त / GENERAL MANAGER
 पावरग्रिड / POWERGRID
 उ.पू. से. उदयपुर / NER UDAIPUR

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAPUR TO BAGGA TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP45 - AP51 (TOTAL LENGTH: 2.062 KM.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY															
SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	REDUCE LEVEL (M)	COLD WEIGHT SPAN (M)			HOT WEIGHT SPAN (M)			COORDINATE		REMARKS
																	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING	
1	AP45	45/0	DB+0	0	12°48'33" (RT)	307	307	1	AP45	45/0	DB+0	0	12°48'33" (RT)	307	307	154.95	52.77	188.1	138.53	37.07	175.47	201.49	355998	258880	C&D - L.S.M
2	AP46	46/0	DB+0	0	24°14'24" (LT)	225	307	2	AP46	46/0	DB+0	0	24°14'24" (LT)	225	307	133.78	112.7	247.59	355.25	133.38	389.09	528.97	355374	258660	VILLAGE ROAD, MALA, PHE
3	AP47	47/0	DB+0	0	19°45'36" (LT)	248	225	3	AP47	47/0	DB+0	0	19°45'36" (LT)	248	225	57.61	0	57	92	0	133	133	354293	259029	BT, LT LINE, METLA ROAD
4		42/1	DB+6	6	30°00'00"	138		4		47/1	DB+6	6	30°00'00"	138		80.1	171	188	354	355	171	324	355295	259038	355V LINE, AGRICULTURAL LAND
5	AP48	48/0	DB+3	3	01°56'56" (LT)	304	304	5	AP48	48/0	DB+3	3	01°56'56" (LT)	304	304	80.23	115	132	247	145	129	174	355295	258848	355V LINE, AGRICULTURAL LAND
6	AP49	49/0	DB+6	6	32°40'18" (LT)	253	304	6	AP49	49/0	DB+6	6	32°40'18" (LT)	253	304	81.72	192	98	290	175	150	285	355304	258890	355V LINE, 2100V, PUSKA ROAD
7	AP50	50/0	DB+6	6	18°14'09" (LT)	387	253	7	AP50	50/0	DB+6	6	18°14'09" (LT)	387	253	64.39	155	155	311	142	173	338	355407	258838	PANCHU DRAM, AGRICULTURAL LAND, NELLAPHEWOL, PERPENDICULAR MOV. LINE
8	AP51	51/0	DB+9	9	44°08'37" (RT)	387	387	8	AP51	51/0	DB+9	9	44°08'37" (RT)	387	387	16.32	223	215	482	324	172	588	355288	258883	

206.7
- 88.3
118.4

292.7
- 227
165.7

TOWER SUMMARY					
TYPE OF TOWER	EXTENSION				TOTAL
	+0	+3	+6	+9	
DA	0	0	1	0	1
DB	2	1	0	0	3
DC	1	0	1	0	2
DD	0	0	1	1	2
					8

Approved:-
Note:- ① The approval does not assume responsibility of contractor.
② Missing details have been separately submitted.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
B Mondal	Imon Sin				

FOR POWER GRID CORPORATION OF INDIA LTD.		
RECOMMENDED BY	APPROVED BY	
Rajendra 19/05/20		

RECOMMENDED BY: RANJIT SARKAR
POWERGRID / POWERGRID
उ.पू.से. उदयपुर / NER UDAPUR
APPROVED BY: K.K. TALUKDAR
POWERGRID / Sr. GM
उ.पू.से. उदयपुर / NER UDAPUR
Date: 19.05.20
अधीक्षक अभियंता / JE
पावरग्रिड / POWERGRID
उ.पू.से. उदयपुर / NER UDAPUR

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAPUR TO BAGGA TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP11 - AP12 & AP18 - AP19 (TOTAL LENGTH: 0.424 KM.)

AS PER DETAIL SURVEY								AS PER CHECK SURVEY																	
SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP NO.	LOC. NO.	TOWER TYPE	EXTN.	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	REDUCE LEVEL (M)	COLD WEIGHT SPAN (M)			HOT WEIGHT SPAN (M)			COORDINATE		REMARKS
																	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING	
1	AP11	11/0	DD+0	0	33°50'50" (LT)			1	AP11	11/0	DD+0	0	33°50'50" (LT)			72.560	0.0	25.3	25.3	0.0	49.8	49.8	350984.99	2601211.05	66kv Line, Road
2	AP12	12/0	DD+0	0	42°51'53" (RT)	168.0	168.0	2	AP12	12/0	DD+0	0	42°51'53" (RT)	168.0	168.0	76.100	142.2	0.0	142.2	117.7	0.0	117.7	351119.90	2601311.10	
1	AP18	18/0	DC+9	9	26°08'57" (LT)			1	AP18	18/0	DC+9	9	26°08'57" (LT)			28.524	0.0	115.6	115.6	0.0	120.9	120.9	352726.00	2600857.00	66kv Line
2	AP19	19/0	DD+9	9	39°12'55" (LT)	256	256	2	AP19	19/0	DD+9	9	39°12'55" (LT)	256	256	29.717	140.8	0.0	140.8	135.3	0.0	135.3	352261.13	2600639.09	

TOWER SUMMARY					
TYPE OF TOWER	EXTENSION				TOTAL
	0	3	6	9	
DA	0	0	0	0	0
DB	0	0	0	0	0
DC	0	0	0	1	1
DD	2	0	0	1	3
					4

Approved:-
Note:- The approval does not assume responsibility of contractor.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
B Mondal	Imon Sin				

FOR POWER GRID CORPORATION OF INDIA LTD.		
RECOMMENDED BY	APPROVED BY	
Rajendra 19/05/20		

RECOMMENDED BY: RANJIT SARKAR
POWERGRID / POWERGRID
उ.पू.से. उदयपुर / NER UDAPUR
APPROVED BY: M.K. TALUKDAR
POWERGRID / Sr. GM
उ.पू.से. उदयपुर / NER UDAPUR
Date: 19.05.20
अधीक्षक अभियंता / JE
पावरग्रिड / POWERGRID
उ.पू.से. उदयपुर / NER UDAPUR

LINE NAME: LDKV DC TRANSMISSION LINE FROM UDAIPUR TO BAGAPA CONTRACTOR: TEAMS INDIA CONSTRUCTION PRIVATE LIMITED CHECK SURVEY REPORT (From AP-30 to AP-38 & AP-39 to AP-36, Total - 12.475)																										
AS PER RETAIL SURVEY													AS PER CHECK SURVEY													
AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Height Level	Coordinate			AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Height Level	Coordinate		Remarks	CPD / BENCHMARK	Village Name	
									Northing	Easting											Northing	Easting				
				189		400	181.56	126.76								186.113		412.933	206.48	98.812	23°27'43.05"	91°37'33.47"	RT		Adiga	
44	531	DB-0	00°00'00"									523	DB-0			186.6								Proposed for Benchmark	Adiga	
45	AP-530	530	DC-3	00°00'00" LT	338	403	216.59	137.59	23°27'36.4"	91°38'16.4"		AP-531	530	DC-3	24°13'02" LT		412.943	433.940	216.05	76.707	23°27'59.31"	91°37'33.24"		RT	Proposed for Benchmark	Adiga
46	AP-540	540	DC-0	32°13'36" LT	229	319	444	232.80	91.38	23°27'32.8"	91°38'18.1"	AP-540	540	DC-0	17°29'20" LT		217.381	436.186	138.14	50.323	23°27'32.48"	91°37'18.12"			Village Road, Adiga, PEP	Adiga
47				228												218.988									Adiga	
48						498	243.80	143.96	23°27'42.3"	91°37'51.1"		541	DB-9					473.476	235.76	48.033	23°27'52.56"	91°37'33.68"			Adiga	
49	AP-550	550	DB-3	02°20'18" LT	265	406	417	208.79	11.85	23°27'19.3"	91°38'03.1"	AP-551	550	DB-3	08°17'53" LT		473.476	466.497	383.23	88.081	23°27'17.31"	91°37'33.19"			Adiga	
50	AP-556	556	DB-9	02°20'18" LT	352	752	276.06	73.63	23°27'48.3"	91°38'01.4"		AP-556	556	DB-9	02°29'12" LT		358.088	772.933	386.28	46.508	23°27'18.19"	91°37'33.99"			Adiga	
51	AP-56	56	DB-4	02°20'18" RT	480	400	496	248.08	12.69	23°27'58.4"	91°38'28.8"	AP-56	56	DB-4	02°20'18" RT		418.541	418.541	712.261	714.13	43.960	23°27'33.31"	91°37'28.79"			Adiga
52				296												385.713									Adiga	
53	AP-570	570	DB-4	18°49'30" RT	331	286	421	213.76	176.83	23°27'48.8"	91°38'22.8"	AP-570	570	DB-4	19°19'30" RT		283.712	421.286	318.69	97.238	23°27'48.68"	91°38'22.78"			Adiga	
54				331												327.494								RT	Adiga	
55	571	DB-9	00°00'00"			543	271.50	129.43				571	DB-9	00°00'00" LT		238.878		468.273	274.19	71.198	23°27'18.09"	91°37'15.09"			Adiga	
56				232												239.878								RT	Adiga	
57	572	DB-9	00°00'00"			423	211.50	137.33				572	DB-9	02°24'00" RT		269.332		430.211	215.11	43.921	23°27'33.34"	91°37'29.24"			Adiga	
58	AP-580	580	DB-0	18°13'28" RT	213	354	155	177.30	146.71	23°27'38.4"	91°38'34.9"	AP-580	580	DB-0	19°10'32" RT		337.705	554.192	277.01	180.869	23°27'28.79"	91°37'44.68"			Adiga	
59				344												344.879								RT	Adiga	
60						664	372.09	148.33				581	DB-3	00°00'00" RT				660.333	353.30	70.40	23°27'23.44"	91°37'43.22"			Adiga	

Rajesh Chatterjee
PUUSH KANTI CHATTERJEE
ASST PROJECT ENGINEER
TEAMS INDIA
12/11/19

Raju Shreedharan
RAJU SHREEDHARAN
Chief Project Manager.

FOR EMC LIMITED
Abhinav Deo
(ABHINAV DEO)
PROJECT MANAGER

Rajesh Singh
23/11/19
संचालक सुपरवाइजर / FIELD SUPERVISOR
पवर ग्रिड / POWER GRID
उप प्रो. से. उदयपुर / NER, UDAIPUR

M. K. NAG
S. Sanyal
TEAMS INDIA
GENERAL MANAGER
पवर ग्रिड / POWER GRID
उप प्रो. से. उदयपुर / NER, UDAIPUR

M. K. NAG
एम. के. नाग / M.K.NAG
उप महाप्रबन्धक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ. प्र. से. उदयपुर / NER UDAIPUR

LINE NAME: LDKV DC TRANSMISSION LINE FROM UDAIPUR TO BAGAPA CONTROL CODE: TEAMS INDIA TOPOLANDS PRIVATE LIMITED CHECK SURVEY REPORT (From AP-36 to AP-38 & AP-39 to AP-36, Total - 12.475)																										
AS PER RETAIL SURVEY													AS PER CHECK SURVEY													
AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Height Level	Coordinates		AP NO.	LOC NO.	Type of Tower	Angle of Deviation	Span in Meter	Section Length	Alt. Span	Wind Span	Height Level	Coordinates		Remarks	CPD / BENCHMARK	Village Name		
									Northing	Easting										Northing	Easting					
				320											311.794							RT, Adiga	Proposed for Benchmark	Adiga		
56	583	DB-0	00°00'00"			166	253.00	136.24			583	DB-0	00°00'00"			309.067	254.33	81.681	23°27'18.79"	91°37'43.16"		RT	Proposed for Benchmark	Adiga		
57	584	DB-1	00°00'00"	286		164	183.00	124.84			583	DB-1	01°11'38" RT			187.273		380.718	180.36	72.147	23°27'16.05"	91°37'47.32"		Proposed for Benchmark	Adiga	
				180											177.443							Point, PLY		Adiga		
58	AP-590	590	DB-0	09°42'13" LT	187	1038	367	182.56	147.64	23°27'13.8"	91°37'46.4"	AP-590	590	DB-0	34°22'17" LT		1027.209	341.882	183.94	31.064	23°27'13.47"	91°37'43.73"				
59	AP-600	600	DB-0	01°49'13" LT	311	187	408	240.00	122.08	23°27'13.8"	91°37'46.4"	AP-600	600	DB-0	09°17'11" LT		188.439	341.882	230.09	47.333	23°27'17.47"	91°37'43.09"				
60	AP-610	610	DB-0	17°48'13" LT	263	311	572	288.00	103.38	23°27'13.8"	91°37'46.4"	AP-610	610	DB-0	09°17'11" LT		313.403	340.963	284.71	47.587	23°27'17.08"	91°37'43.13"				
				263											256							22KV LT, 11KV Tie Road, RT, Adiga	Survey Station	Adiga		
61	611	DB-9	00°00'00"			624	312.00	108.43			611	DB-9	00°00'00"			618	307.00	45.519	23°27'48.34"	91°37'42.86"						
62	612	DB-6	00°00'00"	363		563	280.30	88.43			612	DB-6	00°00'00"			358		618	307.00	45.519	23°27'48.34"	91°37'42.86"				
63	AP-620	620	DB-3	21°49'23" RT	317	823	915	157.50	87.3	23°27'38.1"	91°37'46.4"	AP-620	620	DB-3	19°29'00" RT		183.79		607.75	113.82	254.93	23°27'31.87"	91°37'43.79"			
				317											109.12							Agrochard Land, Nohak		Adiga		
64	AP-630	630	DB-0	29°04'10" LT	317	317	382	241.90	47.77	23°27'38.1"	91°37'46.4"	AP-630	630	DB-0	19°47'17" LT		229.12	340.475	216.74	42.769	23°27'31.37"	91°37'43.82"				
				267											265.359							Agrochard Land, Nohak		Adiga		
65	AP-640	640	DB-0	38°11'13" RT	267	267	380	241.00	46.73	23°27'38.1"	91°37'46.4"	AP-640	640	DB-0	28°26'28" RT		263.359	469.332	248.68	49.214	23°27'12.65"	91°37'43.20"				
				233											333.994							Agrochard Land		Adiga		
66	641	DB-3		233		485	242.50	47.32	23°27'38.1"	91°37'46.4"	641	DB-3	00°00'00"			486.051	243.03	38.768	23°27'15.49"	91°37'43.72"						
				233											290.007							Nohak, power Road		Adiga		
67	AP-650	650	DB-3	01°09'44" LT	317	485	567	283.50	42.9	23°27'38.1"	91°37'46.4"	AP-650	650	DB-3	02°29'47" LT		486.051	368.186	284.68	37.066	23°27'17.39"	91°37'43.89"				
				317											318.029							Agrochard Land, Nohak, Brick Road		Adiga		
68	651	DB-6	00°00'00"			631	321.50	42.72	23°27'38.1"	91°37'46.4"	651	DB-6	00°00'00"			632.933	324.48	36.18	23°27'47.47"	91°37'43.87"						
				318											334.924							Agrochard Land, 4th sub Line		Adiga		
69	AP-660	660	DB-3	28°12'38" RT	318	651	532	261.00	42.63	23°27'38.1"	91°37'46.4"	AP-660	660	DB-3	28°47'17" RT		452.953	321.689	380.88	25.166	23°27'07.02"	91°37'45.78"				
				318											186.087							Check, Agrochard Land, Raut Churney-3 OM		Adiga		
70	AP-670	670	DB-0	00°00'00" RT	318	188	400	240.50	44.12	23°27'38.1"	91°37'46.4"	AP-670	670	DB-0	07°47'07" RT		386.463	400.361	243.23	23.284	23°27'01.23"	91°37'45.14"				
				311											384.414							11KV / 22KV Tie Road, Agrochard Land, 4th sub Line, Raut Churney-3 OM		Adiga		
71	AP-680	680	DB-6	09°27'20" LT	311	311	477	238.79	54.5	23°27'38.1"	91°37'46.4"	AP-680	680	DB-6	34°29'13" LT		508.636	464.476	232.25	49.098	23°26'28.50"	91°37'42.61"				
				186											100.48							Agrochard Land, Raut Churney-3 OM		Adiga		
72	AP-690	690	DB-6	38°21'20" LT	318	318	429	230.00	45.93	23°27'38.1"	91°37'46.4"	AP-690	690	DB-6	38°29'07" LT		360.48	462.762	261.13	33.599	23°26'23.17"	91°37'42.68"				
				251											241.822							Agrochard Land		Adiga		
73	691	DB-0		251		509	254.50	40.9	23°27'38.1"	91°37'46.4"	691	DB-0				267.532	255.76	34.379	23°27'01.47"	91°37'42.47"						
				251											263.7							Agrochard Land, Raut Churney-3 OM		Adiga		

Rajesh Singh
23/11/19
संचालक सुपरवाइजर / FIELD SUPERVISOR
पवर ग्रिड / POWER GRID
उप प्रो. से. उदयपुर / NER, UDAIPUR

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पावरग्रिड / POWERGRID
उ. प्र. से. उदयपुर / NER UDAIPUR



एम.के. नाग / M.K. NAG
उप महाप्रबंधक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.पू. क्षेत्र, उदयपुर / NER UDAIPUR

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM AP80 - AP85 (TOTAL LENGTH:- 0.917 KM.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY										REMARKS		
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	REDUCE LEVEL (M)	COLD WEIGHT SPAN (M)		HOT WEIGHT SPAN (M)		COORDINATE			
															LEFT	RIGHT	LEFT	RIGHT			EASTING	NORTHING
1	AP80	81/0	DB+3	3 11°42'34" (LT)	263	263	1	AP80	80/0	DB+3	3 11°42'34" (LT)	263	263	25.300	0.0	93.9	93.9	0.0	109.6	109.6	352366.98	2579770.11
2	AP81	81/0	DD+6	6 12°12'38" (RT)	168	168	2	AP81	81/0	DD+6	6 12°12'38" (RT)	168	168	25.000	188.8	24.5	188.3	151.1	49.5	202.6	352312.63	2579649.39
3	AP82	82/0	DD+9	9 19°22'59" (RT)	113	113	3	AP82	82/0	DD+9	9 19°22'59" (RT)	113	113	25.200	143.8	24.8	168.2	138.6	37.9	156.5	351971.35	2579700.49
4	AP83	83/0	DD+9	9 43°34'23" (LT)	220	220	4	AP83	83/0	DD+9	9 43°34'23" (LT)	220	220	25.030	181.3	193.4	261.2	75.2	158.4	233.3	351858.73	2579633.84
5	AP84	84/0	DD+6	6 51°56'09" (LT)	253	253	5	AP84	84/0	DD+6	6 51°56'09" (LT)	253	253	24.250	26.5	21.7	4.0	61.5	39.8	81.0	351688.63	2579674.47
6	AP85	85/0	DD+9	9 00°00'00"	153	153	6	AP85	85/0	DD+9	9 00°00'00"	153	153	23.700	174.4	0.0	174.4	133.2	0.0	133.2	351692.01	2579321.85

TOWER SUMMARY					
TYPE OF TOWER	EXTENSION				GRAND TOTAL
	0	3	6	9	
DA	0	0	0	0	0
DB	0	1	0	0	1
DC	0	0	0	0	0
DD	0	0	2	3	5
					6

Approved:-
note:- ① The approval doesn't
absolve responsibility of
Contractor.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Bomondal	Am on Xos	Wish	FOR EMC LIMITED		

FOR POWER GRID CORPORATION OF INDIA LTD.		
RECOMMENDED BY	APPROVED BY	
Rajiv Singh 19/5/20		

वीरेंद्र कुमार / POWER GRID
पार लिड / POWER GRID
उ.पू.शे.उदयपुर / NER, UDAIPUR

अक्षय / POWER GRID
उ.पू.शे.उदयपुर / NER, UDAIPUR

अक्षय / POWER GRID
उ.पू.शे.उदयपुर / NER, UDAIPUR

वीरेंद्र कुमार / M.K. TALUKDAR
वीरेंद्र कुमार / Sr. GM
पावरग्रिड / POWERGRID
उ.पू.शे.उदयपुर / NER, UDAIPUR

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS UDAIPUR TO BAGAFI TRANSMISSION LINE
DETAIL SURVEY TOWER SCHEDULE FROM AP-85/0 TO GANTRY (BAGAFI) (TOTAL LENGTH:- 0.559KMS.)

SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M.)	SECTION LENGTH (M.)	CUM. CHARGE (M.)	ADJACENT SPAN (M.)			WIND SPAN (M.)			EXTN.	R.C.	BENCHING OR C.P. CL.	REDUCE LEVEL (M.)	EFFECTIVE RL. (M.)	WEIGHT SPAN (COLD) (M.)			WEIGHT SPAN (HOT) (M.)			COORDINATES		REMARKS
								LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL						LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING	
1	AP-85	85/0	DD+9	40°28'28" RT	362	162	362	0.0	162.0	162.0	0.0	81.0	81.00	3	3	0	33.781	45.781	0	142.8	142.8	0	128.4	128.4	351692	2579322	BAGAFI, R.C. - 3M.
2	MC-1	MC1	DD+0	20°04'03" LT				162.0	144.0	306.0	81.0	265.0	153.00	0	0	0	34.887	34.887	-0.8	293.6	294.4	33.6	140.2	106.6	351789	2579194	NALA, LT LINE, POND BAGAFI
3	MC-2	MC2	DD+0	36°01'38" RT	144	144	306	144.0	156.0	300.0	72.0	163.0	150.00	0	0	0	54.339	54.339	437.6	993.1	830.7	284.2	260.9	545.1	351910	2579112	LT LINE, POND, BRICKROAD, 11 KV LINE BAGAFI
4	MC-3	MC3	DD+0	62°02'36" RT				156.0	76.0	232.0	78.0	125.0	114.00	0	0	0	36.176	36.176	-237.1	385.3	422.4	104.5	207.7	-312.6	351965	2578968	PUCCA ROAD, BOUNDARY WALL, NALA, RESIDENTIAL AREA, LT LINE BAGAFI
5	AP-86	86/0	DD+0	55°46'50" RT	76	76	538	156.0	76.0	232.0	78.0	125.0	114.00	0	0	0	36.176	36.176	-237.1	385.3	422.4	104.5	207.7	-312.6	351965	2578968	CART TRACK, PUCCA ROAD, 11 KV LINE (SHOULD BE SHIFTED) BAGAFI
6	GANTRY	GNT.		13°32'25"				21.0	0.0	21.0	10.5	0.0	10.50	0	0	0	54.386	54.386	52.1	0	52.1	34.7	0	34.7	351891	2578912	BAGAFI

559

TOWER SUMMARY					
TYPE OF TOWER	EXTENSION				GRAND TOTAL
	0	3	6	9	
DA	0	0	0	0	0
DB	0	0	0	0	0
DC	0	0	0	0	0
DD	1	0	0	1	2
QD	3	0	0	0	3
					5

FOR TEEMS INDIA TOWERLINES PVT. LTD.			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
Pramod					

FOR POWER GRID CORPORATION OF INDIA LIMITED

अक्षय / POWER GRID उ.पू.शे.उदयपुर / NER, UDAIPUR	वीरेंद्र कुमार / RANJIT BARKAR उ.पू.शे.उदयपुर / NER, UDAIPUR	वीरेंद्र कुमार / A.C. DAS उ.पू.शे.उदयपुर / NER, UDAIPUR
CHECKED BY	RECOMMENDED BY	APPROVED BY

Bagafa to Belonia 132 kV D/C TL - 12.8 Km

POWER GRID CORPORATION OF INDIA LIMITED
TECHNICAL DATA SHEET FOR TRANSMISSION LINE
132 KV D/C TL FROM BAGAFAT TO BELONIA (12.8 KM)

AS PER CHECK SURVEY

Sl. No.	Span (m)	Height (m)	Weight (kg)	Clearance (m)	Ground Level (m)	Structure Type	Material	Remarks
1	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	At Bagafat
2	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
3	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
4	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
5	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
6	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
7	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
8	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
9	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
10	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
11	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
12	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
13	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
14	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
15	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
16	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
17	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
18	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
19	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
20	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
21	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
22	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
23	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
24	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
25	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
26	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
27	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
28	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
29	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	
30	30.0	10.0	1000	10.0	10.0	Steel Tower	MS	

FOR ENCL. LIMIT
ABSTRACT OF
PROJECT MANAGER
DIPU PAUL
JUNIOR ENGINEER
NORTH WEST DIVISION
POWER GRID
CORPORATION OF INDIA
LIMITED
KOLKATA

POWER GRID CORPORATION OF INDIA LIMITED

TEAMS INDIA TOWERLINES PVT. LTD.
132 KV DCS9 BAGADA TO BELOHIA TRANSMISSION LINE

COMPARISON TOWER SCHEDULE (FROM GANTHY DUSGAR) TO GANTHY (BELONGAL TOTAL LENGTH:- 12.831 KMS.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY									
SL	AP NO	LOC. NO	TOWER TYPE	TRANSVERSE SPAN (M)	HEIGHT (M)	WIND SPEED (M/S)	WIND DIRECTION (°)	WIND DURATION (HRS)	WIND DIRECTION (°)	SL	AP NO	LOC. NO	TOWER TYPE	TRANSVERSE SPAN (M)	HEIGHT (M)	WIND SPEED (M/S)	WIND DIRECTION (°)	WIND DURATION (HRS)	WIND DIRECTION (°)
1	AP-01	100	100	100	100	100	100	100	100	1	AP-01	100	100	100	100	100	100	100	100
2	AP-02	101	101	101	101	101	101	101	101	2	AP-02	101	101	101	101	101	101	101	101
3	AP-03	102	102	102	102	102	102	102	102	3	AP-03	102	102	102	102	102	102	102	102
4	AP-04	103	103	103	103	103	103	103	103	4	AP-04	103	103	103	103	103	103	103	103
5	AP-05	104	104	104	104	104	104	104	104	5	AP-05	104	104	104	104	104	104	104	104
6	AP-06	105	105	105	105	105	105	105	105	6	AP-06	105	105	105	105	105	105	105	105
7	AP-07	106	106	106	106	106	106	106	106	7	AP-07	106	106	106	106	106	106	106	106
8	AP-08	107	107	107	107	107	107	107	107	8	AP-08	107	107	107	107	107	107	107	107
9	AP-09	108	108	108	108	108	108	108	108	9	AP-09	108	108	108	108	108	108	108	108
10	AP-10	109	109	109	109	109	109	109	109	10	AP-10	109	109	109	109	109	109	109	109
11	AP-11	110	110	110	110	110	110	110	110	11	AP-11	110	110	110	110	110	110	110	110
12	AP-12	111	111	111	111	111	111	111	111	12	AP-12	111	111	111	111	111	111	111	111
13	AP-13	112	112	112	112	112	112	112	112	13	AP-13	112	112	112	112	112	112	112	112
14	AP-14	113	113	113	113	113	113	113	113	14	AP-14	113	113	113	113	113	113	113	113
15	AP-15	114	114	114	114	114	114	114	114	15	AP-15	114	114	114	114	114	114	114	114
16	AP-16	115	115	115	115	115	115	115	115	16	AP-16	115	115	115	115	115	115	115	115
17	AP-17	116	116	116	116	116	116	116	116	17	AP-17	116	116	116	116	116	116	116	116
18	AP-18	117	117	117	117	117	117	117	117	18	AP-18	117	117	117	117	117	117	117	117
19	AP-19	118	118	118	118	118	118	118	118	19	AP-19	118	118	118	118	118	118	118	118
20	AP-20	119	119	119	119	119	119	119	119	20	AP-20	119	119	119	119	119	119	119	119
21	AP-21	120	120	120	120	120	120	120	120	21	AP-21	120	120	120	120	120	120	120	120
22	AP-22	121	121	121	121	121	121	121	121	22	AP-22	121	121	121	121	121	121	121	121
23	AP-23	122	122	122	122	122	122	122	122	23	AP-23	122	122	122	122	122	122	122	122
24	AP-24	123	123	123	123	123	123	123	123	24	AP-24	123	123	123	123	123	123	123	123
25	AP-25	124	124	124	124	124	124	124	124	25	AP-25	124	124	124	124	124	124	124	124
26	AP-26	125	125	125	125	125	125	125	125	26	AP-26	125	125	125	125	125	125	125	125
27	AP-27	126	126	126	126	126	126	126	126	27	AP-27	126	126	126	126	126	126	126	126
28	AP-28	127	127	127	127	127	127	127	127	28	AP-28	127	127	127	127	127	127	127	127
29	AP-29	128	128	128	128	128	128	128	128	29	AP-29	128	128	128	128	128	128	128	128
30	AP-30	129	129	129	129	129	129	129	129	30	AP-30	129	129	129	129	129	129	129	129
31	AP-31	130	130	130	130	130	130	130	130	31	AP-31	130	130	130	130	130	130	130	130
32	AP-32	131	131	131	131	131	131	131	131	32	AP-32	131	131	131	131	131	131	131	131
33	AP-33	132	132	132	132	132	132	132	132	33	AP-33	132	132	132	132	132	132	132	132
34	AP-34	133	133	133	133	133	133	133	133	34	AP-34	133	133	133	133	133	133	133	133
35	AP-35	134	134	134	134	134	134	134	134	35	AP-35	134	134	134	134	134	134	134	134
36	AP-36	135	135	135	135	135	135	135	135	36	AP-36	135	135	135	135	135	135	135	135
37	AP-37	136	136	136	136	136	136	136	136	37	AP-37	136	136	136	136	136	136	136	136
38	AP-38	137	137	137	137	137	137	137	137	38	AP-38	137	137	137	137	137	137	137	137
39	AP-39	138	138	138	138	138	138	138	138	39	AP-39	138	138	138	138	138	138	138	138
40	AP-40	139	139	139	139	139	139	139	139	40	AP-40	139	139	139	139	139	139	139	139
41	AP-41	140	140	140	140	140	140	140	140	41	AP-41	140	140	140	140	140	140	140	140
42	AP-42	141	141	141	141	141	141	141	141	42	AP-42	141	141	141	141	141	141	141	141
43	AP-43	142	142	142	142	142	142	142	142	43	AP-43	142	142	142	142	142	142	142	142
44	AP-44	143	143	143	143	143	143	143	143	44	AP-44	143	143	143	143	143	143	143	143
45	AP-45	144	144	144	144	144	144	144	144	45	AP-45	144	144	144	144	144	144	144	144
46	AP-46	145	145	145	145	145	145	145	145	46	AP-46	145	145	145	145	145	145	145	145
47	AP-47	146	146	146	146	146	146	146	146	47	AP-47	146	146	146	146	146	146	146	146
48	AP-48	147	147	147	147	147	147	147	147	48	AP-48	147	147	147	147	147	147	147	147
49	AP-49	148	148	148	148	148	148	148	148	49	AP-49	148	148	148	148	148	148	148	148
50	AP-50	149	149	149	149	149	149	149	149	50	AP-50	149	149	149	149	149	149	149	149
51	AP-51	150	150	150	150	150	150	150	150	51	AP-51	150	150	150	150	150	150	150	150
52	AP-52	151	151	151	151	151	151	151	151	52	AP-52	151	151	151	151	151	151	151	151
53	AP-53	152	152	152	152	152	152	152	152	53	AP-53	152	152	152	152	152	152	152	152
54	AP-54	153	153	153	153	153	153	153	153	54	AP-54	153	153	153	153	153	153	153	153
55	AP-55	154	154	154	154	154	154	154	154	55	AP-55	154	154	154	154	154	154	154	154
56	AP-56	155	155	155	155	155	155	155	155	56	AP-56	155	155	155	155	155	155	155	155
57	AP-57	156	156	156	156	156	156	156	156	57	AP-57	156	156	156	156	156	156	156	156
58	AP-58	157	157	157	157	157	157	157	157	58	AP-58	157	157	157	157	157	157	157	157
59	AP-59	158	158	158	158	158	158	158	158	59	AP-59	158	158	158	158	158	158	158	158
60	AP-60	159	159	159	159	159	159	159	159	60	AP-60	159	159	159	159	159	159	159	159
61	AP-61	160	160	160	160	160	160	160	160	61	AP-61	160	160	160	160	160	160	160	160
62	AP-62	161	161	161	161	161	161	161	161	62	AP-62	161	161	161	161	161	161	161	161
63	AP-63	162	162	162	162	162	162	162	162	63	AP-63	162	162	162	162	162	162	162	162
64	AP-64	163	163	163	163	163	163	163	163	64	AP-64	163	163	163	163	163	163	163	163
65	AP-65	164	164	164	164	164	164	164	164	65	AP-65	164	164	164	164	164	164	164	164
66	AP-66	165	165	165	165	165	165	165	165	66	AP-66	165	165	165	165	165	165	165	165
67	AP-67	166	166	166	166	166	166	166	166	67	AP-67	166	166	166	166	166	166	166	166
68	AP-68	167	167	167	167	167	167	167	167	68	AP-68	167	167	167	167	167	167	167	167
69	AP-69	168	168	168	168	168	168	168	168	69	AP-69	168	168	168	168	168	168	168	168
70	AP-70	169	169	169	169	169	169	169	169	70	AP-70	169	169	169	169	169	169	169	169

[illegible]

FOR POWER GRID CORPORATION OF INDIA LIMITED

2/27/2022

~~0.000116~~

RECOMMENDED BY: SINGHA
TATTA ENGINEERS
MANAGER/ENGINEER
QUALITY CONTROL
M/S. TATTA ENGINEERING
CO., LTD. 3rd FLOOR,
70-1, 3rd Street, BELONIA

CHECKED BY _____

Belonia -Sabroom 132 kV D/C line -38.623 Km

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH- 38.815 KMS.)

AS PER DETAIL SURVEY										AS PER CHECK SURVEY													
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHAINAGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	REDUCE LEVEL (M)	EFFECTIVE R. (M)	WEIGHT SPAN (KG)	WEIGHT SPAN (M)	COORDINATES	REMARKS	
															LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING	
1	GANTRY	001	DMT	00°00'42"	0	0	1	GANTRY	001	DMT	00°00'42"	0	0	0	0	0	0	0	0	0	0	0	0
2	AP-1	1/0	DC-1	00°45'30" RT	30	30	2	AP-1	1/0	DC-1	00°45'30" RT	30	204	204	15	112	147	8	0	0	0	0	0
3	AP-2	2/0	DC-2	00°42'24" LT	330	330	3	AP-2	2/0	DC-2	00°42'24" LT	330	204	204	15	112	147	8	0	0	0	0	0
4		2/0	DC-2		330	330	4		2/0	DC-2		330	204	204	15	112	147	8	0	0	0	0	0
5	AP-3A	2A/0	DC-2	11°50'30" LT	218	218	5	AP-3A	2A/0	DC-2	11°50'30" LT	218	1084	1084	225	1084	1084	225	1084	1084	225	1084	1084
6	AP-3	3/0	DC-3	21°55'02" RT	206	206	6	AP-3	3/0	DC-3	21°55'02" RT	206	1230	1230	225	1230	1230	225	1230	1230	225	1230	1230
7		3/0	DC-3		206	206	7		3/0	DC-3		206	1230	1230	225	1230	1230	225	1230	1230	225	1230	1230
8	AP-4	4/0	DC-4	22°40'23" LT	270	270	8	AP-4	4/0	DC-4	22°40'23" LT	270	1881	1881	270	1881	1881	270	1881	1881	270	1881	1881
9		4/0	DC-4		266	266	9		4/0	DC-4		266	1881	1881	270	1881	1881	270	1881	1881	270	1881	1881
10	AP-4/2	4/2	DC-4	00°04'31" RT	280	280	10	AP-4/2	4/2	DC-4	00°04'31" RT	280	2357	2357	280	2357	2357	280	2357	2357	280	2357	2357
11	AP-4/3	4/3	DC-4	32°00'36" RT	250	250	11	AP-4/3	4/3	DC-4	32°00'36" RT	250	2507	2507	250	2507	2507	250	2507	2507	250	2507	2507
12		4/3	DC-4		221	221	12		4/3	DC-4		221	2507	2507	250	2507	2507	250	2507	2507	250	2507	2507
13	AP-4A	4A/0	DC-4	35°22'00" LT	218	218	13	AP-4A	4A/0	DC-4	35°22'00" LT	218	2698	2698	218	2698	2698	218	2698	2698	218	2698	2698
14	AP-5	5/0	DC-5	00°00'51" RT	244	244	14	AP-5	5/0	DC-5	00°00'51" RT	244	3131	3131	244	3131	3131	244	3131	3131	244	3131	3131
15	AP-5A	5A/0	DC-5	00°00'30" LT	200	200	15	AP-5A	5A/0	DC-5	00°00'30" LT	200	3385	3385	200	3385	3385	200	3385	3385	200	3385	3385
16	AP-5B	5B/0	DC-5	00°00'30" RT	180	180	16	AP-5B	5B/0	DC-5	00°00'30" RT	180	3581	3581	180	3581	3581	180	3581	3581	180	3581	3581
17	AP-5C	5C/0	DC-5	00°00'30" RT	200	200	17	AP-5C	5C/0	DC-5	00°00'30" RT	200	3781	3781	200	3781	3781	200	3781	3781	200	3781	3781
18	AP-5D	5D/0	DC-5	00°00'30" RT	281	281	18	AP-5D	5D/0	DC-5	00°00'30" RT	281	4362	4362	281	4362	4362	281	4362	4362	281	4362	4362
19	AP-6	6/0	DC-6	00°50'20" RT	287	287	19	AP-6	6/0	DC-6	00°50'20" RT	287	4249	4249	287	4249	4249	287	4249	4249	287	4249	4249
20	AP-7	7/0	DC-7	00°47'50" LT	378	378	20	AP-7	7/0	DC-7	00°47'50" LT	378	4927	4927	378	4927	4927	378	4927	4927	378	4927	4927
21	AP-8	8/0	DC-8	04°59'47" LT	265	265	21	AP-8	8/0	DC-8	04°59'47" LT	265	4614	4614	265	4614	4614	265	4614	4614	265	4614	4614
22		8/0	DC-8		263	263	22		8/0	DC-8		263	4927	4927	265	4927	4927	265	4927	4927	265	4927	4927
23		8/2	DC-8		257	257	23		8/2	DC-8		257	5424	5424	257	5424	5424	257	5424	5424	257	5424	5424
24		8/3	DC-8		310	310	24		8/3	DC-8		310	5733	5733	310	5733	5733	310	5733	5733	310	5733	5733
25		8/4	DC-8				25		8/4	DC-8													

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH- 38.815 KMS.)

AS PER DETAIL SURVEY							AS PER CHECK SURVEY																
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHAINAGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	REDUCE LEVEL (M)	EFFECTIVE R. (M)	WEIGHT SPAN (KG)	WEIGHT SPAN (M)	COORDINATES	REMARKS	
26	AP-6A	6A/0	DB-0	00°27'24" RT	372		26	AP-6A	6A/0	DB-0	00°27'24" RT	372		6080									NORTH SONAMCHERI HOUSE
27		6A/1	DB-1		325	528	27		6A/1	DB-1		325	523	8403									
28	AP-8B	8B/0	DB-0	00°40'33" RT	359		28	AP-8B	8B/0	DB-0	00°40'33" RT	359		6643									BRICK ROAD, 3.10 LY LINE, CANT TRACE NORTH SONAMCHERI
29	AP-8C	8C/0	DB-1	13°58'23" RT	394	534	29	AP-8C	8C/0	DB-1	13°58'23" RT	394		6944									SHEPURI
30	AP-6D	6D/0	DB-0	00°45'45" RT	392	742	30	AP-6D	6D/0	DB-0	00°45'20" RT	450		7239									SHEPURI
31		6D/1	DB-0		250		31		6D/1	DB-0		250		7609									POND
32		6D/2	DB-2		242	1189	32		6D/2	DB-2		380		7919									
33		6D/3	DB-3		250		33		6D/3	DB-3		349		8028									
34	AP-8E	8E/0	DB-0	00°40'42" RT	334	134	34	AP-8E	8E/0	DB-0	00°40'42" RT	334		8890									BRICK ROAD, 3.10 LY LINE, LT LINE
35	AP-8F	8F/0	DB-0	13°54'00" LT	336	136	35	AP-8F	8F/0	DB-0	13°52'19" LT	345		8865									LY LINE, MULA
36	AP-9A	9A/0	DB-0	00°40'42" RT	310	110	36	AP-9A	9A/0	DB-0	00°40'42" RT	310		8815									SHEPURI
37	AP-9A	9A/0	DB-1	00°40'42" RT	310	110	37	AP-9A	9A/0	DB-1	00°40'42" RT	310		9089									3 NOS. LT LINE, HOUSE
38	AP-3B	3B/0	DB-0	00°40'42" RT	240	175	38	AP-3B	3B/0	DB-0	00°40'42" RT	240		9331									SHEPURI
39		3B/1	DB-0		270		39		3B/1	DB-0		283		9538									BRICK, 3.10 LY LINE
40		3B/2	DB-0		270		40		3B/2	DB-0		285		9683									MULO ROAD
41		3B/3	DB-0		270	1438	41		3B/3	DB-0		303		10552									
42		3B/4	DB-0		270		42		3B/4	DB-0		334		10820									
43	AP-10A	10A/0	DB-0	12°50'28" RT	375	375	43	AP-10A	10A/0	DB-0	12°50'28" RT	375		11080									3 NOS. POWER LT LINE, HUT
44	AP-11	11/0	DB-0	00°40'42" RT	290		44	AP-11	11/0	DB-0	00°40'42" RT	290		11456									LY LINE, ROAD
45		11/1	DB-0		246		45		11/1	DB-0		291		11497									WEST MOUNTAIN
46		11/2	DB-0		270		46		11/2	DB-0		290		11707									ROAD
47		11/3	DB-0		236	1002	47		11/3	DB-0		236		11933									LY LINE
48	AP-12	12/0	DB-0	10°17'56" LT	325		48	AP-12	12/0	DB-0	10°17'56" LT	325		12293									BRICK, 3.10 LY LINE, ROYAL PARK
49		12/1	DB-0		390		49		12/1	DB-0		356		12623									MULO ROAD
50		12/2	DB-2		390	1243	50		12/2	DB-2		390		12973									3 NOS. POWER, 3.10 LY LINE, 3.10 LY LINE, 3.10 LY LINE

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROO TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH- 36.815 KMS.)

AS PER DETAIL SURVEY

AS PER CHECK SURVEY

SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	ELVA CHANGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	REDUCE LEVEL (M)	HEIGHT SPAN (200) (M)	HEIGHT SPAN (100) (M)	COORDINATES	REMARKS														
								LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL															
51		12/2	DA-6		178			13379	205	205	175	12025	277.9	6	0	0	130324	136324	272.4	152.4	533.8	255.9	247.6	476.3	354666.71	2545021.85		
52	AP-19	13/0	DA-6	09°58'50" E	240			205	240	445	10025	330	220.5	5	0	0	70.66	97.88	247.4	189.0	41.6	42.5	302.0	127.5	35452.3	2540594	LT LINE	
53		13/1	DA-9		230			13491	240	240	137	135	230	5	0	0	82.628	90.56	168.1	221.1	80.1	145.8	329.3	156.68	2546712	2540594	11 KV LINE, BRIDGE ROAD, BRON	
54		13/2	DA-6		230			13646	240	240	137	135	230	5	0	0	89.556	90.56	168.1	221.1	80.1	145.8	329.3	156.68	2546712	2540594		
55	AP-14	14/0	DA-9	20°15'18" E	230			13800	230	230	137	135	230	5	0	0	89.556	90.56	168.1	221.1	80.1	145.8	329.3	156.68	2546712	2540594		
56		14/1	DA-6		235			14130	230	230	137	135	230	5	0	0	86.191	90.56	168.1	221.1	80.1	145.8	329.3	156.68	2546712	2540594		
57	AP-14A	14A/0	DA-6	14°14'28" E	334			14677	325	325	347	317.5	56	173.5	5	0	0	84.793	84.793	140.1	410.2	460.3	416.3	234.5	246.5	350308	2543903	
58	AP-14B	14B/0	DA-6	12°12'23" E	332			14874	312	307	309	18	158.5	258.5	3	0	0	101.607	104.907	522.2	220.5	73.3	326.4	238.7	159.3	350907	2543180	
59	AP-14C	14C/0	DA-9	17°12'31" E	325			15180	397	306	301	186.5	131	251.5	5	2	0	85.401	96.491	149.4	137.6	264.0	188.3	144.0	312.3	350308	2543180	
60	AP-15	15/0	DA-9	19°18'22" E	300			15540	305	360	666	131	180	311	6	0	0	88.177	98.177	168.4	132.7	301.2	160.2	152.5	314.5	350507	2543282	
61		15/1	DA-6		317			15887	350	317	401	180	158.5	338.5	5	0	0	96.474	104.474	227.4	240.5	273.6	275.5	209.4	416.5	350851	2543087	
62	AP-16	16/0	DA-9	27°24'38" E	365			16052	317	365	682	134.5	42.5	341	9	0	0	85.300	96.300	161.4	240.5	301.2	177.6	324.3	398.9	350124	2540788	
63	AP-16A	16A/0	DA-6	28°12'31" E	355			16387	365	360	580	125	50.5	265.5	6	0	0	96.464	104.464	134.5	128.1	260.4	122.7	151.5	354.2	356220	2540788	
64		16A/1	DA-6		355			16562	365	360	580	125	50.5	265.5	6	0	0	96.464	104.464	134.5	128.1	260.4	122.7	151.5	354.2	356220	2540788	
65		16A/2	DA-6		350			16812	305	240	485	102.5	130	232.5	0	0	0	101.702	101.702	62.8	163.4	238.1	81.1	149.4	239.5	356291	2562108	
66		16A/3	DA-6		380			17152	350	350	580	130	150	280	5	0	0	110.576	110.576	96.8	127.4	218.8	93.5	308.1	356220	2562108		
67		16A/4	DA-6		300			17512	300	360	580	130	180	310	3	0	0	158.367	158.367	267.3	340.5	398.5	266.5	162.3	348.8	356301	2561853	
68		16A/5	DA-6		401			17893	360	439	779	180	298.5	389.5	5	0	0	134.481	133.481	218.5	262.0	472.6	187.7	240.3	439.7	356400	2561282	
69	AP-16B	16B/0	DA-6	23°12'18" E	357			18008	419	357	515	189.5	76.5	266	0	0	0	101.189	101.189	257.6	75.9	232.9	170.0	77.6	356461	2560681		
70	AP-16C	16C/0	DA-6	33°41'13" E	323			18311	451	225	383	76.5	112.5	191	3	0	0	101.403	101.403	81.3	95.4	196.5	80.1	79.4	198.4	356543	2560746	
71	AP-16D	16D/0	DA-9	18°12'07" E	380			18819	460	354	733	156	176.5	366.5	6	0	0	102.013	102.013	186.3	202.7	408.8	188.3	318.8	356505	2560513		
72		16D/1	DA-6		353			19006	451	516	679	176.5	180.5	316.5	8	0	0	102.548	102.548	186.3	212.6	371.5	188.4	368.6	327.0	356621	2559788	
73	AP-16E/2	16E/2	DA-6	05°15'14" E	350			19595	436	300	636	156	31.5	6	0	0	101.884	101.884	155.4	181.0	281.5	152.4	156.5	260.5	356640	2559475		
74	AP-17	17/0	DA-6	08°00'40" E	300			19872	400	225	525	150	161	6	0	0	102.409	102.409	188.1	197.3	315.3	230.3	331.9	248.0	356646	2559506		
75		17/1	DA-6		322			19934	400	225	525	150	161	6	0	0	102.409	102.409	188.1	197.3	315.3	230.3	331.9	248.0	356646	2559506		

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (LINE LENGTH: 38.815 KMS.)

AS PER DETAIL SURVEY	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	AS PER CHECK SURVEY	CURV. CHARGE (M)	ADJACENT SPAN (M)	LEFT	RIGHT	TOTAL	K/100	R/C	BENCH MARK	ELEVATION (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)
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POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH: 38.815 KMS)

AS PER DETAIL SURVEY							AS PER CHECK SURVEY																											
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHARGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	REDUCE LEVEL (M)	EFFECTIVE R. (M)	WEIGHT SPAN (KG)	WEIGHT SPAN (KG)	COORDINATES		REMARKS											
															LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	EASTING	NORTHING												
150		203/0	DB-6		340	685	150		203/1	DB-6		340		2090	240	300	540	120	130	270	6	0	1.5	100.351	105.681	227.3	139.3	388.5	182.2	149.8	136.0	550007	2555022	BRICK ROAD, METAL ROAD, KALAKA, WEST, LT LINE
151		203/0	DB-6		300		151		203/1	DB-6		300		2090	240	300	540	120	130	270	6	0	1.5	100.351	105.681	227.3	139.3	388.5	182.2	149.8	136.0	550008	2555023	POND, PUT, BIRCH, ROAD, FOREST, LT LINE
152	AP-204	204/0	DB-3	13°56'37" N	145		152	AP-204	204/0	DB-3	13°56'37" N	145		2090	145	144	289	72.5	12	144.5	3	0	1.5	100.306	107.336	227.3	139.3	388.5	182.2	149.8	136.0	550009	2555024	HAND PUMP, FLUCHAR, PUT
153	AP-205	205/0	DB-3	2°17'47" N	144	144	153	AP-205	205/0	DB-3	2°17'47" N	144	144	2090	144	144	289	72.5	12	144.5	3	0	1.5	100.306	107.336	227.3	139.3	388.5	182.2	149.8	136.0	550010	2555025	FLUCHAR, PUT
154	AP-206	206/0	DB-6	11°59'24" N	135	135	154	AP-206	206/0	DB-6	11°59'24" N	135	135	2090	135	135	289	72.5	12	135.5	3	0	1.5	100.297	108.327	227.3	139.3	388.5	182.2	149.8	136.0	550011	2555026	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
155	AP-207	207/0	DB-6		270	337	155	AP-207	207/0	DB-6		270		2090	270	270	289	72.5	12	270.5	3	0	1.5	100.288	109.318	227.3	139.3	388.5	182.2	149.8	136.0	550012	2555027	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
156		207/0	DB-6		270		156		207/0	DB-6		270		2090	270	270	289	72.5	12	270.5	3	0	1.5	100.288	109.318	227.3	139.3	388.5	182.2	149.8	136.0	550013	2555028	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
157	AP-208	208/0	DB-3	12°53'20" N	197		157	AP-208	208/0	DB-3	12°53'20" N	197	197	2090	197	197	289	72.5	12	197.5	3	0	1.5	100.279	110.309	227.3	139.3	388.5	182.2	149.8	136.0	550014	2555029	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
158	AP-209	209/0	DB-3	2°34'02" N	192	192	158	AP-209	209/0	DB-3	2°34'02" N	192	192	2090	192	192	289	72.5	12	192.5	3	0	1.5	100.270	111.290	227.3	139.3	388.5	182.2	149.8	136.0	550015	2555030	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
159	AP-210	210/0	DB-6	44°37'49" N	232	232	159	AP-210	210/0	DB-6	44°37'49" N	232	232	2090	232	232	289	72.5	12	232.5	3	0	1.5	100.261	112.291	227.3	139.3	388.5	182.2	149.8	136.0	550016	2555031	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
160	AP-211	211/0	DB-6		228	228	160	AP-211	211/0	DB-6		228		2090	228	228	289	72.5	12	228.5	3	0	1.5	100.252	113.282	227.3	139.3	388.5	182.2	149.8	136.0	550017	2555032	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
161	AP-212	212/0	DB-6	15°08'12" N	160		161	AP-212	212/0	DB-6	15°08'12" N	160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.243	114.273	227.3	139.3	388.5	182.2	149.8	136.0	550018	2555033	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
162		212/0	DB-6		160		162		212/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.243	114.273	227.3	139.3	388.5	182.2	149.8	136.0	550019	2555034	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
163	AP-213	213/0	DB-6		160	340	163	AP-213	213/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.234	115.264	227.3	139.3	388.5	182.2	149.8	136.0	550020	2555035	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
164		213/0	DB-6		160		164		213/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.234	115.264	227.3	139.3	388.5	182.2	149.8	136.0	550021	2555036	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
165	AP-214	214/0	DB-6		160		165	AP-214	214/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.225	116.255	227.3	139.3	388.5	182.2	149.8	136.0	550022	2555037	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
166	AP-215	215/0	DB-6		160	347	166	AP-215	215/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.216	117.246	227.3	139.3	388.5	182.2	149.8	136.0	550023	2555038	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
167		215/0	DB-6		160		167		215/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.216	117.246	227.3	139.3	388.5	182.2	149.8	136.0	550024	2555039	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
168	AP-216	216/0	DB-6		160		168	AP-216	216/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.207	118.237	227.3	139.3	388.5	182.2	149.8	136.0	550025	2555040	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
169	AP-217	217/0	DB-6		160	347	169	AP-217	217/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.198	119.228	227.3	139.3	388.5	182.2	149.8	136.0	550026	2555041	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
170		217/0	DB-6		160		170		217/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.198	119.228	227.3	139.3	388.5	182.2	149.8	136.0	550027	2555042	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
171	AP-218	218/0	DB-6		160		171	AP-218	218/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.189	120.219	227.3	139.3	388.5	182.2	149.8	136.0	550028	2555043	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
172	AP-219	219/0	DB-6		160	347	172	AP-219	219/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.180	121.210	227.3	139.3	388.5	182.2	149.8	136.0	550029	2555044	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
173		219/0	DB-6		160		173		219/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.180	121.210	227.3	139.3	388.5	182.2	149.8	136.0	550030	2555045	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
174	AP-220	220/0	DB-6		160		174	AP-220	220/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.171	122.201	227.3	139.3	388.5	182.2	149.8	136.0	550031	2555046	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
175	AP-221	221/0	DB-6		160	347	175	AP-221	221/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.162	123.202	227.3	139.3	388.5	182.2	149.8	136.0	550032	2555047	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
176		221/0	DB-6		160		176		221/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.162	123.202	227.3	139.3	388.5	182.2	149.8	136.0	550033	2555048	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
177	AP-222	222/0	DB-6		160		177	AP-222	222/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.153	124.203	227.3	139.3	388.5	182.2	149.8	136.0	550034	2555049	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
178	AP-223	223/0	DB-6		160	347	178	AP-223	223/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.144	125.204	227.3	139.3	388.5	182.2	149.8	136.0	550035	2555050	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
179		223/0	DB-6		160		179		223/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.144	125.204	227.3	139.3	388.5	182.2	149.8	136.0	550036	2555051	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
180	AP-224	224/0	DB-6		160		180	AP-224	224/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.135	126.205	227.3	139.3	388.5	182.2	149.8	136.0	550037	2555052	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
181	AP-225	225/0	DB-6		160	347	181	AP-225	225/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.126	127.206	227.3	139.3	388.5	182.2	149.8	136.0	550038	2555053	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
182		225/0	DB-6		160		182		225/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.126	127.206	227.3	139.3	388.5	182.2	149.8	136.0	550039	2555054	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
183	AP-226	226/0	DB-6		160		183	AP-226	226/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.117	128.207	227.3	139.3	388.5	182.2	149.8	136.0	550040	2555055	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
184	AP-227	227/0	DB-6		160	347	184	AP-227	227/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.108	129.208	227.3	139.3	388.5	182.2	149.8	136.0	550041	2555056	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
185		227/0	DB-6		160		185		227/0	DB-6		160		2090	160	160	289	72.5	12	160.5	3	0	1.5	100.108	129.208	227.3	139.3	388.5	182.2	149.8	136.0	550042	2555057	BRICK ROAD, HOUSE, LT LINE, HAND PUMP
186	AP-228	228/0	DB-6		160		186	AP-228	228/0	DB-6		160		2090	160																			

POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.
132 KV DCDS BELONIA TO SABROOM TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GANTRY (BELONIA) TO GANTRY (TOTAL LENGTH: 38.815 KMS.)

AS PER DETAIL SURVEY							AS PER CHECK SURVEY																													
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M.)	SECTION LENGTH (M.)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M.)	SECTION LENGTH (M.)	CUR. CLEARANCE (M.)	ADJACENT SPAN (M.)	WIND SPAN (M.)	REDUCE LEVEL (M.)	PRECISION (M.)	WRIGHT SPAN (COLD) (M.)	WRIGHT SPAN (HOT) (M.)	COORDINATES		REMARKS													
															LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	EASTING	NORTHING												
				297	262		206	204				20837			296	222	518	148	118	259	0	0	0	0	134.809	126.806	126.2	124.4	208.5	126.3	147.8	260.9	360955	2546200	BLACK FORD, POND, VILLAGE ROAD, LT LINE	
145	AP-25A	25A/0	DC+0	15°24'20" RT		207		146	AP-25A	25A/0	DC+0	15°24'20" RT	222																					PASCHIM JALPA		
				269			222		147	AP-25B	25B/0	DC+0	11°59'33" LT	320	222	820	562	133	560	371	0	0	0	0	0	214.807	124.807	47.8	215.9	186.5	24.2	136.2	216.4	360833	2546701	CART TRACK, 11 KV LINE, LT LINE, 1 NOS. ROAD
147	AP-25B	25B/0	DC+0	11°59'33" LT			320		148	AP-30	30/0	DC+0	06°50'57" RT	389	320	889	795	160	294.5	954.5	0	0	0	0	0	116.685	115.685	325.1	270.2	473.2	283.8	198.4	422.3	360496	2546726	CART TRACK, METAL ROAD
148	AP-30	30/0	DC+0	06°50'57" RT			389		149	AP-30	30/0	DC+0	42°59'31" LT	66																					PASCHIM JALPA	
149	AP-31	31/0	DC+0	42°59'31" LT		381	389		150	AP-31	31/0	DC+0	42°59'31" LT	66																					LT LINE, CART TRACK, METAL ROAD	
				83	81		66		151	AP-31A	31A/0	DC+0	22°48'30" RT	77	66	77	147	33	16.5	75.5	0	0	0	0	0	925.088	105.888	-85.0	-423.2	-908.2	-36.1	-229.5	-246.2	360883	2546937	PASCHIM JALPA
				82	81		77		152	AP-31A	31A/0	DC+0	38°27'05" LT	77	77																				PASCHIM JALPA	
151	AP-31B	31B/0	DC+0	38°27'05" LT		99	77		153	AP-32	32/0	DC+0	06°57'04" LT	109																					PASCHIM JALPA	
				99	99		109		154	AP-32	32/0	DC+0	06°57'04" LT	109	385	386	181	53.5	99	190.5	0	0	0	0	0	122.758	122.758	148.9	21.1	130.6	198.4	53.8	269.3	367005	2546513	PASCHIM JALPA
152	AP-32	32/0	DC+0	06°57'04" LT		158	109		155	AP-33	33/0	DC+0	42°59'21" LT	129	385	186	581	53.5	99	190.5	0	0	0	0	0	128.456	128.456	376.9	330.0	388.9	244.2	315.7	295.5	367135	2546887	PASCHIM JALPA
153	AP-33	33/0	DC+0	42°59'21" LT		158	129		156	AP-33A	33A/0	DC+0	29°47'14" LT	129	384	129	255	82	64.5	146.5	0	0	0	0	0	130.961	126.700	-45.0	-40.4	-46.5	8.3	2.5	11.8	167289	2546341	PASCHIM JALPA
				164	164		129		157	AP-34	34/0	DC+0	33°06'47" LT	129	329	128	267	64.5	59	123.5	0	0	0	0	0	125.369	125.369	189.6	147.6	317.2	135.5	119.4	266.8	367409	2546391	PASCHIM JALPA
154	AP-33A	33A/0	DC+0	29°47'14" LT			129		158	AP-34	34/0	DC+0	33°06'47" LT	118																					11 KV LINE, JALPA	
155	AP-34	34/0	DC+0	33°06'47" LT		118	129		159	AP-35	35/0	DC+0	14°54'03" LT	92	128	92	215	59	46	205	0	0	0	0	0	121.967	121.967	-20.0	788.4	750.7	7.6	475.1	482.7	367473	2546686	PASCHIM JALPA
156	AP-35	35/0	DC+0	14°54'03" LT		118	92		157	GANTRY	GAT	GAT	15°50'13"	38713																					PASCHIM JALPA	
				92	92		38713						38815		20	0	92	-45	0	46	0	0	0	0	0	96.776	96.776	-699.9	0.0	-695.1	-383.3	0.0	-383.1	367510	2546574	PASCHIM JALPA
157	GANTRY	GAT	GAT	15°50'13"			38713						38815																							

TOWER SUMMARY						GRAND TOTAL
TYPE OF TOWER	EXTENSION					
	0	3	6	9	5	155
DA	6	6	3	5	2	
DB	22	12	23	24	2	
DC	8	7	3	6	5	
DD	14	7	4	5	5	
QD	0	0	0	0	0	

FOR TEEMS INDIA TOWERLINES PVT. LTD.		FOR EMC
SURVEYED BY	CHECKED BY	SUBMITTED BY
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
<i>[Stamp]</i>	<i>[Stamp]</i>	<i>[Stamp]</i>

FOR POWER GRID CORPORATION OF INDIA LIMITED		
CHECKED BY	RECOMMENDED BY	APPROVED BY
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
<i>[Stamp]</i>	<i>[Stamp]</i>	<i>[Stamp]</i>

Bagafa – Satchand 132 kV S/C on D/C line – 29.376 Km

POWER GRID CORPORATION OF INDIA LIMITED

TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCSS BAGAFAT TO SATCHAND TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BAGAFAT) TO GANTRY (SATCHAND) (TOTAL LENGTH: 29.636 KMS.)

AS PER DETAIL SURVEY							AS PER CHECK SURVEY																			
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHARGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)	WIND SPAN (M)					
1	QNT	QNT	QNT	0°00'00"	20	20	1	QNT	QNT	QNT	0°00'00"	20	20	20	20	20	20	20	20	20	20					
2	AP-1	1/1	DA-1	11°30'13" E	188	188	2	AP-1	1/1	DA-1	11°30'13" E	188	188	220	20	20	20	20	20	20	20					
3	AP-2	2/1	DA-2	12°00'11" E	239	239	3	AP-2	2/1	DA-2	12°00'11" E	239	239	458	20	20	20	20	20	20	20					
4	AP-3	3/1	DA-3	12°30'13" E	239	239	4	AP-3	3/1	DA-3	12°30'13" E	239	239	697	20	20	20	20	20	20	20					
5	AP-4	4/1	DA-4	12°30'13" E	239	239	5	AP-4	4/1	DA-4	12°30'13" E	239	239	936	20	20	20	20	20	20	20					
6	AP-5	5/1	DA-5	12°30'13" E	239	239	6	AP-5	5/1	DA-5	12°30'13" E	239	239	1175	20	20	20	20	20	20	20					
7	AP-6	6/1	DA-6	12°30'13" E	239	239	7	AP-6	6/1	DA-6	12°30'13" E	239	239	1414	20	20	20	20	20	20	20					
8	AP-7	7/1	DA-7	12°30'13" E	239	239	8	AP-7	7/1	DA-7	12°30'13" E	239	239	1653	20	20	20	20	20	20	20					
9	AP-8	8/1	DA-8	12°30'13" E	239	239	9	AP-8	8/1	DA-8	12°30'13" E	239	239	1892	20	20	20	20	20	20	20					
10	AP-9	9/1	DA-9	12°30'13" E	239	239	10	AP-9	9/1	DA-9	12°30'13" E	239	239	2131	20	20	20	20	20	20	20					
11	AP-10	10/1	DA-10	12°30'13" E	239	239	11	AP-10	10/1	DA-10	12°30'13" E	239	239	2370	20	20	20	20	20	20	20					
12	AP-11	11/1	DA-11	12°30'13" E	239	239	12	AP-11	11/1	DA-11	12°30'13" E	239	239	2609	20	20	20	20	20	20	20					
13	AP-12	12/1	DA-12	12°30'13" E	239	239	13	AP-12	12/1	DA-12	12°30'13" E	239	239	2848	20	20	20	20	20	20	20					
14	AP-13	13/1	DA-13	12°30'13" E	239	239	14	AP-13	13/1	DA-13	12°30'13" E	239	239	3087	20	20	20	20	20	20	20					
15	AP-14	14/1	DA-14	12°30'13" E	239	239	15	AP-14	14/1	DA-14	12°30'13" E	239	239	3326	20	20	20	20	20	20	20					
16	AP-15	15/1	DA-15	12°30'13" E	239	239	16	AP-15	15/1	DA-15	12°30'13" E	239	239	3565	20	20	20	20	20	20	20					
17	AP-16	16/1	DA-16	12°30'13" E	239	239	17	AP-16	16/1	DA-16	12°30'13" E	239	239	3804	20	20	20	20	20	20	20					
18	AP-17	17/1	DA-17	12°30'13" E	239	239	18	AP-17	17/1	DA-17	12°30'13" E	239	239	4043	20	20	20	20	20	20	20					
19	AP-18	18/1	DA-18	12°30'13" E	239	239	19	AP-18	18/1	DA-18	12°30'13" E	239	239	4282	20	20	20	20	20	20	20					
20	AP-19	19/1	DA-19	12°30'13" E	239	239	20	AP-19	19/1	DA-19	12°30'13" E	239	239	4521	20	20	20	20	20	20	20					
21	AP-20	20/1	DA-20	12°30'13" E	239	239	21	AP-20	20/1	DA-20	12°30'13" E	239	239	4760	20	20	20	20	20	20	20					
22	AP-21	21/1	DA-21	12°30'13" E	239	239	22	AP-21	21/1	DA-21	12°30'13" E	239	239	5000	20	20	20	20	20	20	20					
23	AP-22	22/1	DA-22	12°30'13" E	239	239	23	AP-22	22/1	DA-22	12°30'13" E	239	239	5239	20	20	20	20	20	20	20					
24	AP-23	23/1	DA-23	12°30'13" E	239	239	24	AP-23	23/1	DA-23	12°30'13" E	239	239	5478	20	20	20	20	20	20	20					
25	AP-24	24/1	DA-24	12°30'13" E	239	239	25	AP-24	24/1	DA-24	12°30'13" E	239	239	5717	20	20	20	20	20	20	20					
26	AP-25	25/1	DA-25	12°30'13" E	239	239	26	AP-25	25/1	DA-25	12°30'13" E	239	239	5956	20	20	20	20	20	20	20					
27	AP-26	26/1	DA-26	12°30'13" E	239	239	27	AP-26	26/1	DA-26	12°30'13" E	239	239	6195	20	20	20	20	20	20	20					
28	AP-27	27/1	DA-27	12°30'13" E	239	239	28	AP-27	27/1	DA-27	12°30'13" E	239	239	6434	20	20	20	20	20	20	20					
29	AP-28	28/1	DA-28	12°30'13" E	239	239	29	AP-28	28/1	DA-28	12°30'13" E	239	239	6673	20	20	20	20	20	20	20					
30	AP-29	29/1	DA-29	12°30'13" E	239	239	30	AP-29	29/1	DA-29	12°30'13" E	239	239	6912	20	20	20	20	20	20	20					
31	AP-30	30/1	DA-30	12°30'13" E	239	239	31	AP-30	30/1	DA-30	12°30'13" E	239	239	7151	20	20	20	20	20	20	20					
32	AP-31	31/1	DA-31	12°30'13" E	239	239	32	AP-31	31/1	DA-31	12°30'13" E	239	239	7390	20	20	20	20	20	20	20					
33	AP-32	32/1	DA-32	12°30'13" E	239	239	33	AP-32	32/1	DA-32	12°30'13" E	239	239	7629	20	20	20	20	20	20	20					
34	AP-33	33/1	DA-33	12°30'13" E	239	239	34	AP-33	33/1	DA-33	12°30'13" E	239	239	7868	20	20	20	20	20	20	20					
35	AP-34	34/1	DA-34	12°30'13" E	239	239	35	AP-34	34/1	DA-34	12°30'13" E	239	239	8107	20	20	20	20	20	20	20					
36	AP-35	35/1	DA-35	12°30'13" E	239	239	36	AP-35	35/1	DA-35	12°30'13" E	239	239	8346	20	20	20	20	20	20	20					
37	AP-36	36/1	DA-36	12°30'13" E	239	239	37	AP-36	36/1	DA-36	12°30'13" E	239	239	8585	20	20	20	20	20	20	20					
38	AP-37	37/1	DA-37	12°30'13" E	239	239	38	AP-37	37/1	DA-37	12°30'13" E	239	239	8824	20	20	20	20	20	20	20					
39	AP-38	38/1	DA-38	12°30'13" E	239	239	39	AP-38	38/1	DA-38	12°30'13" E	239	239	9063	20	20	20	20	20	20	20					
40	AP-39	39/1	DA-39	12°30'13" E	239	239	40	AP-39	39/1	DA-39	12°30'13" E	239	239	9302	20	20	20	20	20	20	20					
41	AP-40	40/1	DA-40	12°30'13" E	239	239	41	AP-40	40/1	DA-40	12°30'13" E	239	239	9541	20	20	20	20	20	20	20					
42	AP-41	41/1	DA-41	12°30'13" E	239	239	42	AP-41	41/1	DA-41	12°30'13" E	239	239	9780	20	20	20	20	20	20	20					
43	AP-42	42/1	DA-42	12°30'13" E	239	239	43	AP-42	42/1	DA-42	12°30'13" E	239	239	10019	20	20	20	20	20	20	20					
44	AP-43	43/1	DA-43	12°30'13" E	239	239	44	AP-43	43/1	DA-43	12°30'13" E	239	239	10258	20	20	20	20	20	20	20					
45	AP-44	44/1	DA-44	12°30'13" E	239	239	45	AP-44	44/1	DA-44	12°30'13" E	239	239	10497	20	20	20	20	20	20	20					
46	AP-45	45/1	DA-45	12°30'13" E	239	239	46	AP-45	45/1	DA-45	12°30'13" E	239	239	10736	20	20	20	20	20	20	20					
47	AP-46	46/1	DA-46	12°30'13" E	239	239	47	AP-46	46/1	DA-46	12°30'13" E	239	239	10975	20	20	20	20	20	20	20					
48	AP-47	47/1	DA-47	12°30'13" E	239	239	48	AP-47	47/1	DA-47	12°30'13" E	239	239	11214	20	20	20	20	20	20	20					
49	AP-48	48/1	DA-48	12°30'13" E	239	239	49	AP-48	48/1	DA-48	12°30'13" E	239	239	11453	20	20	20	20	20	20	20					
50	AP-49	49/1	DA-49	12°30'13" E	239	239	50	AP-49	49/1	DA-49	12°30'13" E	239	239	11692	20	20	20	20	20	20	20					
51	AP-50	50/1	DA-50	12°30'13" E	239	239	51	AP-50	50/1	DA-50	12°30'13" E	239	239	11931	20	20	20	20	20	20	20					
52	AP-51	51/1	DA-51	12°30'13" E	239	239	52	AP-51	51/1	DA-51	12°30'13" E	239	239	12170	20	20	20	20	20	20	20					
53	AP-52	52/1	DA-52	12°30'13" E	239	239	53	AP-52	52/1	DA-52	12°30'13" E	239	239	12409	20	20	20	20	20	20	20					
54	AP-53	53/1	DA-53	12°30'13" E	239	239	54	AP-53	53/1	DA-53	12°30'13" E	239	239	12648	20	20	20	20	20	20	20					
55	AP-54	54/1	DA-54	12°30'13" E	239	239	55	AP-54	54/1	DA-54	12°30'13" E	239	239	12887	20	20	20	20	20	20	20					
56	AP-55	55/1	DA-55	12°30'13" E	239	239	56	AP-55	55/1	DA-55	12°30'13" E	239	239	13126	20	20	20	20	20	20	20					
57	AP-56	56/1	DA-56	12°30'13" E	239	239	57	AP-56	56/1	DA-56	12°30'13" E	239	239	13365	20	20	20	20	20	20	20					
58	AP-57	57/1	DA-57	12°30'13" E	239	239	58	AP-57	57/1	DA-57	12°30'13" E	239	239	13604	20	20	20	20	20	20	20					
59	AP-58	58/1	DA-58	12°30'13" E	239	239	59	AP-58	58/1	DA-58	12°30'13" E	239	239	13843	20	20	20	20	20	20	20					
60	AP-59	59/1	DA-59	12°30'13" E	239	239	60	AP-59	59/1	DA-59	12°30'13" E	239	239	14082	20	20	20	20	20	20	20					
61	AP-60	60/1	DA-60	12°30'13" E	239	239	61	AP-60	60/1	DA-60	12°30'13" E	239	239	14321	20	20	20	20	20	20	20					
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POWER GRID CORPORATION OF INDIA LIMITED TEEMS INDIA TOWERLINES PVT. LTD.

132 KV DCSS BAGAFI TO SATCHAND TRANSMISSION LINE

COMPARISON TOWER SCHEDULE FROM GANTRY (BAGAFI) TO GANTRY (SATCHAND) (TOTAL LENGTH:- 29.636 KMS.)

AS PER DETAIL SURVEY					AS PER CHECK SURVEY															COORDINATES		REMARKS	
LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	S. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHANGING (M)	ADJACENT SPAN (M)			WIND SPAN (M)			WEIGHT SPAN (KGS)				EASTING
													LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL	LEFT	RIGHT	TOTAL		
26/0	DO-0	41°44'51" LT	245		40	AP-26	26/0	DO-0	41°25'10" LT	244		10807	140	244	484	120	122	242	0	0	0	30339	2837
26/1	DA-0		255		41	AP-26	26/1	DA-0		255		11042	244	255	499	120	125	245	0	0	0	36.86	26.86
26/2	DA-0		250		42	AP-26	26/2	DA-0		250		11532	255	250	505	120	125	245	0	0	0	27.54	27.54
26/3	DA-0		260		43	AP-26	26/3	DA-0		260		11791	260	260	520	130	130	260	0	0	0	27.71	27.71
26/4	DA-0		260		44	AP-26	26/4	DA-0		260		12000	260	260	520	130	130	260	0	0	0	38.24	38.24
26/5	DA-0		260		45	AP-26	26/5	DA-0		260		12289	260	260	520	130	130	260	0	0	0	35.49	35.49
26/6	DA-0		260		46	AP-26	26/6	DA-0		260		12578	260	260	520	130	130	260	0	0	0	35.49	35.49
26/7	DA-0		260		47	AP-26	26/7	DA-0		260		12867	260	260	520	130	130	260	0	0	0	35.49	35.49
26/8	DA-0		260		48	AP-26	26/8	DA-0		260		13156	260	260	520	130	130	260	0	0	0	35.49	35.49
26/9	DA-0		260		49	AP-26	26/9	DA-0		260		13445	260	260	520	130	130	260	0	0	0	35.49	35.49
26/10	DA-0		260		50	AP-26	26/10	DA-0		260		13734	260	260	520	130	130	260	0	0	0	35.49	35.49
26/11	DA-0		260		51	AP-26	26/11	DA-0		260		14023	260	260	520	130	130	260	0	0	0	35.49	35.49
26/12	DA-0		260		52	AP-26	26/12	DA-0		260		14312	260	260	520	130	130	260	0	0	0	35.49	35.49
26/13	DA-0		260		53	AP-26	26/13	DA-0		260		14601	260	260	520	130	130	260	0	0	0	35.49	35.49
26/14	DA-0		260		54	AP-26	26/14	DA-0		260		14890	260	260	520	130	130	260	0	0	0	35.49	35.49
26/15	DA-0		260		55	AP-26	26/15	DA-0		260		15179	260	260	520	130	130	260	0	0	0	35.49	35.49
26/16	DA-0		260		56	AP-26	26/16	DA-0		260		15468	260	260	520	130	130	260	0	0	0	35.49	35.49
26/17	DA-0		260		57	AP-26	26/17	DA-0		260		15757	260	260	520	130	130	260	0	0	0	35.49	35.49
26/18	DA-0		260		58	AP-26	26/18	DA-0		260		16046	260	260	520	130	130	260	0	0	0	35.49	35.49
26/19	DA-0		260		59	AP-26	26/19	DA-0		260		16335	260	260	520	130	130	260	0	0	0	35.49	35.49
26/20	DA-0		260		60	AP-26	26/20	DA-0		260		16624	260	260	520	130	130	260	0	0	0	35.49	35.49
26/21	DA-0		260		61	AP-26	26/21	DA-0		260		16913	260	260	520	130	130	260	0	0	0	35.49	35.49
26/22	DA-0		260		62	AP-26	26/22	DA-0		260		17202	260	260	520	130	130	260	0	0	0	35.49	35.49
26/23	DA-0		260		63	AP-26	26/23	DA-0		260		17491	260	260	520	130	130	260	0	0	0	35.49	35.49
26/24	DA-0		260		64	AP-26	26/24	DA-0		260		17780	260	260	520	130	130	260	0	0	0	35.49	35.49
26/25	DA-0		260		65	AP-26	26/25	DA-0		260		18069	260	260	520	130	130	260	0	0	0	35.49	35.49
26/26	DA-0		260		66	AP-26	26/26	DA-0		260		18358	260	260	520	130	130	260	0	0	0	35.49	35.49
26/27	DA-0		260		67	AP-26	26/27	DA-0		260		18647	260	260	520	130	130	260	0	0	0	35.49	35.49
26/28	DA-0		260		68	AP-26	26/28	DA-0		260		18936	260	260	520	130	130	260	0	0	0	35.49	35.49
26/29	DA-0		260		69	AP-26	26/29	DA-0		260		19225	260	260	520	130	130	260	0	0	0	35.49	35.49
26/30	DA-0		260		70	AP-26	26/30	DA-0		260		19514	260	260	520	130	130	260	0	0	0	35.49	35.49
26/31	DA-0		260		71	AP-26	26/31	DA-0		260		19803	260	260	520	130	130	260	0	0	0	35.49	35.49
26/32	DA-0		260		72	AP-26	26/32	DA-0		260		20092	260	260	520	130	130	260	0	0	0	35.49	35.49
26/33	DA-0		260		73	AP-26	26/33	DA-0		260		20381	260	260	520	130	130	260	0	0	0	35.49	35.49
26/34	DA-0		260		74	AP-26	26/34	DA-0		260		20670	260	260	520	130	130	260	0	0	0	35.49	35.49
26/35	DA-0		260		75	AP-26	26/35	DA-0		260		20959	260	260	520	130	130	260	0	0	0	35.49	35.49
26/36	DA-0		260		76	AP-26	26/36	DA-0		260		21248	260	260	520	130	130	260	0	0	0	35.49	35.49
26/37	DA-0		260		77	AP-26	26/37	DA-0		260		21537	260	260	520	130	130	260	0	0	0	35.49	35.49
26/38	DA-0		260		78	AP-26	26/38	DA-0		260		21826	260	260	520	130	130	260	0	0	0	35.49	35.49
26/39	DA-0		260		79	AP-26	26/39	DA-0		260		22115	260	260	520	130	130	260	0	0	0	35.49	35.49
26/40	DA-0		260		80	AP-26	26/40	DA-0		260		22404	260	260	520	130	130	260	0	0	0	35.49	35.49
26/41	DA-0		260		81	AP-26	26/41	DA-0		260		22693	260	260	520	130	130	260	0	0	0	35.49	35.49
26/42	DA-0		260		82	AP-26	26/42	DA-0		260		22982	260	260	520	130	130	260	0	0	0	35.49	35.49
26/43	DA-0		260		83	AP-26	26/43	DA-0		260		23271	260	260	520	130	130	260	0	0	0	35.49	35.49
26/44	DA-0		260		84	AP-26	26/44	DA-0		260		23560	260	260	520	130	130	260	0	0	0	35.49	35.49
26/45	DA-0		260		85	AP-26	26/45	DA-0		260		23849	260	260	520	130	130	260	0	0	0	35.49	35.49
26/46	DA-0		260		86	AP-26	26/46	DA-0		260		24138	260	260	520	130	130	260	0	0	0	35.49	35.49
26/47	DA-0		260		87	AP-26	26/47	DA-0		260		24427	260	260	520	130	130	260	0	0	0	35.49	35.49
26/48	DA-0		260		88	AP-26	26/48	DA-0		260		24716	260	260	520	130	130	260	0	0	0	35.49	35.49
26/49	DA-0		260		89	AP-26	26/49	DA-0		260		25005	260	260	520	130	130	260	0	0	0	35.49	35.49
26/50	DA-0		260		90	AP-26	26/50	DA-0		260		25294	260	260	520	130	130	260	0	0	0	35.49	35.49
26/51	DA-0		260		91	AP-26	26/51	DA-0		260		25583	260	260	520	130	130	260	0	0	0	35.49	35.49
26/52	DA-0		260		92	AP-26	26/52	DA-0		260		25872	260	260	520	130	130	260	0	0	0	35.49	35.49
26/53	DA-0		260		93	AP-26	26/53	DA-0		260		26161	260	260	520	130	130	260	0	0	0	35.49	35.49
26/54	DA-0		260		94	AP-26	26/54	DA-0		260		26450	260	260	520	130	130	260	0	0	0	35.49	35.49
26/55	DA-0		260		95	AP-26	26/55	DA-0		260		26739	260	260	520	130	130	260	0	0	0	35.49	35.49
26/56	DA-0		260		96	AP-26	26/56	DA-0		260		27028	260	260	520	130	130	260	0	0	0	35.49	35.49
26/57	DA-0		260		97	AP-26	26/57	DA-0		260		27317	260	260	520	130	130	260	0	0	0	35.49	35.49
26/58	DA-0		260		98	AP-26	26/58	DA-0		260		27606	260	260	520	130	130	260	0	0	0	35.49	35.49
26/59	DA-0		260		99	AP-26	26/59	DA-0		260		27895	260	260	520	130	130	260	0	0	0	35.49	35.49
26/60	DA-0		260		100	AP-26	26/60	DA-0		260		28184	260	260	520	130	130	260	0	0	0	35.49	35.49
26/61	DA-0		260		101	AP-26	26/61	DA-0		260		28473	260	260	520	130	130	260	0	0	0	35.49	35.49
26/62	DA-0		260		102	AP-26																	

**POWER GRID CORPORATION OF INDIA LIMITED
TEEMS INDIA TOWERLINES PVT. LTD.**

**132 KV DCSS BAGAFU TO SATCHAND TRANSMISSION LINE
COMPARISON TOWER SCHEDULE FROM GANTRY (BAGAFU) TO GANTRY (SATCHAND) (TOTAL LENGTH: 29.636 KMS.)**

AS PER DETAIL SURVEY										AS PER CHECK SURVEY																							
SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	SL. NO.	AP. NO.	LOC. NO.	TOWER TYPE	DEVIATION ANGLE	SPAN LENGTH (M)	SECTION LENGTH (M)	CUM. CHAINAGE (M)	ADJACENT SPAN (M)	WIND SPAN (M)	R.C.	REDUCE LEVEL (M)	EFFECTIVE BL. (M)	WEIGHT SPAN (KG)	WEIGHT SPAN (MT)	COORDINATES	REMARKS										
															LEFT	RIGHT			LEFT	RIGHT	EASTING	NORTHING											
87	AP-47	45/1	DB-3		271	3278	88	AP-48	45/1	DB-3		271	3278	21727	271	271	549	145.5	138	274.5	3	0	31.89	53.99	35.5	10.9	24.6	77.5	12.0	120.5	358052	2562148	FOREST AREA
88	AP-48	45/2	DB-6		278		89	AP-49	45/2	DB-6		278		22005	278	278	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
89	AP-49	45/3	DB-9		331		90	AP-50	45/3	DB-9		331		22335	331	331	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
90	AP-50	45/4	DB-12		338		91	AP-51	45/4	DB-12		338		22674	338	338	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
91	AP-51	45/5	DB-15		345		92	AP-52	45/5	DB-15		345		23004	345	345	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
92	AP-52	45/6	DB-18		352		93	AP-53	45/6	DB-18		352		23334	352	352	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
93	AP-53	45/7	DB-21		359		94	AP-54	45/7	DB-21		359		23664	359	359	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
94	AP-54	45/8	DB-24		366		95	AP-55	45/8	DB-24		366		23994	366	366	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
95	AP-55	45/9	DB-27		373		96	AP-56	45/9	DB-27		373		24324	373	373	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
96	AP-56	45/10	DB-30		380		97	AP-57	45/10	DB-30		380		24654	380	380	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
97	AP-57	45/11	DB-33		387		98	AP-58	45/11	DB-33		387		24984	387	387	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
98	AP-58	45/12	DB-36		394		99	AP-59	45/12	DB-36		394		25314	394	394	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
99	AP-59	45/13	DB-39		401		100	AP-60	45/13	DB-39		401		25644	401	401	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
100	AP-60	45/14	DB-42		408		101	AP-61	45/14	DB-42		408		25974	408	408	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
101	AP-61	45/15	DB-45		415		102	AP-62	45/15	DB-45		415		26304	415	415	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
102	AP-62	45/16	DB-48		422		103	AP-63	45/16	DB-48		422		26634	422	422	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
103	AP-63	45/17	DB-51		429		104	AP-64	45/17	DB-51		429		26964	429	429	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
104	AP-64	45/18	DB-54		436		105	AP-65	45/18	DB-54		436		27294	436	436	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
105	AP-65	45/19	DB-57		443		106	AP-66	45/19	DB-57		443		27624	443	443	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
106	AP-66	45/20	DB-60		450		107	AP-67	45/20	DB-60		450		27954	450	450	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
107	AP-67	45/21	DB-63		457		108	AP-68	45/21	DB-63		457		28284	457	457	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
108	AP-68	45/22	DB-66		464		109	AP-69	45/22	DB-66		464		28614	464	464	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
109	AP-69	45/23	DB-69		471		110	AP-70	45/23	DB-69		471		28944	471	471	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
110	AP-70	45/24	DB-72		478		111	AP-71	45/24	DB-72		478		29274	478	478	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
111	AP-71	45/25	DB-75		485		112	AP-72	45/25	DB-75		485		29604	485	485	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
112	AP-72	45/26	DB-78		492		113	AP-73	45/26	DB-78		492		29934	492	492	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
113	AP-73	45/27	DB-81		499		114	AP-74	45/27	DB-81		499		30264	499	499	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
114	AP-74	45/28	DB-84		506		115	AP-75	45/28	DB-84		506		30594	506	506	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
115	AP-75	45/29	DB-87		513		116	AP-76	45/29	DB-87		513		30924	513	513	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
116	AP-76	45/30	DB-90		520		117	AP-77	45/30	DB-90		520		31254	520	520	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
117	AP-77	45/31	DB-93		527		118	AP-78	45/31	DB-93		527		31584	527	527	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
118	AP-78	45/32	DB-96		534		119	AP-79	45/32	DB-96		534		31914	534	534	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
119	AP-79	45/33	DB-99		541		120	AP-80	45/33	DB-99		541		32244	541	541	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
120	AP-80	45/34	DB-102		548		121	AP-81	45/34	DB-102		548		32574	548	548	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
121	AP-81	45/35	DB-105		555		122	AP-82	45/35	DB-105		555		32904	555	555	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
122	AP-82	45/36	DB-108		562		123	AP-83	45/36	DB-108		562		33234	562	562	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
123	AP-83	45/37	DB-111		569		124	AP-84	45/37	DB-111		569		33564	569	569	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
124	AP-84	45/38	DB-114		576		125	AP-85	45/38	DB-114		576		33894	576	576	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
125	AP-85	45/39	DB-117		583		126	AP-86	45/39	DB-117		583		34224	583	583	600	165.5	158	304.5	6	0	43.09	49.99	188.9	218.3	509.2	236.0	195.0	421.0	358706	2562158	FOREST AREA
126	AP-86	45/40	DB-120		590		127	AP-87	45/40	DB-120		590		34554	590	590	600	165.															

Udaipur - Amarpur 132 kV D/C TL - 15.619 Km

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE																				
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																				
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																				
DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION GANTRY - AP1 & AP7 -AP8 -0.327 KM																				
Sl. No	Twr No	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 48Q)			
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation	
1	GANTRY	GANTRY	3°18'51"		27	33.0	0.0	27.0	27.0	0.0	-56.6	-56.6	0.0	27.2	-27.2		348566.5	2603250	34.303	
2	AP1	DB+DB	7°46'45" (RT)		27.3	177.0	27.0	927.0	354.0	80.6	-71.7	11.8	54.2	27.0	81.1		348589.7	2603245	35.002	
3	AP7	DC+DB	18°58'45" (RT)				283.0	266.0	300.0	566.0	45.8	116.0	161.8	82.4	130.3	212.7		349746	2602510	67.85
				Nil													ROW LINE 30m WIDE, 115m LINE WIDE			
4	AP8	DB+DB	09°12'50" (LT)		300	234.0	300.0	568.0	468.0	184.0	42.1	216.1	169.7	55.7	229.4		349871	2602238	68.42	

Tower Abstract					
Tower Type / Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	0	1	0	0	1
DC	1	0	0	0	1
DD	1	0	0	0	1
Total	2	1	0	0	3

Approved.
Note:- The approval does not absolves responsibility of contractors.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
B. Mondal	Amrta Sin				

FOR POWER GRID CORPORATION OF INDIA LTD.					
CHIEF ENGINEER	MANAGER	INSPECTOR	CHIEF ENGINEER	MANAGER	INSPECTOR

ABHIJIT DEY
PROJECT MANAGER

उ. पू. के. उदयपुर / NER UDAIPUR

PROJECT TITLE: 132 KV D/C LINE FROM UDAIPUR TO AMARPUR																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR : ELECTRICAL MANUFACTURING COMPANY LIMITED.																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Corr. Challenge (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	Coordinates (Zone - 48Q)			
								Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation	
TOWER SCHEDULE FOR THE SECTION - AP13-AP14 (0.386KM)																					
1	AP13	DC+DB	18°44'27" (RT)				296.0	210.0	386.0	596.0	452.3	125.3	28.5	45.3	153.7	100.5	C.F.D+1.0M	350962	2601563	52.85	
				330													AWEY LINE CROSSING				
2	AP14	DB+DB	12°23'33" (RT)		88	186.0	343.0	386.0	350.0	686.0	260.7	321.4	582.0	233.3	349.5	481.7	C.F.D+2.5M & RC+13.0M	351048	2601572	70	

Tower Abstract						
Tower Type\	+0	+3	+6	+9	+18	Total
Extn						
DA	0	0	0	0	0	0
DB	0	0	1	0	0	1
DC	0	0	0	1	0	1
DD	0	0	0	0	0	0
Total	0	0	1	1	0	2
Total						2

Approved.
Note:- The approval does not absolves responsibility of contractors.

FOR TEEMS INDIA			FOR EMC		
SURVEYED BY	CHECKED BY	SUBMITTED BY	SURVEYED BY	CHECKED BY	SUBMITTED BY
B. Mondal	Amrta Sin				

FOR POWER GRID CORPORATION OF INDIA LTD.					
CHIEF ENGINEER	MANAGER	INSPECTOR	CHIEF ENGINEER	MANAGER	INSPECTOR

ABHIJIT DEY
PROJECT MANAGER

उ. पू. के. उदयपुर / NER UDAIPUR

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																					
DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION 16/2- AP18=1.181KM																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)				
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation		
3	16/2	DB+9	00°00'00"(-)			196.5	0.0	293.0	293.0	0.0	199.1	199.1	0.0	198.1	198.1	VILL:-TINGHORIA LT LINE, NALA, POND	352227.88	2601367.79	78.580		
4	AP-17	DC+6	10°12'09"(RT)			393.0	357.0	263.0	321.0	714.0	193.7	152.7	346.5	194.9	156.0	350.9	VILL:-TINGHORIA 3 NOS 11 KV LINE, 2 NOS CART TRACK, LT LINE, ROAD, POND, 2 NOS HUT	352593.54	2601231.48	32.580	
5	AP-18	DD+6	40°05'58" RT			321.0	166.5	321.0	6.0	321.0	166.5	0.0	168.3	165.0	0.0	165.0	VILL:- GAMPARA	352879	2601031	33.900	
	AP18	DD+06	40°05'58" RT					249.5	321.0	178.0	499.0	166.5	49.9	216.4	160.5	66.3	226.8		352879	2601031	100.409
	18/1	DB+09				178.0	233.5	178.0	289.0	467.0	128.1	88.9	217.0	111.7	112.2	223.9		352905	2600856	99.984	
	AP19	DD+03	32°56'53" LT			289.0	223.0	289.0	157.0	446.0	209.1	130.2	330.3	176.8	108.5	285.3	66 KV LINE, POND	352990	2600577	111.925	

Tower Abstract					
Tower Type \ Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	0	0	0	2	2
DC	0	0	1	0	1
DD	0	1	1	0	2
Total	0	1	2	2	5

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	
Bhambhani	Amun S...	[Signature]	ABHIJIT DEY PROJECT MANAGER	

FOR POWER GRID CORPORATION OF INDIA LTD.			
CHECKED BY	RECOMMENDED BY	APPROVED BY	Se. GM
[Signature]	[Signature]	[Signature]	POWER GRID CORPORATION OF INDIA LTD.

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI																					
DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION AP37 TO AP38, AP41 TO AP42 & AP44 TO AP45 =0.639KM																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)				
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation		
1	AP-37	DB+0	02°42'34"(RT)	322.2	-	161.1	0.0	322.2	322.2	0.0	73.7	73.7	0.0	110.4	110.4	VILL:- GANDHARI SH ROAD 2 NOS	357019.08	2599693.09	128.520		
2	AP-38	DC+0	20°37'42"(LT)		122.2	161.1	322.2	0.0	322.2	248.5	0.0	248.5	211.8	0.0	211.8	VILL:- GANDHARI	357302.11	2599439.06	138.920		
1	AP-41	DD+0	36°59'42"(LT)	188.1	-	94.1	0.0	188.1	188.1	0.0	47.9	47.9	0.0	67.2	67.2	VILL:- GANDHARI 2 NOS HUTS, ROAD	357988.34	2599133.63	169.250		
2	AP-42	DB+0	5°53'24"(LT)		188.1	94.1	188.1	0.0	188.1	140.2	0.0	140.2	120.9	0.0	120.9	VILL:- GANDHARI	358176.25	2599131.92	172.460		
1	AP-44	DB+6	5°22'13"(RT)	129.0	-	64.5	0.0	129.0	129.0	0.0	130.6	130.6	0.0	102.9	102.9	VILL:- GANDHARI 11 KV LINE, ROAD	358642.35	2599287.22	147.240		
2	AP-45	DB+6	9°07'05"(RT)		129.0	64.5	129.0	0.0	129.0	-1.6	0.0	-1.6	26.1	0.0	26.1	VILL:- GANDHARI	358757.17	2599178.37	150.090		

Tower Abstract					
Tower Type \ Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	2	0	2	0	4
DC	1	0	0	0	1
DD	1	0	0	0	1
Total	4	0	2	0	6

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	
Bhambhani	Amun S...	[Signature]	ABHIJIT DEY PROJECT MANAGER	

FOR POWER GRID CORPORATION OF INDIA LTD.			
CHECKED BY	RECOMMENDED BY	APPROVED BY	Se. GM
[Signature]	[Signature]	[Signature]	POWER GRID CORPORATION OF INDIA LTD.

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE

CLIENT : POWER GRID CORPORATION OF INDIA LIMITED

CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI

DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION AP47 TO AP51 -0.949KM

Annexure - III(B)

Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Cum. Chainage (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)		
								Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation
1	AP-47	DB+0	3°56'48"(LT)				93.5	0.0	187.0	187.0	0.0	324.9	324.9	0.0	327.8	327.8	VILL:- GANDHARI	359281.82	2599361.88	139.030
2	AP-48	DC+0	2°52'35"(RT)	187.0	187.0	187.0	209.5	187.0	232.0	419.0	137.9	45.4	233.4	40.8	0.0	41.7	VILL:- REYANG BASTI	359468.8	2599372.3	121.040
3	AP-49	DC+0	2°40'55"(LT)	232.0	232.0	419.0	215.5	232.0	199.0	431.0	317.4	240.5	558.0	232.9	181.3	414.3	VILL:- REYANG BASTI	359679.12	2599274.05	140.339
4	AP-50	DC+0	2°17'05"(LT)	199.0	199.0	618.0	265.0	199.0	331.0	530.0	41.5	447.1	405.6	17.7	328.9	346.6	VILL:- REYANG BASTI	359876.1	2599255.23	129.940
5	AP-51	DC+0	2°02'10"(LT)	331.0	331.0	949.0	289.0	331.0	233.0	564.0	116.1	347.2	231.1	2.1	250.4	252.5	VILL:- REYANG BASTI	360186.85	2599380.28	95.500

Tower Abstract						
Tower Type \ Extn	+0	+3	+6	+9	+18	Total
DA	0	0	0	0	0	0
DB	1	0	0	0	0	1
DC	4	0	0	0	0	4
DD	0	0	0	0	0	0
Total	5	0	0	0	0	5

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	ABHIJIT DEY PROJECT MANAGER

FOR POWER GRID CORPORATION OF INDIA			
CHECKED BY	RECOMMENDED BY	APPROVED BY	

LINE NAME: 132 KV D/C UDAIPUR-AMARPUR TRANSMISSION LINE

CLIENT : POWER GRID CORPORATION OF INDIA LIMITED

CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI

DETAIL SURVEY TOWER SCHEDULE FOR THE SECTION AP51 TO AP55 -0.999KM

Annexure - III(B)

Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	UTM Coordinates (Zone - 46Q)		
							Left	Right	Total	Left	Right	Total	Left	Right	Total		Easting	Northing	Elevation
1	AP-52	DC+0	22°02'10"(LT)		331.0	282.0	331.0	233.0	564.0	116.1	347.2	231.1	2.1	250.4	252.5	VILL:- REYANG BASTI	360186.85	2599380.28	95.500
2	AP-53	DB+3	5°49'59"(LT)	233.0	233.0	257.0	233.0	281.0	514.0	114.2	115.2	1.0	17.4	125.8	108.4	STATE HIGH WAY	360353.25	2599539.47	72.640
3	AP-53	DC+0	2°02'00"(RT)	281.0	281.0	217.0	281.0	153.0	434.0	165.8	105.7	271.5	135.2	93.4	248.6	VILL:- REYANG BASTI	360537.78	2599754.44	78.270
4	AP-54	DB+0	14°00'30"(RT)	153.0	153.0	242.5	153.0	332.0	485.0	47.3	240.4	287.7	99.6	209.2	268.8	VILL:- BERAMBARI	360665.39	2599831.46	76.620
5	AP-55	DC+0	2°15'51"(LT)	332.0	332.0	166.0	332.0	0.0	332.0	91.6	0.0	91.6	122.8	0.0	122.8	VILL:- BERAMBARI	360990.94	2599914.5	67.490

Tower Abstract					
Tower Type \ Extn	+0	+3	+6	+9	Total
DA	0	0	0	0	0
DB	1	1	0	0	2
DC	3	0	0	0	3
DD	0	0	0	0	0
Total	4	1	0	0	5

Approved.
Note:- The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC LIMITED	ABHIJIT DEY PROJECT MANAGER

FOR POWER GRID CORPORATION OF INDIA			
CHECKED BY	RECOMMENDED BY	APPROVED BY	

PROJECT TITLE: 132 KV D/C LINE FROM UDAIPUR TO AMARPUR																					
CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																					
CONTRACTOR: TEEMS INDIA TOWERLINES PVT. LTD, CHENNAI																					
TOWER SCHEDULE FOR THE SECTION - AP55 TO GANTRY -0.772KM																					
Sl. No	Twr No.	Tower Type	Deviation Angle (DMS)	Span (m)	Section Length (m)	Cum. Chainage (m)	Wind Span (m)	Adjacent Span			Weight Span (Cold)			Weight Span (Hot)			Major Crossings / Remarks (With in ROW)	Coordinates (Zone - 46Q)			
								Left	Right	Total	Left	Right	Total	Left	Right	Total		Longitude	Latitude	Elevation	
1	AP55	DC+00	21°55'14"(LT)	308.0			154.0	0.0	308.0	308.0	0.0	170.6	170.6	0.0	169.3	169.3			360990.94	2599914.5	95.49
2	AP56	DD+09	43°25'58"(LT)	117.0	308.0	308.0	713.5	308.0	117.0	425.0	129.4	66.6	196.0	130.7	63.2	202.5	RC-3M		361219.19	2600096.54	50.69
3	AP57	DB+59	13°50'45"(RT)	182.8	117.0	425.0	149.5	127.0	182.0	309.0	58.4	287.1	337.5	53.8	204.8	258.0	RC-3M	56kv Line	361259.39	2600207.38	50.34
4	AP58	DC+03	35°22'30"(LT)	176.0	182.0	607.0	154.0	182.0	176.0	308.0	105.1	121.6	16.5	22.8	97.0	74.2			361328.98	2600374.72	46.15
5	AP59	DD+00	10°34'11"(RT)	99.0	176.0	733.0	82.5	126.0	99.0	165.0	4.4	-20.3	-15.9	25.0	-3.6	-25.4	Pond		361379.97	2600494.76	46.42
6	GANTRY	GANTRY	00°00'00"		39.0	165.0	16.5	39.0	0.0	39.0	59.1	0.0	59.3	42.6	0.0	42.6			361367.96	2600526.96	72.991

Tower Abstract						
Tower Type \ Extn	+0	+3	+6	+9	+18	Total
DA	0	0	0	0	0	0
DB	0	0	0	1	0	1
DC	1	1	0	0	0	2
DD	1	0	0	1	0	2
Total	2	1	0	2	0	5
Total						5

Approved.
Note: The approval does not absolves responsibility of contractor.

FOR TEEMS INDIA			FOR EMC	
SURVEYED BY	CHECKED BY	SUBMITTED BY	FOR EMC-LIMITED	
<i>Emendal</i>	<i>Iman</i>	<i>VIRBH</i>	<i>ABHIJIT DEY</i>	
			PROJECT MANAGER	

FOR POWER GRID CORPORATION OF INDIA LTD.			
CHECKED BY	RECOMMENDED BY	APPROVED BY	
<i>AKHIL CHAKMA</i>	<i>AKHIL CHAKMA</i>	<i>AKHIL CHAKMA</i>	
अखिल चाकमा / JE	अखिल चाकमा / JE	अखिल चाकमा / JE	
पावरग्रीड / POWERGRID	पावरग्रीड / POWERGRID	पावरग्रीड / POWERGRID	
उ.पू.शे. उदयपुर / NER UDAIPUR	उ.पू.शे. उदयपुर / NER UDAIPUR	उ.पू.शे. उदयपुर / NER UDAIPUR	

CLIENT : POWER GRID CORPORATION OF INDIA LIMITED																		
LINE NAME: 132 KV DC UDAIPUR - AMARPUR TRANSMISSION LINE																		
CONTRACTOR -TEEMS INDIA TOWERLINES PVT. LTD.																		
CHECK SURVEY REPORT FROM AP-10 TO LOC.NO-16/2(-2.525 KMS)																		
SL. NO	LOC. NO	TYPE OF TOWER	ADD	AS PER DETAIL SURVEY				NORTHING	EASTING	TYPE OF TOWER	ADD	SPAN IN MTR.	AS PER CHECK SURVEY				X-ING/REMARKS	
				SPAN IN	SEC. LENG	REDUCED LEVEL(M)	Sum of Adj						SEC LENG	REDU CED	NORTHING	EASTING		
1	AP-10	DC+6	25°57'11"RT			72.64	2602070.57	350077.68	DC+6	25°57'11"RT		398		68.78	2602071.58	350080.73	SUGHT CHANGE FOR BETTER POSITION	
2				407													PURCA ROAD, RUBBER PLANTATION	
3	AP-11	DD+9	54°46'26"LT		407	77.68	2601679.6	350190.77	DD+9	49°48'39"LT		277	675	398	70.45	2601895.32	350195.95	SUGHT CHANGE FOR BETTER POSITION
4				277													PURCA ROAD, RUBBER PLANTATION	
5	AP-12	DD+3	37°06'13"LT		684	77.45	2601588.99	350452.53	DD+3	38°04'27"LT		221	498	675	79.41	2601587.07	350450.86	SUGHT CHANGE FOR BETTER POSITION
6				213													RUBBER PLANTATION, PADDY FIELD	
7	AP-13	DC+9	18°27'20"RT		897	52.85	2601654.85	350655.09	DC+9	14°12'05"RT		373	594	896	56.14	2601646.99	350666.64	SUGHT CHANGE FOR BETTER POSITION
8				383													RUBBER PLANTATION, PADDY FIELD, 66 KV	
9	AP-14	DB+6	12°23'15"RT		1280	66	2601651.87	351038.08	DB+6	12°09'50"RT		328	701	1269	32.72	2601654.85	351037.51	SUGHT CHANGE FOR BETTER POSITION
10				318													BRICK ROAD,CANAL,KACHOWA ROAD,LT LINES	
11	AP-15	DC+3	22°01'02"LT		1598	31.18	2601581.24	351348.14	DC+3	19°11'48"LT		200	528	1597	31.16	2601588.13	351358.82	SUGHT CHANGE FOR LT LINE
12				215													PADDY FIELD,LT LINE	
13	AP-16	DC+0	29°32'57"RT		1813	32.83	2601615.56	351560.38	DC+0	28°21'27"RT		332	532	1797	29.51	2601615.56	351560.38	SAME POSITION
14				332													PADDY FIELD	
15	16/1	DB+6	00°00'00"		2145	31.16	2601500.03	351871.63	DB+6	00°00'00"		380	712	2129	30.45	2601500.03	351871.63	SAME POSITION
16				380													PADDY FIELD,ANA,POND	
17	16/2	DB+9	00°00'00"		2525	31.49	2601367.79	352227.88	DB+9	00°00'00"		380	2509	31.5	2601367.79	352227.88	SAME POSITION	

FOR TEEMS INDIA TOWERLINES PVT. LTD.		FOR EMC LTD	
SURVEYED BY	SUBMITTED BY	SURVEYED BY	SUBMITTED BY
<i>Prodip Kabiraj</i>	<i>Raju Shreedharan</i>		
PRODIP KABIRAJ PROJECT MANAGER	RAJU SHREEDHARAN Chief Project Manager.		

FOR TEEMS INDIA
PLUSH KANTI CHATTERJEE
ASST. PROJECT ENGINEER

एम. के. नाग / M.K.NAG
उपमहानिरीक्षक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.पू.शे. उदयपुर / NER UDAIPUR

FOR EMC LIMITED
(ABHIJIT DEY)
PROJECT MANAGER

FOR POWER GRID CORPORATION OF INDIA LIMITED		
CHECKED BY	RECOMMENDED BY	APPROVED BY
<i>AKHIL CHAKMA</i>	<i>AKHIL CHAKMA</i>	<i>AKHIL CHAKMA</i>
अखिल चाकमा / JE	अखिल चाकमा / JE	अखिल चाकमा / JE
पावरग्रीड / POWERGRID	पावरग्रीड / POWERGRID	पावरग्रीड / POWERGRID
उ.पू.शे. उदयपुर / NER UDAIPUR	उ.पू.शे. उदयपुर / NER UDAIPUR	उ.पू.शे. उदयपुर / NER UDAIPUR

अखिल चाकमा / AKHIL CHAKMA
कनिष्ठ अभियंता / JE
पावरग्रीड / POWERGRID
उ.पू.शे. उदयपुर / NER UDAIPUR

Referto letter no.
NEUDP/NERPSIP/EM-7U
201920/687.

एम. के. तालुकदार / M.K.TALUKDAR
महानिरीक्षक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.पू.शे. उदयपुर / NER UDAIPUR

CLIENT:- POWER GRID CORPORATION OF INDIA LIMITED
LINE NAME:- 132 KV DC UDAIPUR - AMARPUR TRANSMISSION LINE
Contractor - TEEMS INDIA TOWERLINES PVT. LTD.

Check Survey report from AP-18 to AP-23, AP-24 to AP-37, AP-38 to AP-41, AP-42 to AP-44, AP-45 to AP-47(=6.475 KMS)

SL. NO	LOC. NO	TYPE OF TOWER	AS PER DETAIL SURVEY					AS PER CHECK SURVEY					X-ING/REMARKS			
			ACD	SPAN IN MTR.	SEC. LENGTH	REDUCED LEVEL(M)	NORTHING	EASTING	TYPE OF TOWER	ACD	SPAN IN MTR.	Sum of Adj. Span.		SEC. LENGTH	REDUCED LEVEL(M)	NORTHING
1	AP-18	DO+6	88°54'04"E	187	18.44	2601056.37	352839.38	DO+6	87°37'50"W	189	480	480	31.463	2600856.55	352880.21	CHANGED AS IT IS COMING UPON A POND
2	AP-19	DO+9		296	18.7	2600960.62		DO+9	00°00'00"	291	480	480	31.463	2600856.55	352880.21	SAME POSITION
3	AP-20	DO+3		180	48.3	2600574.32	352948.27	DO+3	35°56'56"E	187	440	440	42.947	2600570.89	352947.08	SLIGHT CHANGE FOR BETTER POSITION
4	AP-21	DO+6	57°08'27"E	137	18.3	2600459.82	353030.92	DO+6	57°22'01"E	134	436	436	35.951	2600459.48	353053.98	SLIGHT CHANGE FOR ANGLE OF DEVIATION
5	AP-22	DO+4	31°42'32"E	303	13.72	2600080.62	353184.87	DO+4	28°44'10"E	300	428	428	35.951	2600483.17	353183.71	SLIGHT CHANGE FOR BETTER POSITION
6	AP-23	DO+0	30°54'44"E	353	14.51	2600080.37	353467.09	DO+0	30°53'35"E	327	427	427	35.935	2600392.22	353471.45	CHANGED AS IT IS COMING UPON A ROAD
7	AP-24	DO+0	18°27'18"E	1464	17.83	2600490.81	353782.75	DO+0	17°29'56"E	1388	44	44	33.5	2600490.81	353782.75	SAME POSITION

FOR TEEMS INDIA
PIJUSH KANTI CHATTERJEE
ASTT. PROJECT ENGINEER

FOR TEEMS INDIA
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RAJU SHREEDHARAN
Chief Project Manager.

FOR EMC LIMITL
(ABHIJIT DEY)
PROJECT MANAGER

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Refer to letter no:-
NEUDP/NERPSIP/EMC-TL/2019-20/637

CLIENT:- POWER GRID CORPORATION OF INDIA LIMITED
LINE NAME:- 132 KV DC UDAIPUR - AMARPUR TRANSMISSION LINE
Contractor - TEEMS INDIA TOWERLINES PVT. LTD.

Check Survey report from AP-18 to AP-23, AP-24 to AP-37, AP-38 to AP-41, AP-42 to AP-44, AP-45 to AP-47(=6.475 KMS)

SL. NO	LOC. NO	AS PER DETAIL SURVEY						AS PER CHECK SURVEY						X-ING/REMARKS			
		TYPE OF TOWER	ACD	SPAN IN MTR.	SEC. LENGTH	REDUCED LEVEL(M)	NORTHING	EASTING	TYPE OF TOWER	ACD	SPAN IN MTR.	Sum of Adj. Span.	SEC. LENGTH		REDUCED LEVEL(M)	NORTHING	EASTING
14	AP-14	DO+0	17°41'30"E	250		109.18	260014.53	354009.64	DO+0	17°11'41"E	270		270	69.603	2600493.42	353994.64	CHANGED FOR BETTER POSITION
15	AP-15	DO+0	01°48'59"E	290	755	138.31	2600465.83	354264.47	DO+0	17°41'30"E	270	454	770	74.843	2600466.17	354262.94	NALA, 82 SAME POSITION / ON PILLAR
16	AP-16	DO+0	01°54'28"E	290	440	130.89	2600411.54	354465.35	DO+0	17°57'34"E	284	447	454	84.788	2600417.12	354473.97	82 SLIGHT CHANGE FOR BETTER POSITION
17	AP-17	DO+0	01°50'39"E	290	702	130.00	2600332.99	354691.31	DO+0	21°17'09"E	287	470	757	82.763	2600362.26	354695.15	82 CHANGED FOR BETTER POSITION
18	AP-18	DO+6	05°42'57"E	290	363	138.10	2600256.78	354872.52	DO+6	01°48'31"E	287	769	924	82.956	2600269.05	354876.41	82 CHANGED FOR BETTER POSITION
19	AP-19	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	NALA, 82 SAME POSITION/ON PILLAR
20	AP-20	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	1485	78.577	2599992.91	355365.31	2 MOS NALA, 82 SAME POSITION/ON PILLAR	
21	AP-21	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
22	AP-22	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
23	AP-23	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
24	AP-24	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
25	AP-25	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
26	AP-26	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
27	AP-27	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
28	AP-28	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
29	AP-29	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
30	AP-30	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
31	AP-31	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
32	AP-32	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
33	AP-33	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
34	AP-34	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
35	AP-35	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
36	AP-36	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
37	AP-37	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
38	AP-38	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
39	AP-39	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
40	AP-40	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
41	AP-41	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
42	AP-42	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
43	AP-43	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
44	AP-44	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
45	AP-45	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
46	AP-46	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
47	AP-47	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
48	AP-48	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
49	AP-49	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
50	AP-50	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
51	AP-51	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
52	AP-52	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
53	AP-53	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
54	AP-54	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
55	AP-55	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
56	AP-56	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
57	AP-57	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
58	AP-58	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
59	AP-59	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
60	AP-60	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
61	AP-61	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
62	AP-62	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
63	AP-63	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
64	AP-64	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
65	AP-65	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
66	AP-66	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
67	AP-67	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
68	AP-68	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
69	AP-69	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
70	AP-70	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
71	AP-71	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
72	AP-72	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
73	AP-73	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
74	AP-74	DO+0	01°45'08"E	290	2019	259990.45	355365.31	DO+0	01°41'47"E	288	881	2043	127.637	2599993.10	355365.31	82 SAME POSITION/ON PILLAR	
75	AP-75	DO+0	01°42'25"E	290	1751	134.09	2599969.18	355143.03	DO+0	01°47'57"E	288	556	1773	93.22	2599966.80	355143.03	82 SAME POSITION/ON PILLAR
76	AP																

FOR TEEMS INDIA
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महा प्रबंधक / GENERAL MANAGER
पावरग्रिड / POWERGRID
उ.प.वे. उदयपुर / NER UDAIPUR

Refer to letter no:- NEUDP/NERPSIP/EMC-TL/2019-20/637

CLIENT:- POWER GRID CORPORATION OF INDIA LIMITED
LINE NAME:- 132 KV DC UDAIPUR - ANARPUR TRANSMISSION LINE
Contractor:- TEEMS INDIA TOWERLINES PVT. LTD.

Check Survey report from AP-18 to AP-23, AP-24 to AP-37, AP-38 to AP-41, AP-42 to AP-44, AP-45 to AP-47

SL. NO.	LOC. NO.	AS PER DETAIL SURVEY						AS PER CHECK SURVEY						X-ING/REMARKS			
		TYPE OF TOWER	ACD	SPAN IN MTR.	SEC. LENGTH	REDUCED LEVEL(M)	NORTHING	EASTING	TYPE OF TOWER	ACD	SPAN IN MTR.	Sec. of Adj. Span	SEC. LENGTH		REDUCED LEVEL(M)	NORTHING	EASTING
42																	
43	AP-38	DC-H	19°17'34"11			182.7	2599419.39	357404.06	DC-H	20°3'42"17		153		188.918	2599439.06	357392.11	SAME POSITION #
44	AP-39	DB-H	17°17'28"87	151		178.92	2599429.86	357454.22	DB-H	17°50'27"80	323	520	151	132.429	2599415.47	357450.38	SLIGHT CHANGE FOR BETTER POSITION #
45	AP-40	DB-H	15°33'31"87	348		387.25	2599393.18	357779.35	DB-H	16°53'14"30	347	624	388	144.269	2599295.40	357776.66	SLIGHT CHANGE FOR BETTER POSITION #
46	AP-41	DC-H	27°38'41"11			749	2599154.89	357985.06	DC-H	28°39'42"17		297	767	169.254	2599135.63	357988.14	CHANGED FOR BETTER POSITION #
47	AP-42	DB-H	16°08'35"11			213.65	2599132.42	358177.77	DB-H	16°51'24"11		174		172.459	2599181.92	358174.35	SAME POSITION #
48	AP-43	DC-H	20°38'32"11	172		207.11	2599146.16	358348.97	DC-H	21°07'27"11	334	487	174	140.096	2599147.84	358350.34	SLIGHT CHANGE FOR BETTER POSITION #
49	AP-44	DB-H	06°17'31"87	380		502	2599287.00	358641.05	DB-H	07°22'21"87	333	521	487	147.239	2599287.22	358642.35	SAME POSITION #
50	AP-45	DB-H	09°17'54"81			219.43	2599326.85	358749.83	DB-H	09°57'05"87		292		150.088	2599328.17	358751.17	SLIGHT CHANGE FOR BETTER POSITION #
51	AP-46	DB-H	09°40'21"87	306		306	2599360.83	359056.15	DB-H	07°38'31"87	231	529	292	139.58	2599360.40	359058.33	SAME POSITION #
52	AP-47	DB-H	01°37'08"11	318		544	2599361.68	359286.36	DB-H	03°34'48"11	231	523	292	139.052	2599361.88	359284.76	SAME POSITION #

FOR TEEMS INDIA TOWERLINES PVT. LTD. CHENNAI

SURVEYED BY: *[Signature]*
FOR TEEMS INDIA
PRADIP KUMAR
PROJECT MANAGER

SUBMITTED BY: *[Signature]*
SUBMITTED BY:

FOR TEEMS INDIA
PIJUSH KANTI CHATTERJEE
ASTT. PROJECT ENGINEER

RAJU SHREEDHARAN
Chief Project Manager.

[Signature]
एच. के. नाग / M.K. NAG
उप महाप्रबन्धक / Dy. GENERAL MANAGER
पावरग्रिड / POWERGRID
उ. पू. शे. उदयपुर / NER UDUPUR

FOR POWER GRID CORPORATION OF INDIA LIMITED

CHECKED BY: *[Signature]*
RECOMMENDED BY: *[Signature]*
APPROVED BY:

FOR EMC LIMITED
(ABHIJIT DEY)
PROJECT MANAGER

[Signature]
एच. के. कलुशकर / H.K. TALUKDAR
महा प्रबन्धक / GENERAL MANAGER
पावरग्रिड / POWERGRID
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Refer to Letter no:-
NEUDP/NERPSIP/EMC-TL/2019-20/687