

Initial Environmental Examination

December 2015

VIE: Power Transmission Investment Program Multi-Tranche Financing Facility Tranche 3

Subproject: 500kV My Tho–Duc Hoa Transmission Line

Prepared by National Power Transmission Corporation (NPT) and Southern Power Viet Nam Power Project Management Board (SPPMB) for the Asian Development Bank. This is a revised version of the draft originally posted in June 2015 available on <http://www.adb.org/sites/default/files/project-document/172594/42039-036-iee-08.pdf>.

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CURRENCY EQUIVALENTS

(as of 14 May 2015)

Currency unit	–	Vietnamese Dong (D)
D1.00	=	\$0.000046
\$1.00	=	D21,805.49

ABBREVIATIONS

ADB	-	Asian Development Bank
AP	-	Affected person/people
BIWASE	-	Binh Duong Water Supply Sewerage Environment Co. Ltd.
CEMP	-	Construction environmental management plan
CO	-	Carbon monoxide
CPC	-	Commune People's Committee
CHSP	-	Community Health and Safety Plan
CSR	-	Corporate social responsibility
DMC	-	Developing member country
DONRE	-	Department of Natural Resources and Environment
DPC	-	District People's Committee
EA	-	Executing agency
EARF	-	Environmental Assessment and Review Framework
ECA	-	Environmental compliance audit
EEC	-	Energy and Environment Center
EHS	-	Environment, health and safety
EIA	-	Environmental impact assessment
EMC	-	Environmental monitoring consultant
EMF	-	Electromagnetic field
EMoP	-	Environmental monitoring plan
EMP	-	Environmental management plan
EPP	-	Environmental protection plan
ESU	-	Environmental and social unit
EVN	-	Viet Nam Electricity
GOV	-	Government of Viet Nam
GRM	-	Grievance redress mechanism
HW	-	Hazardous waste
IA	-	Implementing agency
ICNIRP	-	International Commission on Non-Ionizing Radiation Protection
IEE	-	Initial environmental examination
HIV/AIDS	-	Human immunodeficiency virus / acquired immune deficiency syndrome
MFF	-	Multi-tranche financing facility
MONRE	-	Ministry of Natural Resources and Environment
MPN	-	Most probable number
MSDS	-	Materials safety data sheet
NOx	-	Oxides of nitrogen
NPT	-	National Power Transmission Corporation
PCB	-	Polychlorinated biphenyl
PCP	-	ADB's Public Communications Policy (2011)
PCR	-	Project completion report
PDMP	-	GOV's Power Development Master Plan
PECC	-	Power Engineering Consulting Joint Stock Company

PIC	-	Project Implementation Consultant
PPE	-	Personal protective equipment
PTC4	-	Power Transmission Corporation No. 4
PVC	-	Polyvinyl chloride
REA	-	Rapid environmental assessment
ROW	-	right-of-way
SOx	-	Oxides of sulphur
SPPMB	-	Southern Viet Nam Power Project Management Board
SPS	-	ADB's Safeguards Policy Statement (2009)
TSP	-	Total suspended particulates
UXO	-	Unexploded ordnance

WEIGHTS AND MEASURES

cm ²	-	square centimeter
cm ³	-	cubic centimeter
°C	-	degree centigrade
cct-km	-	circuit kilometer
ha	-	hectare
m	-	meter
m ²	-	square meter
m ³	-	cubic meter
mg/l	-	milligram per liter
mg/m ³	-	milligram per cubic meter
MW	-	megawatt
km	-	kilometer
kVA	-	kilovolt ampere
kW	-	kilowatt
kV	-	kilovolt
MVA	-	megavolt ampere

NOTE

In this report, "\$" refers to US dollars.

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I. EXECUTIVE SUMMARY

1. Recognizing the need to overcome constraints in the power sector due to the rapidly growing demand for electricity, the Government of Viet Nam (GOV) approved in 2011 the Power Development Master Plan (PDMP VII) consisting of multiple power generation and transmission projects to be implemented throughout the country from 2011 – 2020. The GOV has requested the Asian Development Bank (ADB) to support the financing of power transmission projects under the PDMP VII. The ADB approved the multi-tranche financing facility for the implementation of the Power Transmission Investment Program that includes expansion of Viet Nam's power transmission network through the construction and expansion of 500kV and 220kV transmission lines and associated substations. The facility is anticipated to consist of four financing tranches. ADB approved Tranche 1 in December 2011 and Tranche 2 in November 2012. There are nine (9) subprojects which have been identified under Tranche 3.

2. One of the subprojects identified under Tranche 3 is the construction of the 500kV My Tho - Duc Hoa transmission lines. The National Power Transmission Corporation (NPT) of Viet Nam is the executing agency (EA) while the Southern Viet Nam Power Project Management Board (SPPMB) is the implementing agency (IA) of the subproject.

3. The proposed subproject aims to:

- (i) Meet the demand for power of Long An and other neighboring provinces and create close linkage in the southern electric grid system;
- (ii) Create the My Tho – Duc Hoa – Cau Bong 500kV ring circuit and supply power to the center of Ho Chi Minh City;
- (iii) Transmit power from 500/220kV My Tho substation to the national power network in order to meet the projected increasing power demand in the southern region; and
- (iv) Reduce power losses in the transmission system.

4. The 500kV My Tho - Duc Hoa Transmission Lines Project consists of 54.83 cct-km overhead transmission lines which spans two provinces. The project will connect the 500/220kV My Tho Substation in Tien Giang Province to the 500/220kV Duc Hoa Substation in Long An Province. The transmission line will have two (2) - 4x500KV circuits which will be supported by towers made of prefabricated galvanized steel.

5. A screening was carried out using ADB's Rapid Environmental Assessment (REA) checklist (Appendix 1). The screening confirmed that the environmental impacts are not expected to cause irreversible and significant adverse environmental impacts and are easily controllable by appropriate and conventional mitigation measures. Therefore, the subproject is Category B for environment based on ADB Safeguard Policy Statement (SPS, 2009) and that Initial Environmental Examination (IEE) report will be required for submission to ADB.

6. This IEE report is prepared for the 500kV My Tho - Duc Hoa transmission lines based on ADB SPS (2009); ADB Operational Manual Section F1/BP; ADB Public Communications Policy (ADB PCP, 2011); GOV Decree No. 29/2011/ND-CP on environmental impact assessment (EIA) and other GOV applicable environmental laws, policies, rules and regulations for energy projects.

7. Information in the IEE is based on reports prepared by the Power Engineering Consulting Joint Stock Company (PECC2), secondary data from other agencies, field inspection, and information gathered during community and stakeholder consultations. The objectives and scope of the IEE are to: (i) establish current environmental conditions; (ii) identify

key environmental issues; (iii) assess magnitude of impacts and provide mitigating measures; (iv) integrate the environmental issues in the project planning and design stage; and (v) develop an environmental management plan for implementation, monitoring and reporting of the environmental mitigation and enhancement measures.

8. In general, the subproject is expected to result to beneficial impacts to the community in Tien Giang and Long An and other neighboring provinces in the southern region brought about by proposed improvements in reliability and security of power supply. However, there are anticipated negative environmental impacts during subproject implementation, which have to be considered in the design, construction and operational phases.

9. **Impacts related to project siting.** There are no significant sensitive areas that will be affected by the proposed construction of the 500kV transmission line and temporary access roads to the tower sites. The route was selected to avoid environmentally sensitive areas, settlements, forests, and cultural/heritage sites. The vicinity is generally characterized as agricultural land used for planting rice and other crops.

10. The impact of the project on agricultural land comprises the loss of flat, agricultural land that is being used to plant rice and other crops. Compensation for the loss of agricultural production will be paid to the affected person/people (AP) according to the resettlement action plan (RAP).

11. **Impacts during construction.** Most of the anticipated impacts are related to nuisances which may happen during the construction of the subproject components such as clearing of the existing vegetation, construction safety, temporary alienation of access, temporary disruption of community facilities, noise, release of dust and engine gas emissions. Recommendations formulated in the environmental management plan (EMP), its inclusion in the contractual framework, and an effective inspection of construction sites will reduce these risks to an acceptable level.

12. The impacts of the project during the construction phase are limited to the immediate area of the construction activities. The adverse impacts likely to occur during the construction phase are considered temporary in nature and could be mitigated through proper design and implementation of the proposed mitigation measures. These are briefly described in the following paragraphs:

13. **Impact of construction camps.** There will be waste generation, water pollution, sanitation, and health hazards due to the presence of workers camp. Adequate water supply and toilet facilities will be established at construction camp. A construction health and safety plan shall be required from the Contractor, including provision of personal protective equipment (PPE) and first-aid facilities to provide immediate measures in addressing hazards to occupational health and safety at the construction site.

14. **Air pollution and noise.** The movement of construction vehicles along the access roads would contribute to the increase in ground level concentration of total suspended particulates (dust), noise, and could also result to accidents and hazards to communities living along the right-of-way (ROW) of the transmission lines and access roads. Measures such as water sprinkling of areas prone to dust emission, limiting of construction hours and deliveries to the site at night and imposition of speed limit to vehicles will be implemented.

15. **Community health and safety.** Impacts related to community health and safety such as construction traffic, transport of materials, fires, emergency spill of materials, and unauthorized

entry by villagers into dangerous working areas will be mitigated through the development of a Community Health and Safety Plan (CHSP) that incorporates good international practice and recognized standards that includes fencing of construction area, posting of warning signs in Vietnamese language, emergency response and preparedness procedures, communication systems and protocols, interaction with local and regional emergency and health authorities, provision of emergency equipment and facilities such as fire truck, emergency service vehicles, and fire drills will be established.

16. **Impacts during operational phase.** The operation and maintenance of the transmission lines may result to the generation of wastes, including hazardous materials such as used oil from vehicle maintenance which require appropriate management and disposal. There is also a potential for the power lines to cause risks to occupational health and safety due to exposure to electromagnetic field (EMF) and high voltage electricity. Mitigation measures to address hazardous waste management and occupational and community health and safety need to be instituted.

17. The transmission lines may also expose the community to risks of electrocution and EMF. The required safety clearance from houses shall be considered and that there shall be regular inspection to check whether safety clearance requirements are compromised. In addition, warning signs in Vietnamese language will be posted on transmission lines.

18. An EMP has been prepared and will be implemented during all phases of subproject implementation. The EMP identifies the potential environmental impacts from the subproject and includes institutional arrangements for its implementation to ensure its sustainability and effectiveness.

19. **Public Consultation.** SPPMB and the consultant team have carried out consultations with affected communities along the alignment of the transmission lines on March 18 to 25, 2015 in 6 communes of two districts in Tien Giang province and 6 communes of four districts in Long An province. Stakeholders who participated during the public consultation process included affected communities along the alignment of the transmission lines as well as commune leaders, representatives of mass organizations such as Women's Union and Farmer's Union. A total of 350 people participated during the consultation meetings.

20. In general, the local authorities and people agree to the proposed subproject even if the transmission line will cross through their localities. Major concerns that were raised during these consultation meetings are related to compensation for resettlement and damage during construction, provision of schedule of implementation to enable local people to plan their agricultural activities, management of construction wastes, and impacts of EMF to communities. The local authorities also requested SPPMB to inform them about the mitigation measures in order for the Commune People's Committee to take part in monitoring the Contractor's commitments in minimizing the adverse impacts to the environment. The minutes of the public consultation meeting is presented in Appendix 2.

21. **Grievance Redress Mechanism.** As a general policy, the SPPMB will work proactively toward preventing complaints through the implementation of impact mitigation measures and through community liaison activities that anticipate and address potential issues before they become grievances. The subproject's Grievance Redress Mechanism (GRM) will consist of a system of receiving, evaluating, and addressing APs' grievances related to the subproject.

22. A grievance resolution process for compensation was established during the pre-construction phase based on the provisions in Decree No. 44/2014/ND-CP of May 15, 2014.

The GRM established for land acquisition and compensation will be applied for environment-related complaints of the community. The GRM during the construction phase will be supervised by the SPPMB and the decision will be based on the resolution of the district and provincial committees. For cases, wherein the complaint cannot be resolved at the district and provincial level, the final decision will be decided by the People's court. The details of the GRM are presented in this IEE.

23. **Environmental Compliance Audit of Associated Facilities.** The new 220kV Duc Hoa substation and the 500kV My Tho substation are considered as associated facilities of the subproject. A separate IEE report has been prepared for the 220kV Duc Hoa substation subproject under Tranche 3. An environmental compliance audit has been undertaken for the My Tho substation. The ECA report for the 500kV My Tho Substation is presented in Appendix 6 and documents the observations and corrective action plan.

24. In general, there are several lapses in the management of adverse impacts of construction activities at the My Tho substation which need to be addressed by the Contractors, as follows:

- a) Measures to control soil runoff and sedimentation of the adjacent irrigation canals should be undertaken.
- b) Occupational health and safety measures need to be improved to protect workers health and safety and to ensure sanitation in the workplace. These measures include the provision of adequate PPEs and first-aid medicines for workers, sanitary toilets with septic tanks, and well-ventilated construction camps, among others.
- c) Waste management needs to be improved through the provision of waste segregation bins and the regular collection of wastes to avoid indiscriminate disposal at the site and at adjacent areas or burning of wastes by workers.
- d) Designation of an Environment Officer and Health and Safety Officer at the site to oversee implementation of the EMP and health and safety practices.

25. Notably, the My Tho substation has been planned with provision of a temporary hazardous waste storage area, oil containment tank for transformers, and firewater tanks. Environmental monitoring of noise levels, sewage management, and emissions as specified in Article 2 of the approved Certificate of Environmental Protection Commitment (EPC) of the 500kV My Tho Substation and Connection Lines need to be monitored to check whether the environmental standards are being met.

26. **Conclusion and Recommendation.** The results of the IEE show that the proposed 500kV My Tho – Duc Hoa Transmission Line subproject will not result to significant adverse environmental impacts and that the impacts are primarily confined within the site of the existing substation and along the ROW of the transmission lines. Environmental mitigation measures have been designed as outlined in the subproject EMP to address any adverse impacts during the various phases of project implementation. The EMP also presents the institutional responsibilities for implementing the mitigation measures.

27. In compliance with the requirements of GOV Decree No. 29/2011/ND-CP dated April 18, 2011, the proposed 500kV My Tho - Duc Hoa transmission lines is required to prepare and submit an EIA to the Ministry of Natural Resources and Environment (MONRE) in Hanoi. A Decision of Approval (Decision No. 2271/QD-BTNMT dated October 13, 2014) on the EIA for the project was issued by the MONRE.

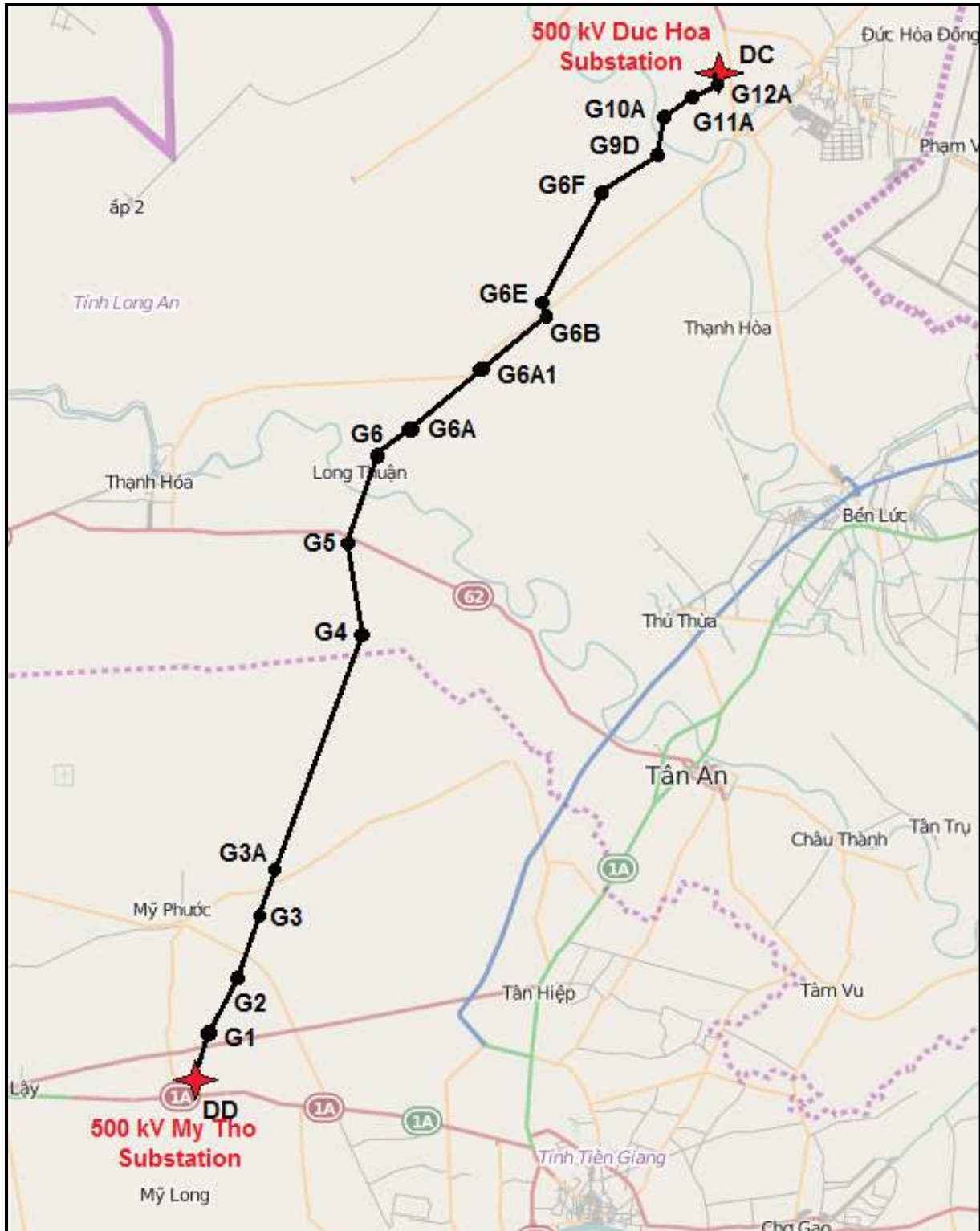


Figure 1: Location Map

Source: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 550 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

Baseline map obtained from: Environmental Systems Research Institute, Inc. (Esri). 2015. <http://www.arcgis.com/home/webmap>

II. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

A. ADB'S Environmental Safeguards Policies

28. The environment safeguards requirements of ADB are presented in the following guidelines:

- a) Safeguard Policy Statement (2009)
- b) Operational Manual Section F1/BP¹ and
- c) Public Communications Policy (PCP) 2011.

29. The environmental safeguards requirement follows ADB's Strategy 2020², which emphasizes the pursuit of environmentally sustainable and inclusive economic growth for developing member countries (DMCs) and requires mitigation to address environmental and social impacts of projects. The ADB's Safeguards Policy Statement (SPS, 2009) governs the environmental and social safeguards of ADB's operations. When a project has been identified for ADB financing, it is screened and categorized to determine the following:

- a) Significance of potential impacts or risks of the project to the environment;
- b) Level of assessment and institutional resources required to address the safeguard issues; and
- c) Information disclosure and consultation requirements.

30. The Environmental Safeguard Requirements 1 of the SPS outlines the requirements that borrowers/clients have to meet. These requirements include assessing impacts, planning and managing impact mitigations, preparing environmental assessment reports, disclosing information and undertaking stakeholder consultations, establishing a grievance redress mechanism, and monitoring and reporting. It also includes specific environmental safeguard requirements pertaining to biodiversity conservation and sustainable management of natural resources, pollution prevention and abatement, occupational and community health and safety, and conservation of physical cultural resources.

31. Through the use of environment screening checklists that have been developed by the ADB, the project is initially categorized for potential environmental impacts and risks. ADB assigns a proposed project to one of the following categories:

Category A – if a proposed project is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented; impacts may affect an area larger than the sites or facilities subject to physical works. A full-scale EIA including an EMP is required.

Category B – if a proposed project's potential environmental impacts are less adverse and fewer in number than those of category A projects; impacts are site-specific, few if any of them are irreversible, and impacts can be readily addressed through mitigation measures. An IEE, including an EMP, is required.

Category C – if a proposed project is likely to have minimal or no adverse environmental impacts. No EIA or IEE is required although environmental implications need to be reviewed.

Category FI – is assigned to projects that involve investment of ADB funds to or through a financial intermediary.

¹ Operations Manual Bank Policies (BP) issued on 1 October 2013, based on ADB Safeguard Policy Statement, 2009.

² ADB. 2008. Strategy 2020: The Long-Term Framework of the Asian Development Bank 2008-2020. Manila.

32. The category of the proposed project is determined by screening using the ADB's sector-specific Rapid Environmental Assessment (REA) checklist. The environmental categorization should be based on the most sensitive environmental component. For instance, if one component of the project has potential for significant adverse impacts, the entire project should be classified as Category A, even if all other components have no significant environmental impacts. If the most sensitive component falls under Category B, the project should be classified as Category B even if the other components are unlikely to have adverse environmental impacts.

33. The EIA or IEE Report should include the EMP that specifies the proposed mitigating measures specific to a potential impact, environmental monitoring requirements, institutional arrangements, and budget requirements.

34. ADB also requires public disclosure for Category A and B projects. For Category A, there should be at least two consultations, once during the early stages of the EIA and once when the draft EIA is available prior to ADB loan appraisal. For Category B, the draft IEE report should be available to interested stakeholders before project approval and posted on the ADB's website upon Board approval of a project.

B. Legal and Institutional Framework on Environmental Management in Viet Nam

1. Environmental Protection

35. National laws and regulations for environmental protection which are applicable to the proposed subproject are presented in Table 1. The Environment Protection Law (Law No. 55/2014/QH13 of June 23, 2014) is the main governing law on environmental management in Viet Nam. The implementation of this law was subsequently guided by implementation guidelines, amendments, regulations on impact assessments, sanctions on violations, incentives, regulations on waste management, and national technical regulations or standards on environmental quality. The Ministry of Natural Resources and Environment (MONRE) is the governing body in-charge of the implementation of the Environmental Protection Law in Viet Nam.

Table 1: Environmental Protection Laws and Regulations

Laws and Regulations	Description
A. Laws	
Law on Environmental Protection No. 55/2014/QH13, in effect on January 1, 2015	This Law provides statutory provisions on environmental protection activities; measures and resources used for the purpose of environmental protection; rights, powers, duties and obligations of regulatory bodies, agencies, organizations, households and individuals who are tasked with environmental protection.
Biodiversity Law No. 20/2008/QH12 dated November 13, 2008	Pursuant to the 1992 constitution of the Socialist Republic of Viet Nam, which was amended and supplemented under Resolution 5/2001/QH10 dated December 25, 2001 of the 10 th National Assembly, this law stipulates biodiversity conservation and sustainable development.
B. Decrees	
Decree No. 18/2015/ND-CP, dated Feb. 14, 2015	Provides the requirements for Environmental Protection Plan, Strategic Environmental Assessment, Environmental Impact Assessment and Environmental Protection Scheme. This Decree took effect on April 1, 2015.
Decree No. 19/2015/ND-CP,	Regulation detailing a number of articles of the Environmental

Laws and Regulations	Description
dated Feb. 14, 2015	Protection Law. This Decree took effect on April 1, 2015.
Decree No 80/2014/ND-CP issued on August 6, 2014	This Decree regulates drainage and treatment of wastewater in urban areas, industrial zones, economic zones, processing and export zones, and rural residential areas. It also prescribes the rights and obligations of organizations, individuals and households having activities related to drainage and treatment of wastewater within Viet Nam's territory.
Decree No.179/2013/ND-CP dated November 14, 2013	This Decree took effect on December 30, 2013 and prescribes the sanction on administrative violations on the domain of environmental protection.
Decree No.59/2007/NĐ-CP dated April 9, 2007	Prescribes the regulations on solid waste management
C. Circulars	
Circular No.26/2011/TT-BTNMT dated December 8, 2011	Guidance for Strategic Environmental Assessment, Environmental Impact Assessment, and Environmental Protection Commitment.
Circular No. 01/2012/TT-BTNMT dated March 16, 2012	Regulation on setting-up, assessment, approval, inspection and certification of the implementation of detailed environmental protection project; setting up and registration of simple environmental protection projects.
Circular No. 22/2014/TT-BTNMT dated May 5, 2014	Provides the guidelines for the implementation of the Government's Decree No. 35/2014/ND-CP of April 29, 2014, amending and supplementing a number of articles of the Government's decree No. 29/2011/ND-CP of April 18, 2011, providing strategic environmental assessment, environmental impact assessment and environmental protection commitment.
Circular No 12/2011/TT-BTNMT dated April 14, 2011	Regulation on the management of Hazardous Waste. Under this law, generators of hazardous waste are required to register with MONRE/DONRE and to have separate hazardous waste storage area. The treatment and disposal of hazardous waste should be contracted through a registered hazardous waste management company.
Circular No. 39/2010/TT-BTNMT dated December 16, 2010	National technical regulation on noise (QCVN 26/2010/BTNMT) and on vibration (QCVN 27/2010/BTNMT)
Circular No 25/2009/TT-BTNMT dated November 16, 2009	National technical regulation on hazardous waste threshold (QCVN 07:2009/BTNMT).
Circular No 32/2013/TT-BTNMT dated October 25, 2013	National technical regulation on ambient air quality (QCVN 05/2013/BTNMT)
D. Decisions	
Decision No. 16/2008/QĐ-BTNMT dated December 31, 2008	National technical regulation on surface water quality (QCVN 08.2008/BTNMT); Underground water quality (QCVN 09/2008/BTNMT) and Domestic wastewater (QCVN 14/2008/BTNMT)

2. Environmental Assessment

36. Based on Decree No. 29/2011/ND-CP dated April 18, 2011, the 500kV transmission lines is required to submit an EIA report. The report is prepared by the investor and submitted to the MONRE in Hanoi. The Decision of Approval of the project was issued by the MONRE (Decision Ref. No. 2271/QĐ-BTNMT) on October 13, 2014. The Decision of Approval is presented in Appendix 3.

37. The duration for processing the submitted report is forty-five (45) working days. Once approved, a Decision of Approval is released for the project. Under the Circular 26/2011/TT-BTNMT of July 18, 2011, guided by Decree No. 29/2011/ND-CP of April 18, 2011, investors only needs to obtain the approval decision.

38. There are new provisions under the new Environmental Protection Law dated January 1, 2015 related to environmental impact assessment. Under Article 20 of the law, if a project is not executed within a period of 24 months from the date of the approval of the decision on the environmental impact assessment, a new EIA report is required for submission to DONRE or MONRE. In addition, the new law prescribes the licensing requirement for EIA consultants.

39. Under the new Decree No. 18/2015/ND-CP, dated Feb 14, 2015, the EIA requirements for investment projects were revised. The following outlines the revised requirements for power supply projects in GOV:

Table 2: EIA Requirements for Electricity Transmission Lines and Power Stations Projects

Type of Project	Scale	EIA Requirement
Substation	<500kV	EPP (Environmental Protection Plan)
	≥500kV	EIA
Transmission Line	<110kV	EPP
	≥110kV	EIA

Source: Decree No. 18/2015/ND-CP, Feb 14, 2015

3. Environmental Monitoring

40. The environmental monitoring requirements are prescribed in Clause 2, Article 16, Decree No. 18/2015/ND-CP. Under this Circular, environmental monitoring reports are to be prepared by the investor for submission to MONRE or DONRE on a semi-annual or annual basis, based on the approved program written in the EIA. The environmental monitoring report shall contain the progress of project implementation, status of implementation of the environmental management plan (EMP) and environmental monitoring plan (EMoP), and the results of the monitoring of emissions and wastewater discharges and other project-related parameters.

4. Electricity Law

41. The regulations regarding power supply and power network protection is prescribed in the Electricity Law No. 18/2004/QH11 of December 3, 2004. In general, the law prescribes electricity development planning and investment, electricity markets, rights and obligations of organizations and individuals conducting electricity activities and using electricity, protection of electric equipment and facilities, electricity works and electrical safety.

Table 3: Power Network Legislation and Associated Legal Instruments

Laws and Regulations	Description
A. Law	
Law No. 24/2012/QH13 issued on November 20, 2012	Amends and supplements a number of articles of the Electricity Law No. 28/2004/QH11 of December 3, 2004
Electricity Law No. 18/2004/QH11 dated	Prescribes the electricity development planning and investment; electricity saving; electricity markets; rights and obligations of

Laws and Regulations	Description
December 3,2004	organizations and individuals conducting electricity activities and using electricity; protection of electric equipment and facilities, electricity works and electric safety.
B. Decrees	
Decree No 81/2009/NĐ-CP, issued August 17, 2005	On the safety and protection of high-voltage power grids.
Decree No 14/2014/ND-CP dated February 26, 2014	Decree stipulates in detail the implementation of electricity law regarding electricity safety, including: safety in generation, transmission, distribution and use of electricity in production; compensation and assistance of housing, works, land and plants in the safety corridor of overhead power transmission line upon the construction of high-voltage grid.
C. Circular	
Circular No 22/2010/BXD issued on December 3, 2010	Regulation on labor safety in work construction, construction and installation of equipment which are newly built, repaired, renovated, relocated, embellished or restored; dismantling of works and warranty for maintenance works.
Ministry of Industry and Trade Circular No. 03/2010/TT-BCT, issued January 22, 2010	Regarding protection on high-voltage power network

5. Land and Construction

42. The Land Law No. 45/2013/QH13 of November 29, 2013 prescribes the requirements on land use, details of compensation, support and resettlement. The implementation guidelines and amendments are detailed in succeeding government decrees and ministry circular.

43. Regulations on construction management in investment projects including labor safety in construction and use of equipment are described in detail in Table 4.

Table 4: Land and Construction Laws and Regulations

Laws	Description
A. Law	
Land Law No 45/2013/QH13 dated November 29, 2013	This Law prescribes the regime of land ownership, powers and responsibilities of the State in representing the entire-people, owner of land and uniformly managing land, the regime of land management and use, and the rights and obligations of land users.
B. Decrees	
Decree No. 44/2014/ND-CP dated May 15, 2014	This Decree regulates methods for land pricing, adjustment to land price brackets and land price lists, specific land pricing and provision of consultancy on land pricing.
Decree No. 37/2014/ND-CP dated May 15, 2014	The Decree details some articles of the Law on Land concerning compensation, support, and resettlement upon land expropriation by the State.
C. Circulars	
Circular No. 36/2014 / TT-BTNMT dated June 30, 2014	Specifying detailed methods of valuation of land prices, construction, adjustment of land prices; specific land prices valuation and land prices valuation consulting service.
Circular No. 37/2014/TT-BTNMT dated June 30, 2014,	Providing detailed regulation on compensation, assistance, and resettlement when the State acquires land.
Document of Prime Minister No. 1665/TTg-CN, dated October 17, 2006	Regarding management of clearance of site, mine and explosive ordnance for construction

C. Milestones for Environmental Compliance of Subproject

44. In compliance with GOV requirements, the proposed subproject was approved by the Prime Minister of Viet Nam, the NPT, and the People's Committee of the provinces covered by the project. The EIA for the 500kV My Tho-Duc Hoa connection lines was approved under Decision No. 2271/QD-BTNMT on October 13, 2014 by the MONRE. The list of the legal documents and approvals required for the project are shown in Table 5.

Table 5: Legal Documents and Approvals of the 500kV My Tho-Duc Hoa Transmission Lines

Documents and approvals	Description
Prime Minister Decision No. 1208/QD-TTg Date issued: July 21, 2011	Approval of decision of the Prime Minister on the national electricity development plan from 2010-2020
Ministry of Industry and Trade Decision No. 4986/QD-BCT Date issued: June 3, 2014	Approval of the construction of the investment project
MONRE Decision No.2271/QD-BTNMT Date issued: Oct. 13, 2014	Decision on the approval of the EIA of the 500kV My Tho – Duc Hoa Transmission Lines project
Tien Giang Province People's Committee Document No.: 6109/UBND-CN Date issued: December 24,2013	Agreement on the direction of transmission line at section passing Tien Giang Province
Long An Province People's Committee Document No. 3362/UBND-KT	Agreement on the direction of the transmission lines at section passing Long An Province
Tien Giang Province Department of Transportation Document No. 2654/SGTVT-KH Date issued: September 21, 2012	Agreement on crossing points between the transmission lines and roads in Tien Giang Province
Long An Province Department of Transportation Document No. 742/SGTVT-QLHT Date issued: 02/04/2013	Agreement on the position the transmission lines crosses Highway 62 in Thanh Hoa District, Long An Province
Department of Communication Document No. 1239/H47-P1 Date issued: 04/09/2012	Agreement on the prevention of impact of the transmission lines on the communication system of Police Department
Tien Giang Department of Transport Document No. 2969/SGTVT-QLGT Date issued: 29/12/2010	Agreement on vertical safety clearance at sections of transmission lines crossing rivers and canals in Tien Giang Province
Southern Inland Waterways Department Document No. 630/CCĐTNDPN-KT Date issued: 01/11/2010	Agreement on vertical room of transmission lines at sections crossing Vam Co Dong River and Vam Co Tay River
Southeastern Gas Project Management Unit Document 976/DNB-KT Date issued: 02/11/2010	Agreement on providing information for transmission line project linking East - West of southern area
Military Zone 9 Military Command of Tien Giang Province Document No. 2308/BCH-TM Date issued: Dec. 13, 2010	Requirement for UXO clearing. The transmission line route in the province is identified as UXO Area 2, Level 1 density. Demining must be done prior to construction to protect lives and properties.

III. DESCRIPTION OF THE PROJECT

45. The Power Transmission Investment Program supports partial implementation of the GOV's Power Development Master Plan VII (PDMP VII) to meet the growing electricity demand of industrial, commercial and residential consumers throughout Viet Nam and to ensure reliable electricity supply. Components of the investment program contribute to expanding Viet Nam's power transmission network by financing construction of 500kV and 220kV transmission lines and associated substations. The facility is anticipated to consist of four financing tranches. ADB approved Tranche 1 in December 2011 and Tranche 2 in November 2012.

46. Nine subprojects have been identified for inclusion under Tranche 3. The proposed 500kV My Tho - Duc Hoa transmission lines in Tien Giang and Long An Provinces is one of the subprojects under Tranche 3.

A. Sub-Project Scope

47. The 500kV My Tho - Duc Hoa Transmission Lines Project consists of 54.83 cct-km overhead transmission lines which spans two provinces. The project will connect the 500/220kV My Tho Substation in Tien Giang Province to the 500/220kV Duc Hoa Substation in Long An Province. The transmission line will cross over existing roads, power and phone lines, bodies of water, and structures among others. A total of 73 houses within the 36 m ROW have to be cleared and relocated while 148 houses that are located within 16 - 60 m of ROW centerline will be earthed (Figure 2).³

48. The route of the 54.83 cct-km transmission line is divided into 17 sections of varied lengths based on technical requirements and land terrain. Starting at the bus bar of the 500/220KV My Tho Substation in Diem Hy Commune (Chau Thanh District, Tien Giang Province), the transmission line will traverse five (5) other communes in the province before crossing the next. Once in Long An Province, from the district of Thanh Hoa, the transmission line will span 33.764 km to finally connect to the 500/220kV Duc Hoa Substation in Ho Khanh Dong Commune, Duc Hoa District (Table 6).

Table 6. Sections of the 500 kV My Tho- Duc Hoa Transmission Line

No.	Province	District	Commune	Section	Distance (m)
1	Tien Giang	Chau Thanh	Diem Hy	DD - G1	1,800
			Nhi Binh	G1 - G2	3,114
		Tan Phuoc	Phuoc Lap	G2-G3	3,180
			My Phuoc	G3 - G3A	2,176
			Hung Thanh, Tan Hoa Dong	G3A-G4	10,796
		Subtotal	2	6	5
2	Long An	Thanh Hoa	Tan Tay	G4- G5	4,953
		Thu Thua	Long Thuan, Tan Lap	G5- G6	4,110
				G6 - G6A	2,003
				G6A - G6A1	5,042
		Ben Luc	Thanh Loi	G6A1 - G6B	4,151
				G6B - G6E	321
				G6E - G6F	5,004
				G6F - G9D	2,551
		Duc Hoa	Huu Thanh	G9D - G10A	1,798

³ The ROW clearance is 16 m from centerline on both sides. Houses within 16 m from centerline of the transmission line will be relocated for safety reasons and as mandated by Decree No. 14.2014/ND-CP (February 26, 2014). Houses can be established in the earthing zone (beyond 16 m to 60 m from centerline of transmission line) provided that the houses are equipped with lightning arrestors and are fireproofed.

			G10 A - G11A	1,661
			G11A - G12A	1,610
		Ho Khanh Dong	G12A - DC	560
Subtotal	4	6	12	33,764
Total	6	12	17	54,830

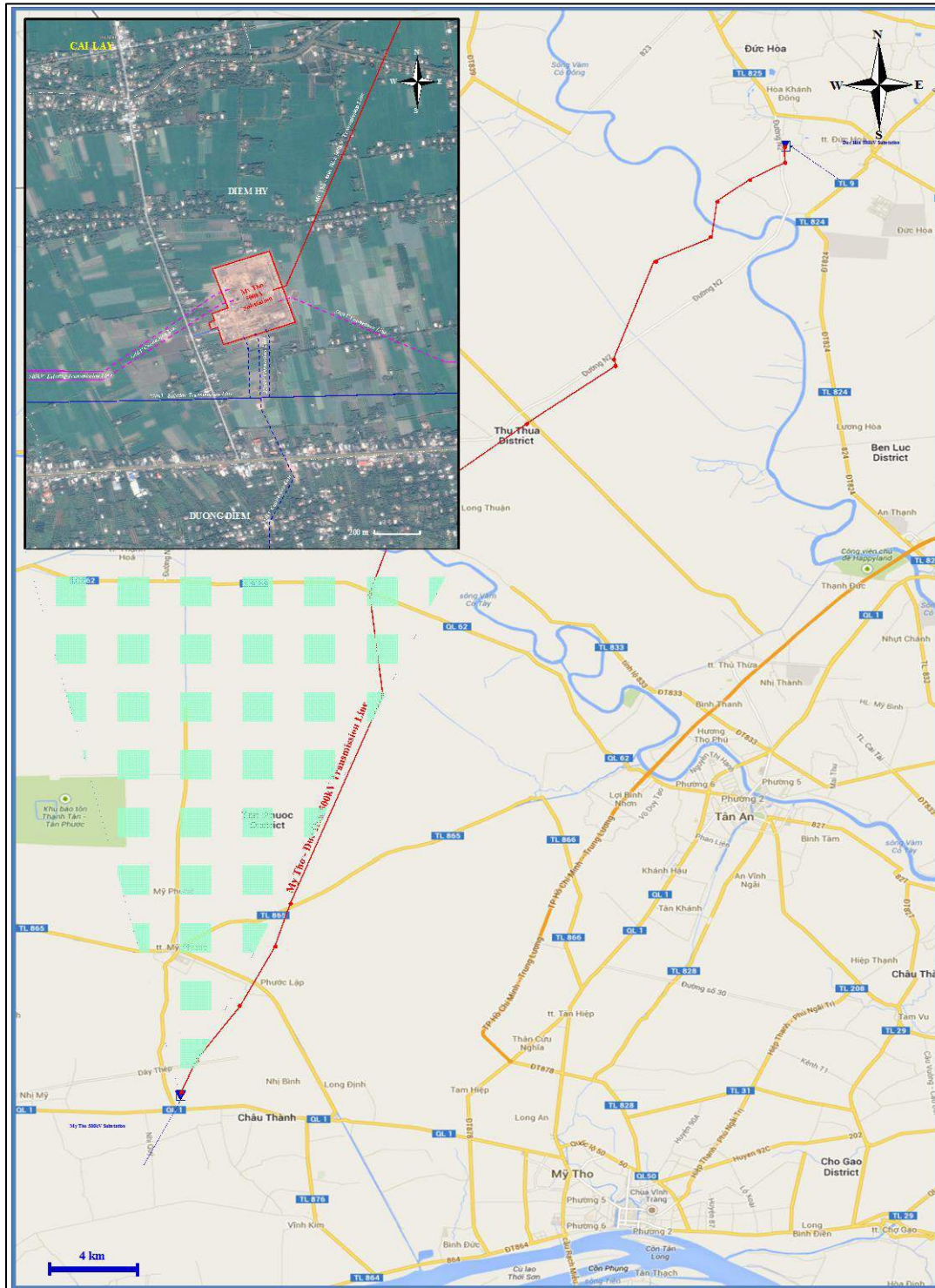


Figure 2: Location of My Tho-Duc Hoa Transmission Line

Table 7. Summary of the crossings of the transmission line

No.	Province	District	Commune	Section	Distance (m)	Gas Pipeline	Express Way	MV T/L	Phone line	Prov. Road	Canal	River	Structures	
													ROW	EZ
1	Tien Giang	2	6	5	21,066	1	1	14	0	2	13	0	49	92
		Chau Thanh	Diem Hy	DD - G1	1,800	-	1	2	-	-	-	-	10	15
			Nhi Binh	G1 - G2	3,114	1	-	2	-	-	5	-	14	21
		Tan Phuoc	Phuoc Lap	G2-G3	3,180	-	-	2	-	1	2	-	11	42
			My Phuoc	G3 - G3A	2,176	-	-	3	-	1	1	-	6	10
	Hung Thanh, Tan Hoa Dong	G3A-G4	10,796	-	-	5	-	-	5	-	8	4		
2	Long An	4	6	12	33,764	0	0	12	1	2	6	2	24	56
		Thanh Hoa	Tan Tay	G4- G5	4,953	-	-	1	-	-	1	-	-	4
		Thu Thua	Long Thuan, Tan Lap	G5- G6	4,110	-	-	4	-	1	2	1	7	15
				G6 - G6A	2,003	-	-	3	-	-	1	-	-	6
				G6A - G6A1	5,042	-	-	-	-	-	-	-	-	-
		Ben Luc	Thanh Loi	G6A1 - G6B	4,151	-	-	3	-	-	1	-	3	6
				G6B - G6E	321	-	-	-	-	1	-	-	-	-
				G6E - G6F	5,004	-	-	-	-	-	1	-	-	-
				G6F - G9D	2,551	-	-	-	1	-	-	-	-	4
		Duc Hoa	Huu Thanh	G9D - G10A	1,798	-	-	-	-	-	-	1	7	7
				G10 A - G11A	1,661	-	-	1	-	-	-	-	4	7
				G11A - G12A	1,610	-	-	-	-	-	-	-	-	1
			Hoa Khanh Dong	G12A - DC	560	-	-	-	-	-	-	-	3	6
TOTAL	6		12	17	54,830	1	1	26	1	4	19	2	73	148

DD = 500/220KV My Tho Substation; DC = 500/220kV Duc Hoa Substation; EZ – earth zone (16 – 70 m) from ROW centerline; G1-G12A = section points; m = meter; MV T/L – medium voltage transmission line; prov. – provincial; ROW – right-of-way

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

49. Along the route, several existing lines will be crossed: 26 medium-voltage transmission line in both provinces; and one (1) phone line in Long An Province. Locations for two (2) proposed projects (gas pipeline and expressway) near the 500/220KV My Tho Substation will be crossed once. It is only in Long An Province that rivers will be spanned; 1 time each for Vam Co Dong and Vam Co Tay rivers. As for the affected structures, more than 60% are in Long An Province (49 of 73 within the ROW and 92 of 148 within earthing zone) (Table 7). From the total of 1,694,093 m² land area within the ROW across the two provinces, about 61.8% are in Long An Province. Affected lands are mostly agricultural land: arable land, grazing land, and cultivation areas (sugarcane, lemon, pineapple, and melaleuca). Permanently affected lands include not only those to be used for tower foundations, but also the legally required 0.5 m foundation perimeter clearance restricted for use (Table 8).

Table 8: Tower Coordinates

Coordinates using VN-2000 coordinate system (L-105°0', M=6°)					
Section Point	X (m)	Y (m)	Section Point	X (m)	Y (m)
DD	1151335.16	630697.18	G6A1	1184137.83	644797.48
G1	1153010.72	631355.34	G6B	1186711.62	648054.24
G2	1155599.26	633085.79	G6E	1187018.46	647961.29
G3	1158469.71	634455.87	G6F	1191758.11	649564.01
G3A	1160554.51	635075.79	G9D	1192897.97	651845.66
G4	1170698.81	638764.18	G10A	1194678.75	652090.57
G5	1175622.35	638233.91	G11A	1195728.97	653377.82
G6	1179546.9	639454.03	G12A	1196528.28	654775.7
G6A	1180873.71	640954.69	DC	1197088.13	654779.3

DD = 500/220KV My Tho Substation; DC = 500/220kV Duc Hoa Substation;

G1-G12A = section points; m = meter

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014.

Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

50. The transmission line will have two (2) - 4x500KV circuits which will be supported by towers made of prefabricated galvanized steel. A total of 112 galvanized steel lattice towers will be used; 22 of which are tension type with some angle up to 70°. The tower heights will range from 52 - 79 m height as determined by route topography and clearance requirements. According to Decree No. 14/2014/ND-CP, minimum clearance of a 500 kV transmission line to the highest point of tree is 4.5 m (within towns and cities) and 6 m otherwise. No tower will be erected within any river channel; that is, high towers are located such that transmission line will cross river in a single span. Supported by cast-in-place reinforced concrete slab pier and pile foundations, total area required for all tower foundations is 56,935 m² (Table 9).

Table 9. Land within the ROW

No.	Land Type	Tien Giang Province		Long An Province	
		For Towers	Total in ROW	For Towers	Total in ROW
1	Arable land	7,947.45	225,685.00	16,656.86	462,447.00
2	Sugarcane land	-	-	4,887.36	135,689.00
3	Lemon cultivation	-	-	2,614.46	72,586.00
4	Grazing land	-	-	556.27	15,444.00
5	Pineapple cultivation	11,952.20	339,408.00	578.52	16,061.00
6	Melaleuca cultivation	-	-	8,560.95	237,679.00
7	Residential land	1,741.67	49,458.00	1,668.80	46,331.00
8	Others	1,099.43	31,221.00	2,236.19	62,084.00
Total		22,740.75	645,772.00	37,759.41	1,048,321.00

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 550 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

Table 10. Summary of the main features of the project

No.	Item	Detail
1	Starting point	500/220KV My Tho Substation
2	Ending point	500/220KV Duc Hoa Substation
3	Length of line	54.83 cct-km
4	ROW width	36 m
5	Earth grounding width	16 - 60 m
6	Voltage	500 kV
7	Circuit	2
8	Conductors	Steel-cored aluminum alloy conductors Phases divided 4xACSR666.6 mCM – Code name Flamingo (equivalent to 4xACSR330)
9	Earth line	Aluminum alloy steel core wire PHLOX116 in combination with fiber cable OPGW120 (with 24 optical fibers, according to ITU-T G.655)
10	Insulator	Composite (nominal leakage current 20 mm/kV)
11	Tower	
	Number (Type)	112 (90 suspension; 22 tension)
	Height	52 - 79 m
	Material	Hot dip galvanized shape steels
	Foundation	Cast-in-place reinforced concrete
	Excavation requirement	113,729 m ³ (average per tower: 1,015 m ³)
	Concrete requirement	19,274.3 m ³ (average per tower: 172.1 m ³)
Area requirement	60,500 m ² (average per tower: 540 m ²); includes the 0.5 m perimeter clearance requirement	
12	Structures within the RoW	73
13	Structures within Earthing width	148
14	Cost of project	2,069,319,812,509 VND
15	Construction duration	18 months

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

B. Sub-Project Schedule and Activities

51. Construction period will be completed in 18 months, excluding the time of compensation and site clearance (Table 11). To achieve this schedule, the construction will be organized into three (3) segments; each responsible for prescribed sections of the transmission line.

Table 11: Implementation Schedule

No.	Item	Estimated Construction Month																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Preparatory works																		
2	Foundation works																		
3	Concrete foundation works																		
4	Erection of towers																		
5	Stringing of conductors																		
6	Finishing works																		
7	Testing and handover																		

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

1. Pre-Construction

52. **Survey and Design.** The detailed design of the transmission line was undertaken through cadastral survey, site survey and soil investigation. Cadastral survey determines the route for the development of the transmission line, while soil investigation determines the subsurface conditions of tower locations. Construction design parameters for the foundations were determined using the results. The SPPMB contracted the PECC2 to conduct the technical surveys and design, cost estimate, and the Bid& Contract documents for the procurement of equipment and construction of the project. After preliminary review of SPPMB, it will submit the technical project design to NPT for final approval.

53. Contractor will be chosen based on the set bidding procedure. The Bid & Contract (B&C) Documents will include implementation of construction phase mitigation measures discussed in the chapter on Environmental Management Plan (EMP).

54. **UXO Clearance.** Demining of UXO must be performed for both provinces in areas where the transmission line will pass. The route in Tien Giang Province is identified as UXO Area 2, Density 1. Currently, the route in Long An Province still has no UXO status thus have to obtain this first. Subsequently, UXO clearing must be done prior to any construction works.

55. **Land Acquisition and Compensation.** Construction of the project will require acquisition of lands for the tower foundations. A total of 60,500 m² of land, mostly agricultural, will be permanently affected. There are 73 households within the ROW (16 m from centerline) that will be relocated and 148 within the earthing zone (16 m to 60 m from centerline) that needs to be earthed. A Resettlement Assistance Plan is being prepared separately. Compensation shall be designed in accordance with the ADB and GOV requirements. The SPPMB shall be in-charge of the implementation of the RAP. The Contractor/s shall shoulder the lease or compensation of the temporarily affected land.

2. Construction

56. **Construction organization.** The construction will be divided into three (3) segments. Each segment will be responsible for several sections of the transmission line; a minimum of 16 km each. These segments were chosen based on proximity to major highways and provincial roads for convenience in terms of daily travel and transport of materials. In Tien Giang Province, to prevent need for road expansion during construction, designated reserved areas (with construction units) for the 500 kV My Tho Substation will be utilized. The segments are as follows:

- Segment 1: Section points DD – G4 (Length: 21.066 km)
 - All lines within Tien Giang Province
 - Construction camp: Near G3A (Phuoc Lap Commune, Tan Phuoc District)
- Segment 2: Section points G4 – G6A1 (Length: 16.108 km)
 - All lines in district of Thanh Hoa and Thu Thua Long An Province)
 - Construction camp: Near G6 (Long Thuan Commune, Thu Thua District)
- Segment 3: Section points G6A1 – DC (Length: 17.656 km)
 - All lines in districts of Ben Luc and Duc Hoa, Lon An Province)
 - Construction camp: Near G9D (Thanh Loi Commune, Ben Luc District)

57. **Workforce.** Each segment will comprise of 60 people of direct production, 3 indirect and 2 site managers; giving a total of 195 people. However, for four (4) months, road expansion works are needed and will require 17 additional people. Due to the construction segments and

location, most of the workers will be sourced locally. Work force hiring will be entirely dependent on the Contractor. However, SPPMB will encourage the Contractor to consider local workers for the works.

58. **Construction camps.** Camps will be arranged to set areas for office, worker camps, and storage of materials and equipment. There will be open structures made of bamboo to accommodate storing and making formwork, reinforcement area, and others. Closed structures will be those for cement, special materials and equipment such as steel, insulators and fittings. There will be a gathering yard surrounded with bamboo or B-40 wire steel and ditch. Several huts made of bamboo will be constructed which may be rented for living or office purposes; with rental not to exceed 2% of construction cost.

59. Locations of the construction camps in all segments can change in the actual process. Contractors will be responsible for selection. Camps to be implemented for all construction segments will cover a total area of 6,578 m² (Table 12).

Table 12: Construction camps to be used in all segments

No.	Type	Segment, area (m ²)			Total Area (m ²)
		1	2	3	
1	Closed Structures	461	352	386	1,199
2	Open Structures	471	360	394	1,225
3	Others	1,596	1,220	1,338	4,154
	Total	2,528	1,932	2,118	6,578

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

60. **Construction equipment and materials.** Construction materials will be sourced in Viet Nam and some imported from abroad. Items such as cement, sand, and aggregates will be sourced within the provinces. Fabrication of some materials will be done in the workshop of SPPMB (Vinh Loc Commune, Binh Tan District, Ho Chi Minh City) which may include special materials such as steel, cables and insulators.

61. It is envisaged that each of the construction segment will use the same types and quantity of machinery and equipment. Other than these, road expansion works will need about 7 more. Thus, a total of 181 machinery and equipment will be used; ranging from simple to heavy duty such as cranes (Table 13).

Table 13: Construction machinery and equipment

No.	Machinery and equipment	Type	Quantity		
			Per Segment	Road expansion	Total
1	Steel transport trucks	Vehicle	2		6
2	Automotive transport	Vehicle	3		9
3	Dump truck	Vehicle	4	1	13
4	Tank Truck (Fuel and water)	Vehicle	2		6
5	Crane	Vehicle	1	1	4
6	Bulldozer - excavator	Vehicle	2	1	7
7	Worker truck	Vehicle	2		6
8	Concrete mixer	Equipment	4	2	12
9	Rod vibrator	Equipment	6	1	20
10	Table vibrator	Equipment	4		13
11	Electric welding machine	Equipment	4		12
12	Rebar cutting and bending machine	Equipment	4		12
13	Welding transformer	Equipment	4		12
14	Diesel generator	Equipment	2		6
15	Water Pump	Equipment	6	1	19
16	Wire Hydraulic Press	Equipment	4		12
17	Phone	Phone	4		12
Total			58	7	181

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

62. The 112 towers to be constructed will weigh about 1,165.6 tons. All 22 tension towers will be angled, from 15° to 70°, except the end tower (Table 14). For the tower foundations, 26 different types will be built. These vary in design thus will require variable amount of materials for construction (Table 15).

Table 14: Tower type requirements on the transmission line

No.	Types	Symbol	Quantity (unit)	Weight (ton)	Length (m)	Spacing (m)
1	End tension tower	N521-52.E	2	81.3	52	12.5
2	Suspension tower	D52-67	50	45.9	67	11.6
3	Tension tower with angle up to 15°	N521-60.15	1	87.4	60	15.5
4	Tension tower with angle up to 15°	N521-56.15	5	79.1	56	14
5	Suspension tower	D52-71	13	54.2	71	12.5
6	Suspension tower	D52-59	13	38.2	59	9.8
7	Tension tower with angle up to 15°	N521-52.15	5	72	52	12.5
8	Suspension tower	D52-63	7	42.4	63	10.7
9	Tension tower with angle up to 30°	N522-52.3	2	90.9	52	10.8
10	Suspension tower	D52-79	2	65	79	14.2
11	Tension tower with angle up to 50°	N522-52.5	3	94	52	12.5
12	Suspension tower	D52-75	5	58.1	75	13.3
13	Tension tower with angle up to 70°	N522-56.70	1	131	56	14
14	Tension tower with angle up to 70°	N522-52.70	2	118.3	52	12.5
15	Tension tower with angle up to 50°	N522-56.50	1	107.8	56	14
Total			112	1,165.6		

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

Table 15: Construction materials requirements for tower foundations

No.	Foundation Type	Qty	Dimension			Concrete	R-concrete	Cement	Sand	Gravel	Formwork	Ladder	Bolt
			length	width	depth	volume	volume	volume	volume	volume	volume	volume	weight
			<i>m</i>	<i>m</i>	<i>m</i>	<i>m³</i>	<i>ton</i>	<i>ton</i>	<i>m³</i>	<i>m³</i>	<i>m³</i>	<i>m³</i>	<i>kg</i>
1	MB12.52-26x26C	2	26.0	26.0	2.1	816.4	48.7	259.7	386.0	732.6	390		
2	MB11.58-20.5x23.5A	42	20.5	23.5	2.1	430.9	26.1	145.0	200.9	384.3	279	-	928
3	MB15.47-23x25.5N3.1A	1	23.0	25.5	2.1	627.1	30.4	212.5	291.9	558.8	307	-	1,238
4	MB14-22x25.5N2.1A	4	22.0	25.0	2.1	567.5	27.6	192.0	264.2	505.8	303	-	1,238
5	MB12.46-21.5x24A	11	21.5	24.0	2.1	491.5	29.5	165.8	229.0	438.2	319	0.16	928
6	MB9.82-20x22A	13	20.0	22.0	2.1	362.1	24.7	121.3	169.0	323.1	274	-	928
7	MB12.52-21.5x24N1.1A	5	21.5	24.0	2.1	495.9	24.4	167.5	231.1	442.1	302	-	1,238
8	MB10.7-20.5x23A	5	20.5	23.0	2.1	402.8	25.6	135.3	187.9	359.4	280	-	928
9	2xMB10.77-19x22N1.2A	2	19.0	44.5	2.1	708.7	48.7	237.9	330.6	632.2	501	-	2,476
10	MC D52-79B	2	4.7	4.7	3.0	306.5	32.7	114.9	141.5	272.3	307	0.16	928
11	2xMB12.52-20.5x23.5N1.3A	1	20.5	23.5	2.1	1,277.2	56.3	385.4	611.3	1,152.4	514	-	2,476
12	MB13.34-22.5x24.5A	3	22.5	24.5	2.1	545.6	28.9	184.3	254.1	486.4	324	0.16	928
13	MB14-22x25N2.1B	1	22.0	25.0	2.1	570.3	24.1	193.1	265.5	508.3	311	-	1,238
14	MB11.58-20.5x23.5C	6	20.5	23.5	2.1	434.9	26.8	145.0	200.9	384.3	279	-	928
15	MB10.7-20.5x23C	1	20.5	23.0	2.1	406.8	26.3	136.7	189.8	362.9	296	-	928
16	2xMB14-23x25.5N2.4C	1	23.0	25.5	2.1	1,671.3	30.4	509.1	798.2	1,506.5	618	-	3,709
17	2xMB12.52-20.5x23.5N1.3C	1	20.5	23.5	2.1	1,294.7	58.5	391.5	619.3	1,167.8	546	-	2,476
18	2xMB12.52-20.5x23.5N1.3B	1	20.5	23.5	2.1	1,281.2	57.3	386.8	613.1	1,155.9	530	-	2,476
19	MB12.46-21.5x24C	1	21.5	24.0	2.1	495.5	30.2	167.2	230.8	441.7	335	0.16	928
20	MB11.58-20.5x23.5B	2	20.5	23.5	2.1	432.9	26.3	145.7	201.9	386.1	287	-	928
21	MB12.46-21.5x24B	1	21.5	24.0	2.1	493.5	29.7	166.5	229.9	440.0	327	0.16	928
22	MB10.7-20.5x23B	1	20.5	23.0	2.1	404.8	25.8	136.0	188.9	361.1	288	-	928
23	2xMB12.52-21.5x24N1.4B	1	21.5	24.0	2.1	1,428.0	24.1	431.8	683.1	1,288.1	617	-	3,709
24	MC D52-75B	2	4.7	4.7	3.0	284.8	29.8	105.3	131.6	253.1	297	0.16	928
25	2xMB14-21.5x25N2.3B	1	21.5	25.0	2.1	1,619.4	62.4	486.7	775.7	1,461.6	601	-	2,476
26	2xMB12.52-21.5x24N1.4A	1	21.5	24.0	2.1	1,424.0	27.6	430.2	681.2	1,284.5	601	-	3,709
Total		112	-	-	-	19,274.3	882.9	6,152.8	9,107.1	17,289.6	10,033	0.96	40,523

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2), 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

63. **Construction activities.** In preparation of the construction, clearing of areas for tower foundations where trees need to be cut will be performed. Although the ROW will mostly pass through ricefield and pineapple plantation sites, there are also some high perennial trees under the ROW that will be trimmed to ensure that the safety distance between the top of the trees and the transmission line. After cutting of affected trees at tower foundations, subsequently soil will be excavated for the installation of the tower foundation. Excavated soil will be used for backfilling during the restoration of the tower site. These activities will be performed manually and using machinery. Erosion control measures will be implemented in those affected areas using Melaleuca trees and bamboo wattle. Meanwhile, fabrication of some materials such as steel tower, conductors, insulators, fittings, and others will be done in SPPMB warehouse in Ho Chi Minh City. Subsequently, towers will be erected and electrical components will be installed.

Table 16: Construction works

No.	Item	Unit	Value	Construction unit	Notes
I.	Construction preparation				
1	Clearing	m ²	255.64	85,213.33	Areas only where trees will be cut
2	Cutting down trees	tree	739.28	246.43	
3	Leveling	m ²	82,489.19	27,496.39	
II.	Excavation, erosion control and backfill				
1	Excavation Pit (soil level 1)	m ³	177,740.36	59,246.78	Manual, combined with machine
2	Backfill Pit	m ³	98,578.91	32,859.64	Manual
3	Excavation to build road	m ³	2,063.04		Manual, combined with machine
4	Backfill to build road	m ³	1,676.44		Manual
5	Geotextile	m ²	22,552.80	7,517.60	
6	Estimated land shortage	m ³	24,644.73	8,214.91	
7	Erosion control - Melaleuca tree	tree	44,752.00	17,917.33	Density = 3 trees/m ³ ; Height = 2 m
8	Erosion control - Bamboo Wattle	m ²	15,500.88	5,166.96	Height = 1 m
III.	Concrete foundation works				
1	Concrete M100	m ³	9,165.54	3,055.18	Manual, combined with machine
2	Concrete M150	m ³	3.20	1.07	Base
3	Concrete M200	m ³	47,849.24	15,949.75	Manual, combined with machine
4	Concrete M300	m ³	296.50	98.83	
IV.	Section steel foundation				
1	Steel foundation processing	ton	3,205.60	1,068.53	Fabricated in workshop
2	Tower bolts processing	ton	123.13	41.04	Fabricated in workshop
3	Earthing system	ton	4.07	1.36	Fabricated in workshop
V.	Erection of columns				
1	Galvanized steel column	ton	6,160.78	2,053.59	Manual installation
VI.	Electrical components				
1	Stringing of conductors	km	1,344.71	448.34	
2	Earthing system	km	72.73	24.24	
3	Optical cables	km	57.50	191.70	

m - meter; m² -square meter; m³ - cubic meter; km - kilometer;

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished

64. **Transport.** National roads, provincial and commune roads, and rivers will be utilized for transport of construction materials to the construction segments. Long distance transport is required for the fabricated materials from SPPMB warehouse (Table 17).

Table 17: Sources of construction materials

No.	Item	Supply Source	Distance
1	Steel foundations	Local	-
2	Galvanized steel rods	Warehouse (Vinh Loc Commune, Binh Tan District, Ho Chi Minh City)	From Segment 1, 2, 3: 90 km; 70 km; 60 km (respectively)
3	Cables, wires		
4	Insulators, other accessories		
5	Cement PC 30	Local	-
6	Yellow sand	Local	-
7	Gravel	Local	-

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

- Long distance transport – This applies to materials that will come from the SPPMB warehouse. Truck will be the means of transportation via national, provincial, and commune roads; and boats via waterways. Materials will be delivered to the camps using temporary access roads. Average transport distance is about 100 km; 80 km of Class 1 road and 20 km of Class 2.
- Inter-site transport – This applies to materials stored at the camps which were supplied from SPPMB warehouse. From the camps, these will be gathered by trucks along highways or provincial roads near the tower sites. Average transport distance is 7.84 km. This includes 6.0 km of Class 2 road, and 1.84 km of lower grade road that needs to be reinforced and repaired for use.
- Short distance transport – Materials and equipment will be transported either manually or semi-manually from the camp gathering area to each tower location. For sections that are near or in parallel with highways or provincial roads, materials and equipment will be gathered along roads. This will depend on terrain in the corresponding sections. Average distance for the entire route is 961 m.

65. Construction ground:

- Access Roads – Materials and equipment will be transported to the sites of foundation construction via existing local and service roads where communities are located. In areas where vehicles are not passable, materials will be manually transported. However, there are four (4) identified tower sites that are deemed important due to crossings over the rivers of Vam Co Tay and Vam Co Dong. Since rivers are practical and viable route to transport easily the construction materials, it will be used and would require construction of new temporary access roads going to the four (4) towers:
 - ✓ Crossing of Vam Co Tay River (between towers 57 and 58): An average length of 250 m access road from the river bank to each of the towers will be constructed
 - ✓ Crossing of Vam Co Dong River (between towers 100 and 101): An average length of 200 m access road from the river bank to each of the towers will be constructed

- In the four (4) new temporary access roads to be made, road embankments of 0.5 m layer higher than natural ground will be applied to prevent flooding and subsidence. The Melaleuca tree will be used as an erosion control material; supported further by positioning bamboo wattles at both sides of each road. These access roads are only temporarily used during the construction phase for transporting materials to sites and will not be used for routine inspection and maintenance during operation. Therefore, the temporary access road will be restored to original condition by the contractor after construction is completed and before the same is returned to the AP. Damage to crops during the temporary use of land will be compensated by the civil works contractor. SPPMB will ensure that this condition is stipulated in the contract of the civil works contractors.
- Tower requirements – Volume of soil leveling work is estimated for 112 tower locations at an average layer of 0.3 m. The construction plan will be used to store material, cast the foundation and erect the tower. Expected area for casting foundation and erecting tower is 737 m²/tower (82,544 m² total). Each tower will require 540 m² of land (including the 0.5 m clearance requirement); 60,500 m² in total.
- Conductor stringing requirements – Area for stringing conductor is estimated at 400 m²/area. There are six (6) areas, thus the total of 2,400 m².

66. **Electricity and water supply.** Water source for the construction activities are rivers and canals along the route. However, water tank trucks will be employed in areas far from a water source or with unreliable source. Drinking water will be obtained from excavated or bored wells. As for the electricity source, a diesel generator or nearby power network will be utilized for the construction activities.

67. **Waste management.** No waste management scheme was proposed to address the volume of construction waste to be produced in all segments of the construction project. Definitely, measures will be required of the Contractor/s to avoid and/or minimize impacts of wastes to the environment, health, and safety.

3. Operation

68. Routine inspections, tests, servicing and maintenance, replacement of parts, and works on equipment will be undertaken. There will be checking for oil leaks, structural stability, corrosion, and safety. Regular maintenance and trimming of vegetation within the ROW is necessary to avoid disruption and damage to the transmission line and towers. For trees planted outside of ROW that threaten to infringe upon the safety distance, such will be trimmed or cut to ensure adherence to safety. The clearing of vegetation shall be undertaken manually, without the use of heavy equipment and herbicides.

IV. DESCRIPTION OF THE ENVIRONMENT

69. Baseline information on the relevant physical, biological, and socio-economic conditions of the environment at the subproject area is described in this chapter. Aspects on various environmental parameters, which are likely to be affected (either directly or indirectly) by the proposed 500kV My Tho - Duc Hoa transmission lines, are discussed. Current and proposed development activities within the subproject's area of influence are also presented.

A. Geography

70. Viet Nam lies in the eastern part of the Indochina Peninsula. It has a land area of 331,211.6 km². International borders are shared with the People's Republic of China on the north, the Lao People's Democratic Republic on the west, and the Kingdom of Cambodia on the southwest. It is bounded by the East Sea on the east and south⁴.

71. Long An Province shares borders with Tay Ninh Province and Cambodia on the north; Ho Chi Minh City on the east; Tien Giang Province on the south; and Dong Thap Province on the west. The province has a total area of 2,508 km². It has 13 rural districts and 1 capital; namely Tan An City. Duc Hoa District is located to the east of the province, bordering Ho Chi Minh City. The 500 kV Duc Hoa Substation is located in Hoa Khanh Dong Commune, Duc Hoa District⁵ (Figure 3).

72. The province of Tien Giang, at the south of Long An Province, shares borders with Dong Thap Province on the west; Ben Tre Province on the south; and East Sea on the east. It has a total area of 4,492 km² and consists of 8 rural districts, 1 town, and 1 capital city; My Tho City. The 500 kV My Tho Substation is located in Diem Hy Commune, Chau Thanh District.

B. Topography

73. The provinces of Long An and Tien Giang lay on a transitional area between the east-southern and west-southern region; creating a large plain alternative with some low hills with an average height of 0.8 m from sea level. Highest and lowest elevations are 0.1 m and 6.5 m, respectively. The terrain is slightly inclined from the southwest to northeast which is divided by the rivers of Vam Co Dong, Vam Co Tay and Tien; and their tributaries.

74. Survey results of transmission line route revealed a terrain which is relatively flat; with 0.6 m average elevation (commonly from 0.4 - 0.8 m) and have a slight inclination from the province of Tien Giang to Long An. Elevation varies along the route. Starting from 0.8 m at the 500 kV My Tho Substation, elevation lowers up to 0.4 m and subsequently rises to 1.0 m at section point G2. This is the highest elevation in the transmission line route. Afterwards, there is gradual decline from 0.8 m to 0.5 m before reaching section point G4; exit point to Long An Province. From here, the elevation decreases slightly from 0.4 m to 0.2 m and eventually to 0.1 m; lowest elevation in the transmission line route. This location is at section G6A1 which is nearby Vam Co Tay River. From here on, the terrain increases up to 0.8 m before it fluctuates to the normal level of 0.4 m at location of the 500 kV Duc Hoa Substation.

⁴ Viet Nam National Administration of Tourism. The Socialist Republic of Viet Nam.
http://vietnamtourism.com/e_pages/country/overview.asp

⁵ General Statistics Office of Viet Nam. 2015. Number of administrative units as of December 31, 2011 by province.
http://www.gso.gov.vn/default_en.aspx?tabid=466&idmid=3&ItemID=12833

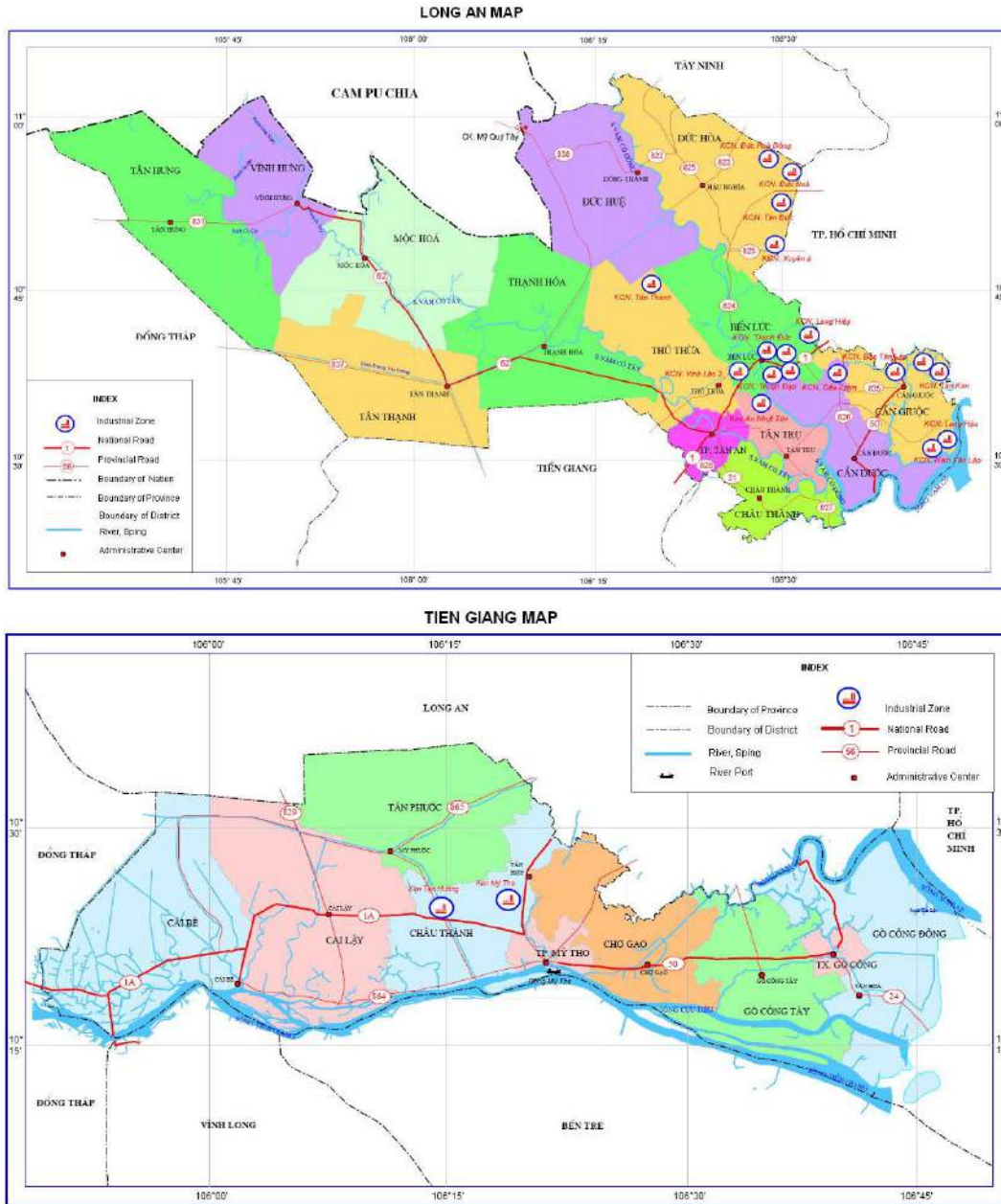


Figure 3: Administrative maps of the provinces of Long An and Tien Giang

Maps obtained from:: Viet Nam Invest Network Corp. Mekong Delta/Long An. <http://investinvietnam.vn/report>
 Viet Nam Invest Network Corp. Mekong Delta/Tein Giang. <http://investinvietnam.vn/report>

C. Geology

75. Soils along the ROW and at the two (2) substations are of alluvial type from accumulation from the rivers of Vam Co Dong, Vam Co Tay, and Tien. The soils are young and mainly of deep silty clay loam texture with moderate nutrient status; signifies poorly-drained. All top soils are slightly acidic. Soils have now been converted to paddy areas of which majority are irrigated. Others are turned into areas for short-term crops such as pineapple, lemon, and sugarcane. Due to the soils' low relief and high inherent nutrient base, these are not prone to

water-based erosion. However, these are extensively used for crops, thus protective cover is often removed and structural breakdown occurs when exposed to high rainfall indices.

76. Soil investigation in different locations along the transmission line route revealed the following soil stratigraphy which will be considered in the technical design of the tower foundations. There are no foreseen problems on soil suitability.

a. Soils at the field

- *Layer 1 (aQ_{IV})*, *topsoil*: clay (brown-yellow); average thickness from 0.3 to 0.5 m
- *Layer 2 (aQ_{IV})*: mud clay (black grey, ash-grey); water-saturated; with organics; average thickness of 2.5 to 7.6 m
- *Layer 3 (aQ_{I-III})*: clay (brown-grey, yellow-grey and greenish-grey); hard clammy with rounded materials, i.e., laterite; average thickness of 4.4 to 7.9 m

b. Soils at both sides of Vam Co Tay River

- *Layer 1 (aQ_{IV})*, *topsoil*: clay (brown-grey, ash-grey); soft-plastic status; average thickness of 1 m
- *Layer 2 (aQ_{IV})*: mud clay (black-grey, ash-grey); water-saturated with organics; average thickness of 6.8 m
- *Layer 3 (aQ_{I-III})*: clay (brown-grey, yellow-grey and greenish-grey); hard clammy with rounded materials, i.e., laterite.; average thickness of 22.2 m

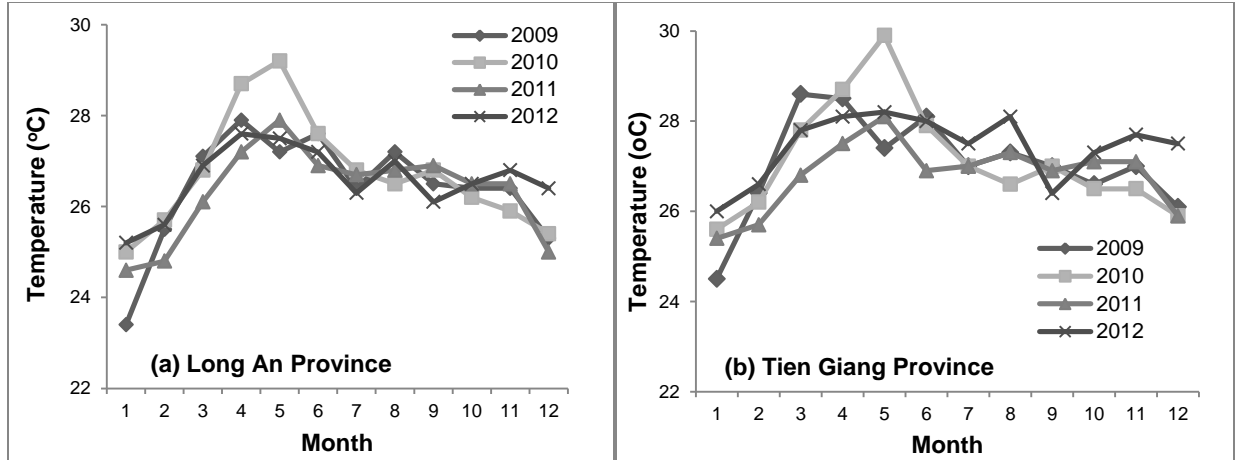
b. Soils at both sides of Vam Co Dong River

- *Layer 1 (aQ_{IV})*, *topsoil*: clay (brown-grey, ash-grey); soft-plastic status; average thickness of 0.5 m
- *Layer 2 (aQ_{IV})*: mud clay (black-grey, ash-grey); water-saturated; with organics; average thickness of 2.4 m
- *Layer 3 (aQ_{I-III})*: clay (brown-grey, yellow-grey, greenish-grey); hard clammy, with small stony less-hard laterite; average thickness of 3.5 – 15.4 m
- *Layer 3a (aQ_{I-III})*: sand (yellow-grey, brown-yellow); plastic status; average thickness of 8.2 m.

D. Climate

77. Both provinces of Long An and Tien Giang are situated in the southern climate zone which is tropical monsoon climate characterized by high temperatures with very little seasonal variation. The Statistical Yearbook for 2012 for both provinces was mainly utilized for the discussion that follows.

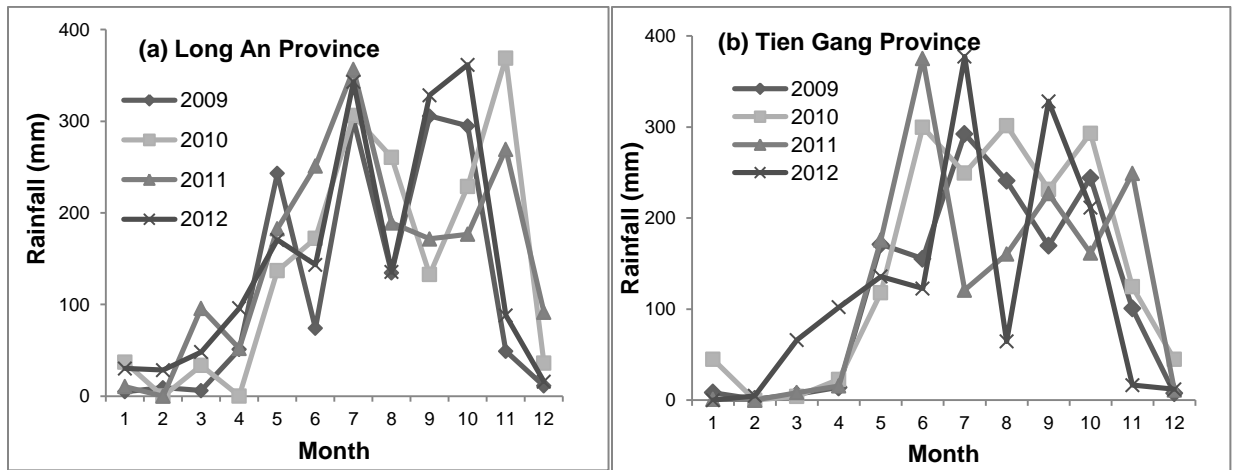
78. **Temperature.** Temperature changes little year-round but naturally peaks during months of April to May and dips from December to February. Temperatures recorded were highest during May (28.2°C and 27.5°C) and lowest on January (26.0°C and 25.2°C) for Tien Giang and Long An Province, respectively. Annual average temperatures are 27.4°C in Tien Giang and 26.6°C in Long An Province. Temperatures in Tien Giang Province, for year 2009-2012, relatively were high throughout the year, as compared with Long An Province (Figure 4)



Adapted from: ^a2012 Statistical Yearbook of Long An Province (Metreological station: Tan An City, Long An Province)
^a2012 Statistical Yearbook of Tien Giang Province (Metreological station: My Tho City, Tien Giang Province)

Figure 4: Average temperature in provinces of Long An and Tien Giang (2009 – 2012)

79. **Rainfall.** Rainfall data in both the provinces are relatively low compared with others in the region. Average annual rainfall data in the provinces range from 1,442.4 - 1,789.1 mm; while that of Kien Giang and Ca Mau are at 2,200 - 2,500 mm. Rainy season is from May to October, accounting for about 86-90% of the yearly total, with little variation from year to year. Dry season lasts from November to April, accounts for 10-14% of the total, and significantly changes annually. Maximum recorded rainfall occurs in July (average of 377.6 mm and 343.1 mm) and minimum in February (average of 66.1 mm and 28.4 mm) for the province of Tien Giang and Long An, respectively. No rain was experienced on February for several years in both provinces (Figure 5).



Adapted from: ^a2012 Statistical Yearbook of Long An Province (Metreological station: Tan An City, Long An Province)
^a2012 Statistical Yearbook of Tien Giang Province (Metreological station: My Tho City, Tien Giang Province)

Figure 5: Average rainfall in provinces of Long An and Tien Giang (2009 – 2012)

80. **Humidity.** Both provinces experience about same level of humidity where there is little difference in rainfall between monsoon seasons. Humidity averages at 87% for Long An and 82% for Tien Giang Province.

81. **Wind velocity.** The direction of wind changes with season, at speed averaging annually at about 1.7 – 2.0 m/s. From November to April the wind is mainly from northeast, during May to October from southwest which brings heavy rainfall to the region.

82. **Sunlight hours.** Average sunlight hours in Tien Giang and Long An Province are fairly high compared with others in the country. Number of sunlight hours in a year is at 2,100 – 2,200 hours and 2,200 - 4,800 hours, respectively.

83. During the last 20 years, climate has varied much. Based on the Climate Change Knowledge Portal of the World Bank Group, monthly mean and historical rainfall and temperature data were taken. For Long An Province, the month of September registered the highest average monthly rainfall (313 mm) and from May to November at least 170 mm was recorded. The months of December to April registered below 150 mm, with February being the least (4.97 mm). In these months, the temperature pattern increased, with January the least (25.44°C) and April the highest (28.76°C). (Figure 6).

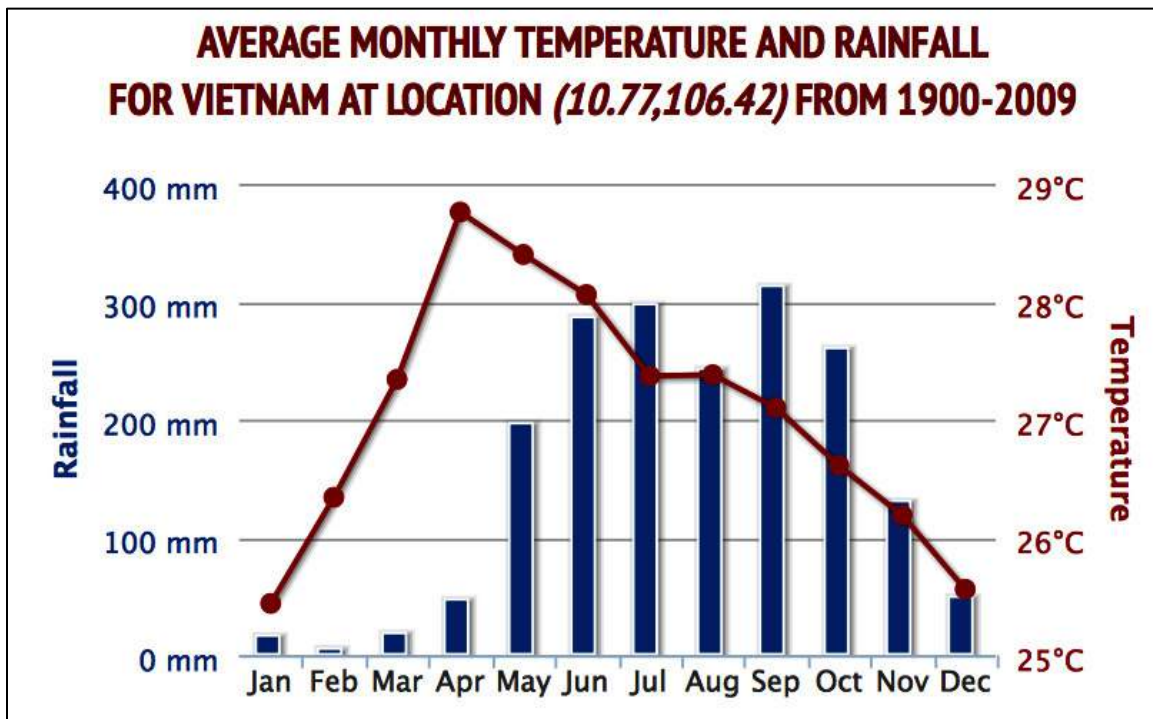


Figure 6: Average monthly temperature and rainfall at Duc Hoc District, Long An Province from 1990 – 2009

Source: The World Bank Group Climate Change Knowledge Portal (2015). Average monthly temperature and rainfall for Viet Nam at location (11.08, 106.82) from 1990-2009.<http://sdwebx.worldbank.org/climateportal/>

E. Water Resources

84. **Surface Water.** The project area of influence is located in the delta of Vam Co Dong, Vam Co Tay and Tien rivers; which has low terrain with height from 0.1 - 6.5 m above sea level. The area is profoundly influenced by flood level of the rivers during rainy season; which can also be influence by tidal rise. There are many canals which serve to both drain and provide irrigation

for intensive rice crops and pineapples in the area. These waters are also influenced by flood and tidal effects from the rivers.

85. Surface water quality testing was done in four (4) different locations. One sample each was taken from the rivers of Vam Co Tay and Vam Co Dong in Long An Province; and the others are from the tributaries/canals in Tien Giang Province. PECC2 contracted the Environment and Technology Center (ETC) for the environmental sampling performed on January 12, 2015. All parameters tested for the samples are within the standard. However, the sample from Vam Co Dong River turned out to have values highest for all parameters. The levels of total suspended solids, chemical oxygen demand (COD) and biological oxygen demand (BOD) are high; with COD and BOD nearing the limit (Table 18).

Table 18: Representative surface water quality sampling

No.	Parameter	Unit	Sampling points ^a				QCVN 08:2008/BTNMT C (Column B1) ^b
			1	2	3	4	
1	pH	--	7.3	6.9	7.2	7.6	5.5 - 9.0
2	Turbidity	NTU	15	3	7	2	-
3	DO	mg/L	5.4	6.8	5.5	7.2	≥4
4	TSS	mg/L	21.3	12.1	15.3	9.1	50
5	COD	mg/L	26.2	12.8	14.3	15.4	30
6	BOD	mg/L	14.9	6.5	8.7	6.8	15
7	NO ₃ ⁻	mg/L	1.9	0.32	1.0	1.1	10
8	Oil, total	mg/L	0.015	ND	0.008	ND	0.1
9	Total Coliform	MPN/100 mL	2,900	930	1,100	460	7,500

pH – alkalinity/acidity; DO – dissolved oxygen; TSS – total suspended solids, COD – chemical oxygen demand; BOD – biological oxygen demand; NO₃⁻ - nitrate; mg/L milligram per liter MPN/mL – most probable number per milliliter; ND – not detected; NTU – nephelometric turbidity unit

Notes:

^a Sampling points:

- 1: Vam Co Dong River (Huu Thanh Commune, Duc Hoa District, Long An Province)
- 2: Vam Co Tay River (Long Thuan Commune, Thu Thua District, Long An Province)
- 3: Tributary/Canal (My Loi Village, Phuoc Lap Commune, Tan Phuoc District, Tien Giang Province)
- 4: Tributary/Canal (Hung Village, Nhi Binh Commune, Chau Thanh District, Tien Giang Province)

^b QCVN 08: 2008/BTNMT: National Technical Regulation on Surface water Quality

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

86. **Groundwater.** Most of the residents living along the transmission line route utilize the ground water in the area for drinking and other household needs. To obtain a baseline data, groundwater quality testing was done in two (2) sampling locations along the transmission line route; one household each for each province. Similarly, PECC2 contracted ETC for the sampling on January 12, 2015. All parameters tested for the sample are within the standard (Table 19).

Table 19: Representative groundwater quality sampling

No.	Parameter	Unit	Sampling point ^a		QCVN 09:2008/ BTNMT ^b
			1	2	
1	pH	--	6.7	6.8	5.5 – 8.5
2	TS	mg/L	167	138	
3	TDS	mg/L	164	135	1500
4	Hardness	mg/L	218	223	500

No.	Parameter	Unit	Sampling point ^a		QCVN 09:2008/ BTNMT ^b
			1	2	
5	Alkalinity	mg/L	0.62	0.74	-
6	Turbidity	NTU	0	0	0
7	Conductivity	µs/cm	153	147	-
8	Oxygen	mg/ L	1.1	1.4	-
9	COD (KMnO ₄)	mg/L	0.2	1.1	4
10	Cl-	mg/L	2.1	1.7	250
11	F-	mg/L	0.12	0.11	1.0
12	E.coli	MPN/100 mL	ND	ND	-
13	Total coliform	MPN/100 mL	ND	ND	-

pH – acidity/alkalinity; TS – total solids; TDS – total dissolved solids; COD – chemical oxygen demand; Cl⁻ - chloride; F⁻ - fluoride; mg/L – milligrams per liter; MPN/mL – most probable number/milliliter; ND – not detected; NTU – nephelometric turbidity unit; µs/cm – microsiemens/centimeter

Notes: ^a Sampling points:

1: Household of Tran Van Nam (My Loi Village, Phuoc Lap Commune, Tan Phuoc District, Tien Giang Province)

2: Household of Nguyen Thi Hoa (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province)

^bQCVN 09: 2008/BTNMT: National Technical Regulation on Groundwater Quality

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

F. Air and Noise Quality

87. Ambient air quality and noise sampling was also performed by PECC2 with the assistance of ETC. Sampling was conducted on February 20, 2014. The representative samples were taken at four (4) sampling locations (Table 20).

88. **Ambient Air Quality.** Total suspended particulates, sulfur dioxide, nitrogen dioxide, and carbon monoxide were analyzed. Results show that air quality in the area is good; with all parameters below the permitted levels.

89. **Noise.** Noise levels in all sampling points are within the limit during day time (70 dBA; from 0500H to 2100H). At night (2100H to 0500H), the level is expected to be lower. The noise levels along the roads seem to show low traffic. Noise levels in residential areas are almost the same.

Table 20: Representative ambient air quality and noise sampling

No.	Parameter	Unit	Sampling points ^a				QCVN 05:2013/BTNMT ^b	QCVN 26: 2010/BTNMT
			1	2	3	4		
1	TSP	mg/m ³	0.15	0.13	0.16	0.20	0.3	-
2	CO	mg/m ³	3.2	3.6	2.3	2.8	30	-
3	NO ₂	mg/m ³	0.054	0.067	0.077	0.081	0.2	-
4	SO ₂	mg/m ³	0.075	0.082	0.091	0.085	0.35	-
5	Noise	dBA	67.4	66.6	64.5	61.6	-	70 (0500H-2100H) 55 (2100H – 0500)

TSP – total suspended particulates; SO₂ – sulfur dioxide; NO₂ – nitrogen dioxide; CO – carbon monoxide; dBA – decibel adjusted; mg/m³ – milligram per cubic meter

Notes: ^a Sampling points:

1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province)

2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province)

3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province)

4: Residential area (Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)

^b QCVN 05: 2013/BTNMT: National Technical Regulation on Ambient Air Quality

QCVN 26: 2010/BTNMT: National Technical Regulation on Noise

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental Impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

G. Biological Resources

1. Flora

90. Since majority of land under the ROW are agricultural, vegetation grown are mixed. There are annual crops such as rice, pineapples, and several fruit trees such as papaya and bananas. Rice makes up about 43% of the affected land under ROW, followed by Eucalyptus trees (24%), and pineapples (15%) (Table 21). The perennial Eucalyptus trees are found along banks of rivers and canals. No significant invasive species are found in the area, like *Mimosa pigra* which is common in the waterways of Viet Nam.

91. As of 2010, areas of forest in the provinces are 38,200 ha (Long An Province) and 7,700 ha (Tien Giang Province). These were about 18% and 13% lower than 2009 values, respectively.⁶ Along the transmission line, there is no forest land traversed.

2. Fauna

92. Based on the site surveys along the transmission line route, the environment has extensively changed; no natural habitat and wildlife remains. Familiar domesticated animals in an agricultural setting are found; buffalo, cows, pigs, chicken, etc. There are no species of high conservation values in the project area and along access roads. Most of the tower foundations are located in ricefields and pineapple plantations.

H. Land Use

93. The affected land in total is about 1.734 km², with agricultural land comprising about 90% of the total. Agricultural activities under the ROW include planting rice, grazing, and cultivation of crops such as sugarcane, lemon, pineapple, and melaleuca. Residential areas that will be affected in both provinces comprised of structures such as houses, chalets, animal farms, and garden (Table 22). All of these are easily identifiable in all the sections of the transmission lines (Photo 1 - 5).

⁶ General Statistics Office of Viet Nam. 2015. Area of forest as of December 31 by province. http://www.gso.gov.vn/default_en.aspx?tabid=469&idmid=3&ItemID=13030

Table 21: Vegetation along the transmission line route

No.	Province	District	Commune	Section	Distance (m)	Area (m ²)	Area for Annual crops (m ²)					Trees	
							Rice	Pineapple	Papaya	Banana	Sugarcane	Lemon	Eucalyptus
1	Tien Giang	2	6	5	21,066	601,171	257,905	234,092	452	407	-	27,722	3,360
		Chau Thanh	Diem Hy	DD - G1	1,800	105,174	81,972	-	120	207	-	-	-
			Nhi Binh	G1 - G2	3,114	51,780	40,512	648	116	65	-	-	-
		Tan Phuoc	Phuoc Lap	G2-G3	3,180	131,079	99,877	862	131	85	-	-	275
			My Phuoc	G3 - G3A	2,176	90,044	4,877	75,881	0	0	-	-	3,085
	Hung Thanh, Tan Hoa Dong	G3A-G4	10,796	223,094	30,667	156,701	85	50	-	27,722	-		
2	Long An	4	6	12	33,764	1,132,832	484,181	27,930	470	330	98,124	18,494	413,529
		Thanh Hoa	Tan Tay	G4- G5	4,953	182,357	60,546	-	25	30	-	2	112,356
		Thu Thua	Long Thuan, Tan Lap	G5- G6	4,110	110,911	101,361	-	80	90	-	-	-
				G6 - G6A	2,003	67,167	63,041	-	-	-	-	-	-
				G6A - G6A1	5,042	167,817	153,505	-	95	110	-	-	5,855
		Ben Luc	Thanh Loi	G6A1 - G6B	4,151	364,609	5,196	17,647	-	-	32,214	16,456	282,596
				G6B - G6E	321	34283	4,388	-	-	-	16,540	433	5,122
				G6E - G6F	5,004	62,757	17,612	8,159	130	40	23,400	-	-
				G6F - G9D	2,551	29,420	-	-	50	-	25,970	-	-
		Duc Hoa	Huu Thanh	G9D - G10A	1,798	48,441	36,011	2,124	90	-	-	392	-
				G10 A - G11A	1,661	28,643	15,098	-	-	60	-	993	6,875
				G11A - G12A	1,610	28,994	22,078	-	-	-	-	-	-
			Hoa Khanh Dong	G12A - DC	560	7433	5,345	-	-	-	-	218	725
TOTAL	6	12	17	54,830	1,734,003	742,086	262,022	922	737	98,124	46,216	416,889	

Table 22. Land use within the ROW

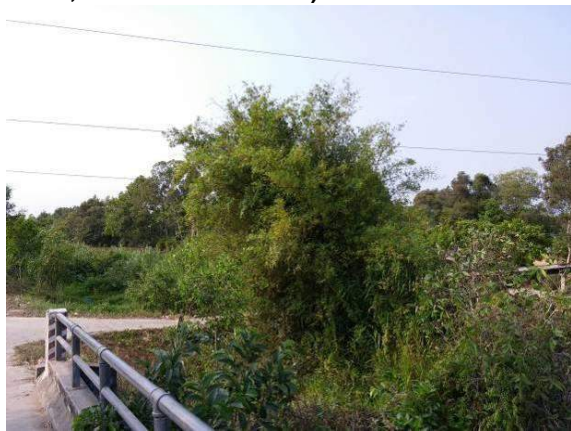
No.	Province	District	Commune	Section	Distance (m)	Area (m2)	Agricultural	Residential	Rivers, canals, road
1	Tien Giang	2	6	5	21,066	601,171	523,938	44,912	32,321
		Chau Thanh	Diem Hy	DD - G1	1,800	105,174	82,299	15,387	7,488
				G1 - G2	3,114	51,780	41,341	6,484	3,955
		Tan Phuoc	Phuoc Lap	G2-G3	3,180	131,079	101,230	20,539	9,310
				G3 - G3A	2,176	90,044	83,843	2,502	3,699
G3A-G4	10,796			223,094	215,225	-	7,869		
2	Long An	4	6	12	33,764	1,132,832	1,043,058	23,733	66,041
		Thanh Hoa	Tan Tay	G4- G5	4,953	182,357	172,959	4,194	5,204
				G5- G6	4,110	110,911	101,531	-	9,380
		Thu Thua	Long Thuan, Tan Lap	G6 - G6A	2,003	67,167	63,041	-	4,126
				G6A - G6A1	5,042	167,817	159,565	-	8,252
				G6A1 - G6B	4,151	364,609	354,109	-	10,500
		Ben Luc	Thanh Loi	G6B - G6E	321	34283	26,483	-	7,800
				G6E - G6F	5,004	62,757	49,341	5,616	7,800
				G6F - G9D	2,551	29,420	26,020	0	3,400
				G9D - G10A	1,798	48,441	38,617	6,913	2,911
		Duc Hoa	Huu Thanh	G10 A - G11A	1,661	28,643	23,026	2,907	2,710
				G11A - G12A	1,610	28,994	22,078	4,103	2,813
				G12A - DC	560	7433	6,288	-	1,145
Hoa Khanh Dong									
	TOTAL	6	12	17	54,830	1,734,003	1,566,996	68,645	98,362

Adapted from: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 kV My Tho - Duc Hoa Transmission Lines Project. Unpublished.

Section DD to G1 (Diem Hy Commune, Chau Thanh District)



Section G1 to G2 (Nhi Binh Commune, Chau Thanh District)



Section G2 to G3 (Phuoc Lap Commune, Chau Thanh District)



Photo 1: Land use in alignment sections DD to G3 in Tien Giang Province

Section G3 to G3A (My Phuoc Commune, Chau Thanh District)



Section G3A to G4 (Hung Thanh –Tan Hoa Dong Communes, Chau Thanh District)



Photo 2: Land use in alignment sections G3 – G4 in Tien Giang Province

Section G4 to G5 (Tan Tay Commune, Thanh Hoa District)



Section G5 to G6 (Long Thuan- Tan Lap, Thu Thua District)



Section G6 to G6A (Long Thuan- Tan Lap, Thu Thua District)



Section G6A to G6A1 (Long Thuan- Tan Lap, Thu Thua District)



Photo 3: Land use in alignment sections G4 - G6A1 in Long An Province

Section G6A1 to G6B (Thanh Loi, Ben Luc District)



Section G6B to G6E (Thanh Loi, Ben Luc District)



Section G6E to G6F (Thanh Loi, Ben Luc District)



Section G6F to G9D (Thanh Loi, Ben Luc District)



Photo 4: Land use in alignment sections G6A1-G9D in Long An Province

Section G9D to G10A (Huu Thanh, Duc Hoa District)



Section G10A to G11A (Huu Thanh, Duc Hoa District)



Section G11A to G12A (Huu Thanh, Duc Hoa District)



Section G12A to DC (Hoa Khanh Dong, Duc Hoa District)



Photo 5: Land use in alignment sections G9D-GC in Long An Province

1. Ecologically protected areas

94. There are no conservation areas within the proximity of the transmission line ROW. Accordingly, the route does not cross or intrude on any conservation area, buffer areas, or any possible planned future extension of these areas.

2. Cultural and heritage sites

95. As for areas of cultural significance nearest at any section of the transmission line are the Linh Quang Temple (600 m to the east), Ap Bac Victory Relic (1,500 m to the west), and Phuoc Long Temple (3,000 m to the east). These however are not protected areas.

Table 23: Cultural and heritage sites

No	Distances to centre of line		Name of cultural heritages and structures	Locations
	Left (m)	Right (m)		
1		600	Primary school of Diem Hy	Thoi village, Diem Hy commune
2	2000		Diem Hy commune's health station	Thoi village, Diem Hy commune
3		700	Diem Hy CPC 's office	
4		600	Linh Quang temple	
5	1500		Ap Bac victory relics (National relics)	Bac village, Diem Hy commune, Chau Thanh district, Tien Giang
6	1500		Nhi Binh A primary school	Trung A village, Nhi Binh commune
7		1000	Nhi Binh Kindergarten	Trung A village, Nhi Binh commune
9		1000	Nhi Binh health station	Center of Nhi Binh commune
10		1000	Bui Van Hoa secondary school	Center of Nhi Binh commune
11	3000		Phuoc Long temple	
12		1000	My Phuoc primary school	My Truong village, My Phuoc commune, Tan Phuoc district, Tien Giang
13	1500		Hoa Khan Dong CPC' office	
14	1500		Hoa Khanh Dong clinics	

3. UXO Contaminated areas

96. The total area of mines/UXO disturbance in Viet Nam is about 6.6 million ha, about 20% of the total national land area. And of which, about 925,000 ha (14%) is heavily concentrated. The total area of agricultural land disrupted by mines/UXO is about 436,000 ha (~7% of the total area disturbed).⁷

97. Based on Document No: 2308/BCH-TM issued on December 13, 2010 by the Military Zone 9, Military Command of Tien Giang Province, the areas where alignment will pass were identified as UXO Area 2, Level 1 density. For Long An Province, the area under the alignment was identified only as highly probable to have mines and UXO; according to Document No: 1164/QSLA-TM issued on November 24, 2014 by the Military Zone 7, Military Command of Long An Province. No UXO status available yet for the said area; thus no classification.

⁷ Technology Centre for Bomb and Mine Disposal. Contamination Situation. <http://www.bomicen.vn/?category=63&lang=en>

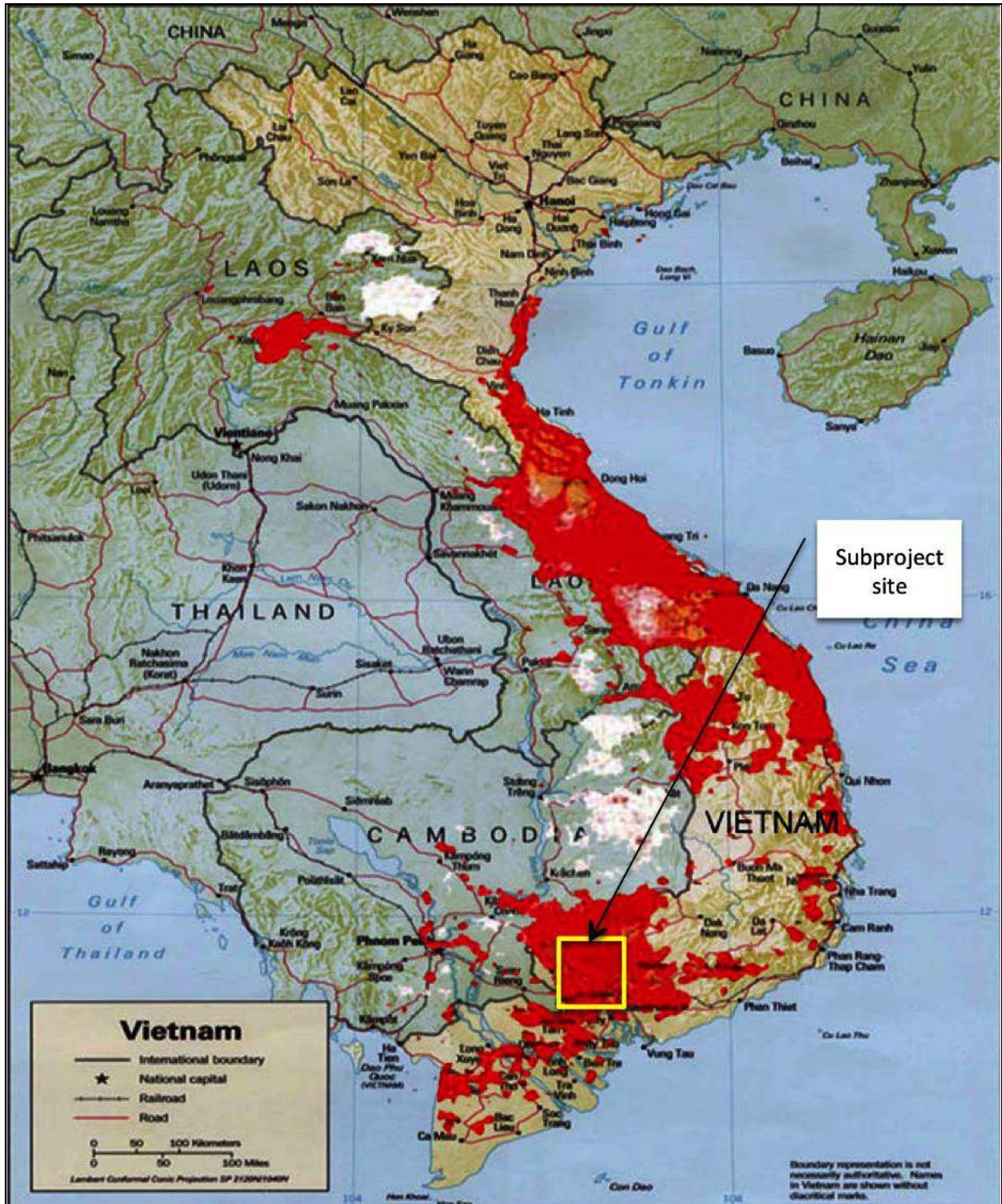


Figure 7: UXO contamination in Viet Nam

Base map: http://www.jmu.edu/cisr/journal/17.1/notes/images/171N_YenT_Fg1.jpg

I. Socio-Economic Condition

1. Population

98. The transmission line is situated mostly in the rural areas of the provinces of Tien Giang and Long An; which in total is comprised of 6 districts and 12 communes. Affected population is 91,516 persons; of which the six communes in Tien Giang Province accounts for 49,322 (about 54% of total). Distribution by sex of affected population is about 50-50 (Table 24).

Table 24. Population distribution in the affected areas of the project

No.	Province	District	Communes	Population	Male	Female		
1.	Tien Giang	Chau Thanh	Diem Hy	10,065	4,011	6,054		
			Nhi Binh	17,524	8,776	8,748		
			Commune Subtotal	27,589	12,787	14,802		
		Tan Phuoc	Phuoc Lap	9,450	4,723	4,727		
			My Phuoc	7,900	4,029	3,871		
			Hung Thanh	2,775	1,285	1,490		
			Tan Hoa Dong	1,608	900	708		
			Commune Subtotal	21,733	10,937	10,796		
		PROVINCE SUBTOTAL				49,322	23,724	25,598
		2.	Long An	Thanh Hoa	Tan Tay	5,024	2,496	2,528
Commune Subtotal	5,024				2,496	2,528		
Thu Thua	Long Thuan			5,967	3,064	2,903		
	Tan Lap			982	545	437		
	Commune Subtotal			6,949	3,609	3,340		
Ben Luc	Thanh Loi			8,018	3,968	4,050		
	Commune Subtotal			8,018	3,968	4,050		
Duc Hoa	Huu Thanh			11,475	5,681	5,804		
	Hoa Khanh Dong			10,728	5,685	5,043		
	Commune Subtotal			22,203	11,366	10,847		
PROVINCE SUBTOTAL				42,194	21,439	20,765		
TOTAL				91,516	45,163	46,363		

Adapted from: Initial Resettlement Plan for the 500 kV My Tho - Duc Hoa Transmission Lines Project. 2015. Unpublished.

2. Economy

99. From 2006 – 2010, the province of Long An has an average GDP growth rate of 11.8%. The agriculture-forestry-fishery industry comprises about 37% of its economic structure, followed by manufacturing and construction at 33%. There are 20 industrial zones in the province which are mostly concentrated at its east side in the districts of Ben Luc, Can Giuoc, and Duc Hoa⁸.

100. There is also similar GDP growth in Tien Giang Province, but with its agriculture-forestry-fishery industry comprising about 45% of its economic structure, followed by manufacturing and construction at 28%. It has two (2) industrial zones; the My Tho Industrial Zone (79 ha) and Tan Huong Industrial Zone located in Chau Thanh District, My Tho City⁹.

⁸ Viet Nam Invest Network Corp. Mekong Delta/Long An. <http://investinvietnam.vn/report/parent-region/85/149/Long-An.aspx>

⁹ Viet Nam Invest Network Corp. Mekong Delta/Tien Giang. <http://investinvietnam.vn/report/bcdp/region/145/178/Tien-Giang.aspx>

101. In 2015, a socio-economic survey was performed in the affected area of the project. Survey shows that the average income per capita per month of the inhabitants in the affected areas is VND 1,731,611 and VND 2,168,333 in Tien Giang and Long An Province, respectively.

3. Power and Water Supply

102. **Water Supply.** Most of the residents in the project-affected areas utilize groundwater from drilled wells. More than 50% of the households in these areas have access to tap water, except those in Tan Lap Commune, Thu Thua District, Long An Province. The Long An Water Supply and Sewerage Company (LAWACO), a 100% state-owned company, supplies the water in the province. It has three (3) water treatment plants with a total capacity of 37,000 m³/day¹⁰.

103. The Tien Giang Water Supply and Sewerage Company, a state-owned company, is responsible for the province's urban water supply service. It has a capacity of 60,000 m³/day and nearly 60,000 customers¹¹. However, it only distributes water to My Tho City and other urban areas. In rural areas of the province, the Tien Giang Water Exploitation and Rural Supply Company (TGWERSC) supplies the water, but to a much smaller percentage of the population¹².

104. **Power Supply.** All households in the affected areas of the project are connected to the national electricity grid.

4. Health

105. **Health establishments and staff.** As of year 2011, under the provincial department of health of Long An, there are a total of 210 health establishments, 3,332 patient beds, and 3,147 medical staff. About 90% of the health establishments are medical service units and which comprised about 22% of the total patient beds. The province has the most in the Mekong River Delta Region (Table 25), while Tien Giang Province trails second. However, the latter has more medical staff to make up for its shortage in establishments. Other than the above, there are also private hospitals and clinics throughout the province.

Table 25: Health statistics in the provinces of Long An and Tien Giang (2011)

Item	Data on Provinces (Long An Tien Giang)																					
	Hospital		Regional polyclinic		Sanitarium and rehabilitation hospital			Medical service unit		Total												
Health establishments	15	11	5	13	-	-	190	169	210	193												
Patient beds	2,440	2,150	160	215	-	-	732	845	3,332	3,210												
	Doctor		Physician		Nurse		Midwife		Pharmacist													
Medical staff	7	5	1	8	2	4	1034	8	1	2	907	1,213	455	481	4	2	2	8	5	6	3,147	3,330

Adapted from: General Statistics Office of Viet Nam. 2015. Number of health establishments under provincial departments of health by province. <http://www.gso.gov.vn/>

106. In the project location in Tien Giang Province, the nearest health station at any point of the transmission line is at 1 km to the east at Nhi Binh Commune, Chau Thanh District. This is

¹⁰ Long An Water Supply And Sewerage Company (LAWACO). Introduction. <http://capnuoclongan.com/introduce.php>

¹¹ Southern Water Supply Association. 2011. Tien Giang Water Supply and Sewerage Company. <https://translate.google.com/translate?hl=en&sl=auto&tl=en&u=http%3A%2F%2Fcapnuocmiennam.com.vn%2Farticle%2Fcong-ty-tnhh-mtv-cap-thoat-nuoc-kien-giang-78%2F>

¹² ADB. 2015. Country Water Action: from Interim to Permanent. <http://www.adb.org/pt/node/40583>

near the planned location of the construction Segment 1 at Nhi Binh Commune. Also nearby is the health station in Diem Hy Commune in the same district, about 2 km to the west. In Lon An Province, the nearest health station is at Hoa Khanh Dong Commune in Duc Hoa District; about 1.5 km from the transmission line.

107. **HIV/AIDS.** In year 2011, regional data on AIDS deaths is lowest at Long An Province (3 deaths) and very high in Tien Giang Province (53 deaths). However, with deaths, new cases arise as well. The province of Tien Giang has an astonishing increase of 47% in new AIDS cases, highest in the region and 5th in the country. In the other spectrum, Long An Province, at 9%, is the least in the region (Table 26).

Table 26: HIV/AIDS Statistics in the Southeast Region (2011)

Southeast Region	New cases in 2011		Accumulation as of December 31, 2011		Number of AIDS deaths
	HIV infected people	AIDS patients	HIV infected people alive	AIDS patients alive	
Binh Duong	108	71	2455	691	18
Binh Phuoc	100	52	1423	341	13
Ba Ria – Vung Tau	342	75	4157	657	76
Dong Nai	250	123	4926	623	42
Tay Ninh	230	231	1985	682	68
Ho Chi Minh City	1,943	1,470	46,507	17,826	481
Southeast Region Total	2,973	2,022	61,453	20,820	698
Country Total	14,113	6,429	197,072	48,717	2,413

Source: General Statistics Office of Viet Nam. 2015. Number of people infected with HIV/AIDS and number of AIDS deaths by province. <http://www.gso.gov.vn/>

5. Education

108. There are many schools of general education in both provinces and has increased through the years. Both provinces have the following levels: primary, lower secondary, upper secondary, primary and lower secondary, and lower and upper secondary. Throughout the province of Tien Giang, there are 389 schools, wherein 59% for primary schooling; similar with Long An Province¹³.

109. Socio-economic survey in the project area of influence shows that each project commune has at least one kindergarten and one primary school. In Tien Giang Province, 50% of communes have lower secondary schools. Only My Phuoc Commune has upper secondary. Percentage enrolment distribution is 100% for primary, 98% for lower secondary, and 50% for upper secondary. On the other hand, in Long An Province, enrolment statistics are similar but higher for upper secondary (60%).

110. In terms of proximity to the project areas, only in Tien Giang Province there are nearby schools. The nearest is a primary school (600 m to the east of project area) located in Thoi Village, Diem Hy Commune, Chau Thanh District. Others also within the same district are about 1 km to the east and 1.5 km to the west of the project area.

¹³ General Statistics Office of Viet Nam. 2015. Number of school of general education as of 30 September by province. http://www.gso.gov.vn/default_en.aspx?tabid=474&idmid=3&ItemID=12709

6. Communications

111. Many telephone networks such as Viettel and VNPT telecoms serve the area. Communication services are conveniently available.

7. Transportation

112. Networks of roads and waterways connect both provinces inside and outside. Volume of freight traffic has outstandingly increased. From 2000 to 2010, there was an increase of 83% (2010: 733.2 million tons.km) and 202% (2010: 898.5 million tons.km) for Long An and Tien Giang Province, respectively¹⁴. Waterways are very important for Long An Province, 92.3% of freight traffic were via these. In Tien Giang, it is only about 25%¹⁵. The Tan Son Nhat Airport is located about 60 km from the end point of the transmission line at the 500kV Duc Hoa substation. The Can Tho Airport is located also about 60km from the My Tho substation which is the starting point of the transmission line.

113. Road networks are reasonably well-developed throughout the project area. There are national roads and provincial road networks (provincial, district, commune and village roads) that can be used. Most of these are of concrete and asphalt types; can handle normal vehicles such as cars, buses, and trucks. Transport of project materials and equipment from outside of the province can be conveniently accomplished using existing national highways (such as Highway IA and Highway No. 62) and expressways. Other than land, the river network in the south are vital for transporting goods and materials, i.e., the rivers of Tien, Vam Co Dong, Vam Co Tay, and Soai Rap. The rivers of Vam Co Dong and Vam Co Tay will be used as vital means to transport project materials and equipment.

V. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION

A. Methodology

114. Formal disclosure to stakeholders about the proposed 500kV My Tho - Duc Hoa transmission lines occurred during the preparation of the initial environmental examination (IEE). A stakeholder consultation strategy was developed to meet the requirements of conducting meaningful consultation with stakeholders as stipulated by the ADB SPS (2009). The strategy embodied the principles of meaningful engagement, transparency, participation, and inclusiveness to ensure that the affected and marginalized groups such as women and the poor are given equal opportunities to participate in the planning of the subproject.

1. Identification of Stakeholders

115. Stakeholders were identified and were engaged in a participatory manner. Stakeholder consultation focused on institutional stakeholders, affected communities, and persons directly affected by proposed subproject interventions. The stakeholders of the subproject which have been identified include:

- a) Institutional stakeholders such as: (i) People's Committee and Commission (PCC), (ii) District People's Committee (DPC); (iii) Project EA; (iv) PECC2 and (v) commune leaders.

¹⁴ General Statistics Office of Viet Nam. 2015. Volume of freight traffic by province. http://www.gso.gov.vn/default_en.aspx?tabid=473&idmid=3&ItemID=12768

¹⁵ General Statistics Office of Viet Nam. 2015. Volume of freight traffic by the road by province. http://www.gso.gov.vn/default_en.aspx?tabid=473&idmid=3&ItemID=12766

The Project EA and PECC2 provided information for the design of the subproject and in the implementation of measures and interventions;

- b) Mass organizations such as Women’s Union and Farmer’s Union;
- c) AP and businesses along the transmission lines and near the substation site who may be directly and/or adversely affected, and who have an interest in the identification and implementation of measures to avoid or minimize negative impacts; and
- d) Other institutions or individuals with vested interest in the outcomes and/or impacts of the subproject.

2. Public consultation meeting

116. Formal community consultation meetings were held to discuss the location and potential impacts on the environment and people of the 500kV My Tho - Duc Hoa transmission lines. The community consultation meeting was held on March 18 to 25, 2015 at 6 communes of two districts in Tien Giang Province and 6 communes for 4 districts in Long An Province. A total of 350 people participated in the consultation meetings (Table 27).

Table 27: Participants during the community consultation meetings

No	Province	District	Communes	Attendees		
				Official	Households	Total
1	Tien Giang	Chau Thanh	Diem Hy	4	42	46
			Nhi Binh	4	19	23
		Tan Phuoc	Phuoc Lap	3	24	27
			My Phuoc	1	17	18
			Hung Thanh	6	25	31
			Tan Hoa Dong	3	7	10
2	Long An	Thanh Hoa	Tan Tay	3	30	33
		Thu Thua	Long Thuan	4	73	77
			Tan Lap	4	7	11
		Ben Luc	Thanh Loi	4	41	45
		Duc Hoa	Huu Thanh	1	16	17
			Hoa Khanh Dong	3	9	12
	Total		40	310	350	

117. Copies of the EIA in Vietnamese language was made available at District PC and Commune PC offices. The Executive Summary in Vietnamese language was posted at the affected Commune PC offices. Local loud speakers were also used to facilitate invitation, understanding and communication of the IEE. The public meeting was conducted in local language and consisted of the following component procedures:

- a) The engineering consultant introduced the subproject, including the route of the transmission line and design.
- b) The environmental consultant presented ADB’s environmental policy, safety regulations in Viet Nam power sector, anticipated environmental impacts and mitigation measures to be developed in the IEE, the grievance redress mechanism for environment and resettlement issues;
- c) The social/resettlement consultants presented ADB’s resettlement policy, impacts due to acquisition of land and properties, policies of the GOV and local authorities, the subproject’s policies on compensation as required by the State;

d) Open discussion of issues and concerns by the stakeholders.

B. Issues and Concerns Raised During the Public Consultation

118. During the meeting, the participants raised their questions and comments on the subproject. The PECC2 consultants and IEE national consultant, as representative of EA/IA, answered and explained all questions to the participants. The following are the comments raised during the consultation meetings:

- All local authorities and the AP have agreed completely on the national power development plan and the subproject will cross over their localities.
- The transmission line will be located outside the residential areas and far from sensitive places to avoid or minimize the negative impacts on socio-economic and environmental conditions.
- The project owner will closely coordinate with local authorities on compensation support and site clearance
- The Contractors will inform local people its schedule of construction in order for the residents to schedule their agricultural activities to minimize negative impact on crops and avoid the waterway and road traffic disturbance.
- The Contractors will borrow/rent land to prepare temporary roads or sites for gathering construction materials, compensate reasonably any damages caused by project construction and return the ground to its original condition after completion.
- The Contractors will manage their construction wastes such as abundant soil, stones, and cement bags within their sites to minimize negative impacts on the surrounding environment.
- Local people will be clearly informed about impacts of EMF on human health within the safety corridors and what activities and length of time allowed doing within the safety corridor to protect their health;
- The project owner will inform local authorities about their mitigation measures in order for CPC to take part in monitoring the Contractor's commitments to minimizing the adverse impacts on the environment.
- Compensation for damage to plants and roads during construction
- SPPMB needs to provide the details of the construction schedule
- There will be a method to minimize the effects of materials handling.

119. The summary of the comments and questions from the authorities and local people and the responses from the project owners are summarized in Table 28.

Table 28: Summary of Questions and Answers at Public Consultation

Location and time	Comments/questions from participants ¹⁶	Answers of Project owners
Diem Hy commune, Chau Thanh district, Tien Giang province on	Agree completely that the project crosses over the commune	Noted
	Participants raised questions to the project owners whether transporting materials to sites that damages community roads, crops and vegetables are compensated;	Contractors will be responsible for compensation of any damages to roads, crops and vegetables caused by the subproject activities including the material transportation

¹⁶ Questions and issues raised during public consultation meetings are recorded in table as received.

Location and time	Comments/questions from participants ¹⁶	Answers of Project owners
21 Mar. 2015	<p>How can the AP monitor if measures on protecting the environment is implemented strictly or not and how force the Contractors to compensate damage before moving</p>	<p>Construction Contractors will have commitment with the project owners to implementing all mitigation measures mentioned in their EMP. Internal and external monitoring will take place to assess the commitments The AP and local authorities are entitled to participate in environmental monitoring and require Contractors to have corrective actions. Without agreement of local authorities after completion of construction, Contractors will not receive all payment from the project owner.</p>
	<p>How to avoid and reduce the impacts of EMF for people's health when working under RoW</p>	<p>All houses under the RoW must be relocated (16 m from the line centre of each side) and the houses located within 16 – 60 m must be earthed. Permissible working time in a day and night under the RoW is less than 5 hours according to Article 7, Decree 14/2014/ND- CP (if electric field intensity is 8Kv/m, the permissible working time in a day and night will be 255 minutes.</p>
Nhi Binh commune, Chau Thanh district, Tien Giang province on 21 Mar. 2015	<p>Agree completely that the project crosses over the commune;</p>	<p>Noted</p>
	<p>The transmission line should not cross the residential areas to avoid impacts on relocation and health of inhabitants;</p>	<p>Avoidance of the route crossing residential areas is one of criteria applied in pre-construction phase, however, if the avoidance is not possible, mitigation measures and compensation resettlement will be applied.</p>
	<p>The Contractors should commit to implementing the mitigation measures mentioned in the approved EIA/ EMP while compensating damages of crops, trees cut for the AP.</p>	<p>Will do that</p>
	<p>Contractor is required to repair community roads if they are damaged by the project's activities</p>	<p>Will do that</p>
Hung Thanh commune, Tan Phuoc district, Tien Giang province on 18 Mar. 2015	<p>The project owner is required to discuss with local authority to have a reasonable construction plan to ensure the construction activities would not impact or at least reduce negative impacts on growing and harvesting pineapples that are the main crop in the locality.</p>	<p>The project owner will inform the affected communities on its working plan before execution. Contractors will be responsible for negotiation directly with the AP on the issues before doing; All losses will be adequately compensated to the APs as agreed under witness of the project owner.</p>
	<p>Contractors need to borrow/ rent land for making temporary roads/ sites for gathering materials, compensate fully damages and return the grounds to its original conditions after the construction completed.</p>	<p>Will do that</p>
	<p>Contractor is requested to keep its construction wastes such as excavated soils, stone within the site, avoiding overwhelming affecting crops and vegetables surrounding the site, while ensuring transportation safety and protecting community health during construction phases.</p>	<p>Construction wastes will be collected and treated as regulated, while all excavated soil will be kept within site. If any damages caused by gathering materials to site and excavation, they will be fully repaired and compensated</p>
Phuoc Lap commune, Tan Phuoc district, Tien	<p>The CPC requires the project owner to inform the committee on its construction and mitigation measures to protect the environment in order for the committee to participate in the process of community</p>	<p>Before construction, the project owner will disclose information on project to local CPCs including mitigation measures and commitment of implementation of the measures during the</p>

Location and time	Comments/questions from participants ¹⁶	Answers of Project owners
Giang province on 18 Mar. 2015	monitoring on environment.	construction phase.
	The project owner should prevent dust, noise, construction wastes such as wastewater, excavated soil, stones from affecting on the environment when executing tower's foundations;	Contractors will: - applied technical measures to prevent noise; do not work at night time and noon time; - water site regularly to suppress dust especially at site near to residential areas - collect and treat construction wastes as regulated; - compensate any damages caused by excavation of foundations.
	Contractors are required to borrow or rend land to make roads, gather materials, compensate any damages when dragging lines across crops, vegetables and return the ground to its original conditions after construction completion;	Contractors will rend/ borrow land or payment of losses for crops to prepare temporary site and roads to gather materials, dragging wires; Contractors will rehabilitate grounds after completion of work.
Tan Hoa Dong commune, Tan Phuoc district, Tien Giang province on 19 Mar. 2015	CPC requires contractors should inform its plan related to dragging wires across Bac Dong, Tran Mu, Truong Van Xanh canals and install signing signals at both sides of the canals to ensure safety for waterway transportation;	Will do that
	Participants raised their voices to require the project owner to borrow/ rend construction sites and manage its construction wastes within the sites, compensate any damages caused by the project activities and return the ground to its original conditions after completion of construction;	Contractors will rend/ borrow land or payment of losses for crops to prepare temporary site and roads to gather materials, dragging wires; Contractors will rehabilitate grounds after completion of work.
My Phuoc commune, Tan Phuoc district, Tien Giang province on 19 Mar. 2015	Prepare temporary roads/ sites before transporting and store materials at sites, compensate fully the damages on roads, crops and vegetables for community and the AP;	Contractors will rend/ borrow land or payment of losses for crops to prepare temporary site and roads to gather materials, dragging wires; Contractors will rehabilitate grounds after completion of work.
	The project owner should barrier the sites when digging near residential areas, ensure the worker's camp sanitation to protect community health;	Contractors will be together with local authorities and the APs to assess the status of nearby structures to apply reasonable technical measures to prevent landslides and commit to compensating any damages caused by construction; fence surrounding deep holes near to roads and residential areas; Keep Worker's camps in sanitation.
	Project owner should be responsible to repair community roads if damaged caused by the project activities; ensure safety in waterway and road transportation for villagers;	Will do that
Tan Tay commune, Thanh Hoa district, Long An province on 20 Mar. 2015	Participants requested the project owner that all measures ensuring environmental safety mentioned in the EMP should be strictly applied in all stages of implementing the project to ensure the community safety and health;	Contractor will develop its EMP to be approved by the project owner, they will implement the EMP and report it to the project owners every month under monitoring of the project owners.
	The executive plan of contractor should be disseminated openly to the AP in order for them to be active in arranging their agricultural activities to avoid and minimize damages of crops;	Contractors will bring their working schedule to discuss with the APs on the crops to minimize negative impacts
	The project owner should compensate and repair any damages related to community roads, banks of paddy fields and crops caused by the project's	Will do that

Location and time	Comments/questions from participants ¹⁶	Answers of Project owners
	activities.	
Long Thuan commune, Thu Thua district, Long An province on 20 Mar. 2015	Participants requested the project owner that all measures ensuring environmental safety mentioned in the EMP should be strictly applied in all stages of implementing the project to ensure the community safety and health;	Contractor will develop its EMP to be approved by the project owner, they will implement the EMP and report it to the project owners every month under monitoring of the project owners and ADB's consultants.
	The executive plan of contractor should be disseminated openly to the AP in order for them to be active in arranging their agricultural activities to avoid and minimize damages of crops;	Before construction, the project owner will disclose information on project to local CPCs including mitigation measures and commitment of implementation of the measures during the construction phase
	The project owner should compensate and repair any damages related to community roads, banks of paddy fields and crops caused by the project's activities.	Contractors will rent/ borrow land or payment of losses for crops to prepare temporary site and roads to gather materials, dragging wires; Contractors will rehabilitate grounds after completion of work.
Tan Lap commune, Thu Thua district, Long An province on 24 Mar. 2015	The transmission line crosses Bo Bo canal and goes along Giai canal will affect the area of planning to grow green trees of the garbage processing private company, so the company would like to cooperate closely with the project owner during the time of implementing the project;	Project owner will inform the company ROW and the activities will be implemented at site near to vicinity of the company to cooperation to minimize the impact on environment and Eucalyptus.
	The company would also like to know the exact RoW and what activities are allowed doing under the RoW.	Under RoW trees' height maximum is 6 m, the distance from any part of tree when the tree falls to any part of line must not be less than 2 m.
	The project owner is requested to have a commitment on environmental sanitation, fire prevention during construction and operation phases;	Will do that
Thanh Loi commune, Ben Luc district, Long An province on 25 Mar. 2015	The project owners and related agencies are required to collect and treat the wastes discharged by construction and recreation of workers as regulated; Compensate any damages and return site grounds to the original conditions after finishing the construction	Will do that
	The executive plan of contractors should be disseminated openly to the AP in order for them to be active in avoidance, prevention and mitigation the negative impacts on their planting, raising animals and recreation;	Before construction, the project owner will disclose information on project to local CPCs including mitigation measures and commitment of implementation of the measures during the construction phase
	Huu Thanh commune, Duc Hoa district, Long An province on 25 Mar. 2015	Most of the community roads constructed by inhabitants, so the project owner is requested not allow to use overload vehicles and trucks on, repair and compensate any damages and comply with the transportation rules;
Most of the towers located in the paddy field so the schedule of excavating foundation should be in period of after harvesting, while the contractors are required to borrow land to make a temporary roads, storing materials and returning the site ground adequately after completion of construction;		Will do that, in case because of progress requirement, Contractor will negotiate with the APs for compensation before doing
Contractors should collect and treat the construction		Will do that

Location and time	Comments/questions from participants ¹⁶	Answers of Project owners
	and recreation wastes as regulated;	
Hoa Khanh Dong commune, Duc Hoa district, Long An province on 25 Mar. 2015	The transmission line goes across the paddy field of Binh Loi village, far from the residential areas, therefore the negative impacts on relocation and health of inhabitants has been reduced. However, the project owner is requested to be strictly committed to implementing the mitigation measures on the environment and crops, adequate compensation and return ground to its original condition after the construction completion.	Will do that
	Compensation rate should be identified at the compensation time	Compensation rates will be appropriately calculated in accordance with decision 35/2010/QD-UBND.
	Are the compensated land areas calculated the safety corridor of the underground cable?	
Conclusion	All commune CPCs and AP agree and will support the construction of the 500KV My Tho – Duc Hoa transmission line.	

C. Follow-up Stakeholder Consultations

120. Follow-up consultations will be conducted for the subproject. In addition, as part of the information disclosure strategy, the IEE/EMP must be readily available to stakeholders in local Vietnamese language. The IEE will be available on the NPT and SPPMB offices and at the PTC4 substation site. Similarly, all subproject environmental reports with specific reference to minutes of stakeholder consultation, environmental monitoring, and reports on EMP implementation submitted by the SPPMB and the Power Transmission Corporation (PTC) No. 4 will be available at the same offices.

VI. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

121. The environmental impacts were identified based on the project activities that may occur in each environmental component and by evaluating the environmental and social baseline situation at the subproject area. The identification of environmental impacts was mainly based on the technical information related to project components design and operation, field visits, information from stakeholder consultations, and the ADB REA checklist of potential impacts of the subproject.

122. The impacts are presented according to those that are related with the design, selection and location of the project facilities; impacts associated with construction activities; and impacts related to the actual operation of the transmission lines.

A. Anticipated Benefits from the Project

123. The 500kV My Tho - Duc Hoa transmission lines will be beneficial to Long An Province, Ho Chi Minh City and other neighboring provinces. The subproject will ensure development of power in the area, improve reliability and continuity of supply, and reduce power outages. The implementation of the subproject is in line with the socio-economic development direction of the province, whereby investment in electricity development is prioritized to meet the demand in the industrial sector and the general public.

B. Impacts Related to Pre-Construction Phase

124. The potential impacts during the design and pre-construction phase of the project are related to the siting and survey of the transmission lines route. There is potential for the transmission lines to affect houses, canals, agricultural land, river, and national/district/commune roads. The construction of the towers may also have visual impacts for local residents.

1. Land acquisition and damage to vegetation and crops

125. **Impacts.** Land will be permanently affected by the construction of the 500kv transmission line towers. In addition, there will be land that needs to be temporarily acquired for use as material storage site or temporary access road during the construction of the project and the transmission line corridor.

126. **Mitigation Measures.** During the final design of the transmission line, the transmission line alignment will be refined to avoid houses to the maximum extent possible. All households under the ROW will be relocated for safety purposes. The maximum allowable height of a tree below the 500kV transmission line will be maintained at 6 m, as allowed in Viet Nam. In addition, based on Article 10 of Decree 14/2014, the minimum vertical clearance of 8 m for any tools and machines operating under the ROW of the transmission line will be allowed. Land will be permanently acquired for the construction of the tower foundations by SPPMB. Tall trees within the ROW will be removed or trimmed as necessary to comply with the minimum conductor clearance. In addition, to maintain conductor clearances and to establish safe operating distances within 16 – 60 m wide of each side for earthing zone, households will be provided with lightning arresters by SPPMB.

127. Continuous information disclosure and consultation with AP and other interested stakeholders will be conducted. Landowners will be compensated for temporary loss of access to crop areas during conductor stringing and damage brought about by transportation of materials to sites. The SPPMB will design and provide an appropriate land acquisition and compensation plan for the affected areas of the ROW of the transmission lines in accordance with ADB and the national requirements. In addition, the temporary access roads will be restored to original condition after construction is completed and before the same is returned to the AP. Any damaged crops or income loss arising from the inability of AP to plant crops during the temporary use of land will be compensated by the civil works contractor. SPPMB will ensure that this condition is stipulated in the contract of the civil works contractors.

2. Impact on aesthetics

128. The impact of the project on aesthetics has not been identified as a significant issue in the local context. There are existing transmission lines in the vicinity and the construction of the new lines will not have a significant effect to the aesthetics of the project area.

3. Impact on drainage and flooding

129. The ROW of the transmission lines is located in low-lying and flat areas, which are reportedly vulnerable to inundation. Some areas of the province are subject to flooding during the rainy season, which lasts from the beginning of August until November. The overflowing of the major rivers of Vam Co Dong and Vam Co Tay makes the area susceptible to floods resulting from sea level rise due to climate change.

130. The existing drainage system associated with the surrounding agricultural land is composed of network of irrigation and canals. The design of the transmission lines will ensure that the existing canals will be protected and where necessary additional drainage diversion structures will be included in the works. This is to ensure that the construction of the lines will not have significant impact on existing canals and adjacent land. The need for additional drainage diversion structures will be decided upon completion of detailed engineering design.

C. Impacts and Mitigation during Construction Phase

131. Construction activities will include excavation and installation of tower footings, movement of construction vehicles, operation of cranes, line stringing and installation of electrical equipment. Construction activities of the proposed subproject are expected to generate the following impacts:

- a) Sediment generation and soil runoff caused by excavation and earthworks
- b) Effect on air quality from vehicle and equipment exhaust and dust generated from construction activities
- c) Noise and vibration caused by vehicle and equipment
- d) Contamination of soil and groundwater due to spill or leakage of construction chemicals
- e) Effect on rice fields, cropland, and canals, from disposal of construction wastes, including domestic waste
- f) Traffic hazards and road degradation during the transport of heavy construction equipment and materials
- g) Effect on health and safety of workers.

1. Soil runoff

132. **Impacts.** The transmission lines will affect river crossing in Vam Co Tay River at Section G5-G6 and Vam Co Dong River at G9D – G10A, as well as several canals. The highest towers will be located in the river crossings but no towers will be erected within the rivers and canals. Although the tower foundations will be constructed about 100 m from banks of rivers and canals, runoff may be transported to the rivers and canals causing sedimentation, turbidity and deterioration of water quality.

133. The canals and agricultural land in the immediate vicinity and along the ROW of the transmissions lines will also likely be impacted to some extent by runoff and from frequent movement of vehicles to the sites during the construction phase. Appropriate mitigating measures to prevent soil runoff will be required during the construction phase.

134. **Mitigation Measures.** Timing is also one of the critical factors involved in erosion and sedimentation control in construction sites. Careful scheduling of construction operations can minimize the exposed area during the rainy season. Site clearing, earthworks, and other civil works will be scheduled during the dry season.

135. In order to prevent erosion and runoff of sediments, silt traps or temporary sedimentation facilities will be set-up to trap and settle out runoff from the construction area. Likewise, temporary barriers and trenches will be constructed around the stockpiles of materials to control surface runoff.

136. The effect of sedimentation during project construction is only temporary. Upon completion of the construction stage, exposed surfaces at tower foundations will be concreted for structural stability while other areas will have trees and plants as part of the architectural landscape.

137. The Contractor will be required to institute proper preventive and control measures that includes the following:

- a) Excavation activities will be scheduled during the dry season.
- b) Stockpile of excavated soil may be covered and stabilized to prevent runoff.
- c) Provide sediment trap or inlet protection (fabric barriers around inlet entrances or block and gravel protection) to slow runoff velocity and catch sediment and other debris at the drain inlet.

2. Impact of fugitive dust and other emissions

138. **Impacts.** Air quality can be affected by the operation of vehicle and equipment, excavation and backfilling of soil, and transport of materials. There will be exhaust gas emissions containing TSP, SO_x, NO_x, and CO during operation of vehicle and equipment. Dust generation is expected with an increase in TSP ground level concentration due to earthworks, contact of machinery with bare soil, and exposure of bare soil and soil piles to wind.

139. Use of vehicle and equipment will be periodic and temporary. Therefore, impact on air quality to the community is low and localized within the tower locations. Directly affected receptors are the residents living near the access roads to the construction sites.

140. **Mitigation Measures.** Best management practices will be applied to minimize impacts coupled with effective environmental monitoring. An Air Emission and Dust Control Plan will be prepared, disseminated to workers, and implemented by the Contractor as part of the Construction Environmental Management Plan (CEMP). Mitigation measures to be applied include:

- a) Stockpile of excavated soil will be covered and kept moist.
- b) Vehicles and equipment will be maintained regularly to ensure emissions comply with the standards.
- c) Construction materials such as cement, sand and aggregates will be covered during transit and while stored on-site.
- d) Burning of waste materials will be prohibited.
- e) Inform and educate workers on the Air Emission and Dust Control Plan in the CEMP prior to start of construction works.
- f) Require construction haulers to cover materials with tarpaulin or other suitable materials during transport of materials.
- g) Impose speed limits on construction vehicles.

3. Noise and Vibration

141. **Impacts.** Noise and vibration are generated by activities such as operation of earthmoving and excavation equipment, concrete mixers, and cranes. Furthermore, vehicles transporting construction materials will add to the average noise level along the transport route. Immediate and nearest receptors are households and establishments along routes of materials transport. Impacts may be immediately felt by these receptors and can create nuisance to the normal living conditions.

142. Noise produced during construction within the transmission line towers will have negligible impact on the community because the villages are located far from the site to be affected by construction noise. However, noise due to the movement of vehicles along the village access road and also some areas along the ROW of the transmission lines may potentially result to nuisance.

143. **Mitigation Measures.** Measures that can be applied to minimize impacts of noise and vibration are:

- a) Operate construction equipment only at daytime and minimize works at night.
- b) Install suitable mufflers on engine exhausts when appropriate.
- c) Maintain regularly all vehicle and equipment to ensure good-working condition.
- d) Require drivers to minimize blowing of horn and to comply with speed limits, particularly when passing through residential areas.
- e) The Contractors will coordinate with the concerned communities on the agreed schedule of construction and transport of materials.
- f) Comply with “Environmental, Health, and Safety Guidelines” (IFC) on the maximum noise limits on construction equipment near receptor sites, along access roads and some areas along the ROW, i.e. not more than 3 dB maximum increase in background levels.

4. Spill or leakage of hazardous construction chemicals

144. **Impacts.** Hazardous chemicals such as oil, grease, fuel, paint, lead-acid batteries, etc. will be used during construction. Improper management, storage, handling, and use can lead to spill or leakage to the soil, groundwater, and biological resources. Impact of a spill is high although localized for a short-term. The rice and crop plantations and irrigation canals will be protected against disposal of any waste materials as advised during the consultation meetings.

145. **Mitigation Measures.** A Hazardous Chemicals Management Plan will be prepared, disseminated to workers and implemented by the Contractor as part of the CEMP. Mitigation measures to be applied include:

- a) Minimize, if not avoid, storage of hazardous materials onsite.
- b) Implement proper labeling and storage in leak-proof containers, on areas with concrete surface and secondary containment to prevent potential spills and leakages reaching soil or groundwater.
- c) Display the Materials Safety Data Sheet (MSDS) of all hazardous chemicals used in work areas.
- d) Designate areas of impervious surface for equipment services and refueling.
- e) Provide oil and grease traps.
- f) Provide portable spill containment and cleanup equipment.
- g) Train workers on safe use, handling, storage, disposal, and spill response for the hazardous chemicals.
- h) Provide workers with PPE.
- i) Inform and educate workers about the Hazardous Chemicals Management Plan in the CEMP prior to the start of construction.

5. Generation of construction wastes

146. **Impacts.** Different types of construction wastes are expected from project construction. These are domestic solid waste, domestic wastewater, inert construction waste, hazardous waste, and excavated soil.

- a) **Domestic solid waste.** In general, construction workers generate the domestic solid waste, which may include food wastes, plastic and glass bottles, paper, cardboard, and packaging wastes, among others. The impact is considered low, localized and short-term.
- b) **Domestic wastewater.** The direct discharge of domestic wastewater by construction workers may result to unsanitary conditions within the construction sites. There will be about 269 workers during the construction phase, which will generate approximately 51 m³/day of wastewater. If disposed untreated, the wastewater will cause degradation of water quality and contamination of groundwater that may lead to spread of water-borne diseases.
- c) **Inert construction waste.** These wastes can be scrap wood and metals, cement bags, aggregates and concrete debris, among others. These wastes are generally disposed of and/or landfilled in appropriate sites and represent no direct danger to health and thus considered of low impact.
- d) **Hazardous waste.** Hazardous waste may include contaminated soils and machinery maintenance materials such as oily rags, used oil filters, used oil, empty paint and solvent containers, spent batteries, and spill cleanup materials. Potential release activities may be during storage, transfer, and disposal of these wastes. Wastes generated are anticipated to be small yet harmful to the environment and public health. The impact is considered high and localized for a short-term.
- e) **Excavated soil.** Most of the excavated soils are intended as fill material onsite. There is no anticipated waste from excavated soil.

147. **Mitigation Measures.** The Contractor will be required to prepare, educate workers and implement a Waste Management Plan as part of the CEMP. Mitigation measures to be applied include:

- a) Provision of adequate onsite sanitation facilities to prevent untreated sewage from being channeled into the drainage canals, irrigation canals, river and on land.
- b) Implementation of appropriate solid waste and construction waste collection and disposal system, with provision for stringent waste segregation of hazardous and non-hazardous waste.
- c) Designation of areas of impervious surface for equipment services, refueling, and wash down. The maintenance area will be provided with oil and grease traps to prevent oil from being washed into the offsite drainage canals.
- d) Prohibit burning of wastes.
- e) Provide properly labeled waste disposal bins.
- f) Implement proper labeling and storage in leak-proof containers for hazardous wastes, on areas with concrete surface and secondary containment to prevent potential spills and leakages reaching soil or groundwater.
- g) Contract only an accredited company by MONRE for wastes collection, transport and disposal.
- h) Provide oil and grease traps.

- i) Provide portable spill containment and cleanup equipment.
- j) Inform and educate workers on the Waste Management Plan in the CEMP prior to start of construction.

6. Traffic hazard and road degradation

148. **Impacts.** There will be increase movement of heavy vehicles to the site during the transport of materials and equipment. This will result to an increase in risk of traffic-related accidents and injuries to local communities and local road degradation. Local road networks particularly the 2-lane commune roads to the transmission lines, will be used and large vehicles containing special loads may cause traffic if unplanned and uncontrolled.

149. Road degradation particularly of the commune road is anticipated due to use of cranes during tower assembly and line stringing and repeated use of trucks (5 – 15 tons) for transport of other construction materials. Delivery of construction materials by trucks is only for a short and intermittent period of time. Therefore, impacts on traffic are anticipated to be moderate and short-term.

150. **Mitigation Measures.** The Contractor will be required to prepare, educate workers, and implement a Traffic Management Plan as part of the CEMP. Mitigation measures to be applied will include:

- a) Schedule of movement of heavy vehicles will avoid peak hours of local road network wherever practicable
- b) Monitor traffic at access roads to ensure project vehicles are not causing congestion.
- c) Ensure vehicles are maintained regularly and require that vehicles and machinery using combustion engines has and maintains valid operating permits throughout the project schedule. The permits shall form part of the bid documents.
- d) Implement road safety training and adherence to speed limits.
- e) Rehabilitate any damage to existing roads that may be caused by the movement of construction vehicles to the site.
- f) Manage traffic by posting warning signs and assigning flag persons to direct traffic on affected roads.

7. Impact on health and safety

151. **Impacts.** Construction activities may cause harm and danger to the lives and welfare of workers. Hazards during project construction and equipment installation include exposure to EMF, live power lines/equipment, chemicals and fire and explosion. General construction impacts include physical hazards, trip and fall hazards, exposure to dust and noise, falling objects, and ergonomic injuries and illnesses. These impacts are anticipated to be high during line synchronization.

152. **Mitigation Measures.** The Contractor will be required to prepare, educate workers, and implement a Health and Safety Plan as part of the CEMP. Mitigation measures to be applied will include:

- a) Implement associated plans and mitigation measures previously mentioned as part of the CEMP (Air Emission and Dust Control Plan, Hazardous Chemicals Management Plan, Traffic Management Plan, and Waste Management Plan)

- b) Contractor must prepare, educate workers, and implement an Electrical Safety Plan; Fire Prevention, Safety and Management Plan; Education and Awareness Plan for HIV/AIDS and other sexually transmitted diseases; and Integrated Control Strategy for Mosquito and Other Arthropod-borne Diseases as part of the Health and Safety Plan of the CEMP.
- c) Ensuring live-wire work is conducted by trained and certified workers with strict adherence to specific safety and insulation standards in electrical safety.
- d) Require workers to adhere to local legislation, standards, and guidelines relating to minimum approach distances for excavations, tools, vehicles, pruning, and other activities in the ROW.
- e) Implement fall protection systems that include provision of hoisting equipment, safety belts and second (backup) safety strap for workers.
- f) Conduct training of workers in the identification of occupational hazards.
- g) Provision of first-aid facilities readily accessible by workers.
- h) Post safety signs, reminders, or warning notices at visible areas onsite.
- i) Follow electrical safety regulations and good practices.
- j) Hire only trained and certified workers on electrical works.
- k) Plan work site layout to minimize need for manual transfer of loads.
- l) Provide appropriate and accessible fire fighting equipment.
- m) Ensure unobstructed access of fire responders and egress of vehicles
- n) Provide security personnel in areas where appropriate.
- o) Strictly implement a “No Alcohol and Drug Policy”.
- p) Prohibit illegal activities such as but not limited to gambling.
- q) Inform and educate workers on the Health and Safety Plan.

8. Community health and safety

153. **Impacts.** The project construction will result to moderate impacts associated with community health and safety such as construction traffic, transport of materials, fires, emergency spills of materials, and unauthorized entry by the villagers into dangerous working areas.

154. **Mitigation Measures.** To mitigate these potential impacts, the civil works Contractor will be required to develop a CHSP that incorporates good international practice and recognized standards. The CHSP will include emergency response and preparedness procedures to be developed in close consultation with potentially affected communities and local authorities, including information on the hazards of electricity. The plan will include specific emergency response procedures, communication systems and protocols, interaction with local and regional emergency and health authorities, provision of emergency equipment and facilities such as fire truck, emergency service vehicles, and fire drills.

155. The CHSP will also include a plan for fencing of the entire construction area and procedures for posting warning signs as required protecting local community members from dangerous work areas. The warning signage will be printed clearly in Vietnamese language for better understanding of the villagers. In order to minimize risks from construction traffic, all delivery vehicles will be required to observe the speed limit when passing through built-up areas. The contractors will be required to disseminate the plan to workers.

9. Impact on Natural Resources and Protected Areas

156. There are no environmentally sensitive areas in the immediate vicinity of the subproject sites.

10. Impact on Culturally Sensitive Areas

157. The subproject will not affect any culturally sensitive area such as mosques, temples, and burial sites since the route of the transmission lines already avoided these sensitive areas. Chance find procedures will be developed in the event that physical cultural resources are unearthed during digging. The relevant Government authorities will be informed in case of chance find.

D. Impacts and Mitigation during Operational Phase

158. The potential impacts of the operation and maintenance of the transmission lines are generally related to the occupational and community health and safety issues as well as management of hazardous wastes. The impacts are reversible, manageable, and can be mitigated with proper engineering and management controls. Among the significant environmental impacts of the operation of the lines are:

- a) Hazards to occupational and community health and safety such as exposure to high-voltage electrical equipment (electrocution), working in high elevation, exposure to EMF
- b) Generation of hazardous wastes.

1. Occupational health and safety hazards

159. **Impacts.** The occupational health and safety issues inherent to the operation of the transmission lines include hazards due to exposure to live power lines and high voltage systems, working in heights and risks of accidents, and potential exposure to EMF. Accidents that may occur include electrocution, fires, and explosion.

160. Workers may come in contact with live power lines during the maintenance of the facilities and electrocution from direct contact with high-voltage electricity. Electrocution is a hazard directly related to power facilities.¹⁷ Furthermore, electric utility workers have higher exposure to EMF than the general public because of working in close proximity to electric power lines.

161. Accidents may also happen when working in high elevation. However, a worker safety plan will be implemented to reduce risks that include testing of structural integrity prior to proceeding with the work and the use of fall protection measures.

162. **Mitigation Measure.** Once the subproject is turned over by SPPMB to PTC4, all matters related to the operation and maintenance of the transmission lines shall be supervised by PTC4, including compliance with environment, health, and safety measures. The PTC4 shall be guided by the “Environmental, Health, and Safety Guidelines – Electric Power Transmission and Distribution” (IFC) dated 30 April 2007 when working at the power lines facilities. Some of the

¹⁷ International Finance Corporation (IFC), *Environmental, Health, and Safety Guidelines – Electric Power Transmission and Distribution*. 30 April 2007.

prevention and control measures for health and safety when working with live high-voltage electrical equipment are:

- (i) Restricting access to electrical equipment by workers only trained and certified to work on electrical equipment. Personnel will wear PPEs at all times when entering safety zones.
- (ii) Adherence to electrical safety standards
- (iii) Proper grounding and deactivation of live power equipment during maintenance work or if working in close proximity to the equipment.
- (iv) Provision of personal safety devices or PPEs for workers and other precautions.
- (v) Observe guidelines to minimum approach distances when working around operational equipment. The entrance to all buildings, vaults, rooms, or enclosures containing exposed live parts or exposed conductors will be kept locked unless such entrances are under the observation of a qualified person at all times.
- (i) Identification of potential exposure levels in the work area including surveys of exposure levels and establishment of safety zones
- (ii) Posting of safety reminders and warning signs.
- (iii) Check compliance with “Environmental, Health, and Safety Guidelines – Electric Power Transmission and Distribution” (IFC): Table 3 on the International Commission on Non-Ionizing Radiation Protection (ICNIRP)¹⁸ exposure limits for occupational exposure to electric and magnetic fields.
- (iv) Check compliance with government requirement on Article 7, Decree 14/2014/NP-CP in terms of number of working time in a day and night under the ROW depending on electric field intensity.

163. Switchboards, panel boards, industrial control panels, meter socket enclosures, and motor control centers that are likely to require examination, adjustment, servicing, or maintenance while energized will be field marked to warn qualified persons of potential electric arc flash hazards.

2. Community health and safety

164. **Impacts.** The community may also be exposed to electrocution hazards as a result of direct contact with high voltage electricity or from contact with tools, vehicles, or other devices that come in contact with high-voltage electricity.

165. In terms of exposure to EMF, the transmission frequency commonly used in transmission systems ranges from 50–60Hz, which is considered as extremely low frequency with impacts becoming low with distance. Trees, buildings, and other materials that conduct electricity shield the electric fields. In general, the electric fields are strongest close to the source and diminish with distance. The World Health Organization (WHO) reported that there is still weak evidence about substantive long-term health issues related to low frequency electric fields at levels generally encountered by members of the public. The potential health effects associated with exposure to EMF are not well established due to lack of empirical data

¹⁸ ICNIRP is a non-governmental organization formally recognized by the World Health Organization (WHO), which published the “Guidelines for Limiting Exposure to Time-varying Electric, Magnetic, and Electromagnetic Fields” following reviews of all the peer-reviewed scientific literature, including thermal and non-thermal effects. The standards are based on evaluations of biological effects that have been established to have health consequences. The main conclusion from the WHO reviews is that exposures below the limits recommended by the ICNIRP international guidelines do not appear to have any known consequence on health.

demonstrating adverse health effects. However, the public will be warned about the safety distances from the transmission system and power lines through warning signs.

166. **Mitigation Measures.** To prevent these hazards, SPPMB needs to implement the following improvements:

- (i) Regularly check compliance of the transmission lines with the safety clearances
- (ii) Conduct monitoring of EMF levels along the lines
- (iii) Provision of warning signs at transmission towers, particularly in built-up areas
- (iv) Grounding of conducting objects such as fences or other metallic structures near power lines.
- (v) Check compliance with “Environmental, Health, and Safety Guidelines – Electric Power Transmission and Distribution” (IFC): Table 1. ICNIRP exposure limits for general public exposure to electric and magnetic fields.
- (vi) Regularly check compliance with list of prohibited activities within the ROW

3. Generation of domestic and hazardous wastes

167. **Impacts.** Chemicals that are commonly handled in transmission lines are liquid petroleum fuels for vehicles. There are potential hazardous materials and oil spills associated with the maintenance and repair of vehicles. Oil leak and accidental spills of hazardous waste could give rise to contamination of soil and groundwater.

168. **Mitigation Measures.** The petroleum fuel for service vehicles is stored in oil storage tanks in substations and is sometimes bought from oil refilling stations. The areas around the oil storage areas at the My Tho substation and Duc Hoa substation will be provided with secondary containment with impervious bund capable of containing potential oil spill in the area. Discharges from these spill bunds will be directed to the oil-water separators. These are particularly necessary within substation sites and at the maintenance yard.

4. Emergency Preparedness at Substation

169. **Impacts.** There are several risks that could occur with the operation of the transmission lines. Among these are the likelihood of cable being damaged, corrosion of the towers and equipment over time which could compromise its structural integrity, potential fire events, explosion of equipment, and being hit by lightning.

170. **Mitigation Measures.** Lightning arresters are to be provided along the transmission lines and also for houses located within the earthing zone (16 – 60 m from centerline at each side). There will also be provision for ensuring security of the equipment to avoid vandalism. Regular inspections of the facilities would help identify missing or corroded parts.

171. In case of fire events, explosion, and other related situations, a fire management program is included in the emergency preparedness and response plan of the subproject. Sufficient number of fire protection equipment, fire suppressants, and fire water tank are available to address the emergency requirements of substation.

172. Workers are also trained on emergency preparedness and response procedures and a manual on safety and emergency procedures is prepared and disseminated to workers. The health and safety guidelines include measures for fighting oil fires and cautionary measures when working with live power lines and working at height.

5. Associated Facilities

173. The new 220kV Duc Hoa substation and the My Tho substation are considered as associated facilities of the subproject. A separate IEE report has been prepared for the 220kV Duc Hoa substation subproject under Tranche 3. An environmental compliance audit has been undertaken for the My Tho substation. The report is presented in Appendix 6 and documents the observations and corrective action plan of the 500kV My Tho substation.

6. Cumulative Impacts

174. The operation of the proposed transmission lines are expected to result to beneficial social impacts to the community, particularly in Long An and adjacent provinces, because of improvement in power supply. Furthermore, there are anticipated impacts associated with land use changes because of the subproject. Rural urbanization and economic restructuring from agricultural to non-agricultural sectors is anticipated. The remaining agricultural land of Duc Hoa and Ben Luc districts may be converted and developed into industrial or residential areas.

7. Climate Change

175. The sensitivity of the 500kV My Tho - Duc Hoa transmission lines to climate change is considered high as determined by the rapid environmental assessment of the subproject and from projected changes in weather patterns in Long An Province. The project sites are in proximity to the major rivers of Vam Co Dong and Vam Co Tay and numerous canals and creeks, which increases exposure to flooding from severe and frequent rainfall events.

176. In a study by the Climate Change Research Institute at Can Tho University, 49% of Long An Province is expected to be flooded if sea levels rise by 1 meter. Figure 8 presents the map of flood-prone areas from predicted 1 m sea level rise in 2020 to 2100.

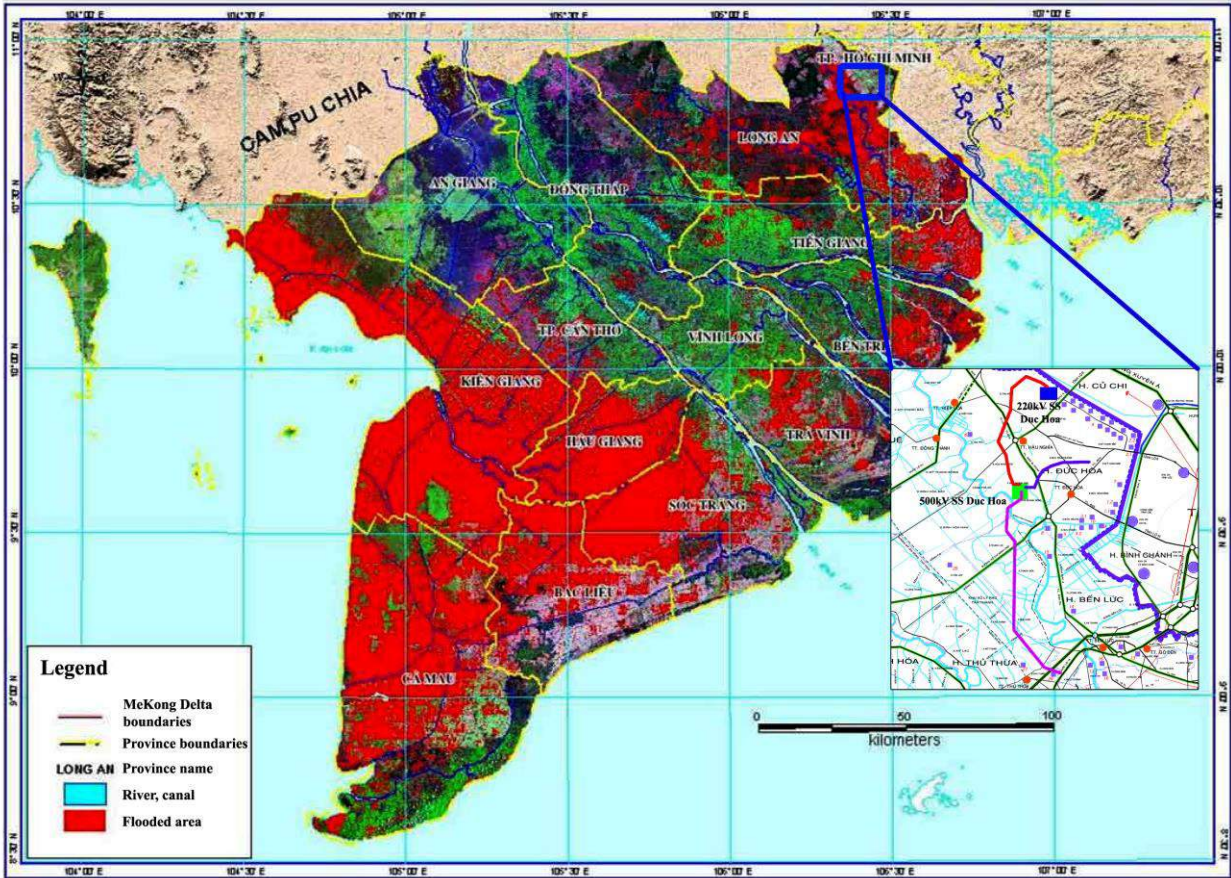


Figure 8: Flooded area from 1 m sea level rise from 2020 to 2100

Source: PECC3

VII. GRIEVANCE REDRESS MECHANISM

A. Type of Grievances

177. Any AP can submit a grievance with SPPMB or PTC4 if they believe a practice is having a detrimental impact on the community, the environment, or on their quality of life. Grievances may include:

- Negative impacts on a person or a community (e.g. health and safety issues, nuisances, etc.).
- Dangers to health and safety or the environment.
- Social impacts due to construction activities or impacts on social infrastructure.
- Failure to comply with standards or legal obligations.
- Improper conduct or unethical behavior of Contractor leading to nuisance of AP.

B. Grievance Redress Mechanism

178. A subproject grievance can be defined as an actual or perceived subproject-related problem that gives ground for complaint by an AP. As a general policy, SPPMB (during construction) and PTC4 (during operation) will work proactively toward preventing grievances through the implementation of impact mitigation measures and community liaison activities that

anticipate and address potential issues before they become grievances. Nonetheless, during construction and operation it is possible that unanticipated impacts may occur if the mitigation measures are not properly implemented, or unforeseen issues occur. In order to address complaints, a project grievance redress mechanism (GRM) will be developed in accordance with ADB requirements and Government procedures. The GRM was presented during the consultation meetings.

179. The GRM will be established to provide an effective and transparent channel for lodging complaints and for addressing grievances. The GRM will be established prior to the construction of the subproject and will be maintained during operation and maintenance.

180. For complaints received about the construction works, the SPPMB will involve the Contractor. When these are not resolved, any complaint is then facilitated by the SPPMB through the Environment and Social Unit (ESU) under the Compensation Department. For complaints about the transmission line operation, the PTC4 will act on the complaint. These will be entry points to whom the AP could directly register their complaints. Contact details for the entry point of complaints will be publicly disseminated on information boards at the substations. Mechanisms to contact the point of entry will be through face-to-face meetings, written complaint, telephone conversations, or email.

181. The following are the steps for the GRM: (Figure 9)

Step 1: For complaints occurring during the construction phase, AP can register the complaint directly to the Contractor and the head of the commune by means of contact information prescribed in the information boards at the substation sites. Upon receipt of the complaint, the contractor is required to record/document all complaints and to coordinate with the complainant immediately and to provide mitigation actions to the complaint within two weeks. The Contractor is required to report complaints received, resolved, and unresolved to the SPPMB through the monthly progress report.

Step 2: If the complainant is not satisfied with the action (s) undertaken by the Contractor, the AP can inform the head of the commune about the matter, which will document the complaint in the complaints register. The commune head/authority through the Commune People's Committee will then call a meeting of the complainant, SPPMB-Compensation Department and the Contractor to resolve the complaint. After discussion of the possible solutions, the SPPMB monitors the resolution of the complaint. The Contractor shall be required to report any action to the SPPMB in the monthly project progress reports.

Step 3: If the complainant is not satisfied with the action (s) undertaken at the level of Commune People's Committee, the AP may elevate the case to the district level for resolution.

Step 4: Complaints not resolved at the district level is elevated to the People's Committee at the provincial level for resolution.

Step 5: When the complaint is not resolved at the People's Committee at the provincial level, the complaint is then elevated to the People's Court. The decision of the People's Court becomes the final legal basis for the decision on the complaint.

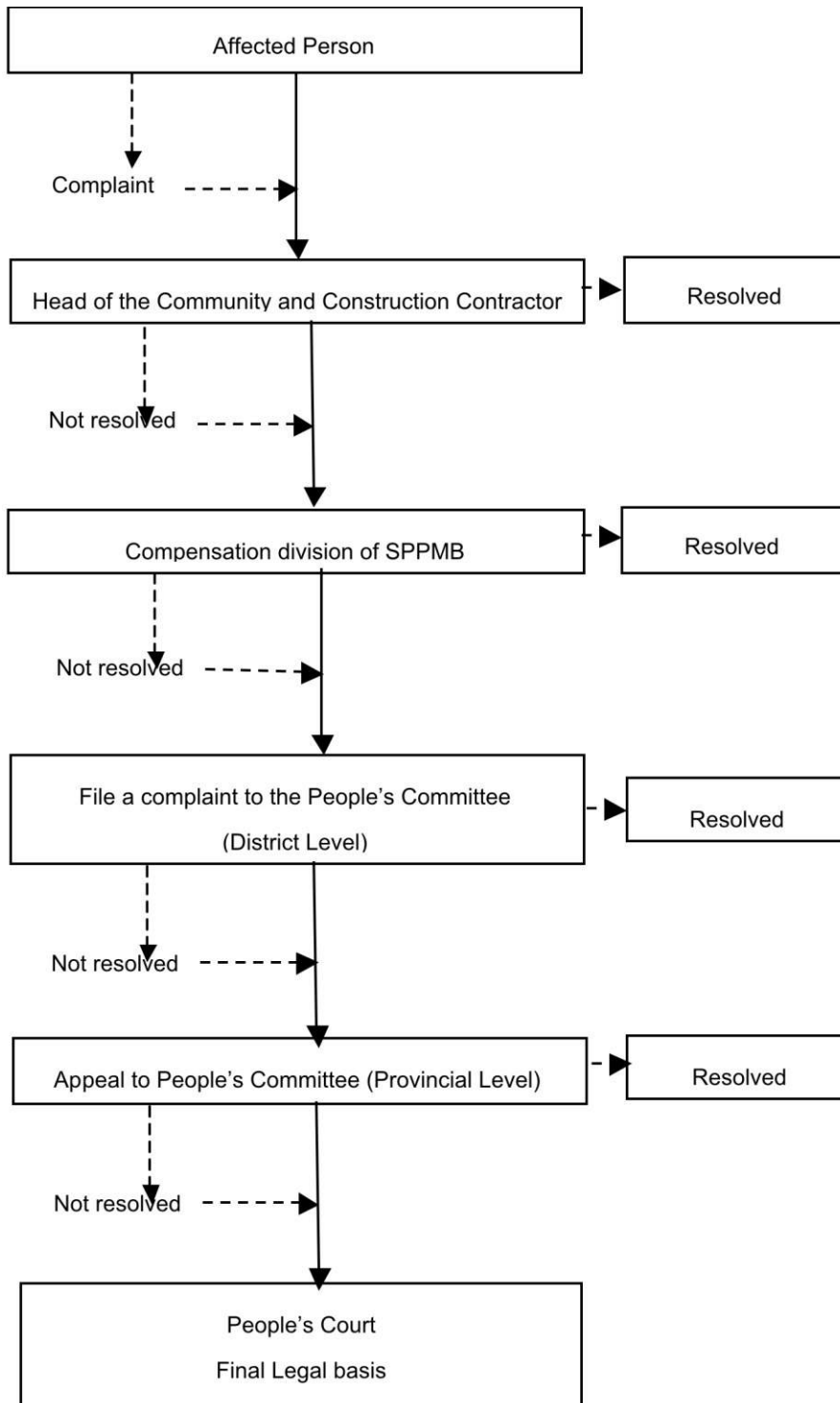


Figure 9: Steps in the Grievance Resolution Process

C. Legal Guarantees for Complaints and Grievances

182. Under the regulations in Viet Nam, APs having complaints or grievances will not be responsible for paying any administrative and legal fees in filing their complaints. Any site clearing is not allowed while the resolution of the complaint is still pending.

183. In cases where the AP is illiterate, the AP can ask assistance from one representative of his household who can then write all the complaints and grievances to be submitted to the district level for resolution.

184. Under the law, all meetings to resolve complaints and grievances will be documented and the minutes of meetings will be disclosed and posted at the Commune People's Committee.

VIII. ENVIRONMENTAL MANAGEMENT PLAN

185. This Chapter presents the mitigation and management measures for the proposed 500kV My Tho - Duc Hoa transmission lines. Information includes the mitigation measures to be implemented, required monitoring associated with the mitigating measures, and the implementation arrangements. The institutional set-up presents the responsibilities during construction and operation phases.

A. Implementation Arrangements

186. The NPT/EVN, SPPMB and PTC4 are the key institutions that will play crucial roles in the implementation of the subproject as well as in ensuring environment safeguards. These institutions will be supported by the Project Implementation Consultant (PIC) and an Environment Monitoring Consultant (EMC). The following are the administrative and environmental management responsibilities of these institutions:

1. National Power Transmission Corporation (NPT) / Viet Nam Electricity (EVN)

187. The NPT of the Viet Nam Electricity is the Executing Agency (EA) for the subproject and the primary point of contact with ADB. The NPT/EVN will assume overall responsibility in implementation and compliance with loan assurances, including all the requirements specified in the EMP.

188. The NPT/EVN will be responsible for the following:

- a) Overall project planning and management, coordination, monitoring and supervision of the project.
- b) Preparation and submission to ADB of progress reports and evaluation reports.
- c) Allocate sufficient budget for EMP implementation and monitoring.

189. In relation to environment safeguards, the NPT/EVN will be responsible for the following:

- a) Monitor, coordinate and supervise that environmental management measures are incorporated in the project design and construction activities of SPPMB and Contractor.
- b) Ensure that the SPPMB has conducted an EIA, prepared an EMP, and secured the necessary environmental clearance and permit for the subproject.

- c) Develop guidelines and capacity development programs for SPPMB and PTC4 in relation to the preparation and implementation of EMP.
- d) Provide training to the SPPMB and PTC4 on ADB SPS (2009), "Environmental, Health, and Safety Guidelines – Electric Power Transmission and Distribution" (IFC), EMP implementation, and grievance redress mechanism.
- e) Identify any environmental issues during implementation and propose necessary corrective actions.
- f) Review the environmental monitoring reports submitted by SPPMB.

2. Southern Power Project Management Board (SPPMB)

190. The SPPMB is the implementing agency (IA) of the subproject during the construction phase. Under supervision of the NPT/EVN, the SPPMB through its implementation unit will be responsible for the field surveys, detailed engineering and design, preparation of bid documents, pre-qualification of bidders, bidding and award of contracts, contract administration and construction supervision, and the testing and handover of facilities.

191. With regard to environment safeguards, the SPPMB through its Environmental and Social Unit (ESU) will be responsible for the following:

- Ensure that environmental management is taken into consideration in the design and construction of the subproject.
- Ensure that the EIA/IEE/EMP and approved environmental clearance are included in the bidding documents and civil works contracts.
- Review and approve Contractors' CEMP and various subplans prepared and to be implemented by Contractors.
- Ensure sufficient funding for implementation of required mitigation and monitoring measures in the EMP throughout the construction phase.
- Provide oversight on the environmental management aspects of the subproject and ensure that Contractors implement the EMPs properly.
- Ensure that the Contractors comply with the GOV environmental rules and regulations.
- Review and consolidate the monthly environmental monitoring reports submitted by construction Contractors for submission to the NPT/EVN on a quarterly basis.

192. Prior to project construction, the SPPMB through the ESU will require the construction Contractor to develop a CEMP that will include sub-plans for air emission and dust control, hazardous chemicals management, waste management, traffic management, and health and safety plan, among others.

193. Specifically, the SPPMB through the ESU will be responsible for the following:

- a) Conduct bid evaluations, including evaluation of completeness of CEMP
- b) Assign a staff within ESU to undertake regular construction site inspections to ensure the proper implementation of the CEMP by the Contractor
- c) Ensure that the project implementation is in accordance to the requirements of the GOV and ADB on environmental management and protection
- d) Ensure that necessary actions and resolution of complaints by communities related to environment are implemented

- e) Ensure the monitoring of environmental parameters specified in the EIA/IEE report through the EMC
- f) Consolidate the monthly monitoring reports prepared by the Contractor and EMC and prepare the quarterly environmental monitoring reports for submission to NPT/EVN.

3. Power Transmission Corporation No. 4 (PTC4)

194. Once the subproject is turned-over by the SPPMB, the PTC4 will act as the subproject implementing unit during the operational phase. The PTC4 will be involved in the day-to-day operations including the monitoring of waste management and health and safety of workers and in ensuring adequate ROW maintenance.

195. Specifically, the PTC4 through its designated Environment Officer will have the following tasks with regards to environment safeguards:

- a) Ensure that environment, health and safety management is taken into consideration during operation.
- b) Ensure overall compliance of the subproject with all GOV environmental rules and regulations.
- c) Through the EMC, conduct tests on environmental parameters such as air quality, wastewater quality, noise, EMF and other parameters outlined in the environmental monitoring plan.
- d) Conduct regular inspections on the implementation of environmental mitigation measures during the operational phase.
- e) Act on community complaints related to the subproject operation.
- f) Prepare and submit quarterly environmental monitoring reports to NPT/EVN and semi-annual environmental monitoring reports to DONRE.

196. The following summarizes the tasks of the key institutions involved in subproject implementation:

Table 29: Responsibilities on Environment Safeguards

Responsible Entity	Project Stage and Environmental Responsibility				
	Project Preparation	Detailed Engineering Design	Tendering and Pre-construction	Construction	Operation
NPT/EVN	The Executing Agency (EA) responsible for overall implementation and compliance with loan assurances and the EMP.				
	<ul style="list-style-type: none"> Ensure that SPPMB has conducted an EIA, prepared an EMP and secured the necessary environmental clearance. 	<ul style="list-style-type: none"> Confirm that mitigation measures have been included in detailed engineering design. 	<ul style="list-style-type: none"> Oversee the procurement process of SPPMB 	<ul style="list-style-type: none"> Review the quarterly project progress reports and quarterly environment monitoring reports of SPPMB. Allocate sufficient budget for EMP implementation and monitoring. 	<ul style="list-style-type: none"> Instruct PTC4 on environment management and monitoring requirements. Allocate sufficient budget for EMP implementation and monitoring. Review quarterly environmental monitoring reports of PTC4 until a Project Completion Report (PCR) is issued.
SPPMB	The Implementing Agency (IA) for the subproject component during the construction phase. The IA will ensure that Contractor implements the CEMP, through regular inspection and monitoring of construction works and environmental mitigation measures.				
	<ul style="list-style-type: none"> Engage consultants to prepare the FS, EIA report, RP. Check alignment of subproject proposal with the Power Development Plan. 	<ul style="list-style-type: none"> Engage consultants to assist SPPMB with the detailed engineering design, preparation of bid documents, pre-qualification of bidders, tender administration, award of 	<ul style="list-style-type: none"> Incorporate EIA/EMP clauses in tender documents and contracts Appoint at least one environment specialist staff from the ESU to review and evaluate the Contractor CEMP. 	<ul style="list-style-type: none"> Supervise Contractors and ensure compliance with the CEMP. Coordinate construction supervision and quality control Coordinate with EMC on environmental monitoring 	

Responsible Entity	Project Stage and Environmental Responsibility				
	Project Preparation	Detailed Engineering Design	Tendering and Pre-construction	Construction	Operation
		<ul style="list-style-type: none"> contracts. Contract administration 	<ul style="list-style-type: none"> Review/approve various plans/subplans prepared and to be implemented by contractors. 	<ul style="list-style-type: none"> according to the environmental monitoring program in the approved CEMP. Review and consolidate monthly environmental monitoring reports submitted by construction Contractors. Submit quarterly environmental monitoring reports to NPT/EVN. Testing and handover of the subproject to PTC4. 	
Contractors			<ul style="list-style-type: none"> Prepare site-specific CEMP containing method statements on implementation of pollution control and mitigation measures listed 	<ul style="list-style-type: none"> Appoint an environment, health and safety (EHS) officer to oversee EMP implementation. Ensure health and safety of workers. Act as the local 	

Responsible Entity	Project Stage and Environmental Responsibility				
	Project Preparation	Detailed Engineering Design	Tendering and Pre-construction	Construction	Operation
			<p>in the EMP.</p> <ul style="list-style-type: none"> • Submit the CEMP to SPPMB/ESU for review and approval. • Ensure sufficient funding for proper and timely implementation of required mitigation and monitoring measures in the CEMP throughout the construction phase. 	<p>entry point for the project GRM.</p> <ul style="list-style-type: none"> • Prepare monthly construction progress and status of implementation of CEMP for submission to SPPMB / ESU. 	
PTC4	The PTC4 will be the IA during the operational phase and will ensure continued implementation of the EMP.				
					<ul style="list-style-type: none"> • Ensure proper operation of the subproject according to design standards. • Act on community complaint (s) related to the project operation. • Undertake regular inspection and environmental monitoring,

Responsible Entity	Project Stage and Environmental Responsibility				
	Project Preparation	Detailed Engineering Design	Tendering and Pre-construction	Construction	Operation
					including ROW maintenance. <ul style="list-style-type: none"> • Submit quarterly environmental monitoring results to EVN/NPT and semi-annual environmental monitoring results to DONRE.
Consultants					
Project Implementation Consultant (PIC) – International and National Consultants (Environment)		<ul style="list-style-type: none"> • Assist in the completion of the detailed subproject designs • Provide technical direction and support to SPPMB/ESU for implementation of EMP 	<ul style="list-style-type: none"> • Work with the SPPMB and Contractor to update the CEMP • Deliver capacity development and training to the SPPMB/ESU 	<ul style="list-style-type: none"> • Assists work of the EHS Officer (EO) of Contractor in implementing CEMP • Provide advise and support to EMC in their monitoring activities • Conduct inspections at the construction sites relative to EMP implementation. • Review reports prepared by Contractors and EMC 	<ul style="list-style-type: none"> • Ensure EMP measures are in-place during commissioning • Deliver capacity development and training to PTC4
Environmental monitoring consultant (EMC)				<ul style="list-style-type: none"> • Field sampling with ESU • Prepare periodic environmental 	<ul style="list-style-type: none"> • Field sampling with Environment Officer of PTC4 • Evaluate compliance

Responsible Entity	Project Stage and Environmental Responsibility				
	Project Preparation	Detailed Engineering Design	Tendering and Pre-construction	Construction	Operation
				monitoring reports and provide copies to SPPMB/ESU.	of subproject with the EMP and determine corrective actions, if necessary. <ul style="list-style-type: none"> • Prepare periodic environmental monitoring reports.

B. Mitigation Plan

The following tables present the environmental mitigation measures to be implemented to address potential adverse impacts of the proposed subproject, according to stages of implementation.

Table 30: Environmental Management Plan during Pre-construction Phase

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
Update of EMP	EMP does not reflect final subproject design	<ul style="list-style-type: none"> - Review mitigation measures defined in this EMP, update as required to reflect detailed design including requirement for additional drainage diversion structures, where necessary. - Include updated EMP in all bid documents. - Review and approve various environmental, health and safety subplans to be implemented by contractors. 	SPPMB	Part of design cost	Include EMP in bid documents and contract
Grievance redress mechanism	Handling and resolving complaints	Establish a GRM	SPPMB	Part of design cost	Include EMP in bid documents and contract
Tender documents and works contracts	Environmental clauses in all tender documents and contracts	Include environmental clauses in the EMP in tender documents and works contracts	SPPMB	Part of design cost	Include EMP in bid documents and contract
Screening of construction sites, transmission line alignment for UXOs	UXO contamination	Demining of areas identified as UXO contaminated.	SPPMB / UXO contractor	Part of pre-construction cost	UXO Clearance

Table 31: Environmental Management Plan during Construction Phase

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
Sediment runoff	Erosion and surface soil runoff Damage to rice fields and irrigation canals	Inspect if runoff of soil flows into nearby rice fields, cropland and irrigation canals. Schedule excavation work during the dry season. Cover stockpile of excavated soil Install silt traps, deviation channels mounting, barriers or trenches around the stock piles.	SPPMB / Contractor	Part of construction management cost	Include EMP in bid documents and contract
Dust emission from the earthworks and movement of vehicles.	Air pollution	Contractor will be required to prepare an Air Emission and Dust Control Plan in the CEMP. Measures to be applied include: <ul style="list-style-type: none"> • Cover and keep moist excavated soil and stockpiles • Regularly maintain vehicles and equipment to ensure emissions comply with standards • Prohibit burning of waste materials. Unauthorized burning of construction materials and refuse shall be subject to penalties for the Contractor. • Inform and educate workers on the Air Emission and Dust Control Plan. • Cover materials with tarpaulin or other suitable materials while in transit. • Impose speed limits on construction vehicles 	SPPMB /Contractor	Part of construction cost	Include EMP in bid documents and contract
Noise and vibration	Noise from vehicles and construction activities	Noise levels from equipment and machinery shall conform to the GOV standard for noise limits and “Environmental, Health, and Safety Guidelines” (IFC) Property maintain machinery to minimize noise No construction shall be allowed between nighttime hours of 22:00 to 06:00 Require drivers of construction vehicles to minimize blowing of horn and limit speed when passing through residential areas.	SPPMB / Contractor	Part of construction management cost	Include EMP in bid documents and contract
Use of hazardous construction chemicals	Spill or leakage of hazardous chemicals which could contaminate land and groundwater	Contractor will be required to prepare Hazardous Chemicals Management Plan in the CEMP. Measures to be applied include: <ul style="list-style-type: none"> • Prepare a list of hazardous chemicals to be brought at the site including information on quantity and hazard 			

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
		classification. <ul style="list-style-type: none"> • Minimize or avoid long storage of hazardous materials onsite. • Comply with the labeling and storage requirements of hazardous chemicals, including provision of MSDS • Conduct refueling and equipment servicing only in designated areas with impervious surface. • Provide oil and grease traps and other spill containment measures. • Contractor to provide readily available clean-up equipment. • Inform and educate workers about the Hazardous Chemicals Management Plan in the CEMP through training and orientation. • Provide workers with PPE. 			
Generation of construction wastes	Domestic solid wastes, domestic wastewater, inert construction wastes, and hazardous wastes during construction may result to pollution of land.	Contractor will be required to prepare Waste Management Plan in the CEMP. Measures to be applied include: <ul style="list-style-type: none"> • Provision of adequate onsite sanitation facilities to prevent untreated sewage from being channeled into drainage canals, river and on land. • Undertake waste reuse and recycling, where possible, and dispose only in approved sites. • Undertake segregation of hazardous and non-hazardous wastes, including properly labeled waste disposal bins. • Instruct workers not to indiscriminately dispose wastes particularly at surrounding areas • Comply with the GOV requirements on hazardous waste labeling, temporary storage, transport, and disposal. • Store hazardous wastes on leak-proof containers with proper label and place on areas with concrete surface and secondary containment. • Contract only accredited company by MONRE for waste collection, transport and disposal. • Prohibit burning of wastes • Conduct refueling and equipment servicing only in designated areas with impervious surface. • Provide oil and grease traps and other spill containment 	SPPMB / Contractor	Part of construction cost	Include EMP in bid documents and contract

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
		<p>measures.</p> <ul style="list-style-type: none"> Contractor to provide readily available clean-up equipment. Inform and education workers about the Waste Management Plan in the CEMP through training and orientation. 			
Traffic hazard and road degradation	Risks to community health and safety and road degradation due to movement of heavy vehicles during transport of materials and equipment.	<p>Contractor will be required to prepare Traffic Management Plan in the CEMP. Measures to be applied include:</p> <ul style="list-style-type: none"> Movement of heavy vehicles to avoid peak hours of local road network, wherever practicable Monitor traffic at access roads Ensure vehicles are maintained regularly Conduct road safety training for drivers Impose speed limits particularly when passing through settlement areas. Rehabilitate damaged sections of roads. Manage traffic by posting warning signs and assigning flag persons to direct traffic on affected roads. 	SPPMB / Contractor	Part of construction cost	Include EMP in bid documents and contract
Damage to crops or income loss from temporary use of land	Transport of materials to tower sites may damage crops and land.	<p>Contractor will discuss with AP to reach a consensus on renting land or compensating crops before preparing access roads.</p> <p>Contractor will be required to restore to original condition the temporary access roads after construction is completed and before it is returned to the AP.</p> <p>Any damaged crops or income loss during the temporary use of land will be compensated by the civil works contractor.</p>	SPPMB / Contractor	Part of construction cost	Include in bid documents and contract
Occupational health and safety	Workers may be exposed to dangers of live power lines/equipment, chemicals, fire and explosion, physical hazards, exposure to dust and noise, falling objects, and ergonomic injuries	<p>Contractor will be required to prepare Health and Safety Plan in the CEMP. Measures to be applied include:</p> <ul style="list-style-type: none"> Implementation of electrical safety plan, fire prevention, safety and management plan, education and awareness plan for HIV/AIDS and other diseases Covering energized parts and hardware Ensuring live-wire work is conducted by trained and certified workers with strict adherence to specific safety and insulation standards. 	SPPMB / Contractor	Part of construction cost	Include EMP in bid documents and contract

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
		<ul style="list-style-type: none"> • Require workers to adhere to local legislation, standards and guidelines relating to minimum approach distances for excavations, tools, vehicles, pruning, and other activities in the ROW. • Implement fall protection systems that includes provision of hoisting equipment, safety belts, second (backup) safety strap for workers • Conduct training of workers in the identification of occupational hazards • Provision of first-aid facilities readily accessible by workers • Posting of safety signs, reminders or warning notices • Hire only trained and certified workers on electrical works • Plan work site layout to minimize need for manual transfer of loads • Provide appropriate and accessible fire fighting equipment • Ensure unobstructed access of fire responders and egress of vehicles • Provide security personnel in areas where appropriate • Strictly implement a “No Alcohol and Drug Policy” • Prohibit illegal activities including gambling • Inform and educate workers on the Health and Safety Plan. 			
Community health and safety	Nuisances and hazards due to construction traffic, transport of materials, fires, emergency spill of materials, and unauthorized entry of villagers into dangerous working areas	<p>Contractor will be required to develop a CHSP in the CEMP that includes:</p> <ul style="list-style-type: none"> • Conduct public consultation with affected communities and disseminate information on community health and safety • Emergency response and preparedness procedures • Provision of communication systems and protocols • Coordination with local and regional emergency and health authorities • Provision of emergency equipment and facilities • Fencing of the construction area • Posting of warning signs in dangerous work areas in Vietnamese language. 	SPPMB / Contractor	Part of construction cost	Include EMP in bid documents and contract

Table 32: Environmental Management Plan during Operational Phase

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
Cutting or trimming of trees and vegetation	Removal of vegetation may result in continuous replacement of successional species and an increased likelihood of growth of invasive species.	<p>Minimize tree cutting through selective tree cutting or bush clearing.</p> <p>Only trees affecting conductor clearance will be trimmed or removed as necessary.</p> <p>Avoid tree cutting below the minimal height requirement of 6 m.</p> <p>Avoid use of herbicides and maintain naturally low-growing vegetation in ROW.</p>	PTC4 thru the Environment Officer	Part of the operational cost	
Occupational health and safety	Exposure of workers to hazards due to exposure to live power lines and high voltage systems, working in heights, fires, explosion, and potential exposure to EMF.	<p>All workers will be required to undergo orientation on security and EHS procedures and to strictly follow these guidelines when inside the premises of the T/L.</p> <p>Only authorized and trained personnel will be allowed to work or have access to electrical equipment.</p> <p>Adhere to electrical safety standards.</p> <p>Provide proper grounding and deactivation of live power equipment during maintenance work or if working in close proximity to equipment.</p> <p>Provide PPE for workers</p> <p>Observe guidelines to minimum approach distances when working around operational equipment.</p> <p>Identify potential exposure levels in work area including surveys of exposure levels and establish safety zones at the T/L.</p> <p>Post safety reminders and warning signs.</p> <p>Warn personnel of potential electric arc flash hazards when inspecting or working with energized equipment.</p> <p>Comply with “Environmental, Health, and Safety</p>	PTC4 thru the Environment Officer	Part of the operational cost	Health and safety guidelines

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
		Guidelines – Electric Power Transmission and Distribution” (IFC)			
Generation of hazardous waste	Potential oil spill from maintenance or retrofitting of equipment and accidental spills of hazardous waste may contaminate soil and groundwater.	.Provide secondary containment with impervious bund around oil storage areas in substations and maintenance yard. Provide a hazardous waste storage area in substations. Undertake labeling of hazardous wastes Register all generated hazardous waste with MONRE and regularly report storage and disposal measures.	PTC4 thru the Environment Officer	Part of the operational cost	Hazardous waste storage area Registration of hazardous waste with MONRE Reports of hazardous waste generated, stored and disposed.
Emergencies and accidents	Possible fire events, explosion of equipment, lighting strikes, damage to cables, and corrosion of equipment may result to emergency situations at the T/L	Install lightning arresters at the transmission lines. Relocate 73 houses away from the ROW Provide the AP within 16-60 m earthing zone with lightning arresters. Ensure security of cables and equipment Conduct regular inspection of facilities to identify missing or corroded parts Implement the fire management program that includes adequate fire protection equipment, fire suppressants, fire water tank, and fire extinguishers within substations. Conduct training of workers on emergency preparedness and response procedures.	PTC4 thru the Health and Safety Officer	Part of the operational cost	Manual on safety and emergency procedures for the T/L operation
Community health and safety	Community risks due to exposure to electrocution hazards, direct contact with high voltage electricity, exposure to EMF	Regularly check compliance of T/L with safety clearances Conduct monitoring of EMF levels along the ROW Provision of warning signs at transmission towers Grounding of conducting objects such as fences or other metallic structures near power lines	PTC4 thru the Health and Safety Officer	Part of the operational cost	

C. Monitoring Plan

197. Monitoring reports as required by DONRE will be prepared by the EMC and copies of these reports shall be provided to SPPMB/ESU and PTC4 for evaluation and review and submission to EVN/NPT. The following tables present the proposed environmental monitoring plan of the subproject during the pre-construction, construction and operations phases.

Table 33: Environmental Monitoring Plan during Pre-Construction Phase

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
Air quality (baseline)	PM ₁₀ , TSP, SO _x , NO _x , CO	1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province) 2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province) 4: Residential area (Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)	24-hours continuous ambient air sampling and laboratory testing; compare results with QCVN 05:2013/BTNMT	One baseline measurement before construction phase starts	EMC	SPPMB / ESU
Groundwater quality (baseline)	pH, hardness, ammonia, COD, chloride	1: Household of Tran Van Nam (My Loi Village, Phuoc Lap Commune, Tan Phuoc District, Tien Giang Province) 2: Household of Nguyen Thi Hoa (Village 1A, Huu	Sampling and laboratory testing	One baseline measurement before construction phase starts	EMC	SPPMB / ESU

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
		Thanh Commune, Duc Hoa District, Long An Province) 3: Vicinity of hazardous/toxic material storage site or spills				
Surface water (baseline)	pH, temp, COD, BOD, TSS, Total P, Total N, total coliform	1:Vam Co Dong River (Huu Thanh Commune) 2:Vam Co Tay River (Long Thuan Commune) 3:Tributary/Canal (My Loi Village) 4: Tributary/Canal (Hung Village)	Sampling and laboratory testing; compare results with QCVN 08:2008/BTNMT, column B1)	One baseline measurement before construction phase starts	EMC	SPPMB / ESU
Noise (baseline)	Noise levels, dB	1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province) 2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province) 4: Residential area (Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)	Use noise meter; compare results with QCVN 26:2010/BTNMT	One baseline measurement before construction phase starts	EMC	SPPMB / ESU

Table 34: Environmental Monitoring Plan during Construction Phase

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
ROW vegetation management	Monitor vegetation clearing technique	Along ROW	By observation	During clearing works	EMC	SPPMB/ESU
Relocation of houses within ROW	73 houses within ROW	Along ROW	By inspection	During ROW preparation	EMC	SPPMB/ESU
Earthing of 148 houses and other structures within earthing zone	148 houses and other structures	Within the 16 – 60 m from center line (Both sides)	By inspection	During ROW preparation	EMC	SPPMB/ESU
Groundwater quality	pH, hardness, ammonia, COD, chloride	1: Household of Tran Van Nam (My Loi Village, Phuoc Lap Commune, Tan Phuoc District, Tien Giang Province 2: Household of Nguyen Thi Hoa (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Vicinity of hazardous/toxic material storage site or spills	Sampling and laboratory testing	Quarterly If leaks are detected, conduct monthly sampling until acceptable levels are reached. Afterwards conduct annual sampling.	EMC	SPPMB / ESU
Surface water	pH, temp, COD, BOD, TSS, Total P, Total N, total coliform	1:Vam Co Dong River (Huu Thanh Commune) 2:Vam Co Tay River (Long Thuan Commune) 3:Tributary/Canal	Sampling and laboratory testing; compare results with QCVN 08:2008/BTNMT, column B1)	Quarterly	EMC	SPPMB / ESU

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
		(My Loi Village) 4: Tributary/Canal (Hung Village)				
Runoff and sedimentation and soil erosion	Runoff and sediments	Construction sites	By observation	Once a month and during and after heavy rain	EMC	SPPMB/ESU
River bank erosion (at crossings)	River bank erosion/deterioration along edges of surface water	1:Vam Co Dong River (Huu Thanh Commune) 2:Vam Co Tay River (Long Thuan Commune) 3:Tributary/Canal (My Loi Village) 4: Tributary/Canal (Hung Village)	By observation	Once a month and during and after heavy rain	EMC	SPPMB/ESU
Wastewater quality	pH, TSS, BOD, nitrate, phosphate, coliform	Construction camp discharge point	Sampling and laboratory testing; compare results with QCVN 14:2008/BTNMT, column A)	Quarterly	EMC	SPPMB / ESU
Air quality	PM ₁₀ , TSP, SO _x , NO _x , CO	1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province) 2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province) 4: Residential area	24-hours continuous ambient air sampling and laboratory testing; compare results with QCVN 05:2013/BTNMT	Quarterly	EMC	SPPMB / ESU

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
		(Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)				
	Dust generation, stockpile of bare soil, exhaust gases from equipment/vehicles and complaints	Construction site	Inspection and checking of implementation of air emission and dust control plan Check validity of operating permit before vehicle/equipment can be used on site	Daily	EHS Officer of Contractor	SPPMB / ESU
	Dust	Local road and village nearby where trucks pass through and construction sites	Monitor and inspect dust condition in areas that are sprayed with water. Conduct interviews with villagers on comments on dust pollution	Weekly, continuous throughout construction period	EHS Officer of Contractor	SPPMB / ESU
Access road restoration	Monitor restoration of temporary access roads after construction	Access roads near Vam Co Dong river and Vam Co Tay River	Inspection	After construction	EHS Officer of Contractor	SPPMB / ESU
Noise	Noise levels, dB	1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province) 2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province)	Use noise meter; compare results with QCVN 26:2010/BTNMT	Daily or everytime high-noise generating equipment is used	EMC	SPPMB / ESU

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
		4: Residential area (Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)				
	Mufflers, noise barriers, complaints	Construction site	Inspection and checking of noise management	Daily	EHS Officer of Contractor	SPPMB / ESU
	Noise complaints	Local road and village nearby where trucks pass through	Monitor noise during delivery of materials which is allowed only at daytime hours Conduct interviews with villagers on concerns about noise and vibration	Weekly, continuous throughout construction period	EHS Officer of Contractor	SPPMB / ESU
Vibration	Vibration	K1: Substation, Hoa Khanh Dong commune K2: 500kV T/L at My Hanh Nam commune, Duc Hoa K3: Km35, N825, Hau Nghia, Duc Hoa (connection line 1) K4: Thanh Loi commune, Ben Luc (connection line 2) K5: Thanh Duc commune, Ben Luc (connection line 2)	Use vibration meter; compare results with QCVN 27:2010/BTNMT	Daily or everytime high-vibrating equipment is used	EMC in coordination with EHS Officer of Contractor	SPPMB / ESU
	Vibration complaints	Local road and village nearby where trucks pass through	Monitor vibration during delivery of materials which is allowed only at daytime hours Conduct interviews with villagers on concerns about noise and vibration	Weekly, continuous throughout construction period	EHS Officer of Contractor	SPPMB / ESU

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
Waste management	Domestic waste, hazardous waste, inert construction waste, presence of leaks/spills and complaints	Construction site and at adjacent rice fields and irrigation canals	Inspection and checking of waste management and hazardous chemicals / waste management	Daily	EHS Officer of Contractor	SPPMB / ESU
Traffic management	Traffic congestion, delivery schedule, and complaints	Construction site and access roads	Site inspection and random interviews with residents along roadsides	Daily at construction site Monthly spot interviews with residents	EHS Officer of Contractor	SPPMB / ESU
	Damage to road transportation infrastructure	Access roads	Monitoring and inspect road condition and measures used to protect road and ensure public safety	Weekly, continuous throughout construction period	EHS Officer of Contractor	SPPMB / ESU
Occupational health and safety	Implementation of occupational health and safety plan, wearing of PPEs, safety reminders, sanitation at construction area, training/orientation on safety	Construction site	Review and audit implementation of Contractor/construction worker health and safety plan and training activities on health and safety	At least monthly review of Contractor's health and safety plan	EHS Officer of Contractor	SPPMB / ESU

Table 35: Environmental Monitoring Plan during Operational Phase

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
ROW vegetation maintenance	ROW vegetation maintenance including cutting o trees taller than 6 m.	Along ROW	By observation	Once a month	EMC in cooperation with Environment Officer of T/L	PTC4
ROW permitted activities	Check permitted activities within ROW	Along ROW	By observation	Once a month	EMC in cooperation with Environment Officer of T/L	PTC4
Groundwater quality	pH, hardness, ammonia, COD, chloride	1: Household of Tran Van Nam (My Loi Village, Phuoc Lap Commune, Tan Phuoc District, Tien Giang Province 2: Household of Nguyen Thi Hoa (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Vicinity of hazardous/toxic material storage site or spills	Sampling and laboratory testing	Every 6 months If leaks are detected, conduct monthly sampling until acceptable levels are reached. Afterwards conduct annual sampling.	EMC in cooperation with Environment Officer of T/L	PTC4
Surface water	pH, temp, COD, BOD, TSS, Total P, Total N, total coliform	1:Vam Co Dong River (Huu Thanh Commune) 2:Vam Co Tay River (Long Thuan Commune) 3:Tributary/Canal (My Loi Village) 4: Tributary/Canal (Hung Village)	Sampling and laboratory testing; compare results with QCVN 08:2008/BTNMT, column B1)	Every 6 months	EMC	PTC4
Sediment quality	Heavy metals	1:Vam Co Dong River (Huu Thanh Commune) 2:Vam Co Tay River (Long Thuan Commune)	Sampling and laboratory testing; compare results with QCVN 08:2008/BTNMT, column B1)	Once prior to operation and then annually	EMC	PTC4

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
Air quality	PM ₁₀ , TSP, SO _x , NO _x , CO	1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province) 2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province) 4: Residential area (Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)	24-hours continuous ambient air sampling and laboratory testing; compare results with QCVN 05:2013/BTNMT	Every 6 months	EMC in cooperation with Environment Officer of T/L	PTC4
Noise	Noise levels, dB	1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province) 2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province) 4: Residential area (Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)	Use noise meter; compare results with QCVN 26:2010/BTNMT	Every 6 months	EMC in cooperation with Environment Officer of T/L	PTC4

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
Electromagnetic field (EMF)	EMF, kV/m	1: Highway No. 62 (Thanh Loi Commune, Ben Luc District, Long An Province) 2: Residential area (Village 1A, Huu Thanh Commune, Duc Hoa District, Long An Province) 3: Provincial road No. 685 (My Phuoc Commune, Tan Phuoc District, Tien Giang Province) 4: Residential area (Bac B village, Diem Hy Commune, Chau Thanh District, Tien Giang province)	EMF meter; compare results with Decree 14/2014/NDD-CP and Table 1 (ICNIRP Exposure limits for general public exposure to and magnetic fields) and Table 3 (ICNIRP exposure limits for occupation exposure to electric electric and magnetic fields) of EHS Guidelines for Electric Power Transmission System	Every 6 months	EMC in cooperation with Environment Officer of T/L	PTC4
Waste management	Waste segregation, presence of leaks/spills, quantity of hazardous waste stored onsite and collected by third party HW treater, HW labels	Domestic waste segregation and disposal area Temporary hazardous waste storage area	Inspection and checking of domestic waste management and hazardous chemicals / waste management Check hazardous waste manifest and permits	Daily	EMC in cooperation with Environment Officer of T/L	PTC4
Occupational health and safety	Implementation of occupational health and safety plan, wearing of PPEs, safety reminders, training/orientation on safety, annual emergency and fire drill, accidents] along T/L	Substations and T/L	Review and audit implementation of worker health and safety plan; training activities on health and safety; emergency and fire drill	At least monthly review of T/L's health and safety plan implementation	EMC in cooperation with Health and Safety Officer of T/L	PTC4

D. Reporting

198. **Construction Phase.** Throughout the construction period, the Contractor will submit monthly progress reports to SPPMB through the ESU while the SPPMB will submit quarterly reports to the NPT/EVN. The quarterly reports of SPPMB will consolidate the monthly reports submitted by the Contractor and will highlight a summary of the progress of construction, results of site inspections, progress made in EMP implementation, status of compliance with GOV environmental regulatory requirements, record of community complaints, unforeseen environmental impacts and suggested remedial actions for the next monitoring period.

199. The ESU will supervise and validate the implementation of the mitigation measures specified in the EMP through site visits once a month or more frequently as necessary and review of EMP implementation reports of the Contractor. The SPPMB will also coordinate environmental monitoring in accordance with the monitoring plan and prepare the quarterly environmental monitoring reports in English to be submitted to NPT/EVN.

200. Once the monthly reports from the Contractor are received by the SPPMB, these will be reviewed by the ESU under the Compensation Department relative to subproject compliance with the indicators defined in the EMP. Likewise, environmental monitoring reports prepared and submitted by the EMC shall be reviewed by SPPMB/ESU for inclusion in the quarterly environmental monitoring reports to be submitted to EVN/NPT.

201. **Operational Phase.** The EMP monitoring during the operational phase of a subproject will continue through a contracted EMC. The environmental monitoring report shall contain the project's adherence to the EMP, information on project implementation, and environmental compliance. The operation and performance of the project environmental institutional strengthening and training, and compliance with the EMP and EMoP and other environmental requirements of the GOV.

202. The following presents the reporting plan.

Table 36: EMP Reporting Plan

Type of Report	Basic Content	Prepared by	Submitted to	Frequency
Construction Phase				
Construction progress report	Progress of construction, including EMP monitoring results	Contractors	SPPMB	Monthly
Environmental Monitoring Report	Progress of construction, EMP implementation, environmental monitoring, compliance with GOV environmental requirements, complaints received and actions undertaken	SPPMB	NPT/EVN	Quarterly until project completion report (PCR)
Reports to ADB	Subproject progress report, including section on EMP implementation and monitoring	NPT/EVN	ADB	As provided in the legal agreements
Operational Phase				
Environmental monitoring report	Subproject progress report, EMP implementation and monitoring	EMC	PTC4	Quarterly
Reports to DONRE	Subproject progress report, EMP implementation and monitoring	PTC4	DONRE	Semi-annual

203. EA/IA will prepare and submit periodic environment monitoring reports to ADB as provided in the legal agreements (at the minimum on a semi-annual basis during the construction stage and on an annual basis during the operation stage). The monitoring reports will be disclosed on ADB website upon receipt by ADB following the ADB Public Communications Policy (2011).

E. Environmental Management and Monitoring Costs

204. The cost for the environmental safeguard activities, i.e. environmental assessment, review, and monitoring, for the subproject will be primarily borne by NPT/EVN and SPPMB, as subproject proponent. The indicative cost is presented in Table 36.

Table 37: Activities and Indicative Cost for Environmental Management for 500kV My Tho - Duc Hoa Transmission Lines

Activity Type	Estimated Cost (USD)
Pre-construction Phase	
Updating EMP	\$1,000.00
Baseline environmental quality monitoring	\$4,000.00
Construction Phase	
Environmental quality monitoring	\$18,000.00

Public consultation	\$1,000.00
Training and capacity development of SPPMB / ESU Orientation of Contractors on EHS	\$3,000.00
Operation Phase	
Environmental quality monitoring	\$8,000.00
Training and capacity development of PTC4 / EHS Officers	\$4,000.00
Total	\$39,000.00

IX. CONCLUSION AND RECOMMENDATIONS

205. The environment assessment process has highlighted the environmental issues and concerns on the proposed 500kV My Tho - Duc Hoa transmission lines. The assessment has considered that the subproject would result to improvements in the current power supply situation in Tien Giang, Long An and nearby provinces. The anticipated impacts are not expected to cause irreversible and significant adverse environment impacts and that these impacts are manageable by appropriate and conventional mitigation measures. Therefore, the subproject category is confirmed as B for environment based on ADB Safeguard Policy Statement (SPS, 2009).

206. Based on the assessment of environmental impacts, the anticipated negative impacts which have to be considered during project design and implementation are mainly related to construction activities such as health and safety of workers, waste generation, traffic hazard, fugitive dust and exhaust emissions, noise and vibration, and general construction hazards, among others. Construction activities may also generate impacts and damage on adjacent rice fields, irrigations canals and along commune access roads to the site. These can be generally reduced to acceptable levels through practical mitigation measures associated with good engineering practices and also with proper coordination with affected stakeholders. Recommendations formulated in the EMP and its inclusion in the construction contract documents will reduce these impacts to an acceptable level.

207. During the operation of the transmission lines, the main impacts identified are hazards to occupational and community health and safety and generation of hazardous waste materials. These impacts are manageable with proper implementation of the health and safety guidelines. In the EMP, it is recommended that management of the transmission lines will continually review, update and upgrade its Occupational Health and Safety Plan including the Emergency Response Plan to prevent occupational risks. Refresher trainings are also recommended for employees in the aspect of engineering safety and emergency response preparedness.

208. In general, the results of the IEE show that the proposed subproject will not result to significant adverse environmental impacts. Environmental mitigation measures have been designed as outlined in the subproject EMP to address any adverse impacts during the various phases of project implementation. The EMP also presents the institutional responsibilities for implementing the mitigation measures.

APPENDIX 1: RAPID ENVIRONMENTAL ASSESSMENT CHECKLIST

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by the Director, RSES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:	VIE: Power Transmission Investment Program MFF Tranche 3 Subproject: 500kV My Tho - Duc Hoa Transmission Lines
Sector Division:	SEEN

Screening Questions	Yes	No	Remarks
A. Project siting Is the project area adjacent to or within any of the following environmentally sensitive areas?			
Cultural heritage site		X	No cultural or historical heritage sites are affected.
Protected area		X	The transmission line does not cross any protected areas.
Wetland		X	The transmission line does not cross any wetland areas.
Mangrove		X	Not applicable.
Estuarine		X	The transmission line does not cross any estuarine areas.
Buffer zone of protected area		X	The project does not intrude into the bufferzone of any protected area.
Special area for protecting biodiversity		X	The project does not cross any special areas that have been set aside for protecting biodiversity.
B. Potential Environmental Impacts Will the project cause			
Encroachment on historical/cultural areas, disfiguration of landscape and increased waste generation?		X	The project will not cut through the temples and cemetery. The Contractors will manage and ban their workers from encroaching into these sites. The Project owner and Contractors will strictly implement mitigation measures in construction phase.
Encroachment on precious ecosystem (e.g. sensitive or protected areas)?		X	No access roads nor the transmission line RoW will increase access to any precious ecosystems.
Alteration of surface water hydrology of waterways crossed by roads and resulting in increased sediment in streams affected by increased soil erosion at the construction site?		X	The transmission line crosses Vam Co Tay, Vam Co Dong rivers at section of G5-G6 and G9D – G10A respectively and several canals. The highest towers will be located in the river crossings and no towers erected within the rivers and canals. The tower foundations are constructed far from banks of rivers and canals about 100 m. Therefore no changes in surface water hydrology will occur.
Damage to sensitive coastal/marine habitats by construction of submarine cables?		X	Not applicable

Screening Questions	Yes	No	Remarks
Deterioration of surface water quality due to silt runoff, sanitary wastes from worker-based camps and chemicals used in construction?		x	Work will be undertaken along the whole route using three separate construction groups. Each group has about 60 workers and due to the proximity of residential areas the workers will be housed within established facilities. The overall impact on water quality is assessed to be minor and of short duration and can be mitigated. Mitigation measures will be implemented.
Increased local air pollution due to rock crushing, cutting and filling?		x	Low level. There is no rock crushing, cutting in the project. However, rock is used to mix concrete and filled into 112 tower foundations that are mostly located in fields of rice, pineapples, lemon tree garden with high moistures in excavated soil with low density of operating machines at one site. Increase in local air pollution will be low and mitigated by proposed measures.
Risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation?		x	There are limited risks during construction and operation. In construction phase, these particularly apply to constructing tower foundations, erecting towers, lifting and stringing the conductors, therefore no chemical, biological and radiological hazards will occur. The construction companies are required to be experienced in these procedures and in providing accepted best practices during construction, which will not increase the risk of accidents. During operation phase, Decree No.14/2014/ND-CP dated 26 February 2014 regulation on safety in power projects will be strictly applied.
Chemical pollution resulting from chemical clearing of vegetation for construction site?		x	The project will not use chemicals in site clearance process. The towers are galvanized and no paint will be used.
Noise and vibration due to blasting and other civil works?		x	Tower foundations will be excavated by hand in residential areas or by machines in rural locations. Blasting will not be required as all areas are covered by deep depositional soils.
Dislocation or involuntary resettlement of people?		x	The project affects mainly on agricultural land and several houses located within the RoWs preparatory to cross the rivers, canals and roads, which need to be relocated. Required resettlement and compensation for land loss is addressed by RP for subproject.
Dis-proportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		x	The area is intensively settled and no minority groups are affected in this homogenous society. Compensation support policies will be applied for any vulnerable persons affected by project, which will be developed by the subproject RP.
Social conflicts relating to inconveniences in living conditions where construction interferes with pre-existing roads?		x	While the conductors will need to be strung across existing roads due to the extensive road networks in the area alternative access is available. Conductor will be carried across roads on specially built gantries that will prevent the conductor sag obstructing traffic flow. There will only be limited interference with traffic flow and effectively mitigation measures will be required to be implemented in period of the construction.
Hazardous driving conditions where construction interferes with pre-existing roads?	x		The roads in the area are already heavily used and increased construction access will be minimal and of short duration.
Creation of temporary breeding habitats for vectors of disease such as mosquitoes and rodents?		x	Construction will occur during the dry season and this is not considered to be an issue.
Dislocation and compulsory resettlement of people living in right-of-way of the power transmission lines?		x	Vietnamese regulation for high voltage network safety, requires all houses and structural works within the 32 m wide RoW for 500 kV T/L to be relocated.

Screening Questions	Yes	No	Remarks
Environmental disturbances associated with the maintenance of lines (e.g. routine control of vegetative height under the lines)?		x	No tree with height higher than 6 m under transmission line;
Facilitation of access to protected areas in case corridors traverse protected areas?		x	No protected areas within 10 km of the project area
Disturbances (e.g. noise and chemical pollutants) if herbicides are used to control vegetative height?		x	No herbicides will be used to control vegetative height
Large population influx during project construction and operation that cause increased burden on social infrastructure and services (such as water supply and sanitation systems)?	x		Work will be undertaken along the whole route by three separate construction groups. Each group has about 60 workers and construction at each tower is expected be completed within 10-20 days. Workers will be recruited from surrounding communities. There will be limited impact on social infrastructure.
Social conflicts if workers from other regions or countries are hired?		x	No impact. All workers are Vietnamese. Workers from other regions or countries are not hired.
Poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases from workers to local populations?	x		Construction camps will not be needed. Similarly with workers returning to their villages at night there are limited opportunities for sexually transmitted diseases.
Risks to community safety associated with maintenance of lines and related facilities?	x		PTC4 will undertake maintenance of the transmission lines. These companies are well experienced and skilled in line and RoW maintenance. Herbicides will not be used in vegetation control
Community health hazards due to electromagnetic fields, land subsidence, lowered groundwater table, and sanitization?		x	Minor impact on the community health due to electromagnetic fields because the tower height has been designed to provide a minimum height that will minimize the EMF effects. Decree 14/2014/ND-CP established the minimum safety distances for high voltage lines and prescribes the signage to be placed around high voltage grids. During operation the conductors will produce a corona noise but as this will be 52 - 79 m above ground, the noise effect is reduced. No land subsidence, lowered groundwater table, and sanitation problems will be managed through appropriate measures.
Risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation?	x		There is a slight risk that accidents could happen but it is not expected to be significant. Explosives will not be used as there is no rock in this location.
Community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project (e.g., high voltage wires, and transmission towers and lines) are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	x		The project is designed to withstand natural hazards and regular maintenance will reduce the risk of major avoidable issues. According to Decree No 14 for 500KV transmission line, no houses and structures will not be allowed within 32 m wide of the RoW, the land under the RoW is limited in cultivation. PTC4 will be required to maintenance the transmission line and safety distances along and under the RoW to ensure safety for community health. The local communities are already well aware of the dangers of electricity. Towers will also be fitted with anti-climbing devices. Decommissioning will not present any unusual hazards.

A Checklist for Preliminary Climate Risk Screening

Country/Project Title: VIE: Power Transmission Investment Program MFF Tranche 3

Subproject: 500kV My Tho - Duc Hoa Transmission Lines

Sector :Energy

Subsector:

Division/Department: SERD

Screening Questions		Score	Remarks ¹⁹
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	0	ROW of the T/L avoided flood-prone areas.
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	The design of the T/L considered the peak wind speed, projected extreme temperatures and rainfall patterns and flooded areas.
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	The project inputs will not be affected by climate conditions.
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output (s)?	0	Not applicable. Maintenance works can be scheduled any time.
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output (s) (e.g. hydro-power generation facilities) throughout their design life time?	0	Project outputs and goals will remain the same.

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

Result of Initial Screening (Low, Medium, High): LOW

Other

Comments: _____

Prepared by: _____

¹⁹ If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

APPENDIX 2: MINUTES, ATTENDANCE AND PHOTO OF CONSULTATION MEETING

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc

Xã Hùng Thạnh, Ngày 18 tháng 3 năm 2015

BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

Tiêu dự án: ...Đường dây 500KV My Tho, Duc Hoa
Phường/Xã: Hùng Thạnh, Quận/Huyện: Tân Phú Thành phố: Tiền Giang

1. Thành phần tham dự

- Ông/Bà... Võ Văn Tiến Chức vụ: Bí thư Đảng ủy xã
- Ông/Bà... Nguyễn Văn Giáp Chức vụ: Chủ tịch UBND xã
- Ông/Bà... Phạm Công Vũ Chức vụ: P. Chủ tịch UBND xã
- Ông/Bà... Trương Thành Tông Chức vụ: CT MTĐ xã
- Ông/Bà... Trần Thị Phương Chức vụ: CT Hội Phụ Nữ xã
- Ông/Bà... Phạm Ngọc Xuân Chức vụ: CT Hội Nông Dân xã
- Đại diện những người bị ảnh hưởng: người (chi tiết xem danh sách đính kèm)

2. Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- Tư vấn môi trường trình bày về: Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

(1) Chủ dự án (nhà thầu thi công) cần muốn/muốn thuê đất lâu dài trong tay vào quy trình, bảo vệ kết quả vật liệu thi công, bởi không thể hai và hoặc tạo mặt bằng xây dựng? Sau khi hoàn thành thi công.

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

- (i) Chú ý đến (nhờ nhà thi công) cần che chắn đất đai đào móng trụ, tránh tưới nước bết ướt gây ảnh hưởng đến cây cối, hoa màu và môi trường xung quanh.
- (ii) Chú ý an toàn phối hợp với địa phương để đưa ra lộ trình thi công hợp lý, tránh thi công vào mùa mưa và tránh khu vực (đường) của nhân dân.
- (iv) Ngoài ra, chủ đầu tư cần quan tâm đến việc hạn chế các tác động môi trường tiêu cực khác như đào đắp công cộng, vệ sinh môi trường, an toàn nổ kho bãi của công trình.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- (i) Người dân mong muốn làm rõ các vấn đề hạn chế sử dụng đất dưới đường điện.
- (ii) Nhìn chung nông dân và chủ quyền địa phương ủng hộ DA công trình quốc gia. Tuy nhiên đề nghị chủ đầu tư có các phng án bồi thng hỗ trợ một cách thỏa đáng, do tác động tới đất đai và cây cối hoa màu.
- (iii) Chủ đầu tư DA cần cân nhắc xem xét giám sát các vấn đề ảnh hưởng trong phát sinh trong giai đoạn thi công, bồi đất đai và hoa màu của người dân đảm bảo hoàn trả mặt bằng, bồi thng hỗ trợ các tác động tạm thời và vĩnh viễn.
- (iv) Có một số ý kiến thắc mắc về diện tích đất còn lại không sử dụng được, ko hiệu quả kinh tế, ng BATH đề nghị cân nhắc thu hồi nốt.



TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

4. Kết luận

- Nhìn chung, chính quyền địa phương và người dân đồng ý và chủ trương đầu tư Triển Dự án, sẽ sẵn sàng phối hợp hỗ trợ để Dự án được thi công và hoàn thành đưa vào sử dụng hiệu quả. Chủ Dự án đã ghi nhận các ý kiến phản hồi của người dân về các vấn đề môi trường và xã hội, và sẽ có các giải pháp phù hợp, khắc phục các vấn đề.

Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã



Bà Nguyễn Duyên



Nguyễn Văn Minh



TA-7742 VIE: Power Transmission Investment Program (MFF)
 CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ

LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ

Date (Ngày tháng): 18/03/2015
 Location (địa điểm): Xã Hưng Thạnh - Huyện Tân Phú - Tỉnh Tây Ninh

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Vũ Văn Tuấn	-	-	Bí thư Đảng ủy	Hưng Thạnh	[Signature]
2	Lê Văn Xê	-	-	CBHT	"	[Signature]
3	Nguyễn Văn Minh	-	-	CT UBND xã	Hưng Thạnh	[Signature]
4	Phạm Công Minh	-	-	PCT HĐND xã	"	[Signature]
5	Phạm Thế Hoàn	-	-	CT Hội ND	"	[Signature]
6	Nguyễn Văn Hùng	-	-	CT xã CB	"	[Signature]
7	Thẩm Trọng Trung	-	-	BT ĐT TG	"	[Signature]
8	Trần Chí Nghiệp	-	-	NBAH	"	[Signature]
9	Ngô Quang Tuấn	-	-	"	"	[Signature]
10	Nguyễn Minh Châu	-	-	"	"	[Signature]
11	Đỗ Văn Sơn	-	-	phó đp	"	[Signature]
12	Trần Thanh Tú	-	-	NBAH	"	[Signature]
13	Trần Thanh Tâm	-	-	NBAH	"	[Signature]
14	Hà Thị Thảo XÂM	-	-	NBAH	"	XÂM
15	Lê Văn Châu	-	-	NBAH	"	[Signature]
16	Phạm Tuấn Lộc	-	-	BT Đoàn	"	[Signature]
17	Đỗ Văn Sơn	-	-	CC xã chí	"	[Signature]
18	Nguyễn Văn Sơn	-	-	NBAH	"	[Signature]
19	Đỗ Văn Tron	-	-	NBAH	"	TRON
20	Nguyễn Hùng Phúc	-	-	"	"	Phúc
21	Thị Anh Hùng	-	-	T đp đp	"	[Signature]
22	Tô Thị Thanh	-	-	NBAH	"	Thanh
23	Bùi Thị Cẩm Linh	-	-	"	"	Linh
24	Nguyễn Thị Bình	-	-	"	"	Bình
25	Trần Chí Nghiệp	-	-	CBHT	"	[Signature]

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc
-----***-----

Xã Phước Lập, Ngày 18 tháng 3 năm 2015

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: Đường dây 500kV Mỹ Tho - Đức Hòa,
Phường/Xã: Phước Lập, Quận/Huyện: Tân Phước, Thành phố: Tỉnh: Tiền Giang

1. Thành phần tham dự

- Ông/Bà: Nguyễn Hải Đăng Chức vụ: P. CT UBND
- Ông/Bà: Phạm Tân Lộc Chức vụ: P. CT UBND
- Ông/Bà: Nguyễn Văn Loan Chức vụ: Ban Thư Chi bộ TP. Mỹ Thuận
- Ông/Bà: Dương Đình Dũng Chức vụ: TV ATM ADB
- Ông/Bà: Lê Anh Dũng Chức vụ: TV ATXH ADB
- Ông/Bà: Chức vụ:
- Đại diện những người bị ảnh hưởng: người (chi tiết xem danh sách đính kèm)

2. Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- Tư vấn môi trường trình bày về: Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

(1) Nhà thầu cần phải quan lý đất đai, nước khai, vật liệu xây dựng khi xây dựng các công trình, tránh ảnh hưởng xấu đến môi trường xung quanh.

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

- (ii) Trong quá trình thi công kéo dây, vận chuyển tập kết vật liệu thi công, nhà thầu phải tuân thủ các mặt bằng tạm thời, bồi thường, nhà chứa các hư hỏng và hoàn trả mặt bằng đúng đủ.
- (iii) Nhà thầu thi công cần phải sớm xét duyệt phương án bồi thường khi thi công mới tại các khu dân cư. Trước khi thi công, nhà thầu cần thông báo cho UBND xã các liên pháp thi công và bồi thường liên quan để chính quyền địa phương hòa giải giải quyết an toàn môi trường trong quá trình thi công dự án.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Nhân chúng, lãnh đạo và người dân ủng hộ việc thực hiện DA, tuy nhiên mong muốn được bồi thường và hỗ trợ một cách thích đáng.
- Người dân có một số thắc mắc về công hướng đất, nhà ở cũng như việc kinh doanh buôn bán.
- Nếu lựa chọn khu TĐC thì địa điểm, và liệu tại khu TĐC có tiếp tục công việc kinh doanh được không.



TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

4. Kết luận

Đây là dự án cấp quốc gia phục vụ lợi ích quốc gia và địa phương, Chính quyền địa phương và người dân ủng hộ dự án ủng hộ dự án đầu tư trên địa bàn. Chúng tôi mong muốn rằng Chủ đầu tư và các bên liên quan cùng kết thúc hoặc các bên pháp giao về an toàn môi trường và xã hội nhằm giúp người dân hưởng được đời sống và phát triển tốt hơn. Phó dự án ghi nhận tác động môi trường người dân, đồng nhất trả về giải pháp khắc phục các vấn đề kịp thời và lựa chọn trong quá trình ra quyết định thực hiện dự án.

Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã

Gün
Võ Thị gương.

Nguyễn TT
Nguyễn TT Nguyễn

PHÓ CHỦ TỊCH

Nguyễn Hải Đăng



TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH DƯỠNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng): 18/8/2015
 Location (Địa điểm): Xã Phước Lập - Huyện Tân Phước - Tỉnh Bến Lức

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	ng thi Hồng		/	NBAH	tổ M, ấp Mỹ Lợi Hồng	[Signature]
2	Phạm Văn Ngọc	/		"	093/B, tổ 6, ấp Mỹ Bình, Phước Lễ	[Signature]
3	Trần Thị Thủy Liên	/		"	Ấp Mỹ Trường và Phước Lễ	[Signature]
4	Ngô Văn Bình	-		"	Ấp Mỹ Lễ xã PL	[Signature]
5	Nguyễn Văn Dũng	-		"	Ấp Mỹ Lễ Phước Lễ	[Signature]
6	Phạm Văn Hoàng	/		"	Ấp Mỹ Lễ Phước Lễ	[Signature]
7	ng Văn ĐAU	-		"	ấp Mỹ Lễ Phước Lễ	[Signature]
8	Ph. Hữu Cường	/		"	ẤP Mỹ Lễ PL	[Signature]
9	UỖ Thị桂芳	-	/	"	Ấp Mỹ Lễ P-L	[Signature]
10	Trần Thị Kim Ngân	-	/	"	ấp Mỹ Lễ	[Signature]
11	Lê Thị Vân	-	/	"	ấp Mỹ Lễ PL	[Signature]
12	LÊ VĂN VỚI	/		"	ẤP Mỹ Lễ P-L	[Signature]
13	Bên Thị Huệ	-		"	"	[Signature]
14	phạm Thị bay	-		"	"	[Signature]
15	cao Văn Géo	/		"	"	[Signature]
16	Nguyễn Văn Dũng	-		"	"	[Signature]
17	Trần Thị pho	-		"	"	[Signature]
18	Thơng Quốc Đạt	-		"	"	[Signature]
19	Thị Kim Tú	-		"	"	[Signature]
20	Phan Thanh pho	-		"	"	[Signature]
21	Phạm Văn Lợi	-		"	"	[Signature]
22	Nguyễn Văn Loan	-		"	ấp Mỹ Trường Phước Lễ	[Signature]
23	Phạm Văn Lợi	/		PER NTRG	ấp Mỹ Trường Phước Lễ	[Signature]
24	Nguyễn Văn Hưng	/		PER UPRD	ấp Mỹ Lễ - Phước Lễ	[Signature]

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc
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Tân Hòa Đông, Ngày 19 tháng 3 năm 2015

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: Đường dây 500 kV Mỹ Tho - Đức Hòa
Phường/Xã: Tân Hòa Đông Quận/Huyện: Tân Phú Thành phố Tỉnh: Tân Giang

1. Thành phần tham dự

- Ông/Bà Lê Hà Tây Chức vụ PCT UB
- Ông/Bà Huỳnh Thị Hồng Chức vụ PCT HĐND Xã
- Ông/Bà Trương Minh Dũng Chức vụ CT Hội Nông Dân
- Ông/Bà Dương Đình Dũng Chức vụ Tư vấn NT ADB
- Ông/Bà Lê Minh Hương Chức vụ Tư vấn XT ADB
- Ông/Bà..... Chức vụ
- Đại diện những người bị ảnh hưởng: 03 người (chi tiết xem danh sách đính kèm)

2. Nội dung tham vấn

- **Tư vấn thiết kế giới thiệu dự án:** Vị trí tuyến đường; vị trí và chiều dài tuyến trên địa bàn phường, xã.
- **Tư vấn môi trường trình bày về:** Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

1/ Nhà kho chứa cát phải được/ hoặc mặt bằng/ dựng tạm để vận chuyển vật liệu, tập kết vật liệu, bồi đắp lòng kênh hai bên máng, cây cỏ về phía bờ mặt bằng xây dựng.

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- 4/ Nhà thầu thi công cần quản lý đất đai, vật liệu, phương tiện xây dựng, nước thải không ảnh hưởng đến môi trường đất nước xung quanh.
- 3/ Nhà thầu thi công cần thi công bảo kê hoạch thi công kéo dài qua các kênh Bắc Đàng, kênh Tròn cũ; kênh Tròn và xanh và có biển báo để đảm bảo an toàn giao thông thủy và bộ cho người dân vùng địa phương.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Lãnh đạo địa phương và người dân thông nhất chủ trương của Dự án. Mong muốn hạn chế đến mức tối đa thiệt hại cho người dân và có chính sách đền bù thỏa đáng.



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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

4. Kết luận

Chính quyền địa phương xã và người dân vùng dự án ủng hộ chủ trương và tiến hành thực hiện dự án trên địa bàn.

Mặc dù khu vực dự án Đường dây 500KV My Tho - Cần Thơ phần lớn đi qua khu vực đồng ruộng, đồng cỏ và hệ sinh thái nông nghiệp, nhưng tại các địa phương khác hiện công tác bồi thường tái định cư đã được thực hiện và thực hiện các biện pháp giảm thiểu về môi trường trong quá trình thi công.

Dự án gắn liền với các cơ sở hạ tầng và dự án kế hoạch quốc gia môi trường, khu tái định cư dự án.

Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Kiếp
Nguyễn Văn Kiệp

Đỗ Văn Dũng



Lô Hà Cây

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng): 19/3/2015
 Location (địa điểm): Xã Tân Hòa Đông - H. Tân Phước

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Nguyễn Văn Kiệp	-		BAN	Ấp Tân Long - Tân Hòa Đông	Kiếp
2	Lê Hà Tây	-		PCU UARD	Xã Tân Hòa Đông	Liêu
3	Huyền Văn Kiên				Xã Tân Hòa Đông	Kiên
4	Phạm Phước					Phước
5	Nguyễn Thị Dung		7	PHỤ HUYNH	II	Nguyễn Thị Dung
6	Nguyễn Đình Dũng	-		ỦY BAN DGD	II	Dũng
7	Võ Thị Thanh Kiều		x	Chủ hộ xã		Thanh Kiều

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc

Xã Mỹ Phước Ngày 19 tháng 3 năm 2015

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: ...Đường Dây 500KV Mỹ Tho - Đức Hòa
Phường/Xã ...Mỹ Phước..., Quận/Huyện ...Tân Phước... Thành phố ...Tỉnh... Tiền Giang

1. Thành phần tham dự

- Ông/Bà Lê Văn Diệp..... Chức vụ KP- TK Xã
- Ông/Bà..... Chức vụ
- Ông/Bà..... Chức vụ
- Ông/Bà..... Chức vụ
- Ông/Bà Dương Đình Dũng..... Chức vụ TK MT UBND
- Ông/Bà Lê Minh Hương..... Chức vụ TK XH UBND
- Đại diện những người bị ảnh hưởng: người (chi tiết xem danh sách đính kèm)

2. Nội dung tham vấn

- **Tư vấn thiết kế giới thiệu dự án:** Vị trí tuyến đường; vị trí và chiều dài tuyến trên địa bàn phường, xã.
- **Tư vấn môi trường trình bày về:** Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

- 1) Chủ dự án cần phải mua/ thuê đất bằng làm đường tạm, bãi tập kết vật liệu trong giai đoạn thi công, bồi đắp đường huyết hạc hoa màu, cây cối và hoạt tạo đất bằng để từ sau khi hoàn thành.

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

- 2/ Nhà thầu phải dọn dẹp công trường, và mình lau' tưới công nhân đảm' bảo' vệ sinh môi trường.
- 3/ Nhà thầu khi công bố phải nhiều công' chưa' đường đả' và chuyển' vật' bừa bãi lư' hàng'.
- 4/ Đảm' bảo' an toàn giao thông đường thủy, đ' độ' bị' cho nhân dân ứng' đi' an' t'ng' qua' trình khi công.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Người dân được tham vấn và căn cứ địa phương nhất trí với chủ trương xây dựng dự án đường dây 500 kv Mỹ Tho-Đức Hòa. Mong muốn của người dân là được bồi thường hợp lý, thỏa đáng, tránh và giảm thiểu thiệt hại tới người dân.
- Các hộ dân mong muốn giá đền bù phải hợp lý để người dân có thể an tâm di dời, tái định cư, tránh gây ảnh hưởng tiêu cực và / hoặc suy giảm điều kiện sống của họ.



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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

4. Kết luận

Cuộc tham vấn đã đi đến kết luận rằng: Chính quyền địa phương và nhân dân vùng dự án ủng hộ cho dự án cũng như triển khai dự án. Đồng thời yêu cầu các thực hiện các các biện pháp giảm thiểu tác động môi trường và xã hội trong suốt các giai đoạn của dự án. Phía dự án giải đáp thắc mắc, phân tích và đưa ra các số liệu chứng minh các mong muốn của cộng đồng địa phương bên bờ qua các dự án qua tâm thực hiện.


Đại diện Chủ đầu tư


Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã


Phan Văn Hùng


Trần Thị Thuý Duyên


Lê Văn Diệp



TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng): 15/3/2015
 Location (Địa điểm): Xã Mỹ Phước - H. Tân Phước - T. Tiền Giang

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Hồ Văn Giáp	x		VP-TTL	UBND xã Mỹ Phước	[Signature]
2	Trần Văn Hùng	x		BAN	"	[Signature]
3	Trần Văn Hùng	x		"	"	[Signature]
4	Trần Văn Hùng	x		"	"	[Signature]
5	Trần Văn Hùng	x		"	"	[Signature]
6	Nguyễn Văn Hùng	x		"	"	[Signature]
7	Nguyễn Văn Hùng	x		"	"	[Signature]
8	Hồ Thị Ngọc Dung		x	CB xã	"	[Signature]
9	Nguyễn Thị Ngọc Dung		x	"	"	[Signature]
10	Trần Thị Ngọc Dung		x	CB xã	"	[Signature]
11	Phan Thị Ngọc Dung		x	CB xã	"	[Signature]
12	Hồ Văn Giáp	x		VP-TTL	"	[Signature]
13	Trần Văn Hùng	x		HACED	"	[Signature]
14	Nguyễn Văn Hùng	x		CCB	"	[Signature]
15	Nguyễn Văn Hùng	x		PERHAND	"	[Signature]
16	Nguyễn Văn Hùng	x		CB H. Tân Phước	"	[Signature]
17	Nguyễn Văn Hùng	x		CB xã	"	[Signature]

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc

Xã Tân Tây, Ngày 20 tháng 3 năm 2015

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: Đường Dây 500kV My Tho - Đức Hòa
Phường/Xã: Tân Tây, Quận/Huyện: Thạnh Hóa, Thành phố: Tỉnh Long An.

1. Thành phần tham dự

- Ông/Bà Ngô Công Chiêu Chức vụ P. CT xã
- Ông/Bà Nguyễn Văn Hoàng Chức vụ CT. Hội LLB
- Ông/Bà Nguyễn Thanh Hải Chức vụ CT. HTLQ xã
- Ông/Bà Chức vụ
- Ông/Bà Dương Đình Dũng Chức vụ TV.MT.ARB
- Ông/Bà Nguyễn Trường Thông Chức vụ TV.XH.AMN.ARB
- Đại diện những người bị ảnh hưởng: người (chi tiết xem danh sách đính kèm)

2. Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- Tư vấn môi trường trình bày về: Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

1) Các biện pháp an toàn môi trường cần được thực hiện tốt trong quá trình chuẩn bị, thi công và vận hành dự án để đảm bảo an toàn, sức khỏe cộng đồng vùng dự án.

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- ② Kế hoạch thi công dự án cần được thông báo rộng rãi đến người dân khu vực dự án để họ biết chủ động phòng ngừa và giảm thiểu tác hại trong sản xuất và đời sống.
- ③ Chủ dự án cần bố trí thưởng thỏa đáng tại cơ sở thiết lập, bồi dưỡng do dự án gây ra cho người dân vùng dự án. /



3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- phân đất dân sinh lang có bồi thường hay không và bồi thường như thế nào
- người sinh lang đứng cây có chế độ pháp xây dựng nhà của công bình vật kiến thức hay không
- họ cần mua gì những cây to ngoài nhà hướng đất vào chân núi không chế thuận lợi.
- sẽ nghị đề bồi bồi thường thỏa đáng để họ mua đất mới tại ổn định cuộc sống.
- mong chế độ sẽ cung cấp các khoản hỗ trợ thỏa đáng để họ dân có thể có điều kiện tái sản xuất, chuyển đổi ngành nghề.

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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

4. Kết luận

Đã phương ứng hệ chủ trương cũng như triển khai thực hiện dự án và mong muốn công chủ dự án và các bên liên quan tuân thủ chính sách an toàn của Chính phủ và nhà tài trợ để đảm bảo dự án thuận lợi và hay cho tất cả các tác bên liên quan đến dự án và cuộc sống cộng đồng.

Dự án ghi nhận các ý kiến khảo luận của địa phương đã vào hồ sơ dự án, xem xét thực hiện trong quá trình triển khai dự án.

Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã


Dương Văn Đức


Trần T.T. Dũng



Ngô Công Chiêu

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PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng):

Location (Địa điểm): Xã Tân Tây, huyện Thạnh Hòa, tỉnh Long An

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Nguyễn T. Chua		X	BAN	Xã Tân Tây	
2	Nguyễn Văn B. P.	X		"	"	
3	Huyệch Thị Hằng		X	"	"	
4	Nguyễn Thị Lan		X	"	"	
5	Mai Thị Ngọc		X	"	"	
6	Lê Văn Tân	X		"	"	
7	Lê Thị Thu Phương		X	"	"	
8	Nguyễn Văn Tiến	X		"	"	
9	Đông Thị Ngọc Xuân		X	"	"	
10	Nguyễn Văn An	X		"	"	
11	Nguyễn Văn Xuân	X		"	"	
12	Nguyễn Khắc Sinh	X		"	"	
13	Đông Văn Tân	X		"	"	
14	Hồ Thị Mạnh		X	"	"	
15	Đông Văn An	X		"	"	
16	Hồ Văn Xuân	X		"	"	
17	Nguyễn Ngọc Cảnh	X		"	"	
18	Nguyễn Văn Tiến	X		"	"	
19	Đông Văn An	X		"	"	
20	Ng. T. Ngọc Hòa		X	"	"	
21	Đông Văn An	X		"	"	
22	Nguyễn Thị Bích		X	"	"	
23	Đông Văn An	X		"	"	

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**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng):

Location (Địa điểm): *Xã Tân Tây, huyện Thạnh Hòa, tỉnh Long An*

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
24	<i>Uông Văn Khim</i>	<input checked="" type="checkbox"/>			<i>Ấp 5 Tân Tây</i>	<i>[Signature]</i>
25	<i>Trần Văn Nam</i>	<input checked="" type="checkbox"/>			"	<i>NAM</i>
26	<i>Lê Văn Cầu</i>	<input checked="" type="checkbox"/>			"	<i>[Signature]</i>
27	<i>Nguyễn Khắc Lập</i>	<input checked="" type="checkbox"/>			<i>Ấp 4 Tân Tây</i>	<i>[Signature]</i>
28	<i>Võ Thị Diễm Liên</i>		<input checked="" type="checkbox"/>		"	<i>[Signature]</i>
29	<i>Bùi Hoàng Sơn</i>	<input checked="" type="checkbox"/>			"	<i>[Signature]</i>
30	<i>Hà Thị Ngọc Phượng</i>		<input checked="" type="checkbox"/>		"	<i>[Signature]</i>

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc

Xã Long Thuận Ngày 20 tháng 3 năm 2015

BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

Tiêu dự án: ...Đường Dây...500.kV...My Tho - Đức Hòa
Phường/Xã...Long Thuận..., Quận/Huyện...Thủ Thừa...Thành phố...Tỉnh Long An.

1. Thành phần tham dự

- Ông/Bà... Nguyễn Văn Trung..... Chức vụ ... p. KT. Đảng ủy
- Ông/Bà... Nguyễn Thanh Tài..... Chức vụ ... CT. UBND xã
- Ông/Bà... Đoàn Thị Văn..... Chức vụ ... CT. HTX. Phú Mỹ
- Ông/Bà... Trần Phước Hải..... Chức vụ ... CT. MTTB. Xã
- Ông/Bà... Dương Đình Dũng..... Chức vụ ... TV. MTT. UBND
- Ông/Bà... Nguyễn Văn Dũng..... Chức vụ ... TV. XH. UBND
- Đại diện những người bị ảnh hưởng: ... người (chi tiết xem danh sách đính kèm)

2. Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- Tư vấn môi trường trình bày về: Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

1/ Các biện pháp giảm thiểu tác động tiêu cực đến môi trường cần được thực hiện tốt trong quá trình thi công và vận hành dự án để đảm bảo an toàn và sức khỏe của người dân vùng dự án.

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- 2/ Kế hoạch không dự án, cần được thông tin rộng rãi đến người dân khu vực dự án để người dân biết chủ động phòng ngừa, giảm thiểu thiệt hại trong các hoạt động trồng trọt, thả nước và sinh hoạt của người dân.
- 3/ Bồi thường theo đúng tài sản thiệt hại, bồi thường do dự án gây ra cho người dân dự án.



3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Đất nông nghiệp đang được phép xây dựng nhà và các công trình liên-ban không?
- nếu phải bị dịch chuyển, gia đình tôi muốn xây dựng nhà trên đất lúa hiện có của gia đình thì có được phép không, chi cần thế nào?
- đề nghị dự án cần giải quyết việc làm cho các hộ do ảnh hưởng đến kết quả sản xuất.
- đề nghị dự án cần bồi thường trước khi triển khai thi công

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4. Kết luận

Cuộc thảo luận đi đến kết luận rằng chính quyền và nhân dân vùng dự án hoặc toàn vùng hỗ trợ chương trình cũng như triển khai thực hiện dự án khi đi kèm đồng thời yêu cầu chủ đầu tư và các bên liên quan cam kết và thực hiện tốt công tác bồi thường giải phóng mặt bằng, ổn định cuộc sống người bị ảnh hưởng - giảm thiểu tác động tiêu cực khi khai thác qua các môi trường và xã hội.

Dự án gắn liền các yêu cầu cấp địa phương, phải thực hiện các giải pháp xã hội, đồng thời thực hiện các biện pháp trong quá trình triển khai thực hiện dự án.

Đại diện Chủ đầu tư

Nguyễn Phước Thời

Đại diện cộng đồng

Đại diện tư vấn

Trần Thị Duyên

Đại diện UBND xã



Nguyễn Thành Tài



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PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETTLEMENT

THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ

LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ

Date (Ngày tháng):

Location (địa điểm): Xã Long Thuận, huyện Thủ Đức, tỉnh Long An

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
01	Nguyễn Thanh Sơn	x		CF. HND		<i>[Signature]</i>
02	Nguyễn Hữu Sơn	x		CF. HND		<i>[Signature]</i>
03	Nguyễn Phước Chiến	x		CF. HND		<i>[Signature]</i>
04	Nguyễn Thị Vân		x	CF. P.V		<i>[Signature]</i>
05	Nguyễn Thị Cẩm	x		TCH		<i>[Signature]</i>
06	Trương Hùng Nguyễn	x		PT. ATN		<i>[Signature]</i>
07	Phạm Đức Chiến	x		CF. TVVH		<i>[Signature]</i>
08	Bà Thị Ngọc Thủy		x	PCI HND		<i>[Signature]</i>
09	Nguyễn Văn Sang			BAH		<i>[Signature]</i>
10	Nguyễn Văn Thạch	x		Phó ấp 4		<i>[Signature]</i>
11	Nguyễn Văn Sơn	x		BAH		<i>[Signature]</i>
12	Nguyễn Văn Phan	x		"		<i>[Signature]</i>
13	Lê Văn Đức	x		"		<i>[Signature]</i>
14	Nguyễn Văn Sơn	x		"		<i>[Signature]</i>
15	Nguyễn Văn Sơn	x		"		<i>[Signature]</i>
16	Lê Hoàng Khuê	x		"	Ấp 1	<i>[Signature]</i>
17	Nguyễn Văn Thế	x		"	Ấp 2	<i>[Signature]</i>
18	Lê Hoàng Bách	x		"	Ấp 1	<i>[Signature]</i>
19	Nguyễn Thị Huyền		x	"	Ấp 1	<i>[Signature]</i>
20	Nguyễn Văn Tấn	x		"	"	<i>[Signature]</i>
21	Lê Văn Như	x		"	Ấp 02	<i>[Signature]</i>
22	Nguyễn Văn Đức	x		"	Ấp 2	<i>[Signature]</i>

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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ

LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ

Date (Ngày tháng):

Location (Địa điểm): Xã Long Thuận huyện Thủ Thừa tỉnh Long An

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)	
23	Nguyễn Văn Lợi				Ấp 2		✓
24	Nguyễn Thị Mai Hiền		nữ		Ấp 2		✓
25	Đỗ Thành Nguyên		nam		Ấp 2		✓
26	Nguyễn Văn Thảo		nam		Ấp 2		✓
27	Nguyễn Văn Chứng		nam		Ấp 1		✓
28	Thị Văn Mười		x		Ấp 2		✓
29	Bà Văn Thị Thái		x		"		✓
30	Bà Văn Thị Thái		x		"		✓
31	Ngã Thị Dân		x		"		✓
32	Bà Văn Thanh Huệ	x			"		✓
33	Ngã Thị Dung		x		"		✓
34	Võ Thị Hồng		x		"		✓
35	Nguyễn Văn Hoàng		x		"		✓
36	Nguyễn Văn Trọng				"		✓
37	Đông Công Sơn				2		✓
38	Đỗ Văn An Tuyên				2		✓
39	Trần Văn Văn				1		✓
40	Nguyễn Văn Văn	x			4		✓
41	Nguyễn Văn Văn	x			1		✓
42	Nguyễn Văn Bết	x			2		✓
43	Trần Văn Văn	x			1		✓
44	Nguyễn Văn Văn	x			1		✓
45	Bà Văn Thị Dung		x		4		✓

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Location (địa điểm): Xã Long Thuận, huyện Thủ Đức, tỉnh Long An

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
46	Lý Thị Hằng		X		Ấp 1	[Signature]
47	Lý Thị Vân		X		Ấp 1	[Signature]
48	Nguyễn Thị Sĩ	X			Ấp 2	[Signature]
49	Võ Thị Bích		X		1	[Signature]
50	Nguyễn Văn Bảy				1	[Signature]
51	Nguyễn Văn Hải	X			Ấp 1	[Signature]
52	Nguyễn Thanh Tuấn	X			1	[Signature]
53	Nguyễn Văn Sĩ	X			1	[Signature]
54	Đào Văn Hải	X			1	[Signature]
55	Đặng Thị Mai		X		1	[Signature]
56	Đào Văn Hải	X			1	[Signature]
57	Phạm Văn Hải		X		1	[Signature]
58	Nguyễn Văn Sĩ	X	X		1	[Signature]
59	Lương Văn Nguyễn	X			1	[Signature]
60	Nguyễn Văn Sĩ	X			1	[Signature]
61	Đặng Văn Sĩ	X			1	[Signature]
62	Nguyễn Văn Hải		X		1	[Signature]
63	Nguyễn Văn Thành	X			1	[Signature]
64	Nguyễn Văn Sĩ	X			1	[Signature]
65	Đào Văn Sĩ	X			1	[Signature]
66	Đào Văn Sĩ	X			1	[Signature]
67	Thủy Thị Cẩm		X		1	[Signature]
68	Nguyễn Thị Mỹ		X		1	[Signature]

Võ Thị Bích
 Lê Thị Thị
 Nguyễn Văn Sĩ
 Nguyễn Văn Sĩ
 Trần Văn Sĩ

[Signature]



**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

**CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc**

Điền Huy, Ngày *21* tháng *3* năm *2015*

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: *Đường dây 500 kV Mỹ Tho - Đức Hòa*
Phường/Xã: *Điền Huy*, Quận/Huyện: Thành phố:

1. Thành phần tham dự

- Ông/Bà *Khuỳnh Văn Chung*..... Chức vụ *PCT UBND Xã Điền Huy*
- Ông/Bà *Lê Thị Huệ*..... Chức vụ *CT. HPN*.....
- Ông/Bà *Nguyễn Văn Tài*..... Chức vụ *CB. Địa. Chính*.....
- Ông/Bà *Phạm Thị Ân*..... Chức vụ *CB. Một. xã*.....
- Ông/Bà *Điền Đức Dũng*..... Chức vụ *T.V. ARB*.....
- Ông/Bà *Nguyễn Văn Thanh Hưng*..... Chức vụ *T.V. Thôn K*.....
- Đại diện những người bị ảnh hưởng: người (*chi tiết xem danh sách đính kèm*)

2. Nội dung tham vấn

- *Tư vấn thiết kế giới thiệu dự án:* Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- *Tư vấn môi trường trình bày về:* Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

- + *Vấn chuyển nguyên vật liệu xây dựng ảnh hưởng môi trường như thế nào?*
- + *Các biện pháp ảnh hưởng MT như thế nào?*
- + *Đường HL tuyến được phép cắt cây như thế nào? Ảnh hưởng như thế nào?*

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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- + Về chi tiêu ủng hộ để an ninh mong muốn được đền bù theo đúng.
- + Cho biết tiền chi trả được để người dân có kế hoạch sinh sống.
- + Sản chi tiêu phòng an toàn chi trả thế nào qua nhà / đất của dân.

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4. Kết luận

- Chính quyền địa phương và người dân đồng tình với việc xây dựng DA trên địa bàn xã.
- Đề nghị chủ đầu tư cho biết tiến độ xây dựng DA.
- Chủ đầu tư nên có mức bồi thường hợp lý cho người dân.
- Nhà thầu thi công cần tuân thủ các quy định về môi trường. Các cam kết về môi trường như tài liệu ra.

Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã

[Handwritten signatures and stamps]
Đại diện UBND xã
THỦ CHỨC TỊCH
[Red circular stamp: UBND XÃ CHÂU THÁI]
[Red signature: Huỳnh Văn Chung]



**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng):

Location (Địa điểm): *Xã Điện Hội, huyện Châu Thành, tỉnh Tiền Giang*

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Nguyễn Văn Hải	X				Hải
2	Lê Văn Sơn	X				Sơn
3	Trần Văn Lâm	X				Lâm
4	Đinh Văn Tấn	X				TẤN
5	Đông Văn Hồng	X				Hồng
6	Nguyễn Văn Đức	X				Đức
7	Tôn Quốc Cường	X				Cường
8	Nguyễn Thị Phương		X			Phương
9	Phạm Văn Vàng	X				Vàng
10	Đặng Văn Hùng	X				Hùng
11	Võ Văn Văn	X				Văn
12	Đường Văn Hoàng	X	X			Hoàng
13	Quảng Văn Đăng	X	X			Đăng
14	Nguyễn Văn Liêm	X				Liêm
15	Trần Văn Điền	X				Điền
16	Nguyễn Chí	X				Chí
17	Lê Thế Dũng		X			Dũng
18	Trần Ngọc Mát	X				Mát
19	Trần Văn Hậu	X				Hậu
20	Nguyễn Văn Chiến	X				Chiến
21	Nguyễn Văn Chiến	X				Chiến
22	Nguyễn Văn Tuấn	X				Tuấn
23	Đinh Văn Tài	X				Tài

- 24 Nguyễn Văn Bô X
- 25 Dương Văn Bôi X
- 26 Phạm Văn Tấn X
- 27 Nguyễn Quốc Bình X

Bô
Bôi
Tấn
Bình



TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng):

Location (địa điểm): Xã Điềm Hy, Huyện Châu Thành, tỉnh Tiền Giang.

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
28	Lê Thanh Lý	x				<i>[Signature]</i>
29	Nguyễn Văn Hưng	x				<i>[Signature]</i>
30	Nguyễn Thị Tuấn		x			<i>[Signature]</i>
31	Nguyễn Thị Tú		x			<i>[Signature]</i>
32	Nguyễn Thị Lệ		x			<i>[Signature]</i>
33	Đặng Thị Giỏi		x			<i>[Signature]</i>
34	Hà Văn Đ.	x				<i>[Signature]</i>
35	Nguyễn Thị Đào		x		Ấp Bắc B	<i>[Signature]</i>
36	Phạm Thị Huệ		x			<i>[Signature]</i>
37	Lê Thị Huệ		x			<i>[Signature]</i>
39	Mai Hoàng Vũ	x			Ấp Bắc A	<i>[Signature]</i>
40	Nguyễn Văn Hưng	x				<i>[Signature]</i>
41	Lê Văn Đạt	x			Ấp Bắc B	<i>[Signature]</i>
42	Võ Thị Kim Kiều		x		Ấp Bắc B	<i>[Signature]</i>

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc
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Xã...*Nhi...* Ngày...*21*...tháng...*3*...năm 2015

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: *Đường dây 500kV My Tho - Đức Hòa*
Phường/Xã...*Nhi...*..., Quận/Huyện...*Chợ Mới*...Thành phố...*Tỉnh Tiền Giang*

1. Thành phần tham dự

- Ông/Bà...*Hồ Thanh Thủy*.....Chức vụ...*P.T. Xã*.....
- Ông/Bà...*Hồ Thị Kim Phượng*.....Chức vụ...*P.T. MTTD xã*.....
- Ông/Bà...*Ngô Văn Tú*.....Chức vụ...*V.P. Tổng kè xã*.....
- Ông/Bà...*Thuyết Đức Ngọc*.....Chức vụ...*LT. H.P.N xã*.....
- Ông/Bà...*Đường Đình Dũng*.....Chức vụ...*hiện ADB*.....
- Ông/Bà...*Nguyễn Thanh Hùng*.....Chức vụ...*Thiết kế dự án*.....
- Đại diện những người bị ảnh hưởng: người (*chi tiết xem danh sách đính kèm*)



2. Nội dung tham vấn

- *Tư vấn thiết kế giới thiệu dự án:* Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- *Tư vấn môi trường trình bày về:* Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

*Tránh xây dựng tuyến qua khu dân cư, thôn xóm, khu vực
đi đờ các hộ dân.*

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- Nhà thầu khi thi công phải thực hiện tốt các công việc trong phạm vi ảnh hưởng của dự án. Công việc phải chặt chẽ thì chủ đầu tư phải sẵn sàng cho đến
- Đường số thi công nếu hỏng phải làm lại cho đến

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

Thực hiện tốt các chính sách của chính phủ về đền bù - nhàn
nước để giảm thiểu tác động do các công trình xây dựng
đến đời sống của người dân bị ảnh hưởng từ hiện tượng
đây dựng.

Đảm bảo ảnh hưởng trong quá trình thi công hồ sơ dự án
giảm thiểu công việc sai lệch theo nghị định 77/2014/
NĐ-CP

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4. Kết luận

Dự phương án đầu tư trong xã nhất từ xây dựng đường dây
300kV My Tho - Đức Hòa
Chỉ tiêu tài chính đều từ hỗ trợ theo đúng định sách
của chính phủ, nhằm mục đích để dân bị ảnh hưởng có cuộc
sống tốt hơn trước.



Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã

Luyện
Nguyễn Thị Luyện

Lưu
Lưu Văn Tú

KT. CHỦ TỊCH
PHÓ CHỦ TỊCH



Hồ Thành Chương

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PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ



LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ

Date (Ngày tháng):

Location (địa điểm): Xã Nhị Bình, huyện Châu Thành, tỉnh Tiền Giang

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Ngô Văn Bằng	M			Nhị Bình	Bằng
2	Đoàn Văn Sơn	M			Nhị Bình	Sơn
3	Tôn Văn Diên	M			Nhị Bình	Diên
4	Lê Văn Đức	M			"	Đức
5	Nguyễn Thị Mỹ Linh		F		"	Linh
6	Nguyễn Văn Hùng	M			"	Hùng
7	Nguyễn Văn Chiêm	M			"	Chiêm
8	Đoàn Văn Kiệt	M			"	Kiệt
9	Nguyễn Văn Chất	M			Nhị Bình	Chất
10	Nguyễn Văn Bình	M			"	Bình
11	Nguyễn Thị Liên		F		"	Liên
12	Nguyễn Thị Thanh Xuân		F		"	Xuân
13	Nguyễn Ngọc Múi		F		"	Múi
14	Hồ Thị Thanh		F		"	Thanh
15	Ngô Thị Huyền		F		"	Huyền
16	Nguyễn Thị Liên		F		"	Liên
17	Đặng Thị Mạnh		F		"	Mạnh
18	Trần Thị Huệ		F		"	Huệ
19	Nguyễn Văn Cường	M			Nhị Bình	Cường

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc
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Xã Thanh Lợi, Ngày 25 tháng 3 năm 2015



**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: ... Đường dây 500kV My Tho - Đức Hòa
Phường/Xã Thanh Lợi, Quận/Huyện Kiến Lợi, Thành phố tỉnh Long An

1. Thành phần tham dự

- Ông/Bà... Hà Văn Hải..... Chức vụ ..BT. Đảng xã
- Ông/Bà... Nguyễn Hồng Tâm..... Chức vụ ..P.T. UBND xã
- Ông/Bà... Nguyễn Thanh Phong..... Chức vụ ..CB. Địa chính NN-XD-NĐ
- Ông/Bà... Huỳnh T. Mỹ Linh..... Chức vụ ..CT. H.P.N. xã
- Ông/Bà... Dương Đỉnh Dũng..... Chức vụ ..TY. M.T. ADB.....
- Ông/Bà... Lê Minh Hoàng..... Chức vụ ..D. X.H. ADB.....
- Đại diện những người bị ảnh hưởng: 40 người (chi tiết xem danh sách đính kèm)

2. Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- Tư vấn môi trường trình bày về: Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

1/ Nhà Hát thi công dự án cần phải thu gom xử lý chất thải xây dựng và sinh hoạt theo quy định, Bồi thường các thiệt hại do thi công gây ra và hoạt động mặt bằng dự án.

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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

- ⊕ Kế hoạch thu công dự án cần được thông tin rộng rãi đến người dân như việc dự án sẽ người dân biết chủ động, chấp nhận về môi trường hoặc hai song song xuất hiện tốt, cần được về trình hoạt của dân.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Nhìn chung, người dân BHH và chính quyền xã vùng hồ chủ trương xây dựng dự án đường dây 500KV Mỹ Tho - Đức Hòa
- Có một số ý kiến thắc mắc về lợi ích hưởng phần mình trong dự án có được bồi thường hay không?
 - Một số hộ thắc mắc về giá bồi thường quy chuẩn theo vị trí đất (VN Mặt Lơ)
 - Người dân mong muốn được dân tư vấn lập lý, theo đúng để tránh ảnh hưởng tới các đời người dân.

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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)



4. Kết luận

Dự án Đường dây 500kV Mỹ Tho - Đức Hòa đi qua Xã Thạnh Lợi là dự án có quy mô và lợi ích quốc gia và địa phương. Địa phương ủng hộ chủ trương và trình báo dự án trên địa bàn. Đồng thời đề nghị rộng chủ dự án phải hợp tác chặt chẽ với địa phương để làm rõ, giải quyết các vấn đề phát sinh trong quá trình thi công, vận hành và chuẩn bị địa điểm.

Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã

duc
Đinh Ngọc Xuân



Nguyễn Hồng Tâm

TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT



**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng): 25/12/2015
 Location (Địa điểm): Xã Thạnh Lợi, huyện Bến Lức, Long An

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Quách Ngọc Xuân	X				<i>[Signature]</i>
2	Đinh Thị Quỳnh Anh		X			<i>[Signature]</i>
3	Nguyễn Thị Nho		X			<i>[Signature]</i>
4	Nguyễn Văn Danh	X				<i>[Signature]</i>
5	Nguyễn Thị Hương		X			<i>[Signature]</i>
6	Nguyễn Thị Thanh		X			<i>[Signature]</i>
7	Nguyễn Văn Cường	X				<i>[Signature]</i>
8	La Đức Minh	X				<i>[Signature]</i>
9	Phan Tân Châu	X				<i>[Signature]</i>
10	Nguyễn Văn Đức	X				<i>[Signature]</i>
11	Nguyễn Thanh Hương	X				<i>[Signature]</i>
12	Đỗ Văn Kiệt	X			ấp 1 Thạnh Lợi	<i>[Signature]</i>
13	Võ Văn Dũng	X			ấp 2 Thạnh Lợi	<i>[Signature]</i>
14	Võ Thị Lệ Phương		X		ấp 3 Thạnh Lợi	<i>[Signature]</i>
15	Nguyễn Văn Ngọc	X			ấp 2	<i>[Signature]</i>
16	Phan Văn Sơn	Nam			ấp 4 Thạnh Lợi	<i>[Signature]</i>
17	Nguyễn Hải Liêm	X			ấp 8 Thạnh Lợi	<i>[Signature]</i>
18	Nguyễn Thị Mỹ Linh		X		HPN xã	<i>[Signature]</i>
19	Nguyễn Văn Sơn	X			ấp 4 xã Thạnh Lợi	<i>[Signature]</i>
20	Nguyễn Văn Xuân	X			ấp 5 xã Thạnh Lợi	<i>[Signature]</i>
21	Nguyễn Hồng Trường	X			ấp 1 xã Thạnh Lợi	<i>[Signature]</i>
22	Nguyễn Minh Lợi	X			ấp 2 xã Thạnh Lợi	<i>[Signature]</i>
23	N. Quýển T. Giáp		X		ấp 4	<i>[Signature]</i>
24	N. Quýển T. Bè		X		ấp 4	<i>[Signature]</i>

TA-7742 VIE: Power Transmission Investment Program (MFF)
 CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT



THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ

LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ

Date (Ngày tháng): 23/3/2015
 Location (Địa điểm): Xã Thanh Lợi, huyện Bến Lức tỉnh Long An

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
25	Võ Văn Đài	x			Ấp 2	<i>[Signature]</i>
26	Nguyễn Văn Cừ	x			Ấp 2	<i>[Signature]</i>
27	Huyền Văn Tông	x			Ấp 2	<i>[Signature]</i>
28	Võ Thanh Trung	x			Ấp 4	<i>[Signature]</i>
29	Trần Văn Tiến	x			Ấp 6	<i>[Signature]</i>
30	Nguyễn Thị Ngọc		x		Ấp 4	<i>[Signature]</i>
31	Ngô Thị Tú		x		Ấp 4	<i>[Signature]</i>
32	Ngô Thị P. Thi		x		Ấp 2	<i>[Signature]</i>
33	Huyền Thị Đình		x		Ấp 2	<i>[Signature]</i>
34	Nguyễn V. Lát	x			Ấp 2	<i>[Signature]</i>
35	Ngô Văn Lâm	x			Ấp 2	<i>[Signature]</i>
36	Lê Thị Hằng		x		Ấp 2	<i>[Signature]</i>
37	Nguyễn Văn Hùng	x			Ấp 2	<i>[Signature]</i>
38	Nguyễn Văn Đài	x			Ấp 4	<i>[Signature]</i>
39	Võ Thanh Nhân	x			Ấp 2	<i>[Signature]</i>
40	Võ Thanh Hồ	x			Ấp 2	<i>[Signature]</i>
41	Ngô T. Thu Huyền		x		HCM	<i>[Signature]</i>

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc
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Tân Lập Ngày 24 tháng 02 năm 2015

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiểu dự án: Đường dây 500 kV Mỹ Tho - Đức Hòa
Phường/Xã: Tân Lập Quận/Huyện: Thủ Thừa. Thành phố Long An

1. Thành phần tham dự

- Ông/Bà: Bà Minh Thiên Chức vụ: CT UBND Xã
- Ông/Bà: Nguyễn Văn Lương Chức vụ: CT MTTQ Xã
- Ông/Bà: Trần Thị Kim Lúa Chức vụ: PCT Hội Phụ Nữ
- Ông/Bà: Huỳnh Văn Công Chức vụ: CT Hội Cựu Chiến Sĩ
- Ông/Bà: Dương Anh Dũng Chức vụ: Tư vấn MT ADB
- Ông/Bà: Lê Minh Hương Chức vụ: Tư vấn XH ADB
- Đại diện những người bị ảnh hưởng: 02 người (chi tiết xem danh sách đính kèm)
tổ chức



2. Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- Tư vấn môi trường trình bày về: Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

- Đường dây đi qua bờ rạch Tân Lập song song kênh Bò Bò sẽ có tác động đến phân quy hoạch rừng đọt cây xanh của công ty xử lý rạch. Bởi vậy, công ty mong muốn Chủ đầu tư cần phối hợp chặt chẽ

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với Công ty trong quá trình Thực hiện DA, cho Công ty biết trước các tác động đến Môi trường như phạm vi ảnh hưởng an toàn, để phép làm gì và không làm gì trong ảnh hưởng và lân cận trong khu vực DA đi qua.

- Quá trình thi công phải đảm bảo không ảnh hưởng đến phạm vi ảnh hưởng an toàn của Công ty. Công ty yêu cầu có Bản Cam kết VSMT, ATLB và phòng chống cháy nổ quốc gia của thi công và Công ty.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Công ty e ngại vị trí móng trụ sẽ ảnh hưởng đến đường dân vào cầu, do vậy thiết kế của hai bên sẽ làm việc để xác định chính xác phạm vi ảnh hưởng.
- Công ty BAH 86.632m² đất trong cây (tràm) trong đó có 3671m² bị thu hồi vì cần để xây dựng móng trụ và 82.961m² đất BAH tạm thời dưới HLT. Xác định liệu Nhà Điều hành của Công ty có nằm dưới HLT hay không? hoặc trong phạm vi bao nhiêu?

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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

4. Kết luận

- Chính quyền địa phương và tổ chức BATH là Công ty VWS ủng hộ Chủ trương thực hiện DA. Tuy nhiên Công ty VWS có một số thắc mắc về việc ảnh hưởng hành lang cây xanh của Công ty và muốn nghiên cứu thiết kế thay thế trồng loại cây khác để phù hợp hơn.



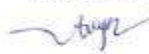
Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã


Dương Văn Lợi


Trần Thị Thúy Duyên




Võ Minh Tiến



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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETTLEMENT

THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ

Date (Ngày tháng): 29/13/2015
 Location (Địa điểm): Ấn Lạc - Thủ Thừa - Long An

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Nguyễn Thị Ngọc Hải		✓	PGT. ANĐ	xã Tân Lập	<i>[Signature]</i>
2	Giáo sư Kim Lúa		✓	KT. HƯNG	xã Tân Lập	<i>[Signature]</i>
3	Nguyễn Văn Công	✓		PT. HỮU CEB	xã Tân Lập	<i>[Signature]</i>
4	Nguyễn Văn Lộc			CT. MTTQ	Xã Xuân Lập	<i>[Signature]</i>
5	Võ Minh Tiến	✓		CT. UBND xã	xã Tân Lập	<i>[Signature]</i>
6	Đặng Văn Cường			QL Công Trường	Công ty VMS	<i>[Signature]</i>
7	ĐU KIM ANH		✓	Trợ lý GDĐH		<i>[Signature]</i>

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc
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Khánh Hòa, ngày 25 tháng 03 năm 2015

**BIÊN BẢN HỢP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: Đường dây 500 kV Mỹ Tho - Đức Hòa
Phường/Xã: Hòa Khánh Tây Quận/Huyện: Đức Hòa Thành phố: Long An

1. Thành phần tham dự

- Ông/Bà Lê Văn Cồ Chức vụ CT. XCV
- Ông/Bà Nguyễn Hoàng Đạt Chức vụ CT. MTTQ xã
- Ông/Bà Trần Văn Hùng Chức vụ CT. HNĐ
- Ông/Bà Chức vụ
- Ông/Bà Dương Đình Dũng Chức vụ Tư vấn NT ADB
- Ông/Bà Lê Minh Hưng Chức vụ Tư vấn XT ADB
- Đại diện những người bị ảnh hưởng: 03 người (chi tiết xem danh sách đính kèm)



2. Nội dung tham vấn

- **Tư vấn thiết kế giới thiệu dự án:** Vị trí tuyến đường dây và chiều dài tuyến trên địa bàn phường, xã.
- **Tư vấn môi trường trình bày về:** Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

- Đường dây đi qua đồng lúa của cấp Bình Lợi, khá xa khu dân cư. Chủ DA đưa yêu cầu kiểm soát chặt chẽ xây dựng, hạn chế ảnh hưởng

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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

- ⊕ Kế hoạch thu công dự án cần được thông tin rộng rãi đến người dân chủ lực dự án để người dân biết chủ động, chấp nhận và sẵn sàng hoạt động lại song song xuất phát tốt, chắc chắn về trình hoạt động.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

- Nhìn chung, người dân BHH và chính quyền xã vùng hồ chủ trương xây dựng dự án đường dây 500KV Mỹ Tho - Đức Hòa
- Có một số ý kiến thắc mắc về lợi ích hưởng phần mình trong dự án có được bồi thường hay không?
 - Một số hộ thắc mắc về giá bồi thường quy chuẩn theo vị trí đất (VN Mặt Lơ)
 - Người dân mong muốn được đất bù giải lập lý, thời gian để tránh ảnh hưởng trực tiếp đến người dân.

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**



4. Kết luận

Dự án Đường dây 500kV Mỹ Tho - Đức Hòa đi qua Xã Thạnh Lợi là dự án có quy mô và lợi ích quốc gia và địa phương. Địa phương ủng hộ chủ trương và triển khai dự án trên địa bàn. Đồng thời đề nghị rộng chủ trương phải lập chốt chủ với địa phương để làm rõ, giải quyết các vấn đề phát sinh trong quá trình thi công, vậy hành vi chuẩn bị dự án.

Đại diện Chủ đầu tư

Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã

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Đinh Ngọc Xuân



Nguyễn Hồng Tâm

**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT



**THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
XÃ HỘI/TÁI ĐỊNH CƯ**

**LIST OF PARTICIPANTS
DANH SÁCH NGƯỜI THAM DỰ**

Date (Ngày tháng): 25/3/2015

Location (địa điểm): Xã Hòa Khánh Đông, huyện Đức Hòa, tỉnh Long An.

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Nguyễn Văn Nổi	x			Ấp Bình Lợi - Hòa Khánh	<i>[Signature]</i>
2					Ấp Bình Lợi - Hòa Khánh	
3	Ng. Thành Đạt	x		CT MITR xã	Đông - Đức Hòa - Long An	<i>[Signature]</i>
4						
5	Đoàn Văn Hùng	x		CT HĐND	"	<i>[Signature]</i>
6	Đào Văn Chử	x		BVP xã	"	<i>[Signature]</i>
7	Sở Văn Cơ	x		CT xã	"	<i>[Signature]</i>
8	Nguyễn Văn An					<i>[Signature]</i>
9	Trần Văn Ghi					<i>[Signature]</i>
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**TA-7742 VIE: Power Transmission Investment Program (MFF)
CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)**

CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự Do - Hạnh phúc

Thủ Đức, Ngày 25 tháng 03 năm 2015

**BIÊN BẢN HỌP THAM VẤN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG
VÀ TÁI ĐỊNH CƯ**

Tiêu dự án: ...*đường dây 500 kV Mỹ Tho - Đức Hòa*...
Phường/Xã...*Hữu Phước*... Quận/Huyện...*Đức Hòa* Thành phố ...*Tỉnh Long An*

1. Thành phần tham dự

- Ông/Bà *Nguyễn Văn Xứ*..... Chức vụ *P. CT. Xã*.....
- Ông/Bà..... Chức vụ
- Ông/Bà..... Chức vụ
- Ông/Bà..... Chức vụ
- Ông/Bà...*Đương Đình Dũng*..... Chức vụ *Từ văn MT ADB*
- Ông/Bà...*Lê Minh Hương*..... Chức vụ *Từ văn XT. ADB*
- Đại diện những người bị ảnh hưởng: người (*chi tiết xem danh sách đính kèm*)

2. Nội dung tham vấn

- *Tư vấn thiết kế giới thiệu dự án:* Vị trí tuyến đường; vị trí và chiều dài tuyến trên địa bàn phường, xã.
- *Tư vấn môi trường trình bày về:* Chính sách môi trường của ADB; Các quy định về môi trường trong ngành điện của chính phủ Việt Nam; Các tác động về môi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bồi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hồi kinh tế; Hỗ trợ đối với các nhóm dễ bị tổn thương; Giới thiệu về giới và Tham vấn ý kiến về hình thức tái định cư và tham gia các chương trình phục hồi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn đề xã hội và môi trường xảy ra.

3. Ý kiến thảo luận

3.1 Về các tác động môi trường tiêu cực và biện pháp giảm thiểu

1/ Hầu hết đồng dân sinh do dân đóng góp xây dựng. Bởi vậy, yêu cầu DA khi sử dụng cần tuân thủ tiêu trong, nhà chứa hư hỏng khi xảy ra và đảm bảo an toàn giao thông.

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- 2/ Phần lớn trụ điện xây dựng trên đồng lúa, mà do đó yêu cầu nhà thầu thuê mướn mặt bằng làm đường tạm, bầu tập kết vật liệu không gây hư hại cây cối, hoa màu và hoàn trả mặt bằng đầy đủ.
- 3/ Nhà thầu cần phải quản lý chất thải xây dựng và sinh hoạt không ảnh hưởng đến môi trường xung quanh.

3.2 Về các vấn đề thu hồi đất và các tài sản trên đất và các chính sách

Các tham vấn cộng đồng được thực hiện trong giai đoạn chuẩn bị dự án. Nhìn chung, người dân đồng tình ủng hộ việc thực hiện DA. Có một số hộ dân thắc mắc về đơn giá Bt hỗ trợ và mong muốn được đến bù thỏa đáng tránh gây ảnh hưởng tiêu cực tới sinh kế & đời sống của người dân.



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CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

4. Kết luận

Đại diện chính quyền địa phương và các hộ dân BATH ủng hộ chủ trương, chính sách thực hiện DA Đường dây 500 KV Mỹ Tho- Đức Hòa nhằm phục vụ phát triển KTXH đất nước. Các thắc mắc liên quan tới các vấn đề môi trường cũng như bồi thường, hỗ trợ, TĐC đã được đại diện từ vấn Điện L trả lời và giải thích.

Đại diện Chủ đầu tư Đại diện cộng đồng

TÂN
M. Lê Văn Tân

Đại diện tư vấn

[Handwritten signature]
Vấn Chí Thu

Đại diện UBND xã

TM. ỦY BAN NHÂN DÂN XÃ
KT. CHỦ TỊCH
HỒ CHỦ TỊCH



Nguyễn Văn Hòa



TA-7742 VIE: Power Transmission Investment Program (MFF)
 CHƯƠNG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

THAM VẤN CỘNG ĐỒNG VỀ MÔI TRƯỜNG VÀ
 XÃ HỘI/TÁI ĐỊNH CƯ

LIST OF PARTICIPANTS
 DANH SÁCH NGƯỜI THAM DỰ

Date (Ngày tháng): 25/3/2015
 Location (Địa điểm): Xã Hòa Thành, huyện Đức Hòa, tỉnh Long An.

không

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Cơ quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Ngô Thị Ngọc		x	BÀH	Ấp 1A xã Hòa Thành	
2	Lê Thị Dung		x	"	"	
3	Mai Văn Bình	x		"	"	
4	Ngô Văn Pha	x		"	Ấp 1A	
5	Đinh Văn Châu	x		"	"	
6	Nguyễn Minh Thiện	x		"	"	
7	Nguyễn Văn Mên	x		"	"	
8	Nguyễn Ngọc Đăng	x		"	"	
9	Ngô Văn Khoa	x		"	"	
10	Ngô Văn Kiên		x	"	"	
11	Nguyễn Chí Kim		x	"	"	
12	Nguyễn Văn Dũng	x		"	"	
13	Nguyễn Văn Kiệt	x		"	"	
14	Ngô Văn Dân	x		"	"	
15	Ngô Văn Đức	x		"	"	
16	Mô Thị Thanh Bình		x	"	"	

Diem Hy commune, Chau Thanh district, Tien Giang province



Nhi Binh commune, Chau Thanh district, Tien Giang province



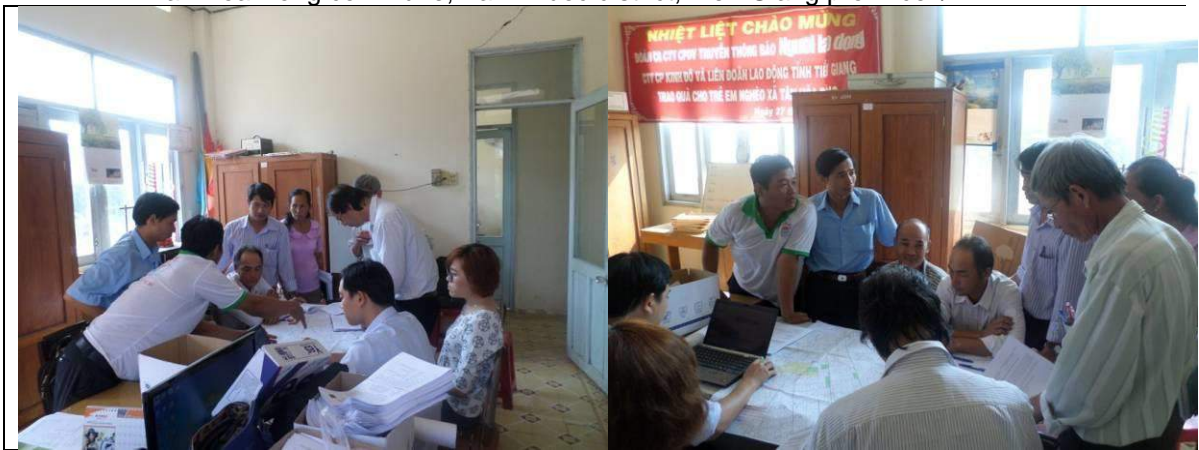
Hung Thanh commune, Tan Phuoc district, Tien Giang province



Phuoc Lap commune, Tan Phuoc district, Tien Giang province



Tan Hoa Dong commune, Tan Phuoc district, Tien Giang province \



My Phuoc commune, Tan Phuoc district, Tien Giang province



Tan Tay commune, Thanh Hoa district, Long An province



Long Thuan commune, Thu Thua district, Long An province



Tan Lap commune, Thu Thua district, Long An province



Thanh Loi commune, Ben Luc district, Long An province



Huu Thanh commune, Duc Hoa district, Long An province



Hoa Khanh Dong commune, Duc Hoa district, Long An province





Public consultation in Duc Hoa



PC in Huu Thanh, Ben Luc



PC in Thanh Duc, Ben Luc



PC in Thanh Loi



APPENDIX 3: EIA APPROVAL LETTER FOR 500KV MY THO - DUC HOA TRANSMISSION LINES

24

BỘ TÀI NGUYÊN VÀ MÔI TRƯỜNG **CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM**
Độc lập - Tự do - Hạnh phúc

Số: 2274/QĐ-BTNMT

Hà Nội, ngày 13 tháng 10 năm 2014

QUYẾT ĐỊNH
Phê duyệt báo cáo đánh giá tác động môi trường của Dự án
“Đường dây 500 kV Mỹ Tho – Đức Hòa”

BỘ TRƯỞNG BỘ TÀI NGUYÊN VÀ MÔI TRƯỜNG

Căn cứ Luật Bảo vệ môi trường ngày 29 tháng 11 năm 2005;

Căn cứ Nghị định số 21/2013/NĐ-CP ngày 04 tháng 3 năm 2013 của Chính phủ quy định chức năng, nhiệm vụ, quyền hạn và cơ cấu tổ chức của Bộ Tài nguyên và Môi trường;

Căn cứ Nghị định số 29/2011/NĐ-CP ngày 18 tháng 4 năm 2011 của Chính phủ quy định về đánh giá môi trường chiến lược, đánh giá tác động môi trường và cam kết bảo vệ môi trường;

Căn cứ Thông tư số 26/2011/TT-BTNMT ngày 18 tháng 7 năm 2011 của Bộ trưởng Bộ Tài nguyên và Môi trường quy định chi tiết một số điều của Nghị định số 29/2011/NĐ-CP ngày 18 tháng 4 năm 2011 của Chính phủ quy định về đánh giá môi trường chiến lược, đánh giá tác động môi trường, cam kết bảo vệ môi trường;

Theo đề nghị của Hội đồng thẩm định báo cáo đánh giá tác động môi trường của Dự án “Đường dây 500 kV Mỹ Tho – Đức Hòa” họp ngày 16 tháng 8 năm 2014 tại thành phố Hồ Chí Minh;

Xét nội dung báo cáo đánh giá tác động môi trường của Dự án “Đường dây 500 kV Mỹ Tho – Đức Hòa” đã được chỉnh sửa, bổ sung kèm theo Văn bản giải trình số 7188/AMN-ĐB ngày 30 tháng 9 năm 2014 của Ban Quản lý dự án các công trình điện miền Nam;

Xét đề nghị của Tổng Cục trưởng Tổng cục Môi trường,

QUYẾT ĐỊNH:

Điều 1. Phê duyệt nội dung báo cáo đánh giá tác động môi trường của Dự án “Đường dây 500 kV Mỹ Tho – Đức Hòa” (sau đây gọi là Dự án) của Ban Quản lý dự án các công trình điện miền Nam (sau đây gọi là Chủ dự án) với các nội dung chủ yếu sau đây:

1. Phạm vi, quy mô, công suất của Dự án:

1.1. Xây dựng đường dây truyền tải điện với những đặc điểm chính sau:

- Chiều dài tuyến: 54,83 km;
- Số mạch: 02;

- Cấp điện áp: 500 kV;
- Điểm đầu: Trạm biến áp 500 kV Mỹ Tho;
- Điểm cuối: Trạm biến áp 500 kV Đức Hòa.

1.2. Xây dựng và lắp đặt thiết bị cho 02 ngăn B9, B11 đường dây 500 kV của Trạm biến áp 500 kV Mỹ Tho.

2. Yêu cầu bảo vệ môi trường đối với Dự án:

2.1. Tổ chức thu gom, vận chuyển và xử lý toàn bộ các loại chất thải thông thường và chất thải nguy hại phát sinh trong quá trình thực hiện Dự án theo quy định tại Nghị định số 59/2007/NĐ-CP ngày 09 tháng 4 năm 2007 của Chính phủ về quản lý chất thải rắn, Thông tư số 12/2011/TT-BTNMT ngày 14 tháng 4 năm 2011 của Bộ Tài nguyên và Môi trường quy định về Quản lý chất thải nguy hại; tuân thủ nghiêm ngặt các quy định của pháp luật hiện hành về môi trường nước, trầm tích, không khí, tiếng ồn và độ rung trong quá trình thi công, vận hành Dự án.

2.2. Thực hiện các biện pháp phòng chống sạt lở, ngập úng, rửa trôi, xói mòn đất; các biện pháp giảm thiểu tác động tiêu cực đến đến hoạt động sản xuất nông nghiệp.

2.3. Thực hiện nghiêm túc các biện pháp cải tạo, tiếp địa công trình, nhà cửa; các quy định về an toàn điện của pháp luật hiện hành.

2.4. Thực hiện hoàn thổ và khôi phục cảnh quan các khu đất được giao làm mặt bằng phục vụ thi công.

2.5. Giáo dục, nâng cao nhận thức về bảo vệ môi trường cho cán bộ, công nhân viên làm việc cho Dự án.

2.6. Thực hiện chương trình giám sát môi trường và các công trình, biện pháp bảo vệ môi trường khác như đã đề xuất trong báo cáo đánh giá tác động môi trường; cập nhật, lưu giữ số liệu giám sát để cơ quan quản lý nhà nước về bảo vệ môi trường kiểm tra khi cần thiết.

3. Các điều kiện kèm theo:

3.1. Phối hợp với các cấp có thẩm quyền của địa phương thực hiện bồi thường, hỗ trợ, giải phóng mặt bằng, chuyển mục đích sử dụng đất theo các quy định hiện hành của pháp luật.

3.2. Phối hợp với các cơ quan chức năng quản lý giao thông và chính quyền địa phương để thống nhất kế hoạch thi công đường dây tại những điểm giao cắt với đường thủy, đường bộ; lắp đặt biển báo hoặc có hình thức thông báo kế hoạch phân luồng giao thông đến các chủ phương tiện giao thông trong thời gian kéo dây vượt đường thủy và đường bộ.

3.3. Thông tin rộng rãi cho chính quyền địa phương và cộng đồng dân cư nơi đường dây đi qua biết về các hoạt động thi công của Dự án.

3.4. Tuân thủ các quy định pháp luật về bảo tồn đa dạng sinh học, phòng chống cháy nổ và đảm bảo hành lang an toàn lưới điện trong quá trình thi công, vận hành Dự án.

Điều 2. Chủ dự án có trách nhiệm sau đây:

1. Lập, phê duyệt và niêm yết công khai kế hoạch quản lý môi trường của Dự án trước khi triển khai thực hiện dự án.

2. Thực hiện nghiêm túc các yêu cầu về bảo vệ môi trường quy định tại khoản 2 Điều 1 Quyết định này và các trách nhiệm khác theo quy định của pháp luật về bảo vệ môi trường.

Điều 3. Trong quá trình thực hiện, nếu Dự án có những thay đổi so với khoản 1 và khoản 2 Điều 1 của Quyết định này, Chủ dự án phải có văn bản báo cáo và chỉ được thực hiện những thay đổi sau khi có văn bản chấp thuận của Bộ Tài nguyên và Môi trường.

Điều 4. Quyết định phê duyệt báo cáo đánh giá tác động môi trường của Dự án là căn cứ để quyết định việc đầu tư Dự án; là cơ sở để các cơ quan quản lý nhà nước có thẩm quyền kiểm tra, thanh tra việc thực hiện công tác bảo vệ môi trường của Dự án.

Điều 5. Giao Tổng cục Môi trường chủ trì, phối hợp với Sở Tài nguyên và Môi trường các tỉnh Long An, Tiền Giang cùng các đơn vị có liên quan thuộc Bộ Tài nguyên và Môi trường kiểm tra, giám sát việc thực hiện các nội dung bảo vệ môi trường trong báo cáo đánh giá tác động môi trường đã được phê duyệt tại Quyết định này.

Điều 6 Quyết định này có hiệu lực thi hành kể từ ngày ký./.

Nơi nhận:

- Ban Quản lý dự án các công trình điện miền Nam;
- Bộ trưởng Nguyễn Minh Quang (để báo cáo);
- Bộ Công Thương;
- Sở TN&MT các tỉnh: Long An, Tiền Giang;
- Thanh tra Bộ;
- Lưu: VT, TCMT, HS.MH (20).

Qu

**KT. BỘ TRƯỞNG
THỨ TRƯỞNG**



Bùi Cách Tuyền



**Ministry of Natural Resources and
Environment
No: 2271/ QĐ-BTNMT**

**Socialist Republic of Viet Nam
Independence- Freedom –Happiness**

Ha Noi, October 13, 2014

**DECISION
APPROVING THE REPORT ON ENVIRONMENTAL IMPACTS ASSESSMENT OF PROJECT
“500KV MY THO – DUC HOA TRANSMISSION LINE”.**

THE MINISTER OF MINISTRY OF NATURAL RECOURSES AND ENVIRONMENT

Pursuant to the Law on Environmental Protection dated 29th November 2011.

Pursuant to the Decree No. 21/2013/NĐ-CP dated 4th March 2011 of the Government on the Functions, Tasks, Powers and Organizational Structures of the Ministry of Natural Resources and Environment.

Pursuant to the Decree No. 29/2011/NĐ-CP dated 18th April 2011 providing strategic environmental assessment, environmental impact assessment and environmental protection commitment.

Pursuant to the Circular 26/2011/TT-BTNMT dated 18th July 2011 of the Minister of Ministry of Natural Resources and Environment detailing a number of articles of the Government’s Decree No. 29/2011/ND-CP of April 18, 2011, on strategic environmental assessment, environmental impact assessment and environmental protection commitment.

At the proposal of Board of Evaluating THE REPORT ON ENVIRONMENTAL IMPACTS ASSESSMENT OF “500KV MY THO – DUC HOA TRANSMISSION LINE”.

Considering the content of the report on environmental impact assessment of project “500kV My Tho –Duc Hoa Transmission Line”, which has been revised and supplemented together with Written Explanation No 7188/AMN-DB of Southern Power Projects Management Board (SPPMB);

At the proposal of the Director General of Environmental Directorate;

DECIDES:

Article 1. To approve the content of the report on environmental impact assessment of project “500kV My Tho –Duc Hoa Transmission Line” (hereinafter called “ the Project”) of Southern Power Projects Management Board (SPPMB) (hereinafter called “ Project Owner”) with main contents as following:

1. Scope, scale and capacity of the project:

1.1 Constructing power transmission line with the following main features:

- Length: 54,83 km
- Number of circuits : 02
- Voltage: 500kV.
- The beginning point: My Tho 500kV Substation.
- The end point: Duc Hoa 500kV Substation.

1.2 Construct and install equipment for 2 feeder bays B9, B11, 500kV line of My Tho 500kV Substation,

2. Environmental Protection Requirements to the Project:

2.1 Organize the collection, transportation and processing of all kinds of ordinary waste and hazardous waste generated in the process of implementing the Project pursuant to regulations of the Decree No. 59/2007/ND-CP dated 9th April 2007 of the Government on solid waste management, Circular No. 12/2011/TT-BTNMT dated 14th April 2011 of Ministry of Natural Resources and Environment stipulating hazardous waste management, comply strictly with the provisions of existing laws on water, sediment, air, noise and vibration during the construction and operation of the project.

2.2 Implement measures to prevent erosion, flooding, runoff, soil erosion; measures to minimize negative impacts on agricultural activities.

2.3 Implement seriously rehabilitation measures, earthling works of construction and buildings; regulations on electrical safety of existing laws.

2.4 Implement as built of land and landscape restoration on allocated area as ground for construction.

2.5 Educate and raise awareness of environmental protection for staffs and workers who work for the Project.

2.6 Implement environmental monitoring programs and projects, environmental protection measures such as proposed in the report of environmental impact assessment; update, store monitored data for state agencies of environmental protection check when necessary.

3. The conditions enclosed:

3.1. Coordinate with local competent authorities to implement compensation, assistance, clearance and conversion of land use under the current provisions of law.

3.2 Coordinate with relevant agencies of traffic management and local authorities to reach the consistency in constructing the transmission line at intersection with waterways and roads; install or make a plan of traffic management to inform to all transportation during the time pulling the line across waterways and roads.

3.3 Announce extensively the construction activities of the Project to local authorities and communities where the line goes through.

3.4 Comply with the provisions of the law on biodiversity conservation, fire fighting system and ensure electric safety passageway during the construction and operation of the Project.

Article 2. The project owner's responsibilities are:

1. Prepare, approve and public the environmental management plan of the project prior to project implementation.

2. Seriously implement the requirements of environmental protection specified in Paragraph 2, Article 1 of this Decision and other provisions prescribed by law on environmental protection.

Article 3. In the course of implementation, if the project has any change compared to the paragraph 1 and paragraph 2, Article 1 of this Decision, the project owner must provide written reports and changes are applied only after the written approval of the Ministry of Natural Resources and Environment issued.

Article 4. The Decision approving the report on environmental impact assessment of the Project is the basis for Project Investment Decision; the inspection and examination of implementing environmental protection from authorized state agencies.

Article 5. The Environmental Directorate combines with Department of Natural Resources and Environment Long An, Tien Giang Province and relevant agencies of the Ministry of natural resources and environmental to inspect, monitor the implementation of environmental protection issues in the report on environmental impact assessment which has been approved in this decision.

Article 6. This Decision takes effect on the date of its signing.

Receivers :

DEPUTY OF MONRE

- SPPMB
- Head of MONRE
- Ministry of trading and industry
- DONRE of Tien Giang and Long An
- MONRE's inspector
- stored at related offices

BUI CACH TUYEN
SIGNED

APPENDIX 4: LETTER ON UXO CLEARING

BỘ TƯ LỆNH QUÂN KHU 7
BỘ CHỈ HUY QUÂN SỰ
TỈNH LONG AN

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc

Long An, ngày 14 tháng 11 năm 2010

Số: 1164/QSLA-TM

V/v trả lời bom mìn, vật nổ
còn sót lại sau chiến tranh.

Kính gửi: Công ty cổ phần tư vấn xây dựng Điện 2.

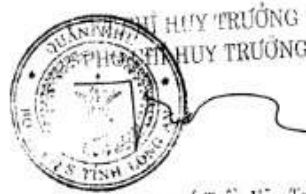
Căn cứ vào công văn số 3451/TV2-TLĐ ngày 11 tháng 11 năm 2010 của Công ty cổ phần tư vấn xây dựng Điện 2 về việc xin ý kiến về tình hình bom mìn, vật nổ còn sót lại sau chiến tranh khu vực dự kiến xây dựng hướng tuyến đường dây 500kV Mỹ Tho - Đức Hòa, đoạn đi qua địa phận tỉnh Long An.

Qua nghiên cứu hồ sơ, địa hình địa bàn nêu trên. Bộ CHQS tỉnh Long An có ý kiến như sau: Trước năm 1975 địa bàn của huyện Đức Hoà là nơi giao tranh ác liệt trong chiến tranh chống Mỹ, Mỹ ngụy bắn phá nhiều loại bom, đạn. Sau ngày miền Nam hoàn toàn giải phóng, Bộ CHQS tỉnh đã chỉ đạo lực lượng Công binh và các đơn vị địa phương dò tìm, thu gom, xử lý bom mìn, vật nổ trên mặt đất, để bảo đảm an toàn cho nhân dân sản xuất; Hiện nay các loại bom, đạn còn sót lại nằm sâu dưới mặt đất không kết luận được.

Để bảo đảm an toàn tuyệt đối cho người và phương tiện thi công. Bộ CHQS tỉnh Long An đề nghị Công ty cổ phần tư vấn xây dựng Điện 2 có phương án dò tìm xử lý bom mìn, vật nổ trên hướng tuyến dự kiến xây dựng đường dây 500kV trước khi thi công công trình. *Haub*

Nơi nhận:

- Như trên;
- Lưu: VT, BCB, D03b.



Thượng tá Trần Văn Trai

Military Commands of Long An Province

No.1164/QSLA-TM

*Re: the matter of mines and explosive
Remnants of war.*

Independence – Freedom- Happiness

Long An, November 24, 2014

To: Power Engineering Consulting Joint Stock Company 2

According to the Official Letter No. 3451/TV2-TLĐ on 11th November 2011 of Power Engineering Consulting Joint Stock Company 2 about the consultation on the situation of mine, explosive remnants of war in planned area for 500kV My Tho - Duc Hoa transmission line, at a section passing Long An province.

After considering the profile and terrain of the area above, The Military Commands of Long An province has comments as following: Before 1975, Duc Hoa district was the place where fierce fighting happened in the Resistance War against America and Army of Republic of Viet Nam, with a huge bombardment of bombs.

After the Southern was completely liberated, the Provincial Military Commands has directed Engineer Forces and local agencies to detect, collect and handle landmines as well as unexploded ordnance on the ground to ensure the safety of the people's production. Currently, the munitions remnants beneath the ground cannot be concluded.

To ensure the absolute safety for persons and facilities in construction, the Military Commands of Long An Province requires Power Engineering Consulting Joint Stock Company 2 should have a plan in detecting and handling mines on the planned alignment for 500kV transmission line before construction implementation.

Attention:

- As above
- Filing

On behalf of the Commandant
Deputy Commander Tran Van Trai

209. (signed)

210.

**BỘ TƯ LỆNH QUẢN KHU 9
BCHQS TỈNH TIỀN GIANG**

Số: 2308 / BCH - TM

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập - Tự do - Hạnh phúc**

Tiền Giang, ngày 13 tháng 12 năm 2010

V/v cho ý kiến thoả thuận hướng
tuyến đường dây 500 kV Mỹ Tho
đến Đức Hoà, đoạn qua địa bàn tỉnh.

Kính gửi: Công ty cổ phần tư vấn xây dựng điện 2

Căn cứ vào công văn số: 3.566/TV2-TLĐ ngày 19/11/2010 của Công ty cổ phần tư vấn xây dựng điện 2, về việc xin thoả thuận hướng tuyến đường dây 500kV Mỹ Tho đến Đức Hoà, đoạn đi qua địa bàn tỉnh Tiền Giang;

Căn cứ vào Quy hoạch tổng thể bố trí Quốc phòng kết hợp với phát triển kinh tế - xã hội, từ năm 2011 đến năm 2020 của Bộ CHQS tỉnh Tiền Giang và hiện trạng đóng quân của các đơn vị quân đội.

Qua nghiên cứu công văn số: 3.566/TV2 - TLĐ ngày 19/11/2010 của Công ty cổ phần tư vấn xây dựng điện 2 và Bản đồ hiện trạng, về việc xin thoả thuận hướng tuyến đường dây 500kV Mỹ Tho - Đức Hoà, đoạn đi qua địa bàn tỉnh Tiền Giang. Bộ CHQS tỉnh có ý kiến như sau:

Điểm đầu Trạm 500kV Mỹ Tho tại xã Đầm Hy huyện Châu Thành tỉnh Tiền Giang.

Điểm cuối Trạm 500kV Đức Hoà tại xã Hoà Khánh Đông huyện Đức Hoà tỉnh Long An.

Tuyến đường dây 500kV đi qua địa bàn một số xã thuộc huyện Châu Thành, huyện Tân Phước tỉnh Tiền Giang, không ảnh hưởng đến vị trí đóng quân, hệ thống Thông tin liên lạc quân sự do Bộ CHQS tỉnh quản lý.

Qua khảo sát bom, mìn, vật liệu nổ còn sót lại sau chiến tranh trên địa bàn tỉnh Tiền Giang. Mật độ bom, mìn, vật liệu nổ các khu vực thi công đường dây 500kV qua địa bàn tỉnh, được xác định thuộc khu vực 2, mật độ 1. Do đó khi thi công đường dây 500kV cần tiến hành rà phá bom, mìn, vật liệu nổ nhằm bảo đảm an toàn tính mạng, tài sản của các đơn vị thi công và nhân dân trong vùng dự án. *HT*

Nơi nhận:
- Như trên
- Lưu VT, S02

**KT. CHỈ HUY TRƯỞNG
PHÓ CHỈ HUY TRƯỞNG - TMT**



Đại tá Nguyễn Văn Châu

CÔNG VĂN ĐẾN
Số: 8149
Ngày 13/12/2010

**The headquarter of Military Zone 9
Military Commands of Tien Giang Province**
No 2308/BCH-TM

*Re: agreement on the alignment of 500kV
My Tho – Duc Hoa transmission line,*

**Social Republic of Viet Nam
Independence – Freedom- Happiness**

Tien Giang, December 13, 2010

To: Power Engineering Consulting Joint Stock Company 2

Pursuant to the Official Letter No. 3451/TV2-TLĐ on 19th November 2010 of Power Engineering Consulting Joint Stock Company 2 about the matter of obtaining agreement on alignment of 500kV My Tho – Duc Hoa transmission line, which part across Tien Giang Province.

Pursuant to the Master Plan on defense layout combined with socio-economic development from 2011 to 2020 of Military Commands of Tien Giang Province, together with the status of military units positions,

After considering the Official Letter No. 3566/TV2-TLĐ on 19th November 2010 of Power Engineering Consulting Joint Stock Company 2 and the Status quo Map, 2 about the matter of obtaining agreement on alignment of 500kV My Tho – Duc Hoa transmission line, which part across Tien Giang Province, the Provincial Military Commands has the opinion as following:

The beginning point of My Tho 500kV Substation is situated at Diem Hy Commune, Chau Thanh District, Tien Giang Province.

The end point of Duc Hoa 500kV Substation is situated at Hoa Khanh Dong Commune, Duc Hoa District, Long An Province.

The 500kV transmission lines passes through areas of some communes in Chau Thanh and Tan Phuoc Districts, Tien Giang Province, which not affect the military positions and the system of military communication that under the control of Military Commands of Tien Giang Province.

After examining bombs, landmines and explosives remnants of war in Tien Giang Province, the density of bombs, mines and explosives in the construction areas of the 500kV line through the province, is identified as in area 2, level 1 of density. Therefore, when implementing the construction of 500kV transmission line, the demining should be proceeded in order to ensure the safety of lives and property of the construction unit as well as the people in the project area.

Attention:

- As above

- Filing Nguyen Van Chau

211. (signed)

On behalf of the Commandant

Deputy Commander

APPENDIX 5: EMERGENCY RESPONSE PLAN

1. The Contractor must develop emergency or incident response procedures (ERP) during construction. In the operational phase the operator/civil authorities will have responsibility for any emergencies or serious incidents. The construction phase should ensure:
 - i) Emergency Response Team (ERT) of the Contractor as initial responder;
 - ii) the District fire and police departments, emergency medical service, the Department of Public Health (DPH), collectively referred to as the External Emergency Response Team (EERT), as ultimate responders.

2. The Contractor will provide and sustain the required technical, human and financial resources for quick response during construction.

Table 1. Roles and Responsibilities in Emergency Incident Response

Entity	Responsibilities
Contractor Team (ERT)	<ul style="list-style-type: none"> - Communicates / alerts the EERT. - Prepares the emergency site to facilitate the response action of the EERT, e.g., vacating, clearing, restricting site. - When necessary and requested by the EERT, lends support / provides assistance during EERT’s response operations.
External Emergency Response Team (EERT)	<ul style="list-style-type: none"> - Solves the emergency/incident
Contractor Resources	<ul style="list-style-type: none"> - Provide and sustain the people, equipment, tools and funds necessary to ensure Subproject’s quick response to emergency situations. - Maintain good communication lines with the EERT to ensure prompt help response and adequate protection, by keeping them informed of Subproject progress.

3. The ERT will be led by the senior Contractor engineer (designated ERTL) on site with a suitably trained foreman or junior engineer as deputy. Trained first-aiders and security crew will be the core members of the ERT.

4. The Contractor will ensure that ERT members are physically, technically and psychologically fit for their emergency response roles and responsibilities.

5. Prior to the mobilization of civil works, the Contractor, through its Construction Manager, ERTL, in coordination with the EA/IA, will meet with the ultimate response institutions to discuss the overall construction process, including, but not limited to:
 - i) subproject sites;
 - ii) construction time frame and phasing;
 - iii) any special construction techniques and equipment that will be used; i
 - iv) any hazardous materials that will be brought to and stored in the construction premise and details on their applications and handling/management system;
 - v) the Contractor’s Emergency Management Plan
 - vi) names and contact details of the ERT members

6. The objective of this meeting is to provide the ultimate response institutions the context for:
 - i) their comments on the adequacy of the respective Emergency Management Plans

- ii) their own assessment of what types, likely magnitude and likely incidence rate of potential hazards are anticipated
- iii) the arrangements for coordination and collaboration.

7. To ensure effective emergency response, prior to mobilization of civil works, the Contractor will:

- i) set up the ERT;
- ii) set up all support equipment and facilities in working condition
- iii) made arrangements with the EERT;
- iv) conducted proper training of ERT members, and encouraged and trained volunteers from the work force;
- v) conducted orientation to all construction workers on the emergency response procedures and facilities, particularly evacuation procedures, evacuation routes, evacuation assembly points, and self-first response, among others; and
- vi) conducted drills for different possible situations.

8. To sustain effective emergency response throughout Subproject implementation an adequate budget shall be provided to sustain the capabilities and efficiency of the emergency response mechanism, the emergency response equipment, tools, facilities and supplies. Drills and reminders will take place regularly, the former at least every two months and the latter at least every month.

Alert Procedures

9. Means of communicating, reporting and alerting an emergency situation may be any combination of the following: i) audible alarm (siren, bell or gong); ii) visual alarm (blinking/rotating red light or orange safety flag); iii) telephone (landline); iv) mobile phone; v) two-way radio; and vi) public address system/loud speakers. Some rules relative to communicating/alerting will be:

- (i) Whoever detects an emergency situation first shall immediately :
 - call the attention of other people in the emergency site,
 - sound the nearest alarm, and/or
 - report/communicate the emergency situation to the ERT.
- (ii) Only the ERTL and, if ERTL is not available, the Deputy ERTL are authorized to communicate with the EERT. Exceptional cases to this rule may be necessary and should be defined in the Emergency Management Plans.
- (iii) When communicating/alerting an emergency to the EERT, it is important to provide them with at least: i) the type of emergency situation; ii) correct location of the emergency; ii) estimated magnitude of the situation; iii) estimated persons harmed; iv) time it happened; v) in case of a spill, which hazardous substance spilled; and vi) in case of fire and explosion, what caused it. Such details would allow the EERT to prepare for the appropriate response actions. For an effective reporting/alerting of an emergency situation:
- (iv) The names and contact details of the relevant persons and institutions should be readily available in, or near to, all forms of communication equipment, and strategically posted (at legible size) in all Subproject sites and vehicles:
 - Most relevant construction/operations staffs namely, the ERTL, Deputy ERTL, first-aiders, supervising engineers, foremen
 - EERT institutions/organizations
 - Concerned village authority/ies
 - IA Office, SS

- (v) All Subproject sites should have good access to any combination of audible and visual alarms, landline phones, mobile phones and two-way radio communication at all times.
- (vi) Contractor’s construction vehicles should also be equipped with the appropriate communication facilities.

Emergency Response Situations

The following tables suggest general procedures that will be refined in the final EMP during detailed design, and described in more detail in the Emergency Management Plans of the Contractor.

Table 2. Evacuation Procedure

Procedure	Remarks
Move out as quickly as possible as a group, but avoid panic.	All workers/staff, sub-contractors, site visitors to move out, guided by the ERT.
Evacuate through the directed evacuation route.	The safe evacuation shall have been determined fast by the ERTL/Deputy ERTL and immediately communicated to ERT members.
Keep moving until everyone is safely away from the emergency site and its influence area.	A restricted area must be established outside the emergency site, all to stay beyond the restricted area.
Once outside, conduct head counts.	Foremen to do head counts of their sub-groups; ERTL/Deputy ERTL of the ERT.
Once outside, conduct head counts.	Foremen to do head counts of their sub-groups; ERTL/Deputy ERTL of the ERT.
Report missing persons to EERT immediately.	ERTL/Deputy ERTL to communicate with the EERT.
Assist the injured in evacuation and hand them over to the ERT first-aiders or EERT medical group	ERT to manage injured persons to ensure proper handling.
If injury warrants special care, DO NOT MOVE them, unless necessary and instructed/directed by the EERT.	ERTL/Deputy ERTL communicates with EERT to get instructions/directions in handling the injured.

Table 3. Response Procedure During Medical Emergency

Procedure	Remarks
Administer First Aid regardless of severity immediately.	<p>Fundamentals when giving First Aid:</p> <ul style="list-style-type: none"> - Safety first of both the rescuer and the victim. - Do not move an injured person unless: <ul style="list-style-type: none"> - victim is exposed to more danger when left where they are, e.g., during fire, chemical spill - it would be impossible for EERT to aid victims in their locations, e.g., under a collapsed structure - instructed or directed by the EERT. <p>First AID to be conducted only by a person who has been properly trained in giving First Aid.</p>
Call the EERT emergency medical services and/or nearest hospital.	ERTL/Deputy ERTL or authorized on-site emergency communicator
Facilitate leading the EERT to the emergency site.	<p>ERTL/Deputy ERTL to instruct:</p> <ul style="list-style-type: none"> - an ERT member on- site to meet EERT in access road/strategic location. He/she shall hold orange safety flag to get their attention and lead them to site. - Other ERT members to clear access road for smooth passage of the EERT.

Procedure	Remarks
If applicable, vacate site and influence area at once, restrict site, suspend work until further notice.	Follow evacuation procedure.

Table 4. Response Procedure in Case of Fire

Procedure	Remarks
Alert a fire situation.	Whoever detects the fire shall immediately: <ul style="list-style-type: none"> - call the attention of other people in the site, - sound the nearest alarm, and/or - Foreman or any ERT member among the construction sub-group contacts the fire department (in this case it should be agreed on that it is alright for any ERT member in the sub-group to alert the fire department) - report/communicate the emergency situation to the ERTL/Deputy ERTL.
Stop all activities/operations and evacuate.	All (non-ERT) workers/staff sub-contractors, site visitors and concerned public to move out to safe grounds following the evacuation procedure.
Activate ERT to contain fire/control fire from spreading.	Guided by the training they undertook, ERT members assigned to mitigate the fire shall assess their own safety situation first before attempting to control fire spread.
Call the nearest fire and police stations and, if applicable, emergency medical services.	When alerting the EERT, ERTL will give the location, cause of fire, estimated fire alarm rating, any injuries.
Facilitate leading the EERT to the emergency site.	ERTL/Deputy ERTL to instruct: <ul style="list-style-type: none"> - an ERT member to meet the EERT in the access road or strategic location and lead them to the site. He/she shall hold the orange safety flag to get their attention and lead them to the site. - some ERT members to stop traffic in, and clear, the access road to facilitate passage of the EERT.
ERT to vacate the site as soon as their safety is assessed as in danger.	Follow appropriate evacuation procedure.

APPENDIX 6: ENVIRONMENTAL COMPLIANCE AUDIT OF 500KV MY THO SUBSTATION, TIEN GIANG PROVINCE

A. INTRODUCTION

ADB SPS (2009) requires the conduct of environmental audits for projects involving existing activities or facilities to determine existence of any areas where the project may cause or is causing environmental risks or impacts. This environmental compliance audit covers the current condition at the proposed 500kV My Tho Substation located at Diem Hy Commune, Chau Thanh District, Tien Giang Province.

B. AUDIT AND SITE INVESTIGATION PROCEDURE

Considering that the My Tho Substation is still under construction, the audit consisted of site visits, observations, and discussions with construction workers. Observations on environmental conditions and implementation of the environmental management plan for the construction activities were noted. Measures to address waste management, dust emission, water pollution, and occupational and community health and safety were also observed during the site visits.

C. SUBSTATION INFORMATION

Name of Facility: 500/220KV My Tho Substation

Name of Constructing Power Company: PECC2

Location: Diem Hy Commune, Chau Thanh District, Tien Giang Province

Capacity of substation: 500 kV

Connecting Lines:

- **500KV side: Transmitting power to:**
 - a. 500 KV My Tho – Duc Hoa transmission line
 - b. 500KV TL to Tra Vinh
 - c. 500KV TL to Phu Lam

- **220KV side: transmitting power to:**
 - a. 220KV TL to Long An
 - b. 220KV TL to Phu My
 - c. 220KV TL to My Tho
 - d. 200KV TL to Cai Lay

- **Receiving power from:**
 - a. 500KV Omon – My Tho transmission line
 - b. 500KV Nha Be – My Tho transmission line

D. DESCRIPTION OF CURRENT CONDITION AT SUBSTATION SITE

The construction of the 500KV My Tho Substation started sometime in 2013. The substation site is located in a property covering an area of about 23 hectares in Tien Giang Province. The site can be accessed through National Road No. 1 and Provincial Road No. 62.

There are two contract packages, namely: (1) for civil works and (2) for equipment installation. PECC2 is in-charge of the management of the construction and equipment installation activities at the substation while SPPMB is in-charge of the overall supervision before the substation is turned over for operation to the Power Transmission Corporation No. 4 (PTC4).

There are about 50 workers for the civil works, of which 5 are women workers. For the electrical works, there are more than 50 workers, of which only 1 woman staff was hired. According to the workers who were interviewed, most of them come from the locality. All construction activities are scheduled at daytime, for 8 hours per day only.

During the site audit, ongoing activities at the site include internal road grading and leveling, drainage construction, concreting of oil containment and transformer pads, steel works for switchyard area, installation of electrical equipment, construction of operation building, hazardous waste storage area, fire water tanks, and finishing works on the lodging house for staff.



Photo 6: Ongoing construction activities at 500kV My Tho Substation

E. FINDINGS AND OBSERVATIONS

The following are the observations noted during the audit:

1. Environmental Protection Commitment

An Environmental Protection Commitment (EPC) for the 500kV My Tho Substation and Connecting Lines was prepared and submitted to the People's Committee of Chau Thanh District on February 24, 2009 in compliance with the Law on Environmental Protection and Decree No 80/2006/ND-CP (2006), Decree No. 21/2008/ND-CP (2008), Articles of Decree No.

80/2006/ND-CP, and Circular No. 05/2008/TT-BTNMT (2008). The EPC was reviewed and approved by the People's Committee of Chau Thanh District on March 16, 2009 according to Decision No. 947/XN-UBNC (Annex A).

2. UXO Clearance

Prior to the start of the site development of the 500kV My Tho Substation, demining of UXO was investigated and surveyed. The Contract No.17/HD-RPBM/2013 was signed on 16 December 2013 between SPPMB and the Limited Company No. 621 on demining for My Tho substation project. The report on the completion of the demining was issued on March 31, 2013.

3. Prevention of Soil Runoff

Soil runoff were evident at the drainage canals inside the substation site. Murky and turbid water was already manifested at the adjacent irrigation canals as a result of runoff of soil and sediments from the construction site.



Surface grading activities causing soil runoff into the canal



Dumped excavated soil outside the substation site



Turbid water at the adjacent irrigation canal

Photo 7: Evidences of soil runoff and sedimentation at irrigation canal

4. Control of Dust Emission

Measures to control excessive dust emission are being implemented at the construction site through the manual sprinkling of water in disturbed areas.



Photo 8: Manual water sprinkling at the site

5. Construction Health and Safety Measures

There were lapses in the implementation of occupational health and safety measures during the audit. Workers were not wearing the required Personal Protective Equipment (PPE) while

working at the construction site. In addition, there were workers without harness or safety belt when working in elevated areas.

A first-aid kit was found in one of the construction camps inside the site. However, the kit only contains cotton and alcohol/disinfection medicine.

Makeshift construction camps with common toilets for men and women were noted at the site. Contractors provide workers with adequate supply of drinking water.



Workers without hard hats



Workers without safety belt or harness



First-aid kit at the site



One of the construction camps



One of the common toilets



Bottled water for workers

Photo 9: Condition of occupational health and safety at the site

6. Materials and Waste Management

Materials to be used for the construction of the substation are being segregated by the Contractors. However, in terms of wastes, improper waste segregation was observed since wastes can be found elsewhere at the site. Some workers resort to burning of garbage onsite.



Wastes burned at the site



Materials segregation

Photo 10: Materials and waste management

7. Hazardous Waste Management, Oil Spill Control and Fire Water Tanks for Future Substation

The hazardous waste storage area and the oil containment tank for the transformer were already being built. Firewater tanks were also noticed at the site.



Hazardous waste storage area



Oil containment tank



Firewater tanks

Photo 11: Hazardous waste management, oil spill control and fire water tanks for future substation

8. Environmental Monitoring and Reporting

There are no available environmental monitoring reports of the My Tho substation.

9. Designation of Environment, Health and Safety Officers

The workers who were interviewed are not aware of the designated Environment Officer or Health and Safety Officer at the site.

10. Environmental Complaints and Incidents

There has been no complaint received against the substation to date.

11. Implementation of Environmental Management Plan (EMP)

Several lapses were noted on the implementation the EMP particularly in terms of the management of occupational health and safety, solid wastes, and runoff of sediments during construction. The following checklist presents the findings on the EMP implementation at the substation:

Table 1: ENVIRONMENTAL COMPLIANCE CHECKLIST

No.	Item	Yes	No	Remarks
1. Natural source protection				
1	Are there any protected areas around the ss		x	Only farm crops surround the S/S
2	Is there any special area for protecting biodiversity		x	Only farm crops surround the S/S
2. Planned areas for key equipment				
4	Is there an oil containment area around transformers?	x		
5	Is there equipment or an area for installing equipment for controlling fire	x		

No.	Item	Yes	No	Remarks
3. Waste Management				
1	Is domestic solid waste collected and disposed at regularly place?		x	
2	Is construction waste collected and disposed by regulated organization?		x	
3	Does the SS have domestic wastewater preliminary treatment prior to discharging into body water	x		Toilets with septic tanks are part of the plans
4	Is there septic toilet in worker' camp	x		
4. Health and Safety				
1	Are there safety warning signage within the site?		x	
2	Are there safety guidelines?	x		
3	Have safety orientation and trainings been conducted for workers on labor safety?	x		
4	Are workers wearing personal protective equipment (PPE)?		x	
5	Are the worker's camps located in safe places?	x		
6	Have fist aid and drinking water for workers been provided?	x		
7	Noise and vibration due to blasting and other civil works?	x		Very low impact
8	What is the nearest distance from households to the SS?			About 4km
5. Permits and license/s to operate				
1	Is the Environmental Certificate for this SS being obtained?	x		EPC approval already obtained
2	Is environmental monitoring report conducted during construction?		x	No report
6. Air quality impact				
1	Increased local air pollution due to rock crushing, cutting and filling?	x		Water sprinkling was observed at the site.

F. CORRECTIVE ACTION PLAN

There are several lapses in the management of adverse impacts of construction activities at the My Tho substation which need to be addressed by the Contractors, as follows:

- a. Measures to control soil runoff and sedimentation of the adjacent irrigation canals should be undertaken.
- b. Occupational health and safety measures need to be improved to protect workers health and ensure sanitation in the workplace. These measures include the provision of adequate PPEs and first-aid medicines for workers, sanitary toilets with septic tanks, and well-ventilated construction camps, among others.
- c. Waste management needs to be improved through the provision of waste segregation bins and the regular collection of wastes to avoid indiscriminate disposal at the site and adjacent areas or burning of wastes by workers.
- d. Designation of an Environment Officer and Health and Safety Officer at the site to oversee implementation of the EMP and health and safety practices.

Notably, the substation has been planned with provision of a temporary hazardous waste storage area, oil containment tank for transformers, and fire water tanks. Environmental monitoring of noise levels, sewage management, and emissions as specified in Article 2 of the approved Certificate of Environmental Protection Commitment (EPC) of the 500kV My Tho Substation and Connection Lines need to be monitored to check whether the standards are being met.

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Annex A.
CERTIFICATE OF ENVIRONMENTAL PROTECTION COMMITMENT

**ỦY BAN NHÂN DÂN
HUYỆN CHÂU THÀNH**
Số: *404*/GCNMT-UBND

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập – Tự do – Hạnh phúc
Châu Thành, ngày 16 tháng 3 năm 2009

**GIẤY XÁC NHẬN ĐĂNG KÝ
BẢN CAM KẾT BẢO VỆ MÔI TRƯỜNG**
của Dự án: **Trạm biến áp 500Kv Mỹ Tho và các đường dây đầu nối**

- Căn cứ luật tổ chức Hội đồng nhân dân và Ủy Ban Nhân Dân ngày 26 tháng 11 năm 2003;
- Căn cứ vào Luật Bảo Vệ Môi Trường ngày 29 tháng 11 năm 2005;
- Căn cứ Nghị định số 80/2006/ND-CP ngày 9 tháng 8 năm 2006 của Chính phủ về việc quy định chi tiết và hướng dẫn thi hành một số điều của Luật Bảo Vệ Môi Trường;
- Căn cứ Nghị định số 21/2008/ND-CP ngày 28 tháng 02 năm 2008 của Chính phủ về sửa đổi, bổ sung một số điều của Nghị định 80/2006/ND-CP ngày 9 tháng 8 năm 2006 của Chính phủ về việc quy định chi tiết và hướng dẫn thi hành một số điều của Luật Bảo Vệ Môi Trường;
- Căn cứ Thông tư 05/2008/TT-BTNMT ngày 8 tháng 12 năm 2008 của Bộ Tài nguyên và Môi trường hướng dẫn về đánh giá môi trường chiến lược, đánh giá tác động môi trường và cam kết bảo vệ môi trường.
- Theo tờ trình số 114/TTr-TNMT ngày 11/3/2009 của Phòng Tài nguyên và Môi trường huyện.

**CHỦ TỊCH ỦY BAN NHÂN DÂN HUYỆN CHÂU THÀNH
XÁC NHẬN**

Điều 1. Chủ dự án là Nguyễn Tiến Hải - Trưởng ban Ban quản lý dự án các công trình điện Miền Nam đã có văn bản số 0780/CV-AMN-PĐB ngày 24 tháng 02 năm 2009, đăng ký bản cam kết bảo vệ môi trường của Dự án **Trạm biến áp 500Kv Mỹ Tho và các đường dây đầu nối**.

Điều 2. Chủ dự án có trách nhiệm thực hiện đúng và đầy đủ những nội dung về bảo vệ môi trường nêu trong bản cam kết bảo vệ môi trường và những yêu cầu bắt buộc sau đây:

1. Tiếng ồn phải đạt tiêu chuẩn TCVN 5949:1998;
2. Nước thải phải đạt tiêu chuẩn TCVN 5942:1995, nước thải sinh hoạt phải đạt tiêu chuẩn TCVN 6772:2000;
3. Khí thải phải đạt tiêu chuẩn TCVN 5937:2005.

Điều 3. Bản cam kết bảo vệ môi trường của Dự án và Giấy xác nhận này là cơ sở để các cơ quan quản lý nhà nước về bảo vệ môi trường giám sát, kiểm tra, thanh tra việc thực hiện bảo vệ môi trường trong suốt quá trình thi công xây dựng và vận hành Dự án.

Điều 4. Giấy xác nhận này có giá trị kể từ ngày ký/.

Nơi nhận:

- Nguyễn Tiến Hải - Trưởng ban Ban quản lý dự án các công trình điện Miền Nam;
- Phòng Tài nguyên và Môi trường;
- UBND xã Đầm Hy;
- Lưu Văn thư.
Số TT 04

**KT. CHỦ TỊCH
PHÓ CHỦ TỊCH**

(Signature)

Trần Văn Thọ



People's Committee
of Chau Thanh District

The Socialist Republic of Viet Nam
Independence- Freedom –Happiness

No:404/GCNMT-UBND

Chau Thanh, 16 March 2009

REGISTRATION CERTIFICATE
OF ENVIRONMENTAL PROTECTION COMMITMENT
Project: 500kV My Tho Substation and connecting lines

Pursuant to the Law on Organization of People's Council and People's Committee dated 26th November 2003.

Pursuant to the Law on Environmental Protection dated 29th November 2011.

Pursuant to the Government's Decree No. 80/2006/ND-CP dated 9th August 2006 detailing and guiding the implementation of a number of articles of the Law on environmental Protection.

Pursuant to the Government's Decree No. 21/2008/ND-CP dated 24th February 2008 amending and supplementing a number of articles of the Government's Decree No. 80/2006/ND-CP of 9 August 2006 detailing and guiding the implementation of a number of articles of the Law on Environmental Protection.

Pursuant to the Circular No. 05/2008/TT-BTNMT dated 8th December 2008 guiding strategic environmental assessment, environmental impact assessment and environmental protection commitment.

According to the Proposal No.114/TTr-TNMT dated 11th March 2009 of Natural Resource and Environment Division.

CHAIRMAN OF CHAU THANH DISTRICT PEOPLE'S COMMITTEE CONFIRMS:

Article 1: The owner of the Project is Mr Nguyen Tien Hai - Head of Southern Power Projects Management Board (SPPMB) has submitted the Document No 0780/CV-AMN-PDB dated 24th February 2009, registering for environmental protection commitment of the Project: 500kV My Tho Substation and connecting lines.

Article 2: Owner of the Project is responsible for the full and proper implementation of environmental protection provisions specified in Environmental Protection Commitment and mandatory requirements as following:

- a) Noise must meet the standard of TCVN 5949:1998;
- b) Sewage must meet the standards of TCVN 5942:1995; domestic sewage must meet the standards of TCVN 6772:2000;
- c) Emission must meet the standards of TCVN 5937:1995.

Article 3: Environmental Protection Commitment and this Certificate is the basis for State management agencies to supervise, examine and inspect the implementation of environmental protection during the construction and operation phase of the Project.

Article 4: This Certificate takes effect on the date of its signing.

RECIPIENTS
Mr. Hai director of SPMB
SPMB
Diem Hy CPC
Office

CHAIR PERSON
DEPUTY OF CHAIR PERSON
TRAN VAN THAO (SIGNED)