Compensation Plan for Temporary Damages

June 2017

IND: Green Energy Corridor and Grid Strengthening Project
(400 kV AC power transmission systems associated with HVDC terminal stations at Pugalur, Tamil Nadu)

Prepared by Power Grid Corporation of India Limited for the Asian Development Bank.

COMPENSATION PLAN FOR TEMPORARY DAMAGES (CPTD)

FOR

AC SYSTEM STRENGTHENING AT PAGALUR END

ENVIRONMENT AND SOCIAL MANAGEMENT

POWER GRID CORPORATION OF INDIA LTD.

(A GOVERNMENT OF INDIA ENTERPRISE)

April, 2017

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LIST OF ENCLOSURES

LIST OF ABBREVIATIONS

AP	Affected Person
ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
CEA	Central Electricity Authority
CTU	Central Transmission Utility
CP	Compensation Plan
CPTD	Compensation Plan for Temporary Damages
CSR	Corporate Social Responsibility
DPSP	Directive Principles of State Policy
DC	District Collector
DP	Displaced Person
EPS	Electric Power Survey
ESS	Environment and Social Standard
ESMD	Environment and Social Management Department
ESMC	Environmental & Social Management Cell
ESMT	Environmental & Social Management Team
ESPP	Environmental and Social Policy & Procedures
EA	Executing Agency
FGD	Focus Group Discussion
GW	Giga Watt
GOI	Government of India
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HVDC	High Voltage Direct Current
IPP	Independent Power Producers
INRs	Indian National Rupees
IP	Indigenous People
IR	Involuntary Resettlement
kV	Kilo volt
Km	Kilometer
LA	Land Acquisition
LAA	Land Acquisition Act
MoP	Ministry of Power
M&E	Monitoring and Evaluation
MoEFCC	Ministry of Environment, Forest & Climate Change
NoC	No Objection Certificate
O&M	Operation and Maintenance
PESA	Panchayats (Extension to Scheduled Areas) Act, 1996
PTCC	Power and Telegraph Coordination Committee
PGCIL/POWERGRID	Power Grid Corporation of India Limited
R&R	Resettlement and Rehabilitation
RP	Resettlement Plan
RHQ	Regional Head Quarter
RoW	Right of Way
SCs	Scheduled Castes
SPS	Safeguard Policy Statement
STs	Scheduled Tribes
SMP	Social Management Plan
SQ.M.	Square Meters
SCM	Standing Committee Meeting
SEBs	State Electricity Boards
TANTRANCO	Tamil Nadu Transmission Corporation Limited
RFCTLARR	The Right to Fair Compensation and Transparency in Land, Acquisition, Rehabilitation and Resettlement Act
USD	United States Dollar

GLOSSARY

Involuntary Resettlement covers physical displacement (relocation, loss of residential land or loss of shelter) and economic displacement (loss of land or access to land loss of assets or access to assets, income sources or means of livelihood) as a result of: (a) involuntary acquisition of land; or (b) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers such displacement whether such losses and involuntary restrictions are full or partial, permanent or temporary.

Land Acquisition refers to all methods of obtaining land for Project purposes, which may include outright purchase, expropriation of property and acquisition of access rights, such as easements or rights of way, and changes in land use rights. Land acquisition may also include: (a) acquisition of unoccupied or unutilized land whether or not the landholder relies upon such land for income or livelihood purposes; and (b) repossession of public land that is used or occupied by individuals or households. “Land” includes anything growing on or permanently affixed to land, such as crops, buildings and other improvements.

Affected Household means project affected household consisting of such persons, his or her spouse, minor sons, unmarried daughters, minor brothers or unmarried sister, father, mother and other members residing with him/her and dependent on him/her for their livelihood.

Displaced Person (DP) In the context of involuntary resettlement, displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

Compensation means payment in cash or in kind of the replacement value of the acquired property.

Rehabilitation means the measures provided under the resettlement plan other than payment of the compensation of acquired property.

Replacement Cost means the method of valuing assets to replace the loss at market value before the project or dispossession, or its nearest equivalent, plus any transaction costs such as administrative charges, taxes, registration, and titling costs. Replacement cost is based on market value before the project or dispossession, whichever is higher.

Resettlement means all the measures taken to mitigate all or any adverse impacts of the project on the DPs property and/or livelihoods including compensation, relocation (where relevant), and rehabilitation;

Block is an administrative sub-division within a district.

Panchayat is an elected Village Council /the third tier of decentralized governance

Sarpanch is an elected head of the Gram Panchayat

Tehsil a revenue sub-division, within a district

Zila/**District** is the first administrative division at the state level.

EXECUTIVE SUMMARY

i. The Compensation Plan for Temporary Damages (CPTD) has been prepared for the Project, which is proposed to be co-financed by Asian Development Bank (ADB) & Asian Infrastructure Investment Bank (AIIB). The Project is categorized as 'B' for Involuntary Resettlement (IR) and "C" for Indigenous Peoples impact, as per the ADB's & AIIB's safeguard category CPTD is based on POWERGRID's Environmental and Social Policy & Procedures, 2009 (ESPP), ADB Safeguard Policy Statement 2009 (SPS) and AIIB's Environmental and Social Framework, 2016 . The Executing Agency (EA) is the Power Grid Corporation of India Limited (POWERGRID) who will also be responsible for implementing the Project. The Compensation Plan for Temporary Damages (CPTD) is guided by The Electricity Act, 2003, The Indian Telegraph Act, 1885, ESPP, SPS and AIIB's Environmental and Social Policy and Standards, 2016 (ESPS).

ii. The CPTD has been prepared based on the preliminary route survey/ investigation. The impacts are temporary in nature in terms of temporary impacts of land and loss of crops. Additionally, loss of tress is also foreseen. Temporary impacts are mostly foreseen during the project implementation/construction. Therefore, the CPTD remains as a draft, as final survey is not done yet and actual temporary impacts shall be known only during implementation which will be based on the detailed design and final survey once the construction contractor is mobilized for implementation. POWERGRID provides compensation for actual damages, which are temporary in nature. Exact location of tower is known only after detail survey/check survey. Check survey is done progressively during the construction of the transmission line. Normally the work is done in off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission lines in three stages i.e. after completion of foundation, tower erection and conductor stringing. The payment of compensation may also be paid in three instances, if there are different damages during above three activities. CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted by POWERGRID.

iii. The proposed project investment components covered under Scheme-2 of HVDC Bipole Raigarh-Pugalur- North Thrissur line being co-financed by ADB & AIIB will consist of 5 new transmission lines and construction/ extension of 16 numbers of bays at different substations in the State of Tamil Nadu. Bay extensions will be done within the existing substations and the land belongs to POWERGRID (at Pugalur (new) and Arasur, Thiruvalam, Pugalur & Udumulpet (existing) substations. The details are given as below.

Five New Transmission Lines:

a. Pugalur HVDC Station - Pugalur (Existing) 400kV (Quad) D/c line – 55 km approx.;
b. Pugalur HVDC Station - Arasur 400kV (Quad) D/c line - 58 km approx.;
c. Pugalur HVDC Station - Thiruvalam 400kV (Quad) D/c line – 390 km approx.;
d. Pugalur HVDC Station – Edayarpalayam (TANTRANSCO) 400kV (Quad) D/c line- 56 km approx.;
e. Edayarpalayam (TANTRANSCO) - Udumulpet 400kV (Quad) D/c line- 56 km approx.

Sixteen Bays Construction at Existing Substations

a. 8 nos. of 400kV line bays at Pugalur HVDC Station for termination of 4 nos. of 400kV Quad lines.;

b. 2 nos. of 400kV line bays at Arasur for terminating Pugalur HVDC Station – Arasur 400kV (Quad) D/c line;
c. 2 nos. of 400kV line bays at Thiruvalam for terminating Pugalur HVDC Station – Thiruvalam 400kV (Quad) D/c;
d. 2 nos. of 400kV line bays at Pugalur (Existing POWERGRID substation) for terminating Pugalur HVDC Station – Pugalur (Existing) 400kV (Quad) D/c line;
e. 2 nos. of 400kV line bays at Udumulpet for terminating Edayarpalayam –Udumulpet 400kV (Quad) D/c line.

iv. Land acquisition is not required for transmission lines and tower[1] under the proposed financing components. Therefore, no physical displacement is foreseen in the project. Impacts are temporary in nature in terms of loss of crops and trees. Preliminary investigation/survey has been carried out for transmission lines to estimate/arrive at for selection of one best feasible alignment route out of 3 alternative alignments studied, for detailed survey to be undertaken during execution of main contracts. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though RoW is 46 meter for 400kV lines, but average affected width/corridor would be limited to 40 meter (maximum). All the estimations in the CPTD have been done on the basis of preliminary survey. The actual impacted area for crops and others damage would be limited to 40 meter maximum width. It is estimated that a total of 6993.00 acres including 912 acres of land adjoining the towers foundation area will be affected due to placing of total 1845 towers.

v. Public participation and community consultations are an integral part of the project's social and environmental assessment process. Public is informed about the project at every stage of project preparation and execution. During survey also POWERGRID's site officials meet people and inform them about the routing of transmission lines. During the construction, every individual, on whose land tower is erected and people affected by RoW, will be consulted. There were altogether five public consultations and several informal group meetings held between December 2015 and May 2016 during preliminary survey/investigations of the entire routes of transmission lines. The process of such consultations are to be continued during project implementation and even during O&M stage. The draft/summary CPTD will be disclosed by the POWERGRID to the affected households and other stakeholders by placing it on website. POWERGRID site officials visit construction sites frequently during construction and meet with APs and discuss about norms and practices of damages and compensation to be paid for them. Affected persons also visit site/construction offices of POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD and Entitlement Matrix in Tamil will be placed at construction offices/ sites.

vi. GRM is an integral part of project implementation, operation and maintenance stage of the project. For handling grievance, Grievance Redress Committee (GRC) will be established at two places, one at the project level and another at corporate level. The GRCs shall include members from POWERGRID, Local Administration, Panchayat Members, Affected Persons representative and reputed persons from the society on nomination basis under the chairmanship of project head. The composition of GRC shall be disclosed in Panchayat offices and concerned district headquarter for wider coverage. In case of any complaint, GRC meeting shall be convened within 15 days. If project level GRC not able to take decision it may refer the complaint to corporate GRC for solution. GRC endeavor will be to pronounce its decision within

[1] As per the present provision in the Electricity Act, 2003 read with relevant provisions of Indian Telegraph Act, 1885 all the damages (without acquisition of subject land) accrued to person while placing the tower and line are to be compensated.

30-45 days of receiving grievances. In case complainant/appellant is not satisfied with the decision of project level GRC they can make an appeal to corporate GRC for review. The proposed mechanism does not impede access to the country's judicial or administrative remedies at any stage. Further, Grievance redressal is also in built tree/crop compensation in the 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 also provides forum for raising the grievance towards any irregularity/complaint.

vii. The CPTD is based on ADB's SPS, AIIB's ESPS as well as on the Borrower's domestic policy instruments and laws. Being a transmission project, the relevant national laws applicable for this project are (i) The Electricity Act, 2003 (ii) The Indian Telegraph Act, 1885, (iii)MoP Guidelines Oct.' 2015 on Compensation for RoW. The compensation principles adopted for the project shall comply with applicable laws and regulations of the Governments of India, POWERGRID's ESPP as well as ADB's SPS, AIIB's ESPS.

viii. APs will be entitled for compensation for temporary damages to land and crops/trees/structures as per the Entitlement Matrix given in **Table E.1**. Temporary damage will occur during construction of transmission lines for which compensation is paid as per relevant norms. All APs are paid compensation for actual damages irrespective of their religion, caste and their economic status. As an additional assistance, construction contractors are encouraged to hire local labour that has the necessary skills. Provision for one-time lumpsum assistance to vulnerable households is made on recommendation of State Authority. POWERGRID will provide compensation to all APs including non-title holders as already mentioned in the Entitlement Matrix.

Table E-1: Entitlement Matrix

S. N	Type of Issue/ Impact	Beneficiary	Entitlement Options
1.	Loss of crops and trees	Title Holder	Compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops. Timber will be retained by the owner.
2.	Loss of crops and trees	Tenant/ sharecropper / leaseholder[2]	Only the cultivator[3] will get compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops.
3.	Other damages (if applicable)	All APs[4]	Replacement cost as assessed by the concerned authority.
4.	Loss of structure		
	a) House		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation at replacement cost (without deduction for salvaged material) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house

[2] This may include non-titled Aps.
[3] Powergrid will explain to AP tenant/sharecropper/leaseholder that the compensation will be provided to the cultivator and the sharing arrangements will have to be determined among themselves.
[4] Titled and Non-titled.

S. N	Type of Issue/ Impact	Beneficiary	Entitlement Options
			plus transition benefits as per category-5 below
	b) Shop/ Institutions		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation plus Rs. 10,000/- for construction of working shed/shop plus rehabilitation assistance equivalent to 1 year income plus transition benefits as per category-5 below
5.	Losses during transition of displaced persons/ establishments/ Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place
6	Impacts on vulnerable APs	Vulnerable APs[5]	One time lumpsum assistance to vulnerable households on recommendation of State Authority. This will be paid over and above other assistance. Vulnerable APs to get priority under Corporate Social Responsibility (CSR) activities.
7	Land area below tower base	Owner	85% of land cost as decided by District Magistrate **(#)**
8	Land coming in corridor of width of Right of Way	Owner	15% of land cost as decided by District Magistrate **(#)**

(#) As per MoP guidelines dated 15.10.15.regarding payment of compensation for damages in respect to RoW for transmission line

ix. No physical displacement is envisaged in the proposed project. Major damages in transmission line are not envisaged due to flexibility of routing of transmission line. Transmission line construction is done mainly in the lean period to reduce damages to crops. Displacement of structures is normally not envisaged in the transmission line projects. However, whenever it is necessary, compensation for structures as per entitlement matrix shall be provided. The CPTD implementation cost estimate for the project includes eligible compensation for loss of crops, trees and structures, and support cost for implementation of CPTD, monitoring, other administrative cost etc. This is a tentative budget, which may change during the original course of implementation and therefore 3% contingency is made under the budget. The total indicative cost is estimated to be INR 28498.71 Lakhs equivalent to USD 43.84 million.

x. POWERGRID will be the Implementing Agency (IA) for the Project. The implementation and monitoring are critical activities shall be followed as per Implementation Chart/Schedule provided in **Chapter-X**. Monitoring is a continuous process for POWERGRID projects at all the stages, be it the site selection, construction or maintenance. The success of POWERGRID lies in its strong monitoring systems. Apart from the site managers reviewing the progress on daily basis regular project review meetings are held at least on monthly basis which is chaired by Executive Director of the region wherein apart from construction issues the environmental and social aspects of the projects are discussed and remedial measures taken wherever required. The exceptions of these meetings are submitted to the Directors and Chairman & Managing Director (CMD) of the Corporation. The progress of various on-going projects is also informed

[5] Vulnerable APs include scheduled tribes/ scheduled caste/ households headed by women/ physically handicapped/ disabled families, etc. as certified by local authority.

to the Board of Directors. POWERGRID has a separate Environment and Social Management Department (ESMD) at Corporate Centre and Environment and Social Management Cell (ESMC) at RHQ to monitor environment and social issues. At site level, Environment and Social Management Team (ESMT) will be constituted for implementation and monitoring of CPTD.

xi. Public consultation and internal monitoring will be continued in an intermittent basis for the entire duration of project. Monitoring will be the responsibility of POWERGRID. POWERGRID will submit semi-annual monitoring reports on their implementation performance and submit the reports to ADB & AIIB for disclosing the same on their website. POWERGRID will engage the services of an independent agency/external monitoring, if required.

I. INTRODUCTION AND PROJECT DESCRIPTION

A. Project background

1. POWERGRID, the Central Transmission Utility (CTU) of India is engaged in power transmission with the mandate for planning, coordination, supervision and control over complete Inter-State transmission system. This transmission network, spread over length and breadth of India, is consistently maintained at an availability of over 99% through deployment of state-of-the-art operation & maintenance techniques at par with global standards. About 50 % of total power generated in India is wheeled through transmission network. POWERGRID has been contributing significantly towards the development of India power sector by undertaking coordinated development of power transmission network along with effective and transparent operation of regional grids and through continuous innovations in technical and managerial fields.

2. To supplement overcoming the power deficit and to enhance capacity of electricity supply in South Indian region, POWERGRID had taken up the proposed implementation of HVDC link with a capacity of 6000 MW. Considering conservation of RoW problem in Kerala and dispersal of power beyond Pugalur, establishment of VSC (Voltage Source Converter) based 2000 MW HVDC link between Pugalur and North Thrissur (Kerala) has also been proposed. The proposed project shall be built as three separate schemes as following:

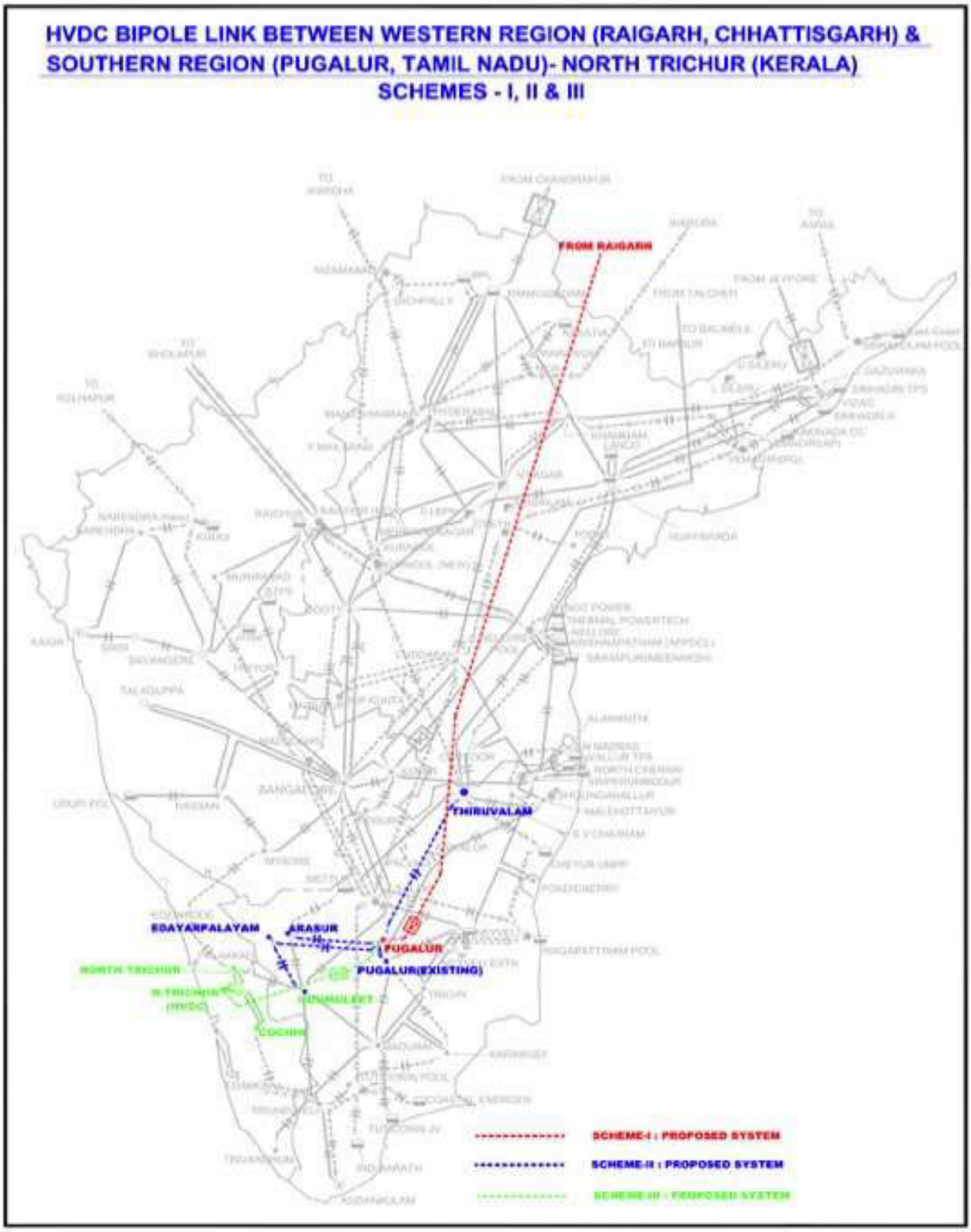
Scheme - 1: Raigarh - Pugalur 6000 MW HVDC System;
Scheme - 2: AC System strengthening at Pugalur end; and
Scheme - 3: Pugalur - Thrissur 2000 MW VSC Based HVDC System.

3. The Scheme-1 covering HVDC terminals and underground portion of Scheme-3 are being funded by ADB. The component under Scheme-2 is co-financed by ADB along with AIIB. An Initial Environmental Examination Report (IEER) and this Compensation Plan for Temporary Damages (CPTD) have been prepared in consistent with POWERGRID's ESPP and ADB's SPS & AIIB's ESPS. The details of schemes including the proposed subprojects are presented in the **Figure 1.1**.

B. Objective of the Compensation Plan for Temporary Damages (CPTD)

4. The primary objective of the CPTD is to identify temporary impacts and to plan measures to mitigate losses likely to be caused by the projects. The CPTD is guided by national policy and legal framework such as The Electricity Act, 2003, The Indian Telegraph Act, 1885, Ministry of Power's guidelines for payment of compensation towards damages in regards to right of way for transmission line, POWERGRID's ESPP and ADB's SPS & AIIB's ESPS. The CPTD is based on the general findings of desk review, preliminary field assessments, and consultations with various stakeholders.

Figure 1.1: Power Map along with proposed project



C. Project Components

5. The proposed project investment components under Scheme-2 includes laying of five transmission lines and construction of 16 bays at various existing substations as detailed below:

(i) Five New Transmission Lines

a. Pugalur HVDC Station - Pugalur (Existing) 400kV (Quad) D/c line – 55 km approx.;
b. Pugalur HVDC Station - Arasur 400kV (Quad) D/c line - 58 km approx.;
c. Pugalur HVDC Station - Thiruvalam 400kV (Quad) D/c line – 390 km approx;
d. Pugalur HVDC Station – Edayarpalayam (TANTRANSCO) 400kV (Quad) D/c line- 56 km approx.;
e. Edayarpalayam (TANTRANSCO) Udumulpet 400kV (Quad) D/c line- 56 km approx..

(ii) Sixteen Bays Construction at Existing Substations

a. 8 nos. of 400kV line bays at Pugalur HVDC Station for termination of 4 nos. of 400kV Quad lines;
b. 2 nos. of 400kV line bays at Arasur for terminating Pugalur HVDC Station – Arasur 400kV (Quad) D/c line
c. 2 nos. of 400kV line bays at Thiruvalam for terminating Pugalur HVDC Station – Thiruvalam 400kV (Quad) D/c line along with line reactors as mentioned above.
d. 2 nos. of 400kV line bays at Pugalur (Existing POWERGRID stn) for terminating Pugalur HVDC Station – Pugalur (Existing) 400kV (Quad) D/c line.
e. 2 nos. of 400kV line bays at Udumulpet for terminating Edayarpalayam –Udumulpet 400kV (quad) D/c line.

D. Scope and Limitation of the CPTD

6. Based on the assessment of proposed project components and intervention, it has been established that there will be no permanent land acquisition required and the anticipated project impacts are temporary in nature in terms of loss of crops and trees only. The Project is categorized as 'B'[6] for Involuntary Resettlement (IR) and "C" for Indigenous Peoples impact, as per the ADB's & AIIB's safeguard category.

7. The impacts are temporary in nature in terms of loss of crops in the Right of Way. Additionally, loss of trees is foreseen.The detailed assessments of these temporary impacts are possible after finalization of alignment drawings during the project implementation period only. However, this draft CPTD has been prepared based on the preliminary route investigation/ survey and tentative estimation of impacts conducted by POWERGRID. The actual temporary impacts shall be known only during implementation, which will be based on the detailed design and final survey once the construction contractor is mobilized for implementation.

8. POWERGRID provides compensation for actual damages, which are temporary in nature. Exact location of tower is known only after detail survey/check survey. Check survey is done progressively during the construction of the transmission line. Normally the work is done in

[6] A proposed project is classified as category B if it includes involuntary resettlement impacts that are not deemed significant which means less than 200 persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets (income generating). The level of detail and comprehensiveness of the resettlement plan are commensurate with the significance of the potential impacts and risks.

off season when there is no standing crop. The compensation for damage is assessed in actual after construction activities of transmission lines in three stages i.e. after completion of foundation, tower erection and conductor stringing. The payment of compensation may also be paid in three instances, if there are different damages during above three activities.CPTD updation will be a continuous process during construction of line for which updated semi-annual CPTD monitoring report shall be submitted by POWERGRID.

E. Measures to Minimize Impact

9. For transmission components, POWERGRID has selected and finalised the routes with due consideration of the avoidance or minimization of impacts towards temporary damages on crops/ trees/ structures if any coming in the Right of Way (RoW). During the selection of routes, POWERGRID also carried out public consultations to seek feedback from people in developing the measures towards minimizing negative social impacts, if any. Avoidance and minimization of adverse impacts are very much in line with POWERGRID's ESSP, ADB's SPS and AIIB's ESPS.

10. For transmission line there is no permanent land acquisition involved as per applicable legal framework i.e. in exercise of the powers under Indian Telegraph Act-1885. Part 3, section 10 to 19 conferred under section 164 of the Electricity Act 2003 through Gazette by India, extra ordinary dated 24th Dec. 2003, has the mandate to place and maintain transmission lines under/ over/ along or across and posts in or upon, any immoveable property. However, clause 10 (d) of same act stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Therefore, POWERGRID has developed a procedure which is designed to minimize impacts, during the preliminary survey/ investigation (for screening & scoping of the project with at least 3 alternative route alignments), thereafter during detailed survey (spot)/design followed by foundation work, tower erection and during the stringing of conductors.

11. All tower foundations and tower footings are dug and laid, including transportation of material and land clearance, generally at the end of a crop season to avoid impacts on cultivations and need for compensation. After construction of transmission towers, farmers are allowed to continue agricultural activity below tower.

12. Because the concrete needs time to dry and settle, all towers are erected normally three weeks later, after the end of the following crop season and before the following one.

13. Given the limited time needed for the stringing, the latter can be done right after the tower construction, before the following crop season.

14. For this reason no household is significantly affected due to the project. Thus, productive loss due to construction is negligible. However, due care shall be taken to avoid damages to crop/trees by taking up the construction activities during lean period or post-harvest season. As per the prevailing norms farming activity shall be allowed after the construction work is completed. All affected farmers will be compensated for all sorts of damages during construction as per the laid down procedure.

F. Route Selection and Study of Alternatives

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

(i) The route of the proposed transmission lines does not involve any human displacement/rehabilitation.
(ii) Any monument of cultural or historical importance is not affected by the route of the transmission line.
(iii) The proposed route of transmission line does not create any threat to the survival of any community with special reference to Tribal Community.
(iv) The proposed route of transmission line does not affect any public utility services like playgrounds, schools, other establishments etc.
(v) The line route does not pass through any National Parks, Sanctuaries etc.
(vi) The line route does not infringe with area of natural resources.

16. In order to achieve this, POWERGRID undertakes route selection for individual transmission line in close consultation with representatives of concerned Forest Department and the Department of Revenue. Although under the law, POWERGRID has the 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.

a. As a rule, alignments are generally cited away from major towns, whenever possible, to account for future urban expansion.
b. 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.
c. Alignments are selected to avoid wetlands and unstable areas for both financial and environmental reasons.

17. In addition, care is also taken to avoid National Parks and Wildlife Sanctuaries and any other forest area rich in wildlife. Keeping above in mind the route of proposed line has been so aligned that it takes care of above factors. As such different alternatives were studied with the help of Govt. published data like Forest atlas, Survey of India topo maps, satellite imageries etc. to arrive at most optimum sections of the route which can be taken up for detailed survey and assessment of environmental & social impacts for their proper management.

18. The comparative details of three alternatives in respect of all the five proposed lines are presented in **Annexure-1**.

II. PROJECT IMPACTS

A. General

19. The project does not require any private land acquisition for construction of transmission lines or bays constructions under the proposed financing components. Therefore, no physical displacement is foreseen in the project. It is envisaged that the temporary impacts on loss of crops and trees are caused due to transmission lines and placing of transmission towers. Preliminary investigation/survey has been carried out for transmission lines to estimate/arrive at for selection of one best feasible alignment route out of 3 alternative alignments studied, for which detailed survey to be undertaken during execution of main contracts. Therefore, preparation of Compensation Plan Temporary Damages (CPTD) for proposed transmission system has been done after the preliminary investigation/survey. All the assessments in the draft CPTD are based on preliminary survey and estimations. During Preliminary survey/ investigation carried out in entire route, the details of land have been assessed to have an idea about the temporary damages might occur during construction of the transmission line. The corridor of width (RoW-Right of Way) required for these 400 kV D/C transmission lines is 46 meters. The temporary impacts on loss of crops and trees are caused due to transmission line and placing of transmission towers.

B. Project Impacts on Land

20. The proposed project under Scheme-2 includes following two components-

- Laying of five transmission lines, and
- Construction of 16 bays at various existing substations

21. The preliminary surveys has revealed that the proposed project is likely to trigger pre-dominantly (a) Temporary impacts on land due to transmission footage and transmission lines/right of way (b) Temporary impacts on crops and trees.

B1. Construction/ Extension of Bays

22. The Project components will consist of extension work of bay (16 numbers). The bay extensions will be done within the existing substations where lands are already available/in possession. Since no fresh land acquisition is involved, R&R will not be an issue in the instant project. The details are provided in Table 2.1.

Table 2.1: Details of Bays to be constructed

S.N.	Substation	Number of Bays	Land Ownership
1	Pugalur HVDC (New construction under Scheme -2)	8	POWERGRID
2	Arasur (Existing)	2	POWERGRID
3	Thiruvalam (Existing)	2	POWERGRID
4	Pugalur (Existing)	2	POWERGRID
5	Udumulpet (Existing)	2	POWERGRID

Source: Preliminary Survey

B2. Land Impacts due to Transmission Tower Footage

23. The land requirement for erection of tower legs is very small i.e. for each leg of tower actual construction area ranges from 300 mm to 450 mm, a small square area of about 0.09 sq.m. to 0.18 sq.m. depending on the type of tower. Four such square pieces of land will be required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for an average 400kV D/C transmission tower is approximately 1 sq.m. of land. This impact on agriculture land is negligible. However, after construction is over agriculture activity can continue.

B3. Land Impacts due to Transmission Lines/ Right of Way

24. The transmission line alignments are done in such a way so as to avoid settlements and / or structures. Due to inherent flexibility in locating the towers, POWERGRID avoids habituated area completely hence no relocation of population on account of lines are envisaged. Transmission line construction does not require any land acquisition. Therefore, no physical displacement is foreseen in the project. Thus, the actual impact is restricted to 4 legs of the tower. Agriculture can continue, as clearly depicted in the **Figure-2.1.**

25. The line corridors will pass through mixed land uses which are generally agricultural land, private plantation, forest, riverine feature and barren unused land etc. The calculations are based on preliminary investigation/ survey carried out along the route of transmission lines and is based on the total line length of each line and its respective right of way[7]. The total line length is 615.00 kilometres which will impact an estimated of 6992.00 acres of land. This includes 5.0 kms of line passing through forest land (59.00 acres of forest land). Details of use of land in the corridor is given in **Table 2.1**.

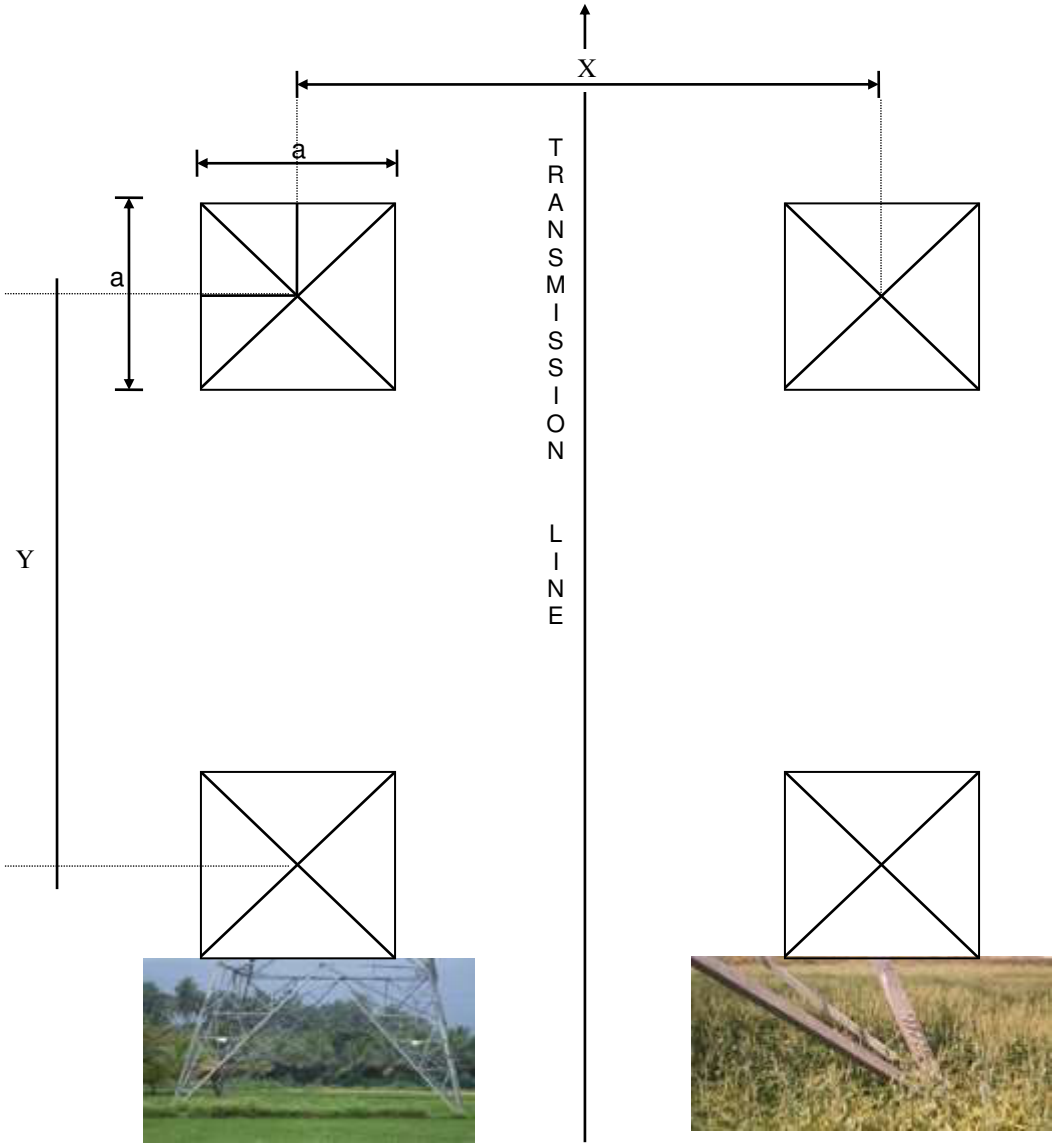
Table 2.1 Use of Land within Corridor of ROW (in Kms/Acre)

Sl No	Name of the Lines	Total Length (Km)	RoW Width (Meter)	Agricultural land (Acre)	Forest (Acre)	Total Land (Acre)
1	Pugalur HVDC Station - Pugalur (Existing) 400kV (quad) D/c	55	46	625	0	625
2	Pugalur HVDC Station - Arasur 400kV (quad) D/c	58	46	659	0	659
3	Pugalur HVDC Station - Thiruvalam 400kV (quad) D/c	390	46	4375	59	4434
4	Pugalur HVDC Station – Edayarpalayam (TANTRANSCO) 400kV (quad) D/c	56	46	637	0	637
5	Edayarpalayam (TANTRANSCO) Udumulpet 400kV (quad) D/c	56	46	637	0	637
TOTAL		**615**		**6933**	**59**	**6992**

Source: Preliminary Survey

[7] Total Line Length (Kilometers) X Right of Way (meters)X1000/ 4046= Area in Acre.

Figure 2. 1: Typical Plan of Transmission Line Tower Footing



ACTUAL POSITION ON GROUND

INDICATIVE MEASURES
X & Y = 10-15 METERS
a = 300- 450 mm

B4. Impacts on Crops and Trees

26. Construction of line in crop and fruit bearing season is avoided as far as possible. In case of crops a detailed survey is conducted looking at existing crops, general crop patterns, seasonal particulars, nature and extent of yield. The compensation is calculated in consultation with revenue authorities in terms of yield/hectare and rate/quantity for prevailing crops in the area. Similarly, in case of trees compensation is calculated on basis of tree enumeration, tree species and an estimate of the yield. In case of fruit bearing trees compensation will be calculated on the basis of 8 years yield (assessed by revenue/horticulture department). Market rates of compensation are assessed by the relevant government authorities. In this project, the estimation of crop and tree damages are not clear at preliminary stage. However, budgetary provisions (refer **Table -8.3**) are made to address the issues if such estimation comes after detailed survey during the time of implementation.

B4.1 Affected Land area or Actual impact on Crop and others

27. For the temporary loss of crops, only agricultural land and private plantation land are considered for estimation. Though RoW is 46 meter for 400kV lines, but average affected width/corridor would be limited to 40 meter (maximum). Further, to reduce the damages to crops and to minimize the impact POWERGRID will schedule the construction activities in lean season or post-harvest periods. Previous projects executions of POWERGRID show only 45% crop damages on an average even within the area of width 40 meter. For the purpose of calculation of loss of crops and others (impact), average 40 meter width has been considered for the lines though on higher side. The damages is not done in complete RoW (46 m for 400 kV D/c), it is mostly restricted to tip to tip of the conductor (approx. 20 m for 400 kV). Calculation is done on higher side i.e. 40 m considering other damages. Further, actual area of private plantation is included in the agriculture land however, a separate head of budget provision has been kept for such losses which will be verified during project execution. Brief description about the type of land in 40 meter corridor (width) of above Transmission Line is given in **Table 2.2:**

Table 2.2: Estimation on Loss of Land for Crop Damage due to Overhead Tr. Lines

Sl No	Name of the Lines	Width Considered for Estimation of Loss of Crops and other (meter)	Total Agricultural Land including Private Plantation (Acre)	Total Land Area considered for Crop Compensation with 40 meter width (Acre)
1.	Pugalur HVDC Station - Pugalur (Existing) 400kV (Quad) D/c	40	625	544
2.	Pugalur HVDC Station - Arasur 400kV (Quad) D/c	40	659	573
3.	Pugalur HVDC Station - Thiruvalam 400kV (Quad) D/c	40	4434	3856
4.	Pugalur HVDC Station – Edayarpalayam (TANTRANSCO) 400kV (Quad) D/c	40	637	554
5.	Edayarpalayam (TANTRANSCO) - Udumulpet 400kV (Quad) D/c	40	637	554
TOTAL		**40**	**6992**	**6081**

Source: Preliminary Survey

B4.2 Loss of Crops Caused due to Transmission Towers

28. During tower foundation, additional area adjoining the actual foundation area will be affected. For estimation purpose, additional area of 2000 sq.m. [(60mX60m)-(40mX40m)] per tower has been considered. Additionally, 912 Acre of land is estimated for crop compensation due to placing of 1845 tower footings. Details are given in **Table 2.3**:

Table 2.3: Loss of Crop Area estimated for Tower Footings

Sl. No.	Name of the Lines	No of Towers	Area Affected (Acre)
1.	Pugalur HVDC Station - Pugalur (Existing) 400kV (Quad) D/c	170	84
2.	Pugalur HVDC Station - Arasur 400kV (quad) D/c	170	84
3.	Pugalur HVDC Station - Thiruvalam 400kV (quad) D/c	1200	593
4.	Pugalur HVDC Station – Edayarpalayam (TANTRANSCO) 400kV (quad) D/c	155	77
5.	Edayarpalayam (TANTRANSCO)- Udumulpet 400kV (quad) D/c	150	74
TOTAL		**1845**	**912**

Source: Preliminary Survey,

29. Based on the above estimation, the total land considered for crop compensation for transmission line corridor and tower foundation is 6993 Acre (6081+912). As the assets of any sorts will not be acquired but for temporary damage to crops/trees or any other structures, adequate compensation as per norms shall be paid to all affected APs. During construction, only temporary damages will occur for which the compensation shall be paid as per entitlement matrix.

30. Loss of private trees will be estimated during detail survey at the time of execution of the project. A budgetary provision is however, made to compensate the loss.

B5. Other Damages

31. As far as possible damages to bunds, water bodies, fish ponds, approach paths, drainage and irrigation canals etc are avoided. However, if damaged compensation as per practice is paid after assessment of the cost of damage by the State Govt. Revenue Department. The total estimate is submitted for approval to the competent authority. POWERGRID pays the compensation to owners in the presence of local revenue authorities or Village head/ Sarpanch and respective acknowledgements are obtained. Any hindrances to power, telecom carrier & communication lines etc. shall also be paid as per Govt. norms.

C. Impact on Gender

32. The predominant activity of women is household work, where they spend most of their time. Additionally, women are also involved in agriculture activity. Women will not be affected negatively due to the project. Provision for equal wages and health and safety facilities during the construction will be ensured. As the damages are temporary in nature, which are compensated at market rate and no loss of any asset is involved, hence no negative impact on women is foreseen. Moreover, it is envisaged that any parity in payment for equal amount of damages at same locations will lead to tension in social fabric of the locality.

D. Impact on Indigenous Peoples

33. Government of India, under Article 342 of the Constitution, considers the following characteristics to define indigenous peoples (Scheduled Tribes (ST)):

(i) tribes' primitive traits;
(ii) distinctive culture;
(iii) shyness with the public at large;
(iv) geographical isolation; and
(v) social and economic backwardness before notifying them as a Scheduled Tribe.

34. 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 Peoples. Indigenous people are also characterized by cultural continuity. Constitution of India identifies schedule areas which are predominately inhabited by such people.

35. In Tamil Nadu state, the tribal population is only 1.1% of the total population (census 2011). The highest numbers of tribal households are found in Salem district (15% of total tribal population). The proposed transmission lines will be traversed through 9 districts of the state and only 5 km length of the Pugalur HVDC Station - Thiruvalam 400kV (quad) D/c line alignment is passing through forest area. However, the preliminary survey conducted by the local POWERGRID division has confirmed that none of the proposed alignment is passing through any schedule area inhibited by indigenous people. Hence, no indigenous population is envisaged to be affected in the project area. After detailed survey, the Certificate by District Collector on applicability of Forest Right Act (FRA) will be obtained as part of forest clearance process if required and included in the CPTD monitoring report.

36. Government of India has notified scheduled area to safeguard the interests of indigenous people. Constitution bestows special power to governor, for validating laws, to be implemented in Scheduled V areas. Similarly, autonomous councils have been constituted to safeguard interests of indigenous people in Scheduled VI areas. Laws such as Panchayats (Extension to Scheduled Areas) (PESA) Act, 1996, extends the vision of self-governance (as enshrined in Directive Principles of State Policy (DPSP) given in constitution), to the Schedule V areas. Several other safeguards are in place to counter the vulnerability imposed upon indigenous people because of their origin and socio economic background. There is no notified scheduled area in Tamil Nadu. As the proposed project is totally confined in the state of Tamil Nadu, so it would not have any impact on indigenous people. Therefore, no specific indigenous people planning is required for the instant project. No laws / policies applicable for indigenous people shall be applicable in project area.

III. SOCIOECONOMIC INFORMATION AND PROFILE

A. General

37. The socio-economic profile of the project areas is based on general information collected from various secondary sources. As the assets of any sorts will not be acquired but for temporary damage to crops/trees or any other structures adequate compensation as per norms shall be paid to all APs. This chapter provides broad socio-economic profile in terms of demography, literacy, employment and other infrastructure etc. in the state of Tamil Nadu and districts through which the lines will traverse. Following section briefly discuss socio-economic profile.

B. Socio-Economic Profile

1. Land Use Pattern

38. Tamil Nadu is situated on the south-eastern side of the Indian peninsula. It is bounded on the east by Bay of Bengal, in the south by the Indian Ocean, in the west by the states of Kerala and Karnataka and in the north by the Karnataka and Andhra Pradesh. Tamil Nadu has a geographic area of 130,058 sq. km, which constitutes 3.96% of the land area of the country. It lies between 08°04' N and 13°34' N latitude and 76°14'E and 80°21'E longitude.

39. The State can be divided into two natural divisions: the eastern coastal plain and the hilly region along the north and the west. Along the whole length of the western part, at a distance from the sea varying from 80 to 160 km runs the range of the Western Ghats, a steep and rugged mass averaging 1220 meters above the sea level and rising to 2440 metres at the highest point. The slopes of the Western Ghats are covered with heavy evergreen forests. The Nilgiris and the Anamalai are the hill groups with the maximum height. The general land use pattern of the state is given in Table 3.1:

Table 3.1: Land Use Pattern in Tamil Nadu

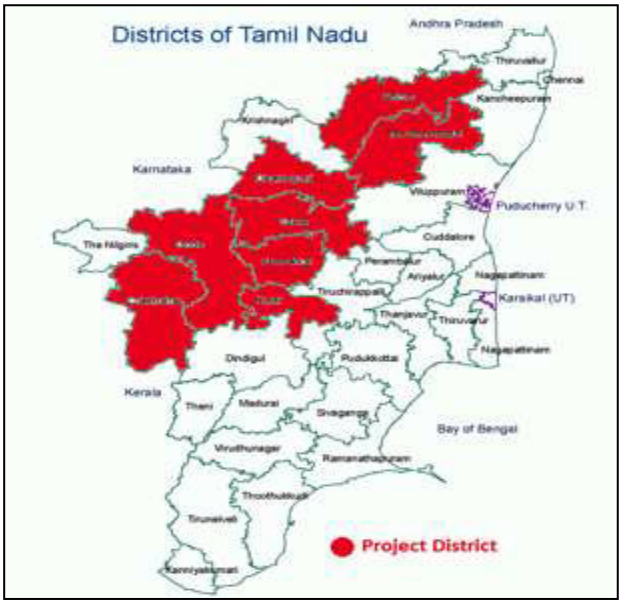
Land use	Area in '000 ha	Percentage
Total Geographical area	13,006	
Reporting Area for land utilization	13,033	100.00
Forests	2,125	16.31
Not available for cultivation	2,672	20.50
Permanent Pasture & Grazing land	110	0.84
Land under misc. tree crops & groves	250	1.91
Culturable waste land	328	2.52
Fallow land & other than current fallows	1,696	13.01
Current fallows	1,308	10.04
Net area Sown	4,544	34.87

Source: Land use statistics, Ministry of Agriculture, GOI, 2012-13

40. Coimbatore district lies between 10°10"-11°30" N latitude and between 76° 40"-77°30" E longitude. It has an area of 7469 sq km and is bounded by the Nilgiris on the north, Erode district on the east, Dindigal district on the south and the State of Kerala on the west.

41. Tiruppur district has been carved out of Coimbatore and Erode districts in the year 2008. The district has total geographical area of 5186.34 sq. km and lies between 11°06′27″N-11°10′75″N latitude and 77°20′23″E-77°33′98″E longitude. Tiruppur district is bounded by Coimbatore district in the west side, Erode district to the north and northeast side and Karur district in the east side and Dindigul district in the south east side and to the south side, it is surrounded by Idukki district of Kerala.

42. Karur district lies between 11°00′N-12°00′N latitude and 77°28′E-77°50′E longitude. The district has a total geographic area of 2895.57 sq. km. and is surrounded by Erode district in the east, Tiruchirapalli district in the west, Namakkal district in the north and by Dindigul district in the south.



43. Namakkal district was created by bifurcating the erstwhile Salem district and created in 1997. The geographical area of the district is 3363.35 sq km and lies between 11°13′-11°36′N latitude and 77°28′-78°30′E longitude. The district is bounded by Perambalur & Salem districts in the east, Erode district in the west, Salem district in the west & Karur district in the south.

44. Erode district lies on the extreme north of Tamil Nadu having geographical area of 5722 sq km and is located between 10°36′N-11°58′N latitude and 76°49′E-77°58′E longitude. The district is surrounded by Karnataka state in north-west, Coimbatore district in the west, Dindugal district and Karur District in the south and Salem and Namakkal district in the east.

45. Salem district is located between 11°14′N-12°53′N latitude and 77°44′E-78°50′E longitude with a total geographic area of 5237 sq kms. Salem District is bordered by the districts of Dharmapuri in the north, Erode in the west, Namakkal in the south, Perambalur in the south and south-east and Viluppuram in the east.

46. Dharmapuri district lies between 11°47′N-12°33′N latitude and 77°28′E-76°45′E longitude and has a geographic area of 9622 sq kms. The district is surrounded by Vellore, Villupuram and Thiruvannamalai districts in the east, by Erode district and the state of Karnataka in the west, by Andhra Pradesh and Karnataka state in the north and by Salem district in the south.

47. Tiruvannamalai came into existence as a separate district of Tamil Nadu on 30th Sept. 1989 by the bifurcation of the erstwhile North Arcot District. It is located between 11°55′N - 13°15′N latitude and 78°20′E-76°45′E longitude and has a geographic area of 9622 sq km. The district is bounded on the north and west by Vellore District, on the south-west by Krishnagiri district, on the south by Villupuram district and on the east by Kanchipuram district.

48. Vellore district lies between 12° 15’ -13° 15’N latitude and 78° 20’ - 79° 50’E longitudes in Tamilnadu State. The geographical area of this district is 6077 sq km. It is bounded on north by Chittoor district of Andhra Pradesh, on the south by Thiruvannamalai district and on the west

by Krishnagiri district, and on the east by Thiruvallr and Kanchipuram districts. The western parts of the district are endowed with pleasing hilly sceneries like Yelagiri Hills while the Eastern side of the District is mostly covered by rocky bases.

2. Demography

49. Total population of Tamil Nadu as per 2011 census is 72,147,030 of which male and female are 36,137,975 and 36,009,055 respectively. The rural and urban composition of population is 37,229,590 and 34,917,440 person (51.6 and 48.4 % of total state population) respectively. The sex ratio is found to be 996 which is above the national average of 940. The literacy rate is 80.09 %. Details are given in **Table 3.3.**

Table 3.3: Demographical Feature of Tamil Nadu

Indicators	Census 2011
Total Population	72,147,030
Density	555
Male	36,137,975
Female	36,009,055
Sex Ratio	996
Literacy	80.09 %
Population of SC	14438445
Population of ST	794697

Source: Census of India, 2011

50. Among project districts, the Dharmapuri is the largest district in area while, Vellore district stands highest in population. The sex ratio is found to be high in all districts compare to the national average. Dharmapuri district has the lowest literacy rate compare to other project district. The details are given below in **Table 3.4**.

Table 3.4: Demographical Profile of the Project Districts

District	Area (Sq.km)	Population	Sex Ratio (Male/000 female)	Literacy (%)	Density (Person/sq.km)
Coimbatore	4,732	3,458,045	1000	83.98	731
Tirupur	5,187	2,479,052	989	78.68	478
Erode	5,760	2,251,744	993	72.58	391
Karur	2,901	1,064,493	1015	75.60	367
Namakkal	3,413	1,726,601	986	74.63	505
Salem	5,235	3,482,056	954	72.86	665
Dharmapuri	9,622	1,506,843	946	68.54	335
Thiruvanamalai	6,191	2,464,875	994	74.21	398
Vellore	6,077	3,936,331	1007	79.17	648

Source: Census of India, 2011

3. Human and Economic Development

51. Tamil Nadu has achieved reasonable economic growth in past few years. With a population of around 7,21,47,030 as per 2011 census, it is one of the populous states of India. The population density is 555 per square km, which is higher than the national average. The sex

ratio of the state is healthy 996 females per 1000 males, which is better than the corresponding national figure. People belonging to Schedule Castes constitute around 20% of total population, whereas, share of people belonging to Schedule Tribes is a miniscule 1.1%. The state enjoys a reasonably good literacy rate of 80.09% which is better than National Average of 74.04%. The Human Development Index of the state is 0.570, which also compares favourably with national average of 0.467.

52. Agriculture is the main source of livelihood with around 5139832 ha. of area under cultivation. Paddy is the main crop. It is raised in three crops. The first crop is known as 'Kuruvali' (the short term crop) with a duration of three and a half to four months from June - July to Oct-Nov. The second crop called 'Thaladi' has a duration of 5 to 6 months Oct -Nov to Feb -March. Third is 'Samba '(the long term) crop and has a duration of almost 6 months from Aug to January. Chief sources of irrigation are the rivers tanks and wells. Other major food crops are jowar, ragi, bajra, maize and pulses. Cotton, sugarcane, coconut, tea and coffee as well as a number of horticultural products like bananas and mangoes are cash crops while ground nuts, sesame, sun flower are important oil seeds crops. Major Industries in Tamil Nadu are cotton, heavy commercial vehicles, auto components, railway coaches, power pumps, leather tanning industries, cement, sugar, paper, automobiles and safety matches. Global auto majors Hyundai Motors, Ford, Hindustan Motors and Mitsubishi have commenced production plants. Ashok Leyland and TAFE have set up expansion plants in Chennai. The state is an important exporter of tanned skin and leather goods, yarn, tea, coffee, spices, engineering goods, tobacco, handicrafts and black granite. Tamil Nadu contributes to 60 per cent of the tannery industry in India. In recent times knowledge based industries like I.T. and Biotechnology have become the thrust area in the industrial scene in Tamil Nadu. TIDEL, a software technology park, has been established in Tharamani, Chennai. The software exports from the State during the year 2012-13 is expected to be around Rs. 50,000 crores with an impressive growth rate of more than 10%. Top I.T. and Telecom companies such as Nokia, Motorola, Foxcon, Flextronic and Dell have commenced production. Handloom is another important cottage industry. Silk sarees of Kancheepuram are famous all over India. Cottage units produce cotton sarees, dhoties, towels and lungies.

53. As per 2011 census, the total population of Coimbatore district is 34,58,045, which constitute 4.79% of the state's population. The district has a population density of 460 persons per square km. The Sex ratio of the district stands at 1000 females for every 1000 males, which is better than the corresponding national figure. The Literacy rate of the district is 83.98%, higher than national literacy average. Around 15.5% population belongs to Schedule Castes and just 0.82% population belongs to Schedule Tribes. Though, the economy of Coimbatore district is mainly driven by industries, Agriculture is still one of the main sources of livelihood in the district with more than 3,00,000 people are engaged in it, either as cultivators or as labourers. Sorghum, Groundnut, Rivce, maize are the main crops of the district. Tomato, Tapoica, Onion, Brinjal and Bhendi are the major vegetables grown in the district. Banana is the main fruit grown in the district followed by Mango, Grapes, Sapota and Amla. Coconut is the prominent cash crop of the district, while Tea, Coffee and cotton also provide cash income in the hands of the farmers. Coimbatore is one of the most industrialized districts of Tamil Nadu. There are more than 25,000 small, medium and large sale industries. Coimbatore houses a large number of small and medium textile mills. It also has central Textile research institutes, such as South India Textile Research Association. Some of the major industries present in Coimbatore are PSG, Sakthi group of Industries, Larsen and Toubro, Lakshmi Machine Works (LMW), Premier Instruments & Control Limited (PRICOL), Premier Evolvics, ELGI Equipments, Shanti Gears, Roots Industries Ltd etc. Coimbatore is also called as the Pump City. The Major Pump industries present in the district such as Suguna pumps, Sharp Industries, CRI Pumps, Texmo

Industries, Deccan Pumps & KSB Pumps are renowned worldwide. Coimbatore is also emerging as an IT and BPO city with the presence of companies like Tata Consultancy Services, Cognizant Technology, CSS Corp etc. The city also houses numerous jewellers engaged in jewellery exports and a few Wind Energy Companies.

54. The total population of Tirupur district is 24,79,052 which forms 3.44% of the state's population(As per 2011 census). About 38.64% of district's population lives in rural areas. The district has a population density of 478 persons per square km. The Sex ratio of the district stands at 989 females for every 1000 males, which is better than the corresponding national figure. The Literacy rate of the district is 78.68%, higher than national literacy average. Around 15.97% population belongs to Schedule Castes and just 0.22% population belongs to Schedule Tribes. Though, Tirupur is largely an industrial district, Agriculture still plays an important role in its economy. In Tirupur, majority of farmers belong to small and marginal category and they play a critical role in ensuring agricultural productivity of the district. The total area of cultivation is around 2,28,556 ha., mainly for food and commercial crops. The chief food crops of the district are paddy, millets and pulses, while cotton, oil seeds and coconut are main non food commercial crops. Coconut is one of the most important plantation crops, which occupies around 16.10% of the total cultivated area. Mango, Banana, Amla and Guava are the main fruits grown in the district. The economy of the district is largely driven by industries specially those belonging to textile sector. There are 7068 registered industrial units in the district, out of which 69 belong to Medium and Large scale. There are 7 Industrial Areas in the district. Textile has been the back bone of the economy of the district. It is due its textile sector, Tirupur became world famous and popularly known as T-shirt town of India. There are 6250 textile based industries in the district, out of which 1500 are knitting units. Huge numbers of direct and indirect employment is generated due to textile industries in the district.

55. According to 2011 census, total population of Karur district is 1,076,588 which constitutes 1.48 % of the state's population. Out of the total population, 59.18 % population lives in rural areas & 40.82 % lives in urban regions of district. The district has a population density of 367 persons per square km. With a sex-ratio of 1,015 females for every 1,000 males, the district stands much above the national average of 929. Scheduled Castes and Scheduled Tribes accounted for 20.8% and 0.05% of the population respectively. The average literacy of the district was 68.3%, compared to the national average of 72.99%. The district had a total of 287,095 households. There were a total of 543,298 workers, comprising 83,800 cultivators, 182,639 main agricultural labourers, 10,162 in house hold industries, 231,906 other workers, 34,791 marginal workers, 2,072 marginal cultivators, 18,198 marginal agricultural labourers, 1,178 marginal workers in household industries and 13,343 other marginal workers. Karur District is a part of cauvery delta region and utilization of land area in the district is up to 44.59%. 45% of land in Karur is used for agricultural activities to produce Paddy, Banana, Sugarcane, Beetle Leaf, Grams & Pulses, Tapioca, Kora grass, Groundnuts, Oilseeds, Tropical vegetables, Garland flowers, and Medicinal herbs. Karur contributes USD 1.1 billion in GDP of Tamil Nadu. Service industry has been playing a vital role in the economy of this District. It has contributed 67% to the district's GDP in 2011-12. Karur is famous for its home textiles. Maximum units have been established in Textile & Apparels Based category followed by Chemicals & Petro Chemicals units. Karur has a niche in five major product groups — bed linens, kitchen linens, toilet linens, table linens and wall hangings. Overall Karur generates around Rs.6000 crores in foreign exchange through direct and indirect exports. Allied industries like ginning and spinning mills, dyeing factories, weaving etc., employs around 450,000 people in and around Karur. Karur District is renowned for its Bus Body building industry throughout South India. The presence of 200 builders of Bus body in the region attracts the investments in Automobile sector.

56. According to 2011 census, total population of Erode district is of 2,251,744 which form 3.12% of State's population. Out of the total population, 48.57 % population lives in rural areas & 51.43 % lives in urban regions of district. The district has a population density of 391 persons per square km.. The district has a sex-ratio of 993 females for every 1,000 males, much above the national average of 929. Scheduled Castes and Scheduled Tribes accounted for 16.41% and 0.97% of the population respectively. The average literacy of the district was 66.29%, compared to the national average of 72.99% The district had a total of 658,071 households. There were a total of 1,195,773 workers, comprising 173,376 cultivators, 331,414 main agricultural labourers, 48,960 in house hold industries, 557,301 other workers, 84,722 marginal workers, 4,794 marginal cultivators, 38,798 marginal agricultural labourers, 5,362 marginal workers in household industries and 35,768 other marginal workers. Agriculture is the most important income source of the district. Paddy, plantain, silk, cotton, turmeric, coconut and sugarcane are some of the major products from agriculture and allied industries. Erode is also known as Turmeric city as it is an important market center for turmeric and produce around 43% total turmeric of the State. Erode district is also the leading producer of plantain, coconuts and white silk. The country's first automated silk reeling unit is located in the district at Gobichettipalayam. Bhavani & Chennimalai are well known for handloom powerloom textile products and ready-made garments. The district is also rich in its natural cattle wealth and has carved out an enviable position for itself in the field of dairy development industry in the State. The Tamil Nadu Milk Producers Federation has a milk collection center and processing plant at Erode from where pasturised milk is transported in cases to different parts of the State every day.. There are also three Poultry Extension centres in the district. There are at Chengampalli, Polavakalipalayam and Bhavani Sagar. In the Industrial map of Tamil Nadu, Erode district has a place of unique importance with 40.32% of population depending on non-agricultural sector. Industries and trade naturally occupy a place of prominence in the economy of the district. Industries that flourished in early days in the area were handloom weaving, carpet manufacturing, cart manufacturing, oil-pressing, brass vessel manufacturing etc. The cotton textile industry in Coimbatore and handloom industry in Erode district have encouraged the growth of various ancillary industries to meet the needs of the textile mills. There are a number of leather tanneries in Erode area. Large quantities of leather are brought here for tanning and later exported to foreign countries. The Government has also come forward to provide incentives to small enterprenuers. Industrial estates have been set up at Erode and other places where full facilities are offered to small industrialists. Small units have been set up here for the manufacture of steel furniture, nuller screen, etc.

57. As per 2011 census, Namakkal district has a population of 1,726,601 which is 2.39% of State's population. Out of the total population, 59.68 % population lives in rural areas & 40.32 % lives in urban regions of district. The district has a population density of 367 persons per square km.. The district has a sex-ratio of 986 females for every 1,000 males, much above the national average of 929. Scheduled Castes and Scheduled Tribes accounted for 20.% and 3.3% of the population respectively. The average literacy of the district was 68.12%, compared to the national average of 72.99%. The district had a total of 475,511 households. There were a total of 898,245 workers, comprising 152,497 cultivators, 228,614 main agricultural labourers, 35,156 in house hold industries, 422,885 other workers, 59,093 marginal workers, 5,976 marginal cultivators, 25,112 marginal agricultural labourers, 3,641 marginal workers in household industries and 24,364 other marginal workers. The main occupation in the district is agriculture. The cultivation generally depends on monsoon rains. Nearly 90 percent of the cultivated area is under food crops. The principal cereal crops of this district are paddy, Cholam, cumnu and ragi. Panivaragu, Kuthiraivali, Samai Varagu and Thinai are some of themillets cultivated. Among pulses, the major crops redgram, blackgram, greengram and horsegram. Among oil, seeds, groundnut, castor, and gingelly (sesame) occupy important places. Of the commercial crops,

sugarcane, cotton and tapioca are some of the important crops. Namakkal finds a place of importance in the map of India because of its Lorry body building industry, a unique feature of the town. More than 150 Lorry body building workshops and with a number of subsidiary industries of auto body works are operating since 1960's. There are Lorries, Trailers and L.P.G. Tanker Lorries. Therefore it is called as "Transport City". Finished trucks and Rig Units are even exported to foreign countries from Namakkal. Nearly 25000 people are employed, both directly and indirectly, in truck body building activity and about 300 units in Namakkal and 100 Units in Tiruchengode are engaged in this activity. Besides, Poultry development has been rather phenomenal in the district of Namakkal. The district is also well known for its poultry and dairy industries, accounting for a bulk of supply of poultry products to neighbouring industries. In fact, Namakkal produces about 65% of the egg output of Tamil Nadu. Hence, called as 'Egg City'. There are 21457 registered industrial units in the district, out of which 80 belong to Medium and Large scale. There are 2 Industrial Areas in the district. It is one of the most vital and vibrant districts in terms of Industrial development in the state. The district provides enough scope for the development and growth of Industries engaged in the textile garments, Power loom, Automobile body building, Poultry Feed, Sago manufacturing and Rig Manufacturing unit.

58. Salem district has a population of 3,482,056 which forms 4.83% of State's population (2011census). Out of the total population of the district, 49.05 % population lives in rural areas & 50.95 % lives in urban regions. The district has a population density of 655 persons per square km.. The district has a sex-ratio of 954 females for every 1,000 males, much above the national average of 929. Scheduled Castes and Scheduled Tribes accounted for 16.67% and 3.43% of the population respectively. The average literacy of the district was 65.64%, compared to the national average of 72.99%. There were a total of 1,694,160 workers, comprising 247,011 cultivators, 396,158 main agricultural labourers, 132,700 in house hold industries, 785,161 other workers, 133,130 marginal workers, 9,993 marginal cultivators, 58,052 marginal agricultural labourers, 8,803 marginal workers in household industries and 56,282 other marginal workers. Agriculture is the main source of livelihood of the people in this district and about 70 % of the population is engaged in agriculture.. The food crops are sown in more than 72 % of the cultivated land. The major food crops are paddy, cholam, cumbu, ragi, redgram, greengram, blackgram and horsegram Turmeric, sugarcane, mango, bannana, tapiaco, groundnut & gingelly, and the famous mango fruits are the cash crops. Paddy, jowar, tapioca, sugarcane, groundnut and cotton are the major commercial crops & plantation crops like coffee, areca nut and betel vine. The district is rich in mineral deposits like Magnesite, Bauxite, Granite, Limestone, Quartz and Iron ore. Allied industries like Magnesite mining, Cement manufacture, bricks manufacture, Aluminum smelting etc thrive well. The Salem Steel Plant was an ambitious project started with a view to utilize the locally available iron-ore from Kanchamalai to produce steel. Now it is a public sector company engaged in rolling out cast steel blacks into sheets of required dimensions. It has many magnesite factories operated by private and public sectors such as Burn Standard & Co, Dalmia Magnesites and Tata Refractories, SAIL refractories. Rope making is another major cottage industry. Ropes are made by people out of the fibres of coconut, aloe, cotton and jute. Salem has a sizeable weaver population and weaving is an important house hold industry here. Both silk and cotton fabrics woven in Salem find popular market throughout the state. Making of silver ornaments and artifacts by hand work is an important cottage industry in Salem. The district has 48 Medium Scale Industries, 32,561 Small Scale Industries and 5826 Cottage Industries.

59. According to2011 census, Dharmapuri district has a population of 1,506,843 which constitutes 2.09% of State's population. Out of the total population, 82.68 % population lives in rural areas & 17.32 % lives in urban regions of district. The district has a population density of 655 persons per square km.. The district has with a sex-ratio of 946 females for every 1,000

males, much above the national average of 929. . Scheduled Castes and Scheduled Tribes accounted for 16.29% and 4.18% of the population respectively. The average literacy of the district was 60.9%, compared to the national average of 72.99%.[3] The district had a total of 375,873 households. There were a total of 751,170 workers, comprising 191,080 cultivators, 217,062 main agricultural labourers, 11,308 in house hold industries, 233,546 other workers, 98,174 marginal workers, 10,248 marginal cultivators, 50,283 marginal agricultural labourers, 4,033 marginal workers in household industries and 33,610 other marginal workers. The district economy is mainly agrarian in nature. Nearly 70% of the workforce is dependent on agriculture and allied activities. The district is one among most backward and drought prone area in the state. It also forms a major horticultural belt in the state. As the area is drought – prone it has become essential to switch over to cultivation of drought tolerant perennial fruit crops in this district. Mango is the main horticulture crop of this District. It has the highest area under the fruit crops . The district accounts for nearly one-third area under mango and nearly one-half of the mango yield in the state. The district is an industrially backward one. However, after the formation of the SIPCOT industrial Complex in Hosur, a number of medium and large- scale units were started, most of them in and around Hosur. Presently 112 large-scale units are located in the district. Besides these, there were 10880 SSI units in the district. Besides, availability of huge granite reserves helped the growth of quarries and granite polishing industry in the district.

60. As per 2011 census, Thiruvannamalai district has a population of 2,464,875 which forms 3.42% of State's population. Out of the total population, 79.92% population lives in rural areas & 20.08 % lives in urban regions of district. The district has a population density of 655 persons per square km.. The sex-ratio of 994 females for every 1,000 males, much above the national average of 929. Scheduled Castes and Scheduled Tribes accounted for 22.94% and 3.69% of the population respectively. The average literacy of the district is 66%, compared to the national average of 72.99%. The district has a total of 588,836 households. There are a total of 1,238,177 workers, comprising 265,183 cultivators, 351,310 main agricultural labourers, 37,020 in house hold industries, 316,559 other workers, 268,105 marginal workers, 27,458 marginal cultivators, 173,753 marginal agricultural labourers, 9,700 marginal workers in household industries and 57,194 other marginal workers. Tiruvannamalai district is known for its two major businesses, agriculture and silk saree weaving. Paddy, sugarcane and groundnut are the major crops grown in the district. Rice cultivation and processing is one of the biggest businesses in this district. The modern rice mill near Cheyyar is the biggest government owned mill and Arani has around 278 rice mills. Kalambur is also has around 20 Rice mills and known for variety of rice called Kalambur Ponni rice. Dairy farming is an important source of subsidiary income to small and marginal farmers. Poultry is also an important occupation. The district is suitable for promotion of floriculture. Chengam, Arni, Polur, Thandarampet, Cheyyar blocks are potential blocks to promote horticulture and floriculture activities. With such a high work force in agriculture and low work force engaged in industrial / service front, the district has failed to achieve a high level of industrialization. The industrial activities are in low profile activities such as flourmills, silk reeling and footloose industries. The concentration of such traditional units is centred around Tiruvannamali, Polur and Arni. . Out of 6078 units concentrated in this district, 41 % are falling under the category of cottage and rural industries. Most of the units are based on local resources. Fruit, vegetable and floriculture are the major thrust sectors that are considered as sleeping giants in the district. The availability of rare herbs and medicinal plants in Jawadhu Hills and in melchengam offers promotion of medicinal extraction units in a big way. The concentration of neem trees in Thiruvannamalai and adjoining district of Villupuram offers promotion of neem based industries in this district. By and large, the district is suitable for promotion of agro-based industries. The construction of SIPCOT Complex is under way and it is hoped that it will attract huge investment opportunities in future.

61. The population of Vellore district as per census 2011 was 3,936,331, with a density of 648 persons per square km. It constitutes 5.46% of State's population. Around 56.76% population lives in rural areas & 20.08 % lives in urban area. The district has a sex ratio of 1,007 females for every 1,000 males, much above the national average of 929. The average literacy of the district was 70.47%, compared to the national average of 72.99%. The district has 929,281 households. There are 1,689,330 workers, comprising 153,211 cultivators, 254,999 main agricultural labourers, 106,906 in household industries, 845,069 other workers, 329,145 marginal workers, 21,897 marginal cultivators, 136,956 marginal agricultural labourers, 29,509 marginal workers in household industries and 140,783 other marginal workers. The district is primarily agrarian with a majority of its population involved in agriculture. 56% of land in Vellore is used for agricultural activities to produce Paddy, Millets & other Cereals, Pulses, Sugarcane and Cotton. Vellore is one of the top producers of sugarcane and coconut in the state. Oil seeds that are cultivated are groundnut, coconut, sunflower and gingelly. Vellore is among the top 10 contributors to GDP of the State, it contributes USD 3.8 billion in GDP of Tamil Nadu. Service industry has been playing a vital role in the economy of this district. It has contributed 56% to the district's GDP in 2011-12. Tertiary and Secondary sector are growing at the rate of 10.5% & 9%. The investments have been observed to be happening in Trade, Hotel & Restaurants, Banking & Insurance, Real estate, Construction and Manufacturing. The district is vibrant in terms of economic activity with leather and leather based industrial activity being the prominent ones. The district accounts for more than 37% of the country's leather export. Asia's biggest explosives manufacturing company, Tamil Nadu Explosives Limited (TEL), is in Vellore at Katpadi. This is India's only government explosives company with more than a thousand employees. BHEL - Boiler Auxiliaries Plant at Ranipet is a major heavy engineering unit of Tamil Nadu. There are three industrial estates: SIDCO at Katpadi, SIPCOT at Ranipet and SIDCO at Arakkonam. The government also plays an active role in promoting the same and hence further growth is expected in the leather industry. The district has seen significant growth in the past few years with around 3000 units established with an investment of $ 51 Million. Some of the prominent MSME clusters are leather, textile and handloom & safety match industries. The district also has 12 large scale and 300 medium scale industries.

IV. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

A. Consultations

62. Public consultation/information is an integral part of the POWERGRID project cycle. POWERGRID follows a well defined procedure for conducting public consultation involving different techniques as laid down in its ESPP, which is also approved by The World Bank under the Use of Country System (UCS). There are 10 different techniques which are used either independently or in combination appropriately at different milestones of the project depending on field conditions.

63. The location for public meeting is usually selected at every 50-100 km involving major villages/habitated area en-route of line. However, in other villages/parts, informal group meetings or other techniques are applied for consultation. The consultation and feedback process is a continuous one and implemented regularly at different milestone of project cycle.

64. The process of consultation and information dissemination begins even before the start of work as POWERGRID informs the general public by publishing in 2 (Two) local newspapers in vernacular language on implementation of project indicating the route of final alignment with name of the town /villages its passing. During survey also POWERGRID site officials meet people and inform them about the routing of transmission lines. During construction, every individual, on whose land line is constructed and people affected by RoW, are consulted. Apart from this, Public consultation using different technique like Public Meeting, Small Group Meeting, Informal Meeting shall 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 substations, 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 transmission lines and POWERGRID approach to minimizing and solving them;
- Trees and crop compensation process.

65. In the instant project also, many group meetings were organized (informally and formally) in all villages where the interventions are likely to happen. Such consultation culminated in public meeting organized at different locations as provided in **Table- 4.1**. These meetings were attended by Village Panchayat members, Senior/respected person of village, interested villagers/general public and representatives from POWERGRID. To ensure maximum participation, prior intimation in local language was given and such notices were also displayed at prominent places/panchayat office etc. Details of above public consultation meetings including minutes of meeting, list of participants, photographs and public queries & answers are enclosed as **Annexure -2**.

Table 4.1: Details on Public Consultation Meeting

Sl. No.	Date & time of Consultation	Venue	Persons Attended
1.	31st May 2016 11.00 AM	At- Community Hall Village-Ammapalyam District- Thiruvanamalai State- Tamil Nadu	Total 25 persons including Panchayat members, interested villagers/ general public attended
2.	1st June 2016, 11.00 AM	At- Village Primary School Village- Poosimalaikuppam District- Arani, State- Tamil Nadu	Total 77 persons including Panchayat head & member, interested villagers/ general public attended
3.	2nd June 2016 11.00 AM	At- Gram Panchayat Village-Satur District- Arcot State- Tamil Nadu	Total 29 persons including Panchayat head & members, interested villagers/ general public attended
4	12th Dec.'2015 10.00 AM	At- Village Primary School Village- Muthalipalayam District- Tiruppur State- Tamil Nadu	Total 50 persons including Panchayat President & members, Panchayat Council Members and interested villagers/ general public attended
5	16th Dec.' 15, 3.00 PM	At- Grampanchayat Hall, Village- Arasampalayam District- Coimbatore, State- Tamil Nadu	Total 25 persons including Village heads, interested villagers/ general public attended

B. Summary of Public Consultation held

66. There were 5 public consultations meetings held in December, 2015 and May, 2016 during preliminary survey/investigations of the routes of transmission lines. During consultations/interaction processes with people of the localized areas POWERGRID field staff explained benefit of the project, impacts of transmission line, payment of compensation for damaged of crops, trees, huts etc as per The Indian Electricity Act, 2003 and The Telegraph Act, 1885 and measures to avoid public utilities such as schools, hospital etc. People more or less welcomed the construction of the proposed project. Their queries were replied to satisfaction and it was assured that compensation would be paid as per the norms under the policy.

67. The following major queries were also raised/asked by the people of the villages during said public consultation meetings: –

- What would be the compensation paid for land towards putting the towers there?
- We are having power shortage. Can we get power from your project?
- What is the benefit of this line to our village, as the land cost will also decrease after putting towers on our lands?
- Can POWERGRID give continuous power to our village? Any employment will be given to the qualified youth of our village?
- Will you improve the water facility / approach road in our village?

68. POWERGRID field staff explained above questions as follows:

- Tree / crop compensation would be paid as per the rates fixed by the revenue / forest / horticulture department officials of the state. As per the provisions of Indian

Telegraph Act all rights on the land are prohibited to POWERGRID except the user rights, land for tower and RoW are not acquired and agriculture is allowed to continue. No compensation will be paid for the land, if the state government comes with any law on compensation the same will be followed.

- POWERGRID can only transmit power to the states, distribution to the household / village level is the responsibility of the state electricity board. This line will contribute to the development of power situation of the region.
- Irrespective of the location there would be power transmission through our lines across the states. Hence the benefit of this project would be to the entire state of Tamil Nadu and the neighbouring states by transfer of power from surplus state to deficit states. Therefore this line would contribute towards improvement of power scenario of the district and also the villages.
- POWERGRID being a central transmission utility; transmits power from generating stations to different states of the country whereas distribution of power is done by the respective state electricity boards / utilities. However the power scenario of the region will be improved with this project. Local people will be engaged during construction of line and engagement will be as per their skill set.
- Under Corporate Social Responsibility POWERGRID would take up developmental activities in the villages along the line route after identifying the needs of the village after a baseline survey.

C. Plan for further Consultation and Community Participation during Implementation

69. The process of such consultation is to be continued during project implementation and even during O&M stage. The progress and proposed plan for public consultation is described in **Table 4.2**:

Table 4.2: Plan for Future Consultations

S. No.	Activity	Technique	Schedule
1.	**Detailed/ Check survey**	Public Meeting at different places (50-100 km) en-route final route alignment of line	Public meeting during 2016 to 2017
2.	**Construction Phase**	Localized group meeting, Pamphlet/Information brochures, Public display etc.	During entire construction period
3.	**O&M Phase**	Information brochures, Operating field offices, Response to public enquiries, Press release etc.	Continuous process as and when required.

D. Information Disclosure

70. The draft/summary CPTD will be disclosed by the POWERGRID to the affected persons and other stakeholders by placing it on website. POWERGRID site officials visit construction sites frequently during construction and meet with APs and discuss about norms and practices of damages and compensation to be paid for them. A notice is also issued to APs after the detailed/ check survey and finalization of tower location during the construction. Affected persons also visit site/construction offices of POWERGRID to know about the compensation norms and policies and to discuss their grievances. The executive summary of the CPTD and Entitlement Matrix in Tamil will be placed at construction offices/ sites. POWERGRID will organize further

public consultation meetings with the stakeholders to share the views of public on the Plan for all possible clarifications. The feedback from the consultation will be reviewed and incorporated in the revised and final CPTD. The consultation process will continue throughout the project implementation period. POWERGRID will disclose revisions of the CPTD and updates if any, on its website and provide relevant information of monitoring reports to affected people and other stakeholders. This is to be done in a timely manner and in Tamil & English.

V. GRIEVANCE REDRESS MECHANISM

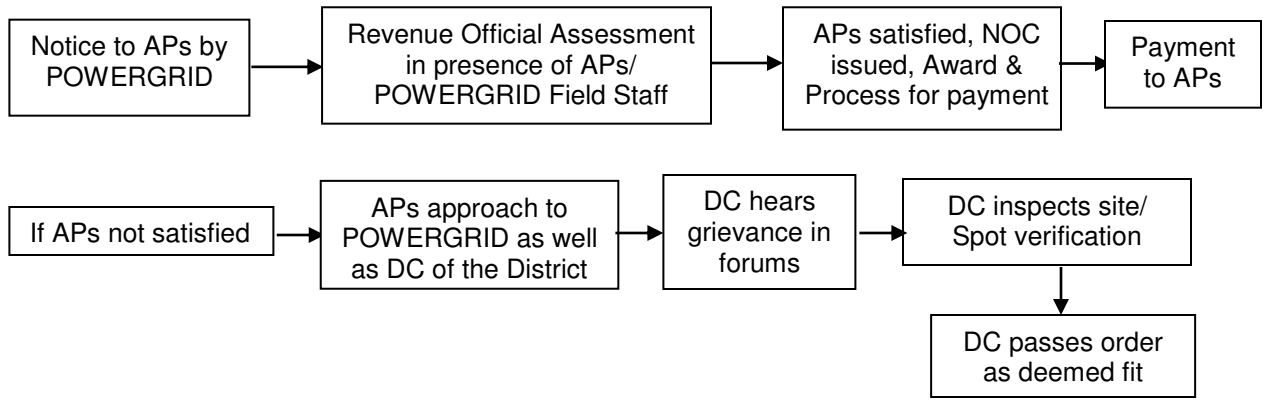
71. Grievance Redress Mechanism (GRM) is an integral and important mechanism for addressing/resolving the concern and grievances in a transparent and swift manner. Many minor concerns of peoples are addressed during public consultation process initiated at the beginning of the project. For handling grievance, Grievance Redress Committee (GRC) will be established at two places, one at the project/scheme level and another at Corporate/HQ level. The GRCs shall include members from POWERGRID, Local Administration, Panchayat Members, Affected Persons representative and reputed persons from the society on nomination basis under the chairmanship of project head. The composition of GRC shall be disclosed in Panchayat/Village council offices and concerned district headquarter for wider coverage.

72. The complainant will also be allowed to submit its complaint to local project official who will pass it to GRC immediately but not more than 5 days of receiving such complaint. The first meeting of GRC will be organized within 15 days of its constitution/disclosure to formulate procedure and frequency of meeting. In case of any complaint, GRC meeting shall be convened within 15 days. If Project level GRC not able to take decision it may refer the complaint to corporate GRC for solution. GRC endevour will be to pronounce its decision within 30-45 days of receiving grievances. In case complainant/appellant is not satisfied with the decision of project level GRC they can make an appeal to corporate GRC for review. The proposed mechanism does not impede access to the country's judicial or administrative remedies at any stage.

73. The corporate level GRC shall function under the chairmanship of Director (Projects) who will nominate other members of GRC including one representative from Environment and Social Management Department (ESMD) who is conversant with the environment & social issues. The meeting of Corporate GRC shall be convened within 7-10 days of receiving the reference from Project level GRC or complainant directly and pronounce its decision within next 15 days.

74. Additionally, grievance redressal is 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 authorised representative also provides forum for raising the grievance towards any irregularity/complain. Apart from this, POWERGRID officials also address to the complaints of affected farmers and the same are forwarded to revenue official for doing the needful. Details are depicted below in **Figure-5.1**:

Figure-5.1: Grievance Redress Mechanism



VI. LEGAL FRAMEWORK

A. Overview

75. The CPTD is based on ADB's SPS, 2009 & AIIB's ESPS, 2016, as well as the Borrower's domestic policy instruments and laws. In India, compensation for land acquisition (LA) and resettlement assistance for project affected persons/families is directed by the National law The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (hereafter RFCTARR, 2013), effective from 1 January 2014. Being a transmission project, the relevant national laws applicable for this project are (i) The Electricity Act, 2003 and (ii) The Indian Telegraph Act, 1885 and POWERGRID's Environment and Social Policy and Procedures, 2009 (ESPP).The compensation principles adopted for the project shall comply with applicable laws and regulations of the Government of India/ State Govt, ESPP, SPS & ESPS.

B. ADB'S Safeguard Policy Statement (SPS), 2009

76. ADB's Safeguard Policy Statement (SPS), 2009 set out specific safeguard requirements for environment, involuntary resettlement and indigenous people. The objectives of the Involuntary Resettlement Safeguard policy is to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project and design alternatives; to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; and to improve the standards of living of the displaced poor and other vulnerable groups.

The involuntary resettlement safeguards cover physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers them whether such losses and involuntary restrictions are full or partial, permanent or temporary. The three important elements of ADB's SPS (2009) are: (i) compensation at replacement cost for lost assets, livelihood, and income prior to displacement; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. The SPS gives special attention to poor and vulnerable households to ensure their improved well-being as a result of project interventions.

C. AIIB's Environment and Social Policy and Standards

77. The AIIB has adopted its Environment and Social Policy and Standards (ESSs 1–3) to address safeguard requirements including environmental and social assessment and management, involuntary resettlement and Indigenous Peoples in a Bank financed project. The objectives of ESS 2 on Involuntary Resettlement is to avoid involuntary resettlement wherever possible; to minimize involuntary resettlement by exploring project alternatives; where avoidance of involuntary resettlement is not feasible, to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels; to improve the overall socioeconomic status of the displaced poor and other vulnerable groups; and to conceive and implement resettlement activities as sustainable development programs, providing sufficient resources to enable the persons displaced by the project to share in project benefit .

78. ESS 2 covers physical displacement (relocation, loss of residential land, or loss of shelter) and economic displacement (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas. It covers them whether such losses and involuntary restrictions are full or partial, permanent or temporary. The three important elements of AIIB's Environmental and Social Framework in this regard are: (i) compensation at replacement cost for lost assets, livelihood, and income prior to displacement; (ii) assistance for relocation, including provision of relocation sites with appropriate facilities and services; and (iii) assistance for rehabilitation to achieve at least the same level of well-being with the project as without it. Both ESS 1 and ESS 2 give special attention to poor and vulnerable households to ensure their improved well-being as a result of project interventions. Followings are the basic principles of AIIB's policy:

(i) Identification of past, present, and future involuntary resettlement impacts and risks and determination of the scope of resettlement planning.
(ii) Carry out meaningful consultations with affected persons, host communities, and concerned non-government organizations.
(iii) Improvement or at least restoration of the livelihoods of all displaced persons,
(iv) Ensure physically and economically displaced persons with needed assistance.
(v) Improvement of the standards of living of the displaced poor and other vulnerable groups.
(vi) Development of procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement,
(vii) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
(viii) Preparation of a resettlement plan elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.
(ix) Disclosure of resettlement plan, including documentation of the consultation process in a timely manner to affected persons and other stakeholders.
(x) Execution of involuntary resettlement as part of a development project or program.
(xi) Provide payment of compensation and other resettlement entitlements before physical or economic displacement.
(xii) Monitoring and assessment of resettlement outcomes, their impacts on the standards of living of displaced persons

D. Statutory Requirements

79. Transmission lines are constructed under the ambit of Electricity Act, 2003. The provisions stipulated in section 67-68 of the Electricity Act, 2003 read with section 10 & 16 of the Indian Telegraph Act, 1885 governs the compensation as POWERGRID has been vested with the powers of Telegraph Authority vide MoP's Gazette Notification dated 24.12.03 under sec 164 of the Electricity Act. As per the provision of Indian Telegraph Act, 1885 Section 10 b), POWERGRID is not authorized to acquire any land hence land under tower is not acquired. However, compensation for all damages are paid to the individual land owner as per the provision of Section-10 (d) of Indian Telegraph Act, 1885.

80. The provisions in the Electricity Act, 2003, Indian Telegraph Act, 1885 and MoP Guideline, 2015 regarding compensation for laying of transmission lines are as follows :

D1. The Electricity Act, 2003, Part-VIII, Section 67 & 68

Quote:

Section 67 (3-5):

(3) A licensee shall, in exercise of any of the powers conferred by or under this section and the rules made thereunder, cause as little damage, detriment and inconvenience as may be, and shall make full compensation for any damage, detriment or inconvenience caused by him or by any one employed by him.
(4) Where any difference or dispute [including amount of compensation under sub-section (3)] arises under this section, the matter shall be determined by the Appropriate Commission.
(5) The Appropriate Commission, while determining any difference or dispute arising under this section in addition to any compensation under sub-section (3), may impose a penalty not exceeding the amount of compensation payable under that sub-section.

Section 68 (5 & 6):

*(5) Where any **tree standing or lying near an overhead line or where any structure or other object which has been placed or has fallen near an overhead line** subsequent to the placing of such line, interrupts or interferes with, or is likely to interrupt or interfere with, the conveyance or transmission of electricity or to interrupt or interfere with, the conveyance or transmission of electricity or the accessibility of any works, an Executive Magistrate or authority specified by the Appropriate Government may, on the application of the licensee, cause the tree, structure or object to be removed or otherwise dealt with as he or it thinks fit.*
*(6) When disposing of an application under sub-section (5), an Executive Magistrate or authority specified under that sub-section shall, in the case of any tree in existence before the placing of the overhead line, **award to the person interested in the tree such compensation as he thinks reasonable, and such person may recover the same from the licensee.***
Explanation. - For purposes of this section, the expression "tree" shall be deemed to include any shrub, hedge, jungle growth or other plant.

Unquote.

D2. The Indian Telegraph Act, 1885, Part-III, Section 10

Quote:

***Section 10 –** The telegraph authority may, from time to time, place and maintain a telegraph line under, over, along, or across, and posts in or upon any immovable property, Provided that*

a) the telegraph authority shall not exercise the powers conferred by this section except for the purposes of a telegraph established or maintained by the [Central Government], or to be so established or maintained;
*b) **the [Central Government] shall not acquire any right other than that of user only** in the property under, over, along, across in or upon which the telegraph authority places any telegraph line or post; and*
c) except as hereinafter provided, the telegraph authority shall not exercise those powers in respect of any property vested in or under the control or management of any local authority, without the permission of that authority; and

d) *in the exercise of the powers conferred by this section, the telegraph* ***authority shall do as little damage as possible, and, when it has exercised those powers in respect of any property other than that referred to in clause (c), shall pay full compensation to all persons interested for any damage sustained by them*** *by reason of the exercise of those powers.*

Unquote.

Section 16 of the Indian Telegraph Act 1885 which stipulates as under:

16. Exercise of powers conferred by section 10, and disputes as to compensation, in case of property other than that of a local authority:

(1) If the exercise of the powers mentioned in Section 10 in respect of property referred to in clause (d) of that section is resisted or obstructed, the District Magistrate may, in his discretion, order that the telegraph authority shall be permitted to exercise them.
(2) If, after the making of an order under sub section (1), any person resists the exercise of those powers, or, having control over the property, does not give all facilities for this being exercised, he shall be deemed to have committed an offence under section 188 of the Indian Penal Code (45 of 1860).

D3. MoP Guidelines on RoW Compensation:

81. Ministry of Power (MoP) vide its order No. 3/7/2015-Trans dated 15th April'15 constituted a Committee comprising of representatives of various State Govt., MoP, Central Electricity Authority (CEA) & POWERGRID under the chairmanship of Special Secretary, MoP to analyze the issues relating to Right of Way for laying of transmission lines in the country and to suggest a uniform methodology for payment of compensation on this account. Based on recommendation of the Committee, Ministry of Power, Govt. of India vide its notification dated 15th Oct'15 has issued guidelines for payment of compensation for damages in regard to RoW (**Annexure-3**). POWERGRID shall pay compensation towards diminution land value to all affected farmers/land owners once it is adopted by respective states. However, State Govt. of Tamil Nadu has not yet adopted the said guidelines for implementation. As per the guidelines following compensation shall be paid in addition to normal tree and crop damage compensation:

i) **Tower base**: Compensation @ 85% of land value as determined by District Magistrate (DM) or any other authority based on Circle rate/ Guideline value/ Stamp Act for tower base area (between four legs).

ii) **Line corridor**: Diminution of land value in the RoW would be decided by States as per categorization/type of land in different places of State subject to maximum of 15% of land value as determined based on Circle rate/ Guideline value/ Stamp Act.

E. POWERGRID's ESPP, 2009

82. To address the environmental and social issues related to its power transmission projects, POWERGRID has developed its corporate Environmental and Social Policy & Procedures (ESPP) in 1998 based on the principles of avoidance, minimization, and mitigation. The ESPP had been updated twice in 2005 & 2009 in line with the requirement of new

enactment by Govt. of India, changed rules and guidelines including that of multilateral funding agency like World Bank, ADB, JBIC etc. and suggestion/best practices and feedback received from different sites and through wide consultation process with various stakeholders. POWERGRID's ESPP'2009 is the first comprehensively analysed by World Bank's under its 'Use of Country Systems (UCS)' policy and is certified to be compliant with Bank's environmental and social safeguards requirement

83. ESPP 2009 outlines POWERGRID's approach and commitment in dealing with the environmental and social issues relating to its transmission projects, lays down the management procedures and protocols for the purpose that includes the framework for identification, assessment, and management of environmental and social concerns at both organizational and project levels. Specifically on social, the following criteria and approach are considered in the ESPP:

(i) Take due precautions to minimize disturbance to human habitations, tribal areas and places of cultural significance.
(ii) Take due care of Project Affected Persons (PAP).
(iii) Involve affected people from inception stage to operation and maintenance.
(iv) Consult affected people in issues of ROWs, land acquisition or loss of livelihood
(v) Encourage consultation with communities in identifying environmental and social implications of projects.
(vi) Guarantee entitlements and compensation to affected people as per its R&R policy.
(vii) Share information with local communities about environmental and social implications.
(viii) Always maintain highest standards of health and safety and adequately compensate affected persons in case of any eventuality.

84. POWERGRID's social entitlements within its Resettlement and Rehabilitation (R&R) framework are varied and include different types of compensation packages. Temporary damages will occur during construction of transmission lines. The R&R framework is applicable in case of permanent land acquisition and not for temporary damages. (There is no permanent land acquisition in this project as land required for extension of 16 bays is already under the possession of EA and transmission lines and towers will create only temporary impacts on land/crops/trees during construction period.)

F. Basic Principles for the Project

85. The basic principles adopted for the Project are:

(i) Avoid negative impacts of land acquisition and involuntary resettlement on persons affected by the Project to the extent possible.
(ii) Where negative impacts cannot be avoided, assist affected persons (AP), in improving or at least regaining their standard of living and income.
(iii) Carry out meaningful consultations with affected persons and inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation and monitoring of the Project
(iv) Disclose all information related to, and ensure AP participation in, resettlement planning and implementation.
(v) Provide compensation for acquired assets at replacement/market value in accordance with the RP/ CPTD.

(vi) Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non land assets
(vii) Provide resettlement assistance and income restoration to APs.
(viii) Provide for APs not present during enumeration. However, anyone moving into the project area after will not be entitled to assistance.
(ix) Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
(x) Provide compensation and resettlement assistance prior to taking possession of the acquired lands and properties.
(xi) Establish grievance redress mechanisms to ensure speedy resolution of disputes.
(xii) Ensure adequate budgetary support to cover implementation costs for CPTD.
(xiii) Monitoring (if required) of the implementation of CPTD.

86. Additionally, the issues related to the Right of Way (RoW) for the transmission lines will be dealt with proper care especially for the temporary loss. For the loss of crops and trees due to construction of overhead lines, compensation amount will be paid through cheque/electronically transferred to the affected persons during construction works as well as during the time of maintenance and repair as per requirement.

G. Cut-off- Date

87. The impacts are temporary in nature in terms of loss of crops etc., which will occur during the construction. The compensation will be paid parallely with construction activities of transmission lines as per assessment of actual damage. A prior notice is served after the detailed/ check survey and finalization of tower location during the construction to the land owners informing that the proposed transmission line is being routed through the property of the individual. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops inevitability likely to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owner. This serves as a record for identifying the actual APs and the date of issuance of this notice can be treated as cut-off-date for identification and assessment of damages.

VII. ENTITLEMENTS, ASSISTANCE AND BENEFITS

A. Entitlements

88. APs will be entitled for compensation for temporary damages to crops/trees/structures etc. as per the Entitlement Matrix given in Table 7.1. The Land Acquisition Act (LAA) will be applicable for the compulsory acquisition of land. They will also receive 'rehabilitation assistance' if their land is permanently acquired, their income source is adversely affected, their homes are fully or partially affected, or other properties such as commercial structures or agricultural structures, crops, trees, and other facilities or access to properties are damaged or reduced because of the Project. Lack of legal documents of their customary rights of occupancy or land titles shall not affect their eligibility for compensation. In the instant case, there is no involuntary land acquisition is involved, only temporary damage will occur during construction of transmission line for which compensation is paid as per relevant norms. Compensation towards temporary damages to all eligible APs including non-title holders is paid as per the assessment and Entitlement Matrix.

89. All APs are paid compensation for actual damages irrespective of their religion, caste and their economic status. As an additional assistance, construction contractors are encouraged to hire local labour that has the necessary skills. One time lump sum assistance to vulnerable households on recommendation of State Authority.

B. Entitlement Matrix

90. An Entitlement Matrix for the subprojects is given in **Table 7.1**

Table 7.1: Entitlement Matrix

S. N.	Type of Issue/ Impact	Beneficiary	Entitlement Options
1.	Loss of crops and trees	Title Holder	Compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops. Timber will be retained by the owner.
2.	Loss of crops and trees	Tenant/ sharecropper / leaseholder[8]	Only the cultivator[9] will get compensation at market rate for crops and 8 years income for fruit bearing trees. APs will be given advance notice to harvest their crops.
3.	Other damages (if applicable)	All APs[10]	Replacement cost as assessed by the concerned authority.
4.	Loss of structure		

[8] This may include non-titled Aps.
[9] Powergrid will explain to AP tenant/sharecropper/leaseholder that the compensation will be provided to the cultivator and the sharing arrangements will have to be determined among themselves.
[10] Titled and Non-titled.

S. N.	Type of Issue/ Impact	Beneficiary	Entitlement Options
	c) House		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation at replacement cost (without deduction for salvaged material) plus Rs. 25,000/- assistance (based on prevailing GOI norms for weaker section housing) for construction of house plus transition benefits as per category-5 below
	d) Shop/ Institutions		
(i)	Loss /Removal of House	Titleholders/ Non-titleholders	Cash compensation plus Rs. 10,000/- for construction of working shed/shop plus rehabilitation assistance equivalent to 1 year income plus transition benefits as per category-5 below
5.	Losses during transition of displaced persons/ establishments/ Shifting / Transport	Family/unit	Provision of transport or equivalent cash for shifting of material/ cattle from existing place to alternate place
6	Impacts on vulnerable APs	Vulnerable APs[11]	One time lumpsum assistance to vulnerable households on recommendation of State Authority. This will be paid over and above other assistance. Vulnerable APs to get priority under Corporate Social Responsibility (CSR) activities.
7	Land area below tower base	Owner	85% of land cost as decided by District Magistrate **(#)**
8	Land coming in corridor of width of Right of Way	Owner	15% of land cost as decided by District Magistrate **(#)**

(#) As per MoP guidelines dated 15.10.15.regarding payment of compensation for damages in respect to RoW for transmission line

C. Procedure of Tree/crop compensation

91. In exercise of the powers conferred by section 164 of the Electricity Act, 2003, Ministry of Power vide Gazette notification dated Dec. 24, 2003 has authorized POWEGRID to exercise all the power vested in the Telegraph Authority under part-III of the Indian Telegraph Act, 1885, to place and maintain transmission lines under over along or across and posts in or upon, any immoveable property. The provisions of same act in Section 10 (d) stipulates that the user agency shall pay full compensation to all interested for any damages sustained during the execution of said work. Accordingly, POWERGRID pays compensation to land owners towards damages if any to tree, crop etc. during implementation of transmission project as well as during operation and maintenance phase. The procedure followed for such compensation is as follows:

92. POWERGRID 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

[11] Vulnerable APs include scheduled tribes/ scheduled caste/ households headed by women/ physically handicapped/ disabled families, etc. as certified by local authority.

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 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.
- 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.

93. A prior notice is served to the land owners informing that the proposed transmission line is being routed through the property of the individual. The notice shall contain the particulars of the land, ownership details and the details of the trees/crops inevitability likely to be damaged during the course of the construction of the proposed transmission line and acknowledgement received from land owner. A copy of said notice is further issued to the Revenue Officer, who has been authorized by the State Govt. for the purpose of assessment/valuation and disbursement of compensation to the affected parties.

94. 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 Mahazar is prepared for the identified trees and crops 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.

95. The Mahazars/revenue record shall contain the land owner details 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 Chitahs are further compiled and a random verification is conducted by the concerned District Collector 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 issues a tree cutting permit to POWERGRID to enable removal / damage to the standing tree/crop identified in the line corridor.

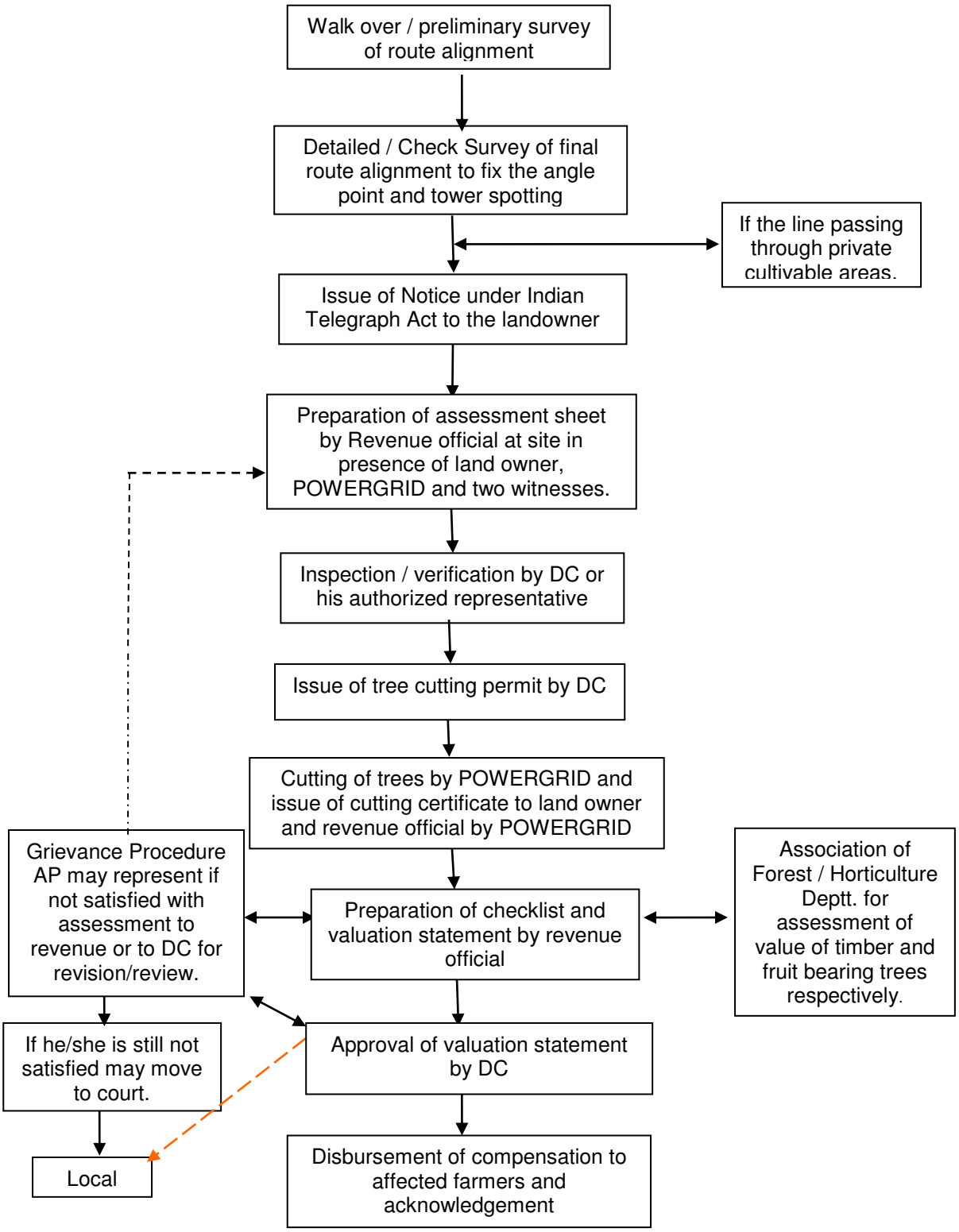
96. Once the tree/crop is removed / damaged, POWERGRID shall issue a tree cutting/crop damaged notice to the land owner with a copy to the Revenue Officer to process the compensation payment. Based on the above the compensation payment is prepared for this purpose. The detailed Valuation statement is verified at various levels and approval of payment of compensation is accorded by the concerned District Collectors. The land requirement for erection of tower legs is very small i.e. for each leg of tower actual construction area ranges from 0.45 to 0.7 m. a small square area of about 0.2 sq.m. to 0.49 sq.m. depending on the type of tower. Four such square pieces of land will be required to place the legs of tower. The area that becomes unavailable because of the erection of tower legs for an average 400KV D/C transmission tower is approximately 1 sq.m. of land. This impact on agriculture land is negligible. However, while assessing the compensation for damages, POWERGRID usually

considers larger area during calculation of damages (approximately 50X50 m= 2500 sq.m.). A sample compensation & payment is enclosed as **Annexure-4**.

97. On approval of compensation, the revenue officer shall further intimate the amount payable to the different land owners and POWERGRID arranges the payment directly to the affected persons through online transfer after due verification of the documents in presence of other witnesses.

98. For other damages, State Govt. Revenue Department assess the cost of damage. The total estimate is submitted for approval to the competent authority. Payments are made to owners in the presence of local revenue authorities or village head/ *Sarpanch* and respective acknowledgements are obtained and POWERGRID pays the compensation. Hindrances to power, telecom carrier & communication lines etc. shall be paid as per Govt. norms. Process of tree/crop compensation is depicted in **Figure-7.2**.

Figure-7.2: Tree / Crop Compensation Process



VIII. BUDGET

99. The CPTD Implementation cost estimate for the project includes eligible compensation for temporary impact on land and loss of crops, trees and support cost for implementation of CPTD, monitoring, other administrative cost etc. In the instant project, a budget provision has been made for compensation for Tower Base (85% of the land cost) and RoW Corridor (maximum 15% of the land cost) as per MoP guidelines (though the Govt. of Tamil Nadu yet to adopt the said guidelines for implementation). Accordingly the cost has been estimated in the budget by including these provisions. However, this is a tentative budget which may change during the original course of implementation. The unit cost for the loss of crop has been derived from the rapid field appraisal and based on POWERGRID's previous experience of similar project implementation. Contingency provision equivalent to 3% of the total cost has also been made to accommodate any variations from this estimate. Sufficient Budget has been provided to cover all compensation towards crops losses, other damages etc., As per POWERGRID's previous projects and strategy for minimization of impacts an average of 45% of the affected land is expected for compensation for crops and other damages. Structure will be avoided to the extent possible. However, if any structure is affected, budget provisions are available to cover all damages as per entitlement matrix. In any case no residential structure shall be affected. Therefore, provisions of budget expenditure for implementation of CPTD for the subprojects considering corridor of 40 meter maximum (though affected part of corridor for compensation of crops/other damages would be about 45% as per POWERGRID's projects previous practices).

A. Compensation for Land for Tower Base and RoW Corridor

100. The land area for tower base is estimated as 0.172 acre per km. Similarly, for RoW corridor the area is estimated 11.19 acre per km. The cost of land varies depending on land use type of the area by considering @ Rs. 15 lakh/acre for agriculture land in rural setting, @ Rs. 25 lakh/acre in Urban/Semi-urban areas near Cities/Towns and @ Rs. 50 lakh/acre in urban areas near Big Cities/Metro Towns. Accordingly the cost of compensation for land for entire length is thus estimated as Rs. 1966.02 Lakh for tower base and Rs. 22571.63 Lakh for RoW corridor. A detail of line wise cost is given below in **Table 8.1**.

Table 8.1: Cost of Land Compensation for Tower Base & RoW Corridor

Sl. No.	Line	Length (km.)	Total Compensation for Tower Base @ 85% of land cost (in Rs. Lakhs)	Total Compensation for RoW Corridor @ 15% of land cost (in Rs. Lakhs)	Total Compensation for the Line (Tower base & RoW Corridor) in Rs. Lakhs
1	Pugalur - Pugalur 400kV (quad) D/c	55	160.82	1846.35	2007.17
2	Pugalur HVDC Station - Arasur 400kV (quad) D/c	58	228.07	2618.46	2846.53
3	Pugalur HVDC Station - Thiruvalam 400kV (quad) D/c	390	1313.24	15077.13	16390.37
4	Pugalur HVDC Station – Edayarpalayam 400kV (quad) D/c	56	138.16	1586.18	1724.34

5	Edayarpalayam Udumulpet 400kV (quad) D/c	56	125.73	1443.51	1569.24
TOTAL		**615**	**1966.02**	**22571.63**	**24537.65**

Note: Effective ROW corridor area has been considered after excluding tower base area
Compensation cost for Tower base area and ROW corridor is considered for line length excluding forest stretch.

B. Compensation for Crops and Tree

101. Construction of line in crop and fruit bearing season is avoided as far as possible. In case of crops a detailed survey is conducted looking at existing crops, general crop patterns, seasonal particulars, nature and extent of yield. The compensation is calculated in consultation with revenue authorities in terms of yield/hectare and rate/quantity for prevailing crops in the area. Similarly, in case of trees compensation is calculated on basis of tree enumeration, tree species and an estimate of the yield. In case of fruit bearing trees compensation will be calculated on the basis of 8 years yield (assessed by revenue/horticulture department). Market rates of compensation are assessed by the relevant government authorities. The estimation of crop and tree damages are based on preliminary investigation and accordingly budgetary provisions are made which will be updated after detailed survey / during implementation. Details of line wise cost is given in **Table 8.2** below

Table 8.2: Cost of Compensation for Crops and Trees

Sl No.	Transmission Lines	Total Length (Km)	Compensation /Km (Lakh)	Total compensation cost for Crops and trees (Lakh)
1.	Pugalur HVDC Station - Pugalur (Existing) 400kV (quad) D/c	55	5	275.00
2.	Pugalur HVDC Station - Arasur 400kV (quad) D/c	58	5	290.00
3.	Pugalur HVDC Station - Thiruvalam 400kV (quad) D/c	385	5	1925.00
4.	Pugalur HVDC Station – Edayarpalayam (TANTRANSCO) 400kV (quad) D/c	56	5	280.00
5.	Edayarpalayam (TANTRANSCO) Udumulpet 400kV (quad) D/c	56	5	280.00
TOTAL		**610**		**3050.00**

C. Summary of Budget

102. The total indicative cost is estimated to be INR 28498.71 Lakhs equivalent to USD 43.84 million. Details are given in **Table 8.3**. The following estimated budget is part of complete project cost as on date including the counterpart financing to be met by POWERGRID sources. However, actual updation of the estimated cost shall be updated during execution.

Table 8.3: Budget Estimates

Item	Amount in Lakh (INR)	Amount in (Million USD)
A. Compensation		
A-1: Loss of Crops and Trees	3050.00	4.69
A-2: Land Compensation for Tower Base and RoW Corridor	24537.65	37.75
Sub Total-A	**27587.65**	**42.44**
B: Implementation Support Cost		
B-1: Man-power involved for CPTD implementation & Monitoring	61.00	0.09
B-2: External Monitoring if required	20.00	0.03
Sub Total- B	**81.00**	**0.12**
Total (A+B)	**27668.65**	**42.57**
Contingency (3%)	**830.06**	**1.28**
Grand Total	**28498.71**	**43.84**

IX. INSTITUTIONAL ARRANGEMENTS

A. General

103. POWERGRID will be the Implementing Agency (IA) for the Project. The implementation and monitoring are critical activities shall be followed as per Implementation Chart/Schedule. Monitoring is a continuous process for POWERGRID projects at all the stages are it the site selection, construction or maintenance. The success of POWERGRID lies in its strong monitoring systems. Apart from the site managers reviewing the progress on daily basis regular project review meetings are held at least on monthly basis which is chaired by Executive Director of the region wherein apart from construction issues the social 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. Following is the organization support system for proper implementation and monitoring of Social Management Plan:

B. Institutional Arrangements at different Levels

1. Corporate Level

104. An Environmental Management Cell at corporate level was created within POWERGRID in 1992 and subsequently upgraded to an Environment Management Department (EMD) in 1993 and in 1997 it has been further upgraded to Environment & Social Management Deptt. (ESMD) by incorporating social aspect of project. Briefly, the ESMD's responsibilities are as follows:

- Advising and coordinating RHQs and Site to carry out environmental and social surveys for new projects;
- Assisting RHQs and site to finalize routes of entire power transmission line considering environmental and social factors that could arise en-route;
- Help RHQs and Site to follow-up with the state forest offices and other state departments in expediting forest clearances and the land acquisition process of various ongoing and new projects;
- Act as a focal point for interaction with the MoEF&CC for expediting forest clearances and follow-ups with the Ministry of Power;
- Imparts training to POWERGRID's Regional Head Quarters (RHQs) & Site Officials on environment and social issues and their management plan.

2. Regional Level

105. At its Regional Office POWERGRID has an Environmental and Social Management cell (ESMC) to manage Environmental and Social issues and to coordinate between ESMD at the corporate level and the Construction Area Office (CAO) of site. The key functions envisaged for ESMC are:

- Advising and coordinating field offices to carry out environmental and social surveys for new projects envisaged in the Corporate Investment Plan;

- Assisting the ESMD and CAOs to finalize routes of entire power transmission lines considering the environmental and social factors that could arise en-route;
- To follow-up forest clearances and land acquisition processes with state forest offices and other state departments for various ongoing and new projects;
- Acting as a focal point for interaction with the ESMD and CAOs on various environmental and social aspects.

3. Site Office

106. At the Construction Area office (CAO) level, POWERGRID has made the head of the site responsible for implementing the Environmental and Social aspect of project and are termed as Environmental and Social Management Team (ESMT). Key functions of the ESMT are:

- Conduct surveys on environmental and social aspects to finalize the route for the power transmission projects
- Conduct surveys & Interact with Revenue Authorities for land acquisition.
- Interact with the Forest Departments to make the forest proposal and follow it up for MoEF&CC clearance.
- Implementation of Environment Management Plan (EMP)/CPTD
- Monitoring of EMP/CPTD & producing periodic reports on the same.

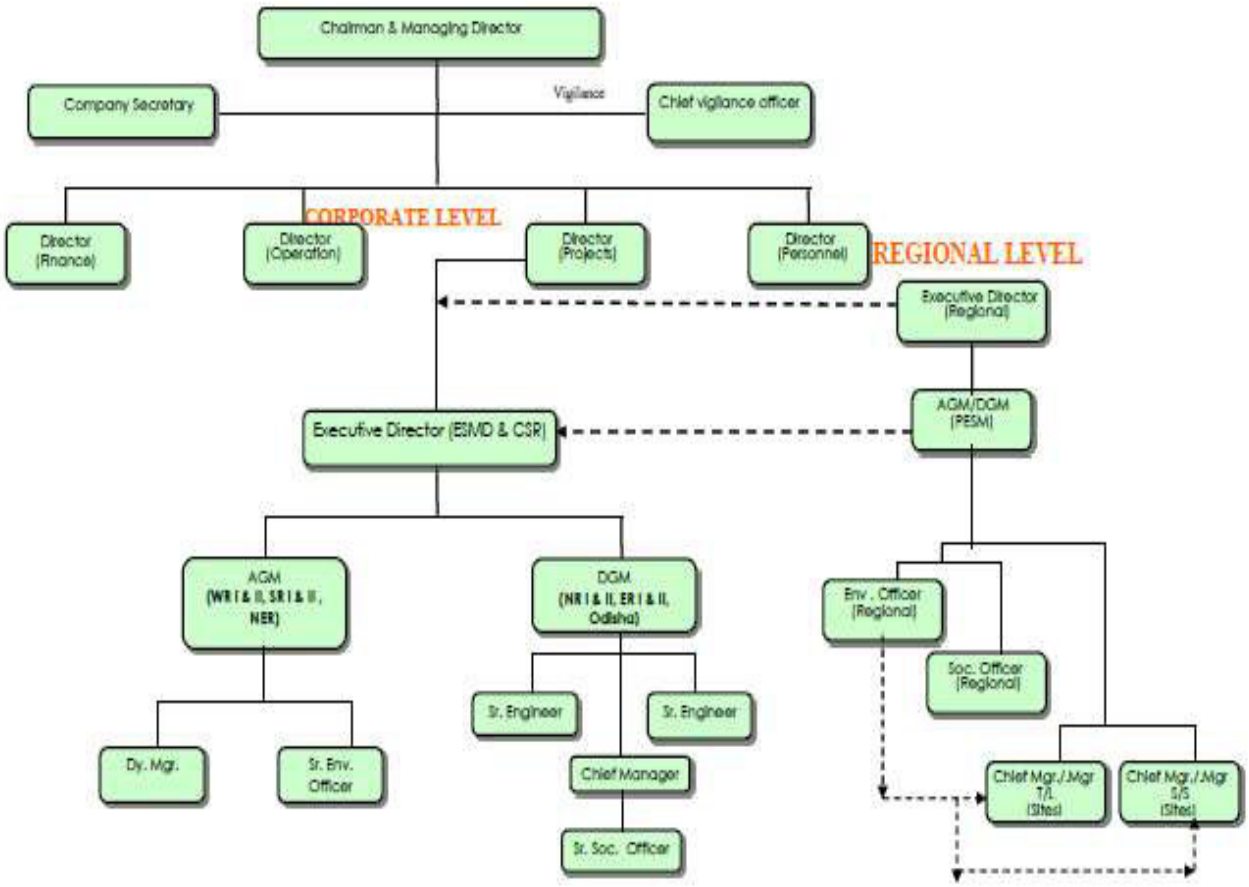
107. For the instant subprojects, POWERGRID will implement the CPTD and will do the overall coordination, planning, implementation, financing and maintaining all databases, work closely with APs and other stakeholders. The database will be managed by POWERGRID through its Regional ESMC staffs by collecting input from the field staffs which may be monitored/audit by the external monitoring agency, if required. POWERGRID will ensure that local governments are involved in the plans implementation to facilitate all settlement of compensation related activities before commencing civil works. Based on regularly updated social assessment & compensation data, a central database will also be maintained by POWERGRID. Roles and responsibilities of various agencies are in **Table 9.1.** The institutional support structure is depicted in **Figure: 9.1.**

Table 9.1: Agencies Responsible for CPTD Implementation

Activity	Agency Responsible
Implementing CPTD	Field staffs, POWERGRID
Updating the CPTD	ESMC (RHQ), POWERGRID
Review and Approval of CPTD	POWERGRID
Verification survey for identification of APs	POWERGRID field staff & Revenue officials
Survey for identification of plots for Crop/Tree/ other damages Compensation	POWERGRID & Revenue officials
Consultation and disclosure of CPTD to APs	POWERGRID & Revenue officials
Compensation award and payment of compensation	Revenue Dept / Competent Authority
Fixing of Replace cost and assistance	Revenue Dept / Competent Authority
Payment of replacement cost compensation	POWERGRID
Takeover temporary possession of	POWERGRID and Revenue Department

Activity	Agency Responsible
land/houses	
Hand over temporary possession land to contractors for construction	POWERGRID
Notify construction starting date to APs	POWERGRID field staff
Restoration of temporarily acquired land to its original state including restoration of private or common property resources	Contractors subject to monitoring by POWERGRID
Development, maintenance and updating of Compensation database	POWERGRID
Development, maintenance and updating of central database	POWERGRID
Internal monitoring	POWERGRID
External monitoring, if required	External Monitoring Agency

Figure 9.1: Institutional Structure



C. Staff Training on Environment and Social Issues

108. Environment and social Management Department (ESMD) in association with HRD organizes training program on Environment and Social Management (E&SM) including, Corporate Social Responsibility, ISO-14001 requirement. During FY 2014-15, 2015-16, POWERGRID have been imparted 494 & 512 mandays training respectively on E&S aspects. Selected officials have also been attended many training program on R&R sponsored by the World Bank and ADB. Executives at ground levels have shown remarkable improvement in appreciating/ dealing with these issues. Apart from these, dedicated program in all other technical training program one slot is invariably provided particularly for environmental & social issues and it's management.

X. IMPLEMENTATION SCHEDULE

109. Assuming Award letter for execution of work to be placed in mid-2017, the following work schedule is drawn for implementation of CPTD. Tentative implementation schedule for project including various sub tasks presented in **Table 10.1**.

Table 10.1: Tentative Implementation Schedule

Sl. No.	Activity	2016				2017				2018				2019			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.	**Initial CPTD Matrix disclosure**																
2.	**Detailed Survey**																
3.	**Public Consultation**																
4.	**Compensation Plan Implementation**																
i)	Compilation of land record, ownership,																
ii)	Finalization of list of APs, fixing rate by DC																
iii)	Serving of Notice to APs																
iv)	Joint assessment &acknowledgement by APs																
v)	Validation of Compensation amount																
vi)	Compensation Payment																
5.	**Civil Works**																
6.	**Review/ Activity Monitoring**																
i)	Monthly																
ii)	Quarterly																
iii)	Half yearly																
iv)	Annual																
7.	**Grievance redress**																
8.	**CPTD Documentation**																
9.	**External Monitoring, if required**																

XI. MONITORING AND REPORTING

110. Monitoring will be the responsibility of POWERGRID. POWERGRID will disclose semi-annual monitoring reports on their safeguards implementation performance on its website and submit the reports to ADB & AIIB for information and disclosure.

111. Internal monitoring will be the responsibility of POWERGRID and its internal monitoring will include: (i) administrative monitoring: daily planning, implementation, feedback and trouble shooting, individual AP file maintenance, and progress reports; and (ii) socio-economic monitoring: Compensation of crops/trees or any other damages, demolition if any, salvaging materials, dates for consultations, and number of appeals placed. A semi-annual monitoring report documenting progress on implementation of CPTD will be provided by POWERGRID to ADB & AIIB.

112. POWERGRID will engage the services of an independent agency/external monitoring, if required. Provisions have been made in the compensation budget component for engaging an external monitor.

113. POWERGRID is well equipped to implement and monitor its environment and social management plan including CPTD. Organizational Support Structure for monitoring of above is provided in **Figure 9.1**.

ANNEXURES

ANNEXURE-1: EVALUATION OF ALTERNATE ROUTE ALIGNMENTS

Three different alignments were studied with the help of published **data**/**maps** such as Forest Atlas, Survey of India topographic sheets, etc. and walkover survey to arrive at the most optimum route to be considered for detailed survey. The line wise comparative detail of these alternatives is placed in below:

1. Pugalur HVDC Station - Pugalur (Existing) 400kV (quad) D/c line

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	**Route particulars**			
i.	Route Length (km)	58	55	60
ii.	Terrain			
	Hilly	Nil	Nil	Nil
	Plain	100%	100%	100%
2.	**Environmental impact**			
i.	Name of District(s) through which the line passes	Karur & Tirupur	Karur & Tirupur	Karur & Tirupur
ii.	Town in alignment	Kammarayakampatti Kodandur, Malaikovil, K.Paramatti	Kambaliyampatti, Vellakovil, Karukattu, Kunampatti, Munnur	Ollapalaiyam, Mulayampudi, Gudalur, Nedungur, Pavitram
iii.	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv.	Forest involvement (km/ha.)	Nil	Nil	Nil
v.	Type of Forest (RF/PF)& whether part of Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/ Biosphere Reserve/ Wetlands or any other environmentally sensitive area, if any	N.A	N.A	N.A
vi.	Density of Forest	N.A	N.A	N.A
vii.	Type of flora	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Papaya(*Carica papaya),* Banana (*Musa acuminate*)etc.	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Papaya(*Carica papaya),* Banana (*Musa acuminate*)etc.	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Papaya(*Carica papaya),* Banana (*Musa acuminate*) etc.
viii.	Type of fauna	Domestic species like Goat (Capra hircus), Sheep (Ovis aries), Cow (Bos indicus), Buffalo (Bubalus bubalis) etc.	Domestic species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis) etc.*	Domestic species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis) etc.*
ix.	Endangered species, if any	Nil	Nil	Nil

S.N	Description	Alternative-I	Alternative-II	Alternative-III
x.	Historical/cultural Monuments, if any	Nil	Nil	Nil
3.	**Compensation Cost:**			
i.	Crop (Non Forest)	290.00 lakhs (@ 5 lakhs/km)	275.00 lakhs (@ 5 lakhs/km)	300.00 lakhs (@ 5 lakhs/km)
ii.	Land for Tower Base & RoW Corridor	2007.17 lakhs	1903.00 lakhs	2076.00 lakhs
iii.	Forest (CA+NPV)	Nil	Nil	Nil
4.	**Major Crossings:**			
i.	Highway(NH/SH)	Nil	1(NH)	Nil
ii.	Power Line (Nos.)	5	4	5
iii.	Railway Line (Nos.)	Nil	Nil	Nil
	River Crossing(Nos.	1	Nil	1
5.	**Overall remarks**	Line length is more and also involves moderate RoW issues due to habitation area & river crossing.	Line length is less and involves relatively less ROW issues & fewer habitats.	Line length is longest and also involves moderate RoW problems due to proximity of habitation area & river crossing.

From the comparative analysis of three alternative routes, it is evident that none of the three alternative routes studied involves forest or wildlife area. However, Alternative-II is shorter in length and involves less RoW issues as the line is not passing through major habitation areas as compared to Alternative-I & III. Since the route length is shorter, it will involve minimum tree felling & lesser degree of environmental impact is anticipated. Hence, Alternative - II is considered as the most optimum route and recommended for detailed survey.

2. Pugalur HVDC Station - Arasur 400kV (quad) D/c line

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	**Route particulars**			
i.	Route Length (km)	58	60	62
ii.	Terrain			
	Hilly	Nil	Nil	Nil
	Plain	100%	100%	100%
2.	**Environmental impact**			
i.	Name of District(s) through which the line passes	Tirupur & Coimbatore	Tirupur & Coimbatore	Tirupur & Coimbatore
ii.	Town in alignment	Karumatampati, Palipalayam, Velampalayam, Palladam, Pongalur	Karumatampati, Mangalam, Tiruppur, Eilapalaiyam Avanashipalayam	Karumatampati, Soma-nur, Kalivelampatti, Vadugapalaiyam, Tayampalaiyam
iii.	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv.	Forest involvement (km/ha.)	Nil	Nil	Nil

S.N	Description	Alternative-I	Alternative-II	Alternative-III
v.	Type of Forest (RF/PF)& whether part of Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/ Biosphere Reserve/ Wetlands or any other environmentally sensitive area, ifany	N.A	N.A	N.A
vi.	Density of Forest	N.A	N.A	N.A
vii.	Type of flora	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.
viii.	Type of fauna	Domestic fauna species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*	Domestic fauna species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*	Domestic fauna species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*
ix.	Endangered species, if any	Nil	Nil	Nil
x.	Historical/cultural Monuments, if any	Nil	Nil	Nil
3.	**Compensation Cost:**			
i.	Crop (Non Forest)	290.00 lakhs (@ 5 lakhs/km)	300.00 lakhs (@ 5 lakhs/km)	310.00 lakhs (@ 5 lakhs/km)
ii.	Land for Tower Base & RoW Corridor	2846.00 lakhs	2946.60 lakhs	3041.72 lakhs
iii.	Forest (CA+NPV)	Nil	Nil	Nil
4.	**Major Crossings:**			
i.	Highway(NH/SH)	Nil	1(NH)	Nil
ii.	Power Line (Nos.)	1	3	3
iii.	Railway Line (Nos.)	Nil	Nil	Nil
iv.	River Crossing (Nos	Nil	Nil	Nil
5.	**Overall remarks**	Line length is more and also involves moderate RoW issues due to habitation area & river crossing.	Line length is less and involves relatively less ROW issues & fewer habitats.	Line length is longest and also involves moderate RoW problems due to proximity of habitation area & river crossing.

From the above comparison of the three (3) different alternatives, it is evident that although there is no forest involvement in all the three routes, Alternative- I is found to be shortest route and also less RoW issues due to involve fewer habitation areas & crossings as compared to other two alternatives. Hence, lesser degree of environmental impacts like minimum tree felling as well as construction and O&M problems are anticipated. Hence, Alternative - I is considered as the most optimized route and recommended for detailed survey.

3. Pugalur HVDC Station - Thiruvalam 400kV (quad) D/c line

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	**Route particulars**			
i.	Route Length (km)	410	390	420
ii.	Terrain			
	Hilly	10%	10%	10%
	Plain	90%	90%	90%
2.	**Environmental impact**			
i.	Name of District(s) through which the line passes	Karur, Tirupur, Namakkal, Erode, Salem, Dharmapuri, Thiruvanamalai, Vellore	Karur, Tirupur, Namakkal, Erode, Salem, Dharmapuri, Thiruvanamalai, Vellore	Karur, Tirupur, Namakkal, Erode, Salem, Dharmapuri, Thiruvanamalai, Vellore
ii.	Town in alignment	Gudiyatatm, Makur Vanyambadi, Erode, Tiruppattur, Uttan-garai, Dharampuri,	Tiruvannamalai, Kaliakurichchi, Kambaliyumpatti,	Arcot, Tiruvannamalai, Arani, Kaliakurichchi, Kambaliyumpatti, Polur, Palipuram
iii.	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv.	Forest involvement (km/ha.)	Approx. 4 km (18.4 Ha.)	Approx. 5 km (23 Ha)	Approx. 5 km (23Ha)
v.	Type of Forest (RF/PF)& whether part of Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/ Biosphere Reserve/ Wetlands or any other environmentally sensitive area, if any	Reserve Forest	Reserve Forest	Reserve Forest
vi.	Density of Forest	Medium dense	Medium dense	Medium dense
vii.	Type of flora	*Mango (Mangifera indica), Arjuna (Terminalia arjuna), Jamun (Syzygium cumini), Coconut (Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.	*Mango (Mangifera indica), Arjuna (Terminalia arjuna), Jamun (Syzygium cumini), Coconut (Cocos nucifera), Neem (Azadirachta indica), Areca Nut (Areca catechu), Paddy (Oryza sativa), Banana (Musa acuminate) etc.*	*Mango (Mangifera indica), Arjuna (Terminalia arjuna), Jamun (Syzygium cumini), Coconut (Cocos nucifera), Neem (Azadirachta indica), Areca Nut (Areca catechu), Paddy (Oryza sativa), Banana (Musa acuminate) etc.*
viii.	Type of fauna	Fox(*Vulpes benghalensis,* Wild boar (*Sus scrofa*) & domestic species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*	Fox (*Vulpes benghalensis,* Wild boar (*Sus scrofa*) & domestic species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*	Fox (*Vulpes benghalensis,* Wild boar (*Sus scrofa*) & domestic species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*

S.N	Description	Alternative-I	Alternative-II	Alternative-III
ix.	Endangered species, if any	Nil	Nil	Nil
x.	Historical/cultural Monuments, if any	Nil	Nil	Nil
3.	**Compensation Cost:**			
	Crop (Non Forest)	2030.00 lakhs (@ 5 lakhs/km)	1925.00 lakhs (@ 5 lakhs/km)	2075 lakhs (@ 5 lakhs/km)
	Land for Tower Base & RoW Corridor	17283.00 lakhs	16390.00 lakhs	17667.00 lakhs
	Forest (CA+NPV)	368.00 lakhs (@ 20 lakhs/ha.)	460.00 lakhs (@ 20 lakhs/ha.)	460.00 lakhs (@ 20 lakhs/ha.)
4.	**Major Crossings:**			
i.	Highway(NH/SH)	2(NH)	2(NH)	2(NH)
ii.	Power Line (Nos.)	40	37	40
iii.	Railway Line (Nos.)	2	5	5
iv.	River Crossing (Nos.)	2	2	2
5.	**Overall remarks**	Line length is more and also involve moderate RoW issues as the line route is passing close to habitation area	Shortest in line length and involve minimum RoW problems due to avoidance major habitation area	Line length is longest and also involve moderate RoW problems due to proximity of habitation area

From the above comparison of three (3) different alternatives, it is evident that although Alternative- II involve forest area like other alternatives but it found to be shortest route having minimum RoW issues. Further, lesser degree of environmental impacts like minimum tree felling as well as construction and O&M problems are anticipated as the line route of Alternative- II doesn't involve any major habitation areas like in other two alternatives. Hence, Alternative - II is considered as the most optimized route and recommended for detailed survey.

4. Pugalur HVDC Station – Edayarpalayam(TANTRANSCO) 400kV (quad) D/c line

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	**Route particulars**			
i.	Route Length (km)	58	56	60
ii.	Terrain			
	Hilly	Nil	Nil	Nil
	Plain	100%	100%	100%
2.	**Environmental impact**			
i.	Name of District(s) line passes	Tirupur & Coimbatore	Tirupur & Coimbatore	Tirupur & Coimbatore
ii.	Town in alignment	Chettipalayam, Laxminayakan-palaiyam, Vadamalaipalayam, Tayampalaiyam Kettanur,	Chettipalayam, Velappanayakkan-palaiyam, Mandripalayam, Vadamalaipalaiyam, Tayampalaiyam	Chettipalayam, Pannapatti, Muttukavundanpudi, Veruvedampaliyam, Kundadam
iii.	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv.	Forest involvement (km/ha.)	Nil	Nil	Nil

S.N	Description	Alternative-I	Alternative-II	Alternative-III
v.	Type of Forest (RF/PF)& whether part of Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/ Biosphere Reserve/ Wetlands or any other environmentally sensitive area, ifany	N.A	N.A	N.A
vi.	Density of Forest	N.A	N.A	N.A
vii.	Type of flora	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banan (*Musa acuminate*) etc	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.
viii.	Type of fauna	Domestic fauna species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*	Domestic fauna species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*	Domestic fauna species like Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*
ix.	Endangered species, if any	Nil	Nil	Nil
x.	Historical/cultural Monuments, if any	Nil	Nil	Nil
3.	**Compensation Cost:**			
iv.	Crop (Non Forest)	290.00 lakhs (@ 5 lakhs/km)	280.00 lakhs (@ 5 lakhs/km)	300.00 lakhs (@ 5 lakhs/km)
v.	Land for Tower Base & RoW Corridor	1785.82 lakhs	1724.34 lakhs	1847.40 lakhs
vi.	Forest (CA+NPV)	Nil	Nil	Nil
4.	**Major Crossings:**			
i.	Highway(NH/SH)	2(NH)	2(NH)	2(NH)
ii.	Power Line (Nos.)	8	8	8
iii.	Railway Line (Nos.)	Nil	Nil	Nil
iv.	River Crossing (Nos	Nil	Nil	Nil
5.	**Overall remarks**	Line length is relatively more and involves moderate RoW issues due to presence of habitation areas	Line length is less and involves relatively less ROW issues due to fewer habitats.	Line length is longest and also involves moderate RoW problems due to proximity of habitation area & plantation.

From the above comparison of three (3) different alternatives, it is evident that although Alternative- II is found to be shortest route having minimum RoW issues. Further, lesser degree of environmental impacts like minimum tree felling as well as construction and O&M problems are anticipated as the line route of Alternative- II doesn't involve any plantation and habitation area like in other two alternatives. Hence, Alternative - II is considered as the most optimized route and recommended for detailed survey.

5. Edayarpalayam (TANTRANSCO) Udumulpet 400kV (quad) D/c line

S.N	Description	Alternative-I	Alternative-II	Alternative-III
1.	**Route particulars**			
i.	Route Length (km)	58	56	60
ii.	Terrain			
	Hilly	Nil	Nil	Nil
	Plain	100%	100%	100%
2.	**Environmental impact**			
i.	Name of District(s) line passes	Tirupur & Coimbatore	Tirupur & Coimbatore	Tirupur & Coimbatore
ii.	Town in alignment	Chettipalayam, Pannapatti, Velur, Arasampalayam, Ramchandrapuram, Peddapampati, Udumalpet	Chettipalayam, Purandampalaiyam, Krshnapuram, Chikkanattu, Jallipatti, Tungavi, Udumalpet Gudimangalam,	Chettipalayam, Arasampalaiyam, Vadachittur, Kottampatti, Valakondapuram, Pukkalam, Udumalpet
iii.	House within RoW	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey	Shall be ascertained after detailed survey
iv.	Forest involvement (km/ha.)	Nil	Nil	Nil
v.	Type of Forest (RF/PF)& whether part of Wildlife Area/ Elephant corridor/ Biodiversity Hotspots/ Biosphere Reserve/ Wetlands or any other environmentally sensitive area, ifany	N.A	N.A	N.A
vi.	Density of Forest	N.A	N.A	N.A
vii.	Type of flora	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*Banana (*Musa acuminate*) etc	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.	Coconut (*Cocos nucifera*), Neem (*Azadirachta indica*), Areca Nut (*Areca catechu*), Paddy (*Oryza sativa)*, Banana (*Musa acuminate*) etc.
viii.	Type of fauna	Goat *(Capra hircus)*, Sheep *(Ovis aries), C*ow (*Bos indicus*), Buffalo *(Bubalus bubalis)*	Goat (Capra hircus), Sheep (Ovis aries), Cow (Bos indicus), Buffalo (Bubalus bubalis)	Goat (Capra hircus), Sheep (Ovis aries), Cow (Bos indicus), Buffalo (Bubalus bubalis)
ix.	Endangered species, if any	Nil	Nil	Nil
x.	Historical/cultural Monuments, if any	Nil	Nil	Nil
3.	**Compensation Cost:**			
i.	Crop (Non Forest)	290.00 lakhs (@ 5 lakhs/km)	280.00 lakhs (@ 5 lakhs/km)	300.00 lakhs (@ 5 lakhs/km)
ii.	Land for Tower Base & RoW Corridor	1625.16 lakhs	1569.24 lakhs	1681.20 lakhs
iii.	Forest (CA+NPV)	Nil	Nil	Nil

S.N	Description	Alternative-I	Alternative-II	Alternative-III
4.	**Major Crossings:**			
i.	Highway(NH/SH)	2(NH)	2(NH)	2(NH)
ii.	Power Line (Nos.)	10	10	10
iii.	Railway Line (Nos.)	Nil	Nil	Nil
iv.	River Crossing (Nos	Nil	Nil	Nil
5.	**Overall remarks**	Line length is relatively more and also involves moderate RoW issues due to habitation areas	Line length is less, easy approachability to line route and involves relatively less ROW issues	Line length is longest and also involve moderate RoW problems due to proximity of habitation areas

From the comparative analysis of three alternative routes, it is evident that none of the three alternative routes studied involves forest area. However, Alternative-II is shorter in length, involves less RoW issues and also better approachability as compared to Alternative-I & III. Further, lesser degree of environmental impacts like minimum tree felling and construction and operational problems are anticipated. Hence, Alternative -II is considered as the most optimum route and recommended for detailed survey.

ANNEXURE-2: PUBLIC CONSULTATIONS

Report on Public Consultation meeting held from 31.05.16 to 02.06.16 on construction of HVAC transmission lines under AC System Strengthening at Pugalur end for HVDC bipole link between WR (Raigarh) & SR (Pugalur)

As per the Environment and Social Policy and Procedure (ESPP), public consultation meeting was held on construction of HVAC transmission lines from under AC System Strengthening at Pugalur end for HVDC bipole link between Western Region (Raigarh) and Southern Region (Pugalur) at the following location/s

1. Ammapalyam, Arni Taluk, Thiruvanamalai District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the members of the panchayat, village heads along with the general public of the village. The list of participants along with photographs enclosed as Annexure 2.

POWERGRID officials were introduced to the villagers by Sri. Murali, Panchayat Member, who welcomed them to the meeting and informed that they were all very happy to hear about a prestigious project which is coming near their village and requested POWERGRID to support in the upliftment of the village youth by engaging them in any suitable construction works for this project.

Sri.CA Mathew, AGM, HVDC Pugalur CAO welcomed the public on behalf of POWERGRID to the public consultation meeting and briefed them about POWERGRID and the project. The importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general were also detailed.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks by Sri. Manivannan, Sr.Engineer, POWERGRID, Tiruvalam.

List of participants for the public consultation at Ammapalyam, village on 31.05.16

POWERGRID:

1.	Sri. CA Mathew	AGM / HVDC Pugalur CAO.
2.	Sri. Manivannan	Sr. Engg / Tiruvalam
3.	Sri. Rajamanikam	JE / Tiruvalam

Ammapalyam, Thiruvanamalai District:

1.	Sri. Murali	Panchayat member
2.	Sri. Seenu	Panchayat member
3.	Other villagers	

Total 25 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Ammapalyam, Thiruvanamalai District, Tamil Nadu

Annexure 1: Meeting notice – Ammapalyam, Thiruvanamalai District, Tamil Nadu

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

765 / 400 के. वी. तिरुवलम उपकेन्द्र, के.आर.तांगल गाँव (पी.ओ.), काटपाडी तालुक, वेल्लोर-632 516, तमिलनाडु, दूरभाष : 04172-255522 / 255255
765/400 kV Tiruvalam Substation, K.R. Thangal Village (P.O.), Katpadi Taluk, Vellore-632 516, Tamilnadu. Phone : 04172-255522 / 255255
ई-मेल / e-mail: pgthiruvalam@gmail.com / pgthiruvalam@yahoo.com

संदर्भ संख्या/Ref. No. SR-II/TVLM/TLC/4235 दिनांक/Date : 27/5/16

To

தலைவர்/The Panchayat President
கிராம பஞ்சாயத்து/Gram Panchayat
AMMAPALYAM, THIRUVANAMALAI DIST

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு

Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிடப்பட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your Village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேஷன் ஆப் இந்திய லிமிடெட்

POWER GRID CORPORATION OF INIDIA LIMITED

திருவலம் - புகலூர் 400 கி.வோ. இருவழி உயர்மின் அழுத்த பாதை
Thiruvalam – Pugalur 400 kV D/C Transmission Line.
இடம்/Venue : Melmudiyanur, Ammapalyam
தேதி மற்றும் நேரம் - 31/5/16 - 11-00AM
பொதுமக்கள் அனைவரும் இக்கூட்டத்தில் கலந்துக்கொள்ள அழைக்கின்றோம்.
All are requested to kindly attend the meeting.

இங்ஙனம்

M. Nivasan

for பவர்கிரிட்/POWERGRID
CA MATHEW

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

SRTS-II, Regional Head Quarters, Pragati Mahalakshmi, South Block (Second & Third Floor) No.62, Third Cross, MEI Road, Bangalore-560 022 (Karnataka) EPABX : 080-23571511 / 23571512, Fax : 080-23571541
Corporate Centre: "Saudamini", Plot No.2, Sector-29, Gurgaon-122 001 (Haryana) EPABX: 0124-2571700-19, Fax : 0124-2571760 / 2571848
Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016. EPABX: 011-26560112 / 26560121, Fax : 011 - 26601081
Website: http://www.powergridindia.com

Annexure 2 (a): Attendance List – Ammapalyam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: AMMAPALAYAM / THIRUVANNAMALAI DIST.
Date: 31-05-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
01	C. Raja	Ammapalayam	C.Raja
02	U. murali.	"	
03.	M. Murugesan	"	
04	R. Seeru	"	
05	M. Sankar	"	
06	A. Munisamy	"	
07	N. Arunachalam	"	
08	K. Amavasai.	"	
09.	R. Vallakannan	"	
10	A. Elumalai	"	
11.	S. Vinayagam	"	
12	V. Saravanan.	"	
13	A. Rangasamy	"	
14	M. Rangasamy	"	

Annexure 2 (a): Attendance List – Ammapalyam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: AMMAPALAYAM
Date: 31-05-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
15	N. Elumalai	"	N. Elumalai
16	K. Ponmudi	"	
17	M. Rajvel	"	
18	R. Ramu	"	
19		"	
20	L. Chandrasekar	"	
21	K. Sivakumar	"	
22	R. Sekar.VO	"	R Sekar VO
23	C.A. MATHEW	DGM/ Pugalur HVDC	31/5/16
24.	M. MANIVANNAN	Sr. Engineer TVLM.	31/5/16
25.	M. RAJAMANICKAM	JE. SGI.	M. Rajamanickam 31.5.16

Annexure 2 (b): Few Photographs of the Public Consultation

Gathering at the meeting

Briefing of the project by POWERGRID officials

Annexure 2 (b): Few Photographs of the Public Consultation

Public consulttaion meeting venue

People seeking clarification on project

Gist of clarifications raised by the villagers:

1. **Sri. Murali (Panchayat Member)**
   Question: What would be the compensation paid for land towards putting the towers there?

   Answer: *Tree / crop compensation would be paid as per the rates fixed by the revenue / forest / horticulture department officials of the state. As per the provisions of Indian Telegraph Act all rights on the land are prohibited to POWERGRID except the user rights, land for tower and ROW are not acquired and agriculture is allowed to continue. No compensation will be paid for the land, if the state government comes with any law on compensation the same will be followed.*

2. **Sri. R. Vallakannan (Villager)**
   Question: We are having power shortage. Can we get power from your project?

   Answer: *POWERGRID can only transmit power to the states, distribution to the household / village level is the responsibility of the state electricity board. This line will contribute to the development of power situation of the region.*

3. **Sri. Vinayagan (Villager)**
   Question: What is the benefit of this line to our village, as the land cost will also decrease after putting towers on our lands?

   Answer: *Irrespective of the location there would be power transmission through our lines across the states. Hence the benefit of this project would be to the entire state of Tamil Nadu and the neighbouring states by transfer of power from surplus state to deficit states. Therefore this line would contribute towards improvement of power scenario of the district and also the villages.*

4. **Sri. Munisamy (Villager)**
   Question: Will the power situation for the village improve due to this project? And will we get employment?

   Answer: *POWERGRID being a central transmission utility; transmits power from generating stations to different states of the country whereas distribution of power is done by the respective state electricity boards / utilities. However the power scenario of this region would be improved with the transmission lines associated with this project.*

5. **Sri. Shankar (Villager)**
   Question: Will this project have any impact on our cattle which go for grazing in the fields? Will your company provide any infrastructural facilities to our village?

   Answer: *As a part of the Corporate Social Responsibility, POWERGRID would take up developmental activities in the villages along the routes of transmission line, after identifying the requirements of the village through a need based baseline survey. Groundwater will not be affected by the project. There will be no impact to the animals / cattle due to this project.*

2. Poosimalaikuppam, Arni Taluk, Thiruvanamalai District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the panchayat president, village heads, VAO along with the general public of the village and was conducted in the village primary school. The list of participants along with photographs enclosed as Annexure2.

POWERGRID officials were introduced to the villagers by Sri. Karunakaran, Panchayat President who welcomed to the meeting and expressed his happiness that such an important project is coming near their village and requested POWERGRID to help in upliftment of the village and employment for the villagers in the project construction works.

Sri.CA Mathew, AGM, HVDC Pugalur CAO welcomed the panchayat president and the public on behalf of POWERGRID to the public consultation meeting and briefed them about POWERGRID and the project. He introduced the project scheme to the public and briefed them about the importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general. It was also told that the public consultation is being held as per the Environment & Social policy of POWERGRID to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks and with a request to the public for their support in completion of the project by Sri. Manivannan, Sr.Engineer, POWERGRID, Tiruvalam.

List of participants for the public consultation at Poosimalaikuppam, village on 01.06.2016

POWERGRID:

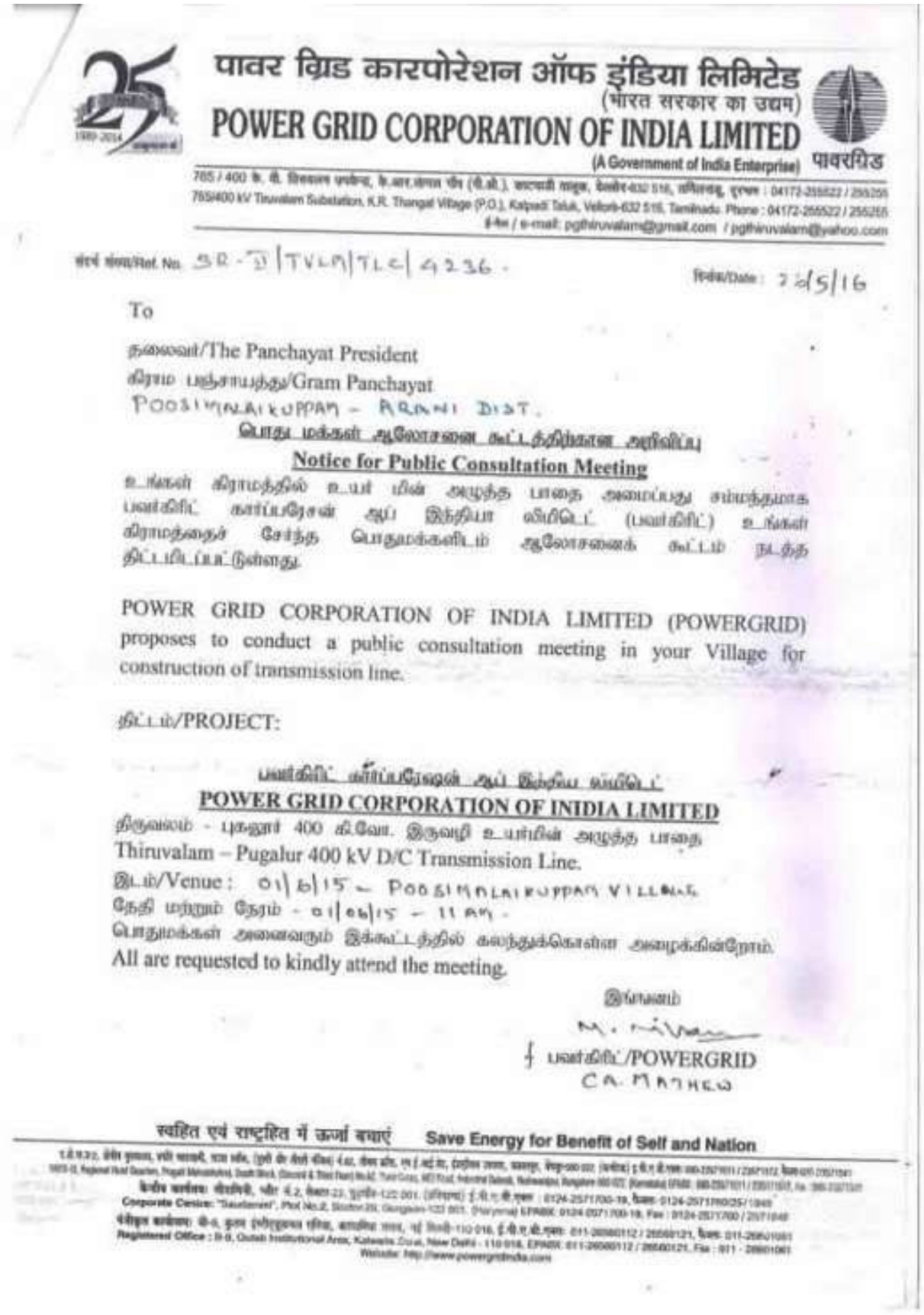
1.	Sri. CA Mathew	AGM / HVDC Pugalur CAO.
2.	Sri. Manivannan	Sr. Engg / Tiruvalam
3.	Sri. Rajamanikam	JE / Tiruvalam

Poosimalaikuppam, Arani District, Tamil Nadu

1.	Sri. Karunagaran	Panchayat President
2.	Sri. Santhisekar	Panchayat member
3.	Smt. Pushpa	Secretary
4.	Other villagers	

Total 77 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu



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

765/400 kV Tiruvalam Substation, K.R. Thangal Village (P.O.), Katpadi Taluk, Vellore-632 516, Tamilnadu. Phone : 04172-255522 / 255255
765/400 kV Tiruvalam Substation, K.R. Thangal Village (P.O.), Katpadi Taluk, Vellore-632 516, Tamilnadu. Phone : 04172-255522 / 255255
ई-मेल / e-mail: pgthiruvalam@gmail.com / pgthiruvalam@yahoo.com

संदर्भ संख्या/Ref. No. SR-D/TVLM/TLC/4236. दिनांक/Date: 2/5/16

To

தலைவர்/The Panchayat President
கிராம பஞ்சாயத்து/Gram Panchayat
POOSIMALAIKUPPAM – ARANI DIST.

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு
Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your Village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்திய லிமிடெட்
POWER GRID CORPORATION OF INDIA LIMITED
திருவலம் - புகளூர் 400 கி.வோ. இருவழி உயர்மின் அழுத்த பாதை
Thiruvalam – Pugalur 400 kV D/C Transmission Line.
இடம்/Venue : 01/6/15 – POOSIMALAIKUPPAM VILLAGE
நேதி மற்றும் நேரம் - 01/06/15 – 11 AM.
பொதுமக்கள் அனைவரும் இக்கூட்டத்தில் கலந்துக்கொள்ள அழைக்கின்றோம்.
All are requested to kindly attend the meeting.

இங்ஙனம்
M. MATHEW
பவர்கிரிட்/POWERGRID
C.A. MATHEW

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

Corporate Centre: "Saudamini", Plot No.2, Sector-29, Gurgaon-122 001, (Haryana) EPABX: 0124-2571700-19, Fax : 0124-2571760/25/1949
Registered Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016, EPABX: 011-26560112 / 26560121, Fax : 011 - 26601081
Website: http://www.powergridindia.com

Annexure 2 (a): Attendance List - Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
1.	P. CHANDRASEKARAN	Poosimalaikuppam	
2.	S. Dhanam	"	
3.	R. Sumithira	"	
4.	K. Chira	"	
5.	S. Pushpa	"	
6.	C. Thangammal	"	
7.	V. Krishnaveni.	"	
8.	K. Yellammal.	"	
9.	K. Punjavanam	"	
10.	A. Malar	"	A. Malar
11.	S. Venda-	"	S. Venda
12.	V. Usha	"	V. Usha.
13.	T. Barathi	"	T. Barathi
14.	P. Valarmathi.	"	P. valarmathi

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
15	J. Murugan	Pusimalai Kuppam	
16	R. Murugan	"	
17	V. GajaPathi	"	V. GajaPathi
18	S. [illegible]	"	
19	A. [illegible]	"	
20	[illegible]	"	
21	D. Govindha Samy	"	
22	J. Sumathi	"	
23	P. Ramesh.	"	
24	V. Muni[illegible]	"	
25	G. Arumugam	"	
26	P.C. Sadagopal	"	
27	P. Saradha	"	P. Sadha
28	J. Kala	"	
29	G. Santhi.	"	

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name & Sign	Village	Signature
30	S. Santhi Sekar	Poosimalaikuppam	
31	K. Selvi	11	V. Mageshwari
32	S. Sarswathi	11	Kanaka Selvi
33	M. Thavamaniyammal	11	
34	M Chinnathai M. Chinnathi	11	R. Sumathi
35	N. Revathi	11	Dhanammal.
36 37	G. Dhanam	11	G. Dhanam.
38	(Saraswathi)	11	S. Chandimath.
39	(Gayathri)	11	Tamil Selvi
40			
41	P. Uma	11	
42	J. Kavitha	11	
43	S. Malathi	11	S. Malathi
44	K. Rani	11	
45	U. Sathiya	11	Sathya
46	S.	11	

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name & Sign	Village	Signature
47	G. Karunagaran	poosimalaikuppam	G. Karunagaran
48	R. Sugunthi	"	V. Shivanath
49	N. Kannachi	"	P. Sammundeswari
50		"	
51	M. Manigandan	"	R. Santhi
52	V. Vasagamal	"	S. Sumathi
53	B. Kalaipana	"	M. Vijiya
54	S. Pushpa	"	G. Selvi
55	V. Priya	"	M. Manjula.
56	V. Selvi	"	S. Unnamalai
57	V. Saraswathi	"	K. Jayaraman
58	R. manjula.	"	K. Arumugam
59	T. Hivadumathi T. Indumathi	"	S. Anathan
60	R. Savithri. P. Savitha	"	A. Kannan
61	P. Subramani	"	P.
62	D. Singh.	"	

Annexure 2 (a): Attendance List – Poosimalaikuppam, Thiruvanamalai District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: POOSI MALAI KUPPAM
Date: 01-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
63	M. Govindaraj	Poosimalaikuppam	
64	N. Anbu	"	
65	J. Kathirvel	"	
66	K. Sampath	"	K. Sampath
67	K. Kannan	"	
68	S. Sivakanthan.	"	D. Devi
69		"	
70	R. Vasantha	"	R. Vasalakshmi
71	M. Nirmalan	"	
72	D. Kavitha	"	S. Selvi
73	P. Chinnapapa	"	K. Uma
74	S. Amutha	"	L. Lakshmi
75	K. Chandran	"	K. Moorthi
76	R. Maran	"	M. Meenachi
77	C.A. MATHEW	DGM/POWERGRID	

Annexure 2 (b): Few Photographs of the Public Consultation

POWERGRID officials introducing the project

Public gathering at the meeting

Annexure 2 (b): Few Photographs of the Public Consultation

People seeking clarification

POWERGRID officials clarifying the queries

Gist of clarifications raised by the villagers:

1. **Sri. Karunagaran (President)**
   Question: What would be the land compensation paid to the villagers for putting the towers? Will you improve the infrastructural facilities in our village?

   Answer: Tree / crop compensation would be paid for the tower area as per the rates fixed by the revenue / forest / horticulture authorities of the state. No land compensation will be paid, however if the state government orders the same will be looked into & paid accordingly.
   POWERGRID will take up developmental activities for the villages along the line route / near the substation, after conducting a need based baseline survey to identify the requirements of the village.

2. **Sri. Subramani (Villager)**
   Question: What will be the benefit of this line to our village if this goes through our village and from our lands? Will there be any effect on health of the people and our cattle?

   Answer: *Irrespective of the location there would be power transmission through our lines across the states. Hence the benefit of this line would be to the entire state of Tamilnadu and the neighbouring states for transfer of power from surplus state to deficit states. Therefore this line would contribute towards improvement of power scenario for the district and the villages. There is no recorded evidence on health impact due to transmission lines, either in humans or animals.*

3. **Sri. Sarathi (Villager)**
   Question: Can POWERGRID give continuous power to our village? Any employment will be given to the qualified youth of our village?
   Answer: *POWERGRID being a central transmission utility; transmits power from generating stations to different states of the country whereas distribution of power is done by the respective state electricity boards / utilities. However the power scenario of the region will be improved with this project. Local people will be engaged during construction of line and engagement will be as per their skill set.*

4. **Sri. Govindasamy (Villager)**
   Question: What is the route of the transmission line, any paper notice is published? What is the time schedule of this project?

   Answer: *This line is a 400kV D/C transmission line from Thiruvalam to Pugalur in Tamil Nadu. Paper publication on the list of villages (tentative) along the route of the transmission line is published in Tamil and English papers. It is being implemented in a compressed time schedule of 36 months*

3. Kalar & Sathur, Arcot Taluk, Vellore District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the panchayat president, panchayat members along with the general public of the village. This meeting was conducted in the gram panchayat building. The list of participants along with photographs enclosed as Annexure2.

POWERGRID officials were introduced to the villagers by Sri. SP. Vengateshan, who welcomed to the meeting and expressed his happiness that such an important project for the state is coming near their village and requested POWERGRID to help in getting employment for the villagers in this project construction.

Sri.CA Mathew, AGM, Pugalur HVDC welcomed the panchayat president and the public on behalf of POWERGRID to the public consultation meeting and described about the proposed project and its requirement in the power scenario of Tamil Nadu state. He also told about the role of POWERGRID in the field of interstate transmission of power from far away states to Tamil Nadu and other southern states of the country. It was also briefed the public consultation was being held as per the Environment and Social Policy and Procedures (ESPP) of POWERGRID to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks and with a request to the public for their support in completion of the project by Sri. Manivannan, Sr. Engg Tiruvalam.

List of participants for the public consultation at Sathur Village, Arcot District on 02.06.2016

POWERGRID:

1.	Sri. CA Mathew	AGM / HVDC Pugalur CAO.
2.	Sri. Manivannan	Sr. Engg / Tiruvalam
3.	Sri. Rajamanikam	JE / Tiruvalam

Kalar & Sathur Village, Arcot District, Tamil Nadu

1.	Sri. SP. Vengateshan	Panchayat President
2.	Sri. Veeraragavan	Panchayat Secretary
3.	Other villagers	

Total 24 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Kalar & Sathur, Vellore District, Tamil Nadu

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

765/400 kV Tiruvalam Substation, K.R. Thangal Village (P.O.), Katpadi Taluk, Vellore-632 516, Tamilnadu. Phone : 04172-255522 / 255255
e-mail: pgthiruvalam@gmail.com / pgthiruvalam@yahoo.com

Ref. No. SR II/TVLM/TLC/4237 Date: 27/5/16.

To

தலைவர்/The Panchayat President
கிராம பஞ்சாயத்து/Gram Panchayat
KALAR & SATHUR – ARCOT DISTRICT

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு

Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிடப்பட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your Village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேஷன் ஆப் இந்திய லிமிடெட்

POWER GRID CORPORATION OF INIDIA LIMITED

திருவலம் - புகளூர் 400 கி.வோ. இருவழி உயர்மின் அழுத்த பாதை
Thiruvalam – Pugalur 400 kV D/C Transmission Line.

இடம்/Venue : SATHUR.

தேதி மற்றும் நேரம் 02/6/16 – 11:00 AM

பொதுமக்கள் அனைவரும் இக்கூட்டத்தில் கலந்துக்கொள்ள அழைக்கின்றோம்.
All are requested to kindly attend the meeting.

இங்ஙனம்

பவர்கிரிட்/POWERGRID
CA MATHEW

स्वहित एवं राष्ट्रहित में ऊर्जा बचाएं Save Energy for Benefit of Self and Nation

Website: http://www.powergridindia.com

Annexure 2 (a): Attendance List – Kalar & Sathur, Vellore District, Tamil Nadu

Village: SATTUR / ARCOT TALUK
Date: 02-06-2016

Public Consultation Meeting – Attendance

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
01	Sri. S.M Venkatesh	SATUR.	
02	" S.E. Vinayagam	"	
03	" V. Kirishnan	"	
04	" M Sarathi	"	
05	" S.V. Perumal	"	
06	" S.B. Ponnusamy	"	
07	G. Velmuragan	"	
08	" R. Pradan	"	
09	" S.A. Viswanathan.	"	
10	" M.SUBRAMANI	"	
11	" S.T. Kannayeram	"	
12	" V. Manikandan	"	
13	" M. Karunakaran	"	
14	" V. ANANDHAN (President)	"	
15	" P. Anbu.	"	

Annexure 2 (a): Attendance List – – Kalar & Sathur, Vellore District, Tamil Nadu

Public Consultation Meeting – Attendance

Village: SATTUR
Date: 02-06-2016

Construction of 400KV PUGALUR-THIRUVALAM D/C Transmission Line

S.No	Name	Village	Signature
16.	Smt P. Malathi	Sattur	
17.	P. Balaraman	"	
18.	M. Renu.	"	
19.	V. Kathavarayan	"	
20.	K. Mani	"	
21.	M Rajamanickam	Thiruvalam 10361/ JE-Sg	
22.	S. P. Venkatachalam	Sattur	
23.	S.M. Veeraraghavan	"	
24.	C.A MATHEW	DGM/POWERGRID	

Annexure 2 (b): Few Photographs of the Public Consultation

POWERGRID officials introducing the project

People seeking clarification

Annexure 2 (b): Few Photographs of the Public Consultation

POWERGRID official addressing the gathering

POWERGRID officials addressing the clarification

Gist of clarifications raised by the villagers:

1. **Sri. Krishnan (Villager)**

   Question: Will POWERGRID acquire land for this project? Land value at current market price is good, but after drawing transmission line value will come down, what will be compensation for this diminished value? What are the steps taken by POWERGRID to minimize the disturbances during construction?

   Answer*:* POWERGRID is a central transmission utility guided by the Indian Telegraph Act and Electricity Rules 2003 in its construction and operation activities. As per the provisions of the telegraph act acquisition of any rights on the land is prohibited other than of the user right. Land for tower and right of way is not acquired and agricultural activities are allowed to continue as usual. Tree/crop compensation would be paid as per the rates fixed by the revenue/forest/horticulture authorities of the state and any other compensation which the state thinks necessary for the project and its people. If any orders are issued / directed by state government on compensation it will be paid.

   POWERGRID is committed towards sustainable growth and conservation of nature and natural resources, hence all due care to minimize the disturbance to the surrounding environment and public in particular will be taken up. Technology driven construction techniques are being used with due precautions to minimize disturbance to human habitation.

2. **Sri. Anandan (Villager)**

   Question: Will the power line affect agriculture in our area?
   Answer: Agricultural activities are allowed to continue below the transmission line, as usual. No affect on agriculture

3. **Sri. Manikandan (Villager)**

   Question: Please describe about the compensation package for drawing the line? Is the land compensation in addition to crop compensation?

   Answer: Tree/crop/ROW compensation would be paid as per the rates fixed by the district authorities of revenue/forest/horticulture department. However, as per the provisions of Indian Telegraph Act all rights on the land are prohibited to POWERGRID except the user rights, land for tower and ROW are not acquired and agriculture is allowed to continue. Hence no land compensation is provided. As told earlier if any orders are issued by state government compensation will be paid accordingly.

Report on Public Consultation meeting held on 12.12.15 & 16.12.15 for HVDC transmission lines from HVDC line Raigarh - Pugalur – North Trissur and associated AC System Strengthening at Pugalur end

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1. Muthalipalayam, Kundadam Taluk , Tiruppur District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the panchayat president, village heads, panchayat secretary along with the general public of the village and was conducted in the village primary school. The list of participants along with photographs enclosed as Annexure2.

POWERGRID officials were introduced to the villagers by Sri. Shanmugasundaram, who welcomed to the meeting and expressed his happiness that such a prestigious project is coming near their village and requested POWERGRID to help in getting employment for the villagers in this project construction.

Sri.CA Mathew, DGM, HVDC Pugalur CAO welcomed the panchayat president and the public on behalf of POWERGRID to the public consultation meeting and briefed them about POWERGRID and the project.

Sri. V. Saravanan, Chief Manager, introduced the project scheme to the public and briefed them about the importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general.

Sri.SanjuKishan, Sr.Environment Officer, RHQ, Bangalore briefed the Environment and Social Policy and Procedures (ESPP) of POWERGRID. It was informed that the public consultation was being held as per this policy to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks and with a request to the public for their support in completion of the project by Sri. Vishwanath, Sr.Engineer, POWERGRID, HVDC Pugalur CAO.

Total 50 no's of people attended the meeting (list attached)

List of participants for the public consultation at Muthalipalayam village, Kundadam Taluk, Tiruppur District on 12.12.2015

POWERGRID:

1. Sri. CA Mathew	DGM / HVDC Pugalur CAO.
2. Sri. V Saravanan	Chief Manager /Ariyalur
3. Sri. Sanju Kishan	Sr. Environment Officer/ RHQ Bangalore
4. Sri. Vishwanath S.A	Sr. Engineer/ HVDC Pugalur CAO

Muthalipalayam, Tiruppur District, Tamil Nadu

1. Sri. Shanmugasundaram	Panchayat President& District panchayat council member
2. Sri. Palanisamy	Vice President
3. Sri. Rajamani	Secretary
4. Other villagers	

Total 50 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Muthalipalayam, Tiruppur District, Tamil Nadu

पावर ग्रिड कारपोरेशन ऑफ इँडिया लिमिटेड
(भारत सरकार का उपक्रम)
POWER GRID CORPORATION OF INDIA LIMITED
(A Government of India Enterprise)

Construction Area Office : Pugalur ± 800 KV HVDC Station
No.1, Old Court Street, Kangayam - 638 701, Tiruppur (Dist) e-mail: pghvdc@gmail.com

संदर्भ संख्या / Ref. No. SR-II/CAO/PGLR-HVDC/2015 दिनांक / Date : 09-12-2015

TO

தலைவர்/ The Panchayat President

கிராம பஞ்சாயத்து / Gram Panchayat

பொது மக்கள் ஆலோசனை கூட்டத்திற்கான அறிவிப்பு

Notice for Public Consultation Meeting

உங்கள் கிராமத்தில் உயர் மின் அழுத்த பாதை அமைப்பது சம்மந்தமாக பவர்கிரிட் கார்ப்பரேசன் ஆப் இந்தியா லிமிடெட் (பவர்கிரிட்) உங்கள் கிராமத்தைச் சேர்ந்த பொதுமக்களிடம் ஆலோசனைக் கூட்டம் நடத்த திட்டமிட்டுள்ளது.

POWER GRID CORPORATION OF INDIA LIMITED (POWERGRID) proposes to conduct a public consultation meeting in your village for construction of transmission line.

திட்டம்/PROJECT:

பவர்கிரிட் கார்ப்பரேஷன் ஆப் இந்தியா லிமிடெட்

POWER GRID CORPORATION OF INDIA LIMITED

ரய்கர்ஹ் - புகலூர் - 800 கிலோவோல்ட் ஹெச்.வி.டி.சி - ஒருவழி உயர் மின் அழுத்த பாதை

Raigarh- Pugalur 800 KV HVDC Transmission Line

இடம்/Venue: நடுநிலைப்பள்ளி,முதலிபாளையம்/Middle School, Muthalipalayam.

தேதி மற்றும் நேரம் - 12.12.2015/ 10.00 AM

பொதுமக்கள் அனைவரும் இக் கூட்டத்தில் கலந்துகொள்ள கோரப்படுகிறது.

All are requested to kindly attend the meeting

இங்ஙனம்

9/12/15

பவர் கிரிட்/POWERGRID

Southern Region-II Transmission System-II, Regional Head Quarter, Near RTO Driving Test Track, Singanayakanahalli P.O.,
Off. Yelahanka - Doddaballapur Road, Yelahanka Hobli, Bangalore - 560 064.
पंजीकृत कार्यालय बी-9, कुतुब इंस्टीट्यूशनल एरिया, कटवारिया सराय, नई-दिल्ली-110 016 दूरभाष : 011-26560112, 26560115, 26560193, 26564892 फैक्स : 011-26560039
Regd. Office : B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi - 110 016, Phone : 011 - 26560112, 26560115, 26560193,26564892 Fax : 011-26560039

Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu

S.No	Name	Village	Signature
1.	C.A. MATHEW DGM	POWERGRID	[signature]
2.	V. SARAVANAN Chief Manager	"	[signature]
3.	Sanju Kishan. P Sr. Environment Officer	"	[signature]
4	Vishwanath. S. A Engr/[illegible] HVDC	"	[signature]
	P. [illegible]	[illegible]	[illegible]
	S. [illegible]	"	S. [illegible]
	V. பூங்கொடி	"	V. பூங்கொடி
	K. [illegible]	"	K. [illegible]
	S. [illegible]	"	S. [illegible]
	சாந்தி	"	சாந்தி
	P. பாக்கியம்	"	[signature]
	R. பாப்பாத்தி	"	[signature]
	C. [illegible]	"	[signature]
	[illegible]	"	[signature]

Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu

Cl. No	Name	Village	Signature.
	[illegible]	[illegible]	[illegible]
	உ. நாகா	"	E. நாகா
	M. வசந்தி	"	M. வசந்தி
	M. சாவித்ரி	"	M. ராவித்ரி
	[illegible]	"	லட்சுமி
	S. மகேஸ்வரி	"	[illegible]
	[illegible]	"	[illegible]
	[illegible]	"	அமராவதி
	அமராவதி	"	வீரம்மாள்
	வீரம்மாள்	"	M. Rani
	M. ராணி	"	[illegible]
	கண்ணம்மாள்	"	
	நாகம்மாள்	[illegible]	LTI
	மீனா	"	LTI
	சீதாமணி	"	LTI
	P. நாகரத்தினம்	"	P நாகரத்தினம்
	[illegible]		[illegible]
	[illegible]		

[illegible] LTI

[illegible] LTI.

Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu

S.No	Name	Village	Signature
47	S. கார்த்தி		S. Karthi

Annexure 2 (a): Attendance List – Muthalipalayam, Tiruppur District, Tamil Nadu

SL.NO	Name	Village	Signature
	M.P. பழனிச்சாமி	(P) முதலிபாளையம்	M.P.P.
	M.P. [illegible]	"	[illegible]
	M.P. ராஜாமணி	"	P. Ro[illegible]
	M.P. தேவராஜ்	"	M.P.P.
	[illegible]		
	M.K. செல்வராஜ்	"	[illegible]

Annexure 2 (b): Photographs

POWERGRID officials introducing the project

POWERGRID officials welcoming the gathering

Annexure 2 (b): Photographs

Panchayat president indicating the side from where old lines are passing

POWERGRID officials in conversation with the panchayat president

Annexure 2 (b): Photographs

People seeking clarification

People seeking clarification

Gist of clarifications raised by the villagers:

1. **Sri. Shanmugasundaram (President)**

   a. Question: What would be the compensation paid to the villagers for the land used for putting towers?

   Answer: *Adequate Tree / crop compensation would be paid as per the rates fixed by the district authorities of revenue / forest / horticulture department and as per the guidelines of Ministry of Power (MoP).*

   b. Question: Will you improve the water facility / approach road in our village?

   Answer: *Under corporate social responsibility POWERGRID would take up developmental activities in the villages along the line route after identifying the needs of the village after a baseline survey.*

2. **Sri. Palanisamy (Villager)**

   a. Question: Can POWERGRID give continuous power to our village? Any employment will be given to qualified youth of our village?

   Answer: *POWERGRID being a central transmission utility; transmits power from generating stations to different states of the country whereas distribution of power is done by the respective state electricity boards / utilities. However the power scenario of this region would be improved with this project. Local people will be engaged during construction of line and engagement will be as per their skill.*

3. **Sri. Devaraj(Villager)**

   a. Question: What will be the benefit of this line to our village if this goes through our village and from our lands? Will there be any effect on health of the people and cattle?

   Answer: *Irrespective of the location there would be power transmission through our lines across the states. Hence the benefit of this line would be to the entire state of Tamilnadu and the neighbouring states for transfer of power from surplus state to deficit states. Therefore this line would contribute towards improvement of power scenario for your village, indirectly. No impact on the health of the people and the cattle.*

2. Arasampalayam, Pollachi Taluk, Coimbatore District, Tamil Nadu

A notice was served to the gram panchayat informing them about the meeting, copy of the meeting notice enclosed at Annexure 1.The meeting was attended by the general public of the village as the panchayat president and vice president could not make it due to the MLA visit in that area. This meeting was conducted in a community hall near panchayat. The list of participants along with photographs enclosed as Annexure2.

Sri.Ravindran, DGM, Palakkad welcomed the public on behalf of POWERGRID to the public consultation meeting and described about the proposed HVDC line construction project and its requirement in the power scenario of Kerala state and described about the role of POWERGRID in the field of interstate transmission of power from far away states to Kerala.

Sri. V. Saravanan, Chief Manager, introduced the project scheme to the public and briefed them about the importance of the project and the benefits to the state of Tamil Nadu in particular and nation in general.

Sri. Sanju Kishan, Sr. Environment Officer, RHQ, Bangalore briefed the Environment and Social Policy and Procedures (ESPP) of POWERGRID. It was informed that the public consultation was being held as per this policy to address the apprehensions / questions of the public.

The entire session was interactive with active participation of the public in local language; Tamil. People clarified their queries about the project with POWERGRID officials, details enclosed as Annexure 3.

The meeting concluded with vote of thanks by Sri. Rajeev, AE, POWERGRID, Pallakad.
List of participants for the public consultation at Arasampalayam, Pollachi Taluk, Coimbatore District, Tamil Nadu on 16.12.2015

POWERGRID:

1.	Sri. Ravindran	DGM / Palakkad
2.	Sri. Saravanan	Chief Manager / Ariyalur
3.	Sri. Sanju Kishan	Sr. Environment Officer/ RHQ Bangalore
4.	Sri. Sugumar	Sr.Engineer, Udumalpet
5.	Sri. Rajeev	AE/ Palakkad

Arasampalayam Coimbatore District, Tamil Nadu

6. Villagers

Total 25 no's of people attended the meeting (list attached)

Annexure 1: Meeting notice – Arasampalayam Coimbatore District, Tamil Nadu

பவர் கிரிட் கார்பரேசன் ஆப் இந்தியா லிமிடெட்
(ஓர் இந்தியா அரசு நிறுவனம்)

पावरग्रिड

पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

400/220 கி.வோ. துணை மின்நிலையம்
மண்ணுகாடு/கூட்டுபாற, வேங்கோடி P.O. எலப்புள்ளிபாறா
பாலக்காடு மாவட்டம், கேரளா - 678 622, Ph : 0491-2004625
e-mail : palakkadss@yahoo.com

பொதுமக்கள் ஆலோசனை கூட்டம் அறிவிப்பு

Notice for Public Consultation Meeting

புகலூர் (சிறுகிணர்) திருச்சூர் (மண்ணுத்தி) ±320 கி.வோ, உயர் மின்னழுத்த டி..சி. பாதை அமைப்பது தொடர்பாக அரசம் பாளையம் பஞ்சாயத்தில் ஒரு பொதுமக்கள் ஆலோசனை கூட்டம் நடத்த பவர்கிரிட் கார்பரேசன் தீர்மானித்துள்ளது. இந்த ஆலோசனை. கூட்டத்தில் பொதுமக்கள் அனைவரும் பங்குபெறுமாறு கேட்டுகொள்ள படுகிறார்கள்.

Power Grid Corporation of India Propose to conduct a public Consultation meeting at Arasampalayam Panchayath Auditorium for construction of **±320 KV** Pugalur (Sirukinar) - Thrissur (Mannuthy) HVDC Overhead line.

திட்டம் / Project	:	±320 கி.வோ. புகலூர் (சிறுகிணர்) திருச்சூர் (மண்ணுத்தி) உயர்மின்னழுத்த டி..சி. பாதை ±320 KV, Pugalur (Sirukinar) - Thrissur (Mannuthy) HVDC Overhead Transmission line
இடம் / Venue	:	அரசம்பாளையம் கிராம பஞ்சாயத்து திடல் Arasampalayam Panchayath Auditorium
தேதி / Date	:	16-12-2015
நேரம் / Time	:	மதியம் 2.00 மணி / 2.00 p.m.

இப்படிக்கு
பொது மேலாளர்/Dy. General manager
பவர்கிரிட் கார்பரேசன்
Powergrid Corporation of India Ltd.

Annexure 2 (a): Attendance List – Arasampalayam, Coimbatore District, Tamil Nadu

Sl.No.	Name	Village	Signature
1	K. RAVINDRAN	Powergrid	
2			
3	Sanjukumar	Powergrid	
4	M. Sugumar	Powergrid	
5	AR Narayanasamy	Arasampalayam	
6			
7			
8		"	
9	AP Somasundaram	"	
10			
11		"	
12	Ranjan	Arasampalayam	
13		Arasampalayam	
14		"	
15		"	
16		"	
17		Arasampalayam	

Power grid Corporation of India Limited

Annexure 2 (a): Attendance List – Arasampalayam, Coimbatore District, Tamil Nadu

Sl.No.	Name	Village	Signature
18			
19			
20			
21			
22			
23			
24	Rayappan	Arasampalayam	
25	Muniyasamy	"	
26	Saravanan	"	
27		"	
28		"	
29	P. R. Rajan	Powergrid	
30			
31			
32			
33			
34			

Power grid Corporation of India Limited

POWERGRID officials introducing the project

Villagers at the meeting

Gist of Clarification raised by the villagers

1. Sri. A.P. Somasundaram (Villager)

Question: What is the exact route of this Transmission line project?

Answer: *The transmission line is proposed through underground cabling along NH-47 from Trichur to Vadakancheri in Kerala, subsequently its overhead line till Pugalur in Tamilnadu. Detailed survey is in progress for underground portion for route finalization.*

2. Sri. A.R Narayana Swamy (Villager)

Question: Will POWERGRID acquire land for this project? If we will raise objection on this project what will be the next step? Land value at current market price is good, but after drawing transmission line value will be diminished, what will be compensation for this diminished value?

Answer*: No acquisition is envisaged in construction of transmission line; only for substation land is purchased or acquired. Tree/crop compensation would be paid as per the rates fixed by the authorities of revenue/forest/horticulture department of the state.* ROW compensation will be as per the Ministry of Power (MOP) and state guidelines. POWERGRID is a CTU guided by the Indian Telegraph Act and Electricity Rules 2003 in its construction and operation activities.

3. Sri. K. Muthusamy (Villager)

Question: Is there any power tapping point in between Pugalur and Trichur?

Answer*: No tapping is possible in this high voltage line, only a transition station will be there between underground and overhead portion at Vadakancheri, Kerala.*

4. Sri. Senthil Kumar (Villager)

Question: Time schedule of the project?

Answer*: It is being implemented in a compressed time schedule of 36 months.*

ANNEXURE-3: MoP Guidelines for payment of Compensation towards damages in regard to RoW for Transmission Lines

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;

—1—

(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 guidelinesconsidering 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.

ANNEXURE-4: SAMPLE COMPENSATION AND PAYMENT

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

Southern Region Transmission System - II

Tumkur CAO : Manju Sree, 10th Cross, 80feet Road, Mahalakshmi Nagar, Batawadi, TUMKUR - 572 105.

पावरग्रिड

NOTICE UNDER INDIAN TELEGRAPH ACT, 1885

Ref. No. Comp /

To, R.S. Basavaraju
S/o Shantaveerappa
Yelerampur Village.

No. : B- 1005

Date : 04/10/2012

Dear Sir / Madam Karatagere TQ. Tumkur Dist.

Power Grid Corporation of India Ltd., has been entrusted with the Construction of 400KV Double circuit (Quad) Madhugiri (Tumkur)-Yelahanka Transmission Line by Government of India vide its letter No 11/4/2007-PG dated 3rd December 2009

In exercise for the powers under the Indian Telegraph Act 1885, Part-III sections 10 to 19 conferred under section 164 of the Indian Electricity Act 2003, through the Gazette of India, Extraordinary dated 24th December 2003, notice is hereby given that 400KV Double circuit (Quad) Madhugiri (Tumkur)-Yelahanka Transmission Line will pass through your property, as described below which may cause damage to the standing crops and the trees within the Right-of-Way (ROW) are required to be cut. The crops damaged / trees cut may be taken over by you OR your authorised representative. Reasonable compensation for the crops damaged / trees cut will be paid as per the assessment of the Revenue / Horticultural / Forest Departments Government of Karnataka.

1. Name of the Owner : R.S. Basavaraju
2. Father's / Husband Name : S/o Shataveerappa
3. Survey No. : 57/6
4. Name of the Village : Yelarampur
5. Name of the Mandal / Tahsil : Karatagere
6. Name of the District : TUMKUR.
7. List of Trees to be cut : —

Sl. No.	Location / Section	Tree No.	Name of Tree / Crop	Approx. Age	Girth & Height of the Tree / Area of the Crop	Tree cut / Crop damaged during (FDN/EREC/ STRGG)
(1)	13/4 DA10		Maize	—	53mx50mt. Foundation. 2650 Sqmt.	

Received the notice :
Signature

R.ರವಿಕುಮಾರ್

Farmer / Authorised Representative
Date : 04/10/2012

For Power Grid Corporation of India Ltd.,

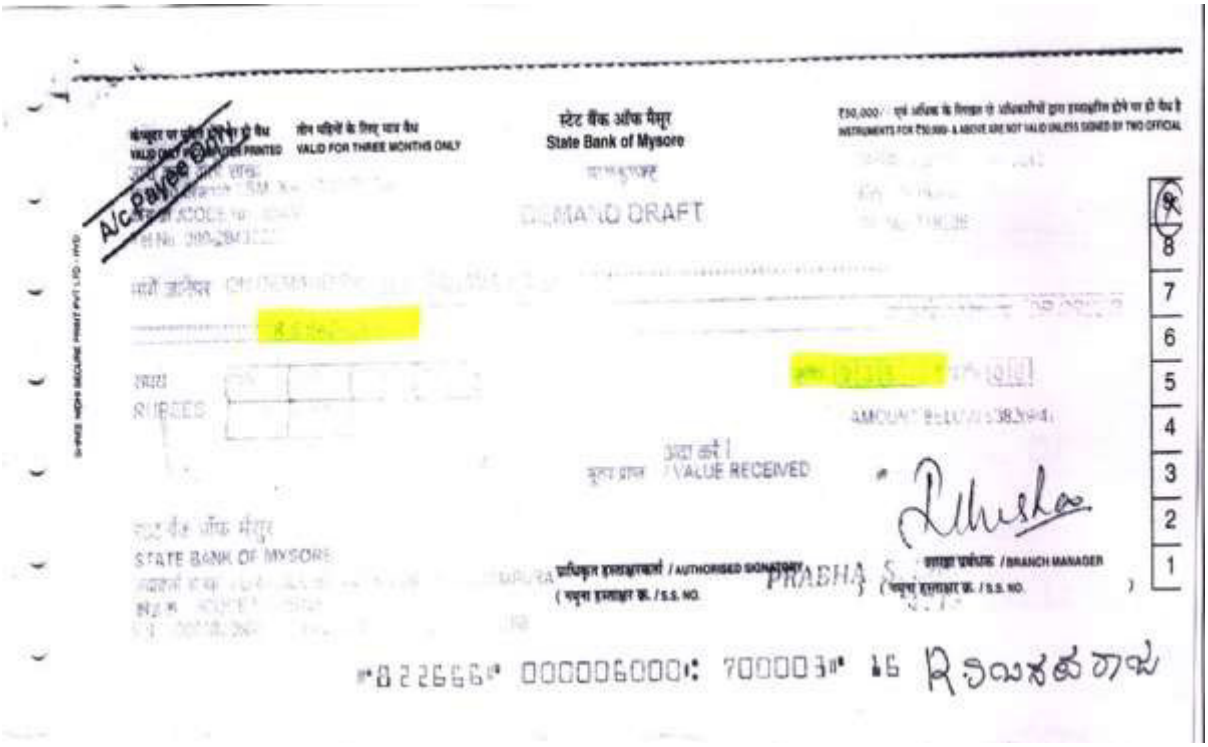
Signature

400 KV QUAD D/C MADHUGIRI - YELAHANKA TRANSMISSION LINE

CROP COMPENSATION STATEMENT - PROPOSAL No. - I

Annexure - IV

Sl. NO.	Tower No.	Name and Address of the Land Owner	Name of the work during damage occurred	Notice No.	Survey No.	Name of the crop damaged	Area of damage in Sqm.	Compensation Amount per Sqm. In Rs.	Amount in Rs.	Total compensation to be paid in Rs.
1	AP 13/6	Smt Honnamma W/o Putta Veerappa Yelarampura - Village, Koretagiri - Taluk, Tumkur - Dist	Foundation	1001	37/1B	Maize	1500	3.54	5310.00	**5310.00**
2	AP 13/6	Smt Umadevi W/o Sivanna, Yelarampura - Village, Koretagiri - Taluk, Tumkur - Dist	Foundation (Approach)	1002	41/3	Ragi	950	2.13	2023.50	**2024.00**
3	AP 13/4	R.S.Basava Raju S/o Shanthaveerappa, Yelarampura - Village, Koretagiri - Taluk, Tumkur - Dist	Foundation	1005	57/6	Maize	2650	3.54	9381.00	**9381.00**
									Total	**16715.00**


A/c Payee
स्टेट बैंक ऑफ मैसूर
State Bank of Mysore
DEMAND DRAFT
VALUE RECEIVED
STATE BANK OF MYSORE
PRABHA

RECEIPT

I hereby acknowledge the receipt of the crop compensation amount towards damage of my crop, while executing construction works of 400kV Madhugiri – Yelahanka D/C (QUAD) Transmission Line, as per the details mentioned below:

1. Location Number: 1314
2. Village Name: Yelerampur
3. Notice Number: B-1 - 1005
4. Name of Landowner: R.S. Basavraju
5. Amount: Rs. 9381/-
6. DD No: 822666
7. DD Drawn Date: 17/11/2012.
8. Construction activity: FOUNDATION / ~~TOWER ERECTION / STRINGING~~
9. Date of Receipt of DD: 24/11/2012

(Signature of Witness)

Name: S. NATARAJA

Address: S/o Late R V Shivarudraiah Yelerampura.

(Signature of Landowner)

Name: R.S. Basavaraj

Address: S/o Shadveerappa Yelerampur Koratagere Tq, Tumkur.

(Signature of POWERGRID Representative)

Name: Ajit N. Kemr

Emp No: 30461

Designation: Jr. Engr.