# **Draft Initial Environmental Examination**

June 2015

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

Subproject: 500kV My Tho - Duc Hoa Transmission Line

Prepared by the National Power Transmission Corporation (NPT) of Viet Nam and Southern Power Viet Nam Power Project Management Board (SPPMB) for the Asian Development Bank.

### **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
CSR - Corporate social responsibility
DED - Detailed engineering design
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

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 wasteIA - Implementing agency

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

SOx - Oxides of sulphur

SPPMB - Southern Viet Nam Power Project Management Board

SPS - ADB's Safeguards Policy Statement (2009)

STD - Sexually transmitted disease
SR - Safeguard requirement
TSP - Total suspended particulates

UXO - Unexploded ordnance

WB - World Bank

#### **WEIGHTS AND MEASURES**

cm² - square centimeter cm³ - cubic centimeter °C - degree centigrade cct-km - circuit kilometer

ha - hectare m - meter

m<sup>2</sup> - square meter m<sup>3</sup> - cubic meter mg/l - milligram per liter

mg/m<sup>3</sup> - 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.

This initial environmental examination is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

## **Table of Contents**

I. EXECUTIVE SUMMARY	8
II. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK	14
A. ADB'S Environmental Safeguards Policies	
B. Legal and Institutional Framework on Environmental Management in Viet Nam	
Environmental Protection	
2. Environmental Assessment	
3. Environmental Monitoring	
4. Electricity Law	
5. Land and Construction	
C. Milestones for Environmental Compliance of Subproject	19
III. DESCRIPTION OF THE PROJECT	21
A. Sub-Project Scope	
B. Sub-Project Schedule and Activities	
Pre-Construction	
Construction	
3. Operation	
·	
IV. DESCRIPTION OF THE ENVIRONMENT	
A. Geography	
B. Topography	
C. Geology	
D. Climate	
E. Water Resources	
F. Air and Noise Quality	41
G. Biological Resources	42
1. Flora	42
2. Fauna	42
H. Land Use	42
1. Ecologically protected areas	50
2. Cultural and heritage sites	50
3. UXO Contaminated areas	50
I. Socio-Economic Condition	52
1. Population	52
2. Economy	52
3. Power and Water Supply	53
4. Health	53
5. Education	54
6. Communications	55
7. Transportation	55
V. INFORMATION DISCLOSURE, CONSULTATION AND PARTICIPATION	56
A. Methodology	
Identification of Stakeholders.	
Public consultation meeting	
B. Issues and Concerns Raised During the Public Consultation	
C. Follow-up Stakeholder Consultations	
·	
VI. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASUR	ES 66

A.	Anticipated Benefits from the Project	66
В.	Impacts Related to Pre-Construction Phase	66
1	Land acquisition and damage to vegetation and crops	66
2	2. Impact on aesthetics	
3	B. Impact on drainage and flooding	
C.	Impacts and Mitigation during Construction Phase	
1	I. Soil runoff	67
2	2. Impact of fugitive dust and other emissions	68
3	B. Noise and Vibration	
4	4. Spill or leakage of hazardous construction chemicals	69
5	5. Generation of construction wastes	
	Traffic hazard and road degradation	
7	7. Impact on health and safety	
	3. Community health and safety	
	Impact on Natural Resources and Protected Areas	
1	10. Impact on Culturally Sensitive Areas	
D.	Impacts and Mitigation during Operational Phase	
	Occupational health and safety hazards	
	2. Community health and safety	
	Generation of domestic and hazardous wastes	
	Emergency Preparedness at Substation	
	5. Associated Facilities	
	6. Cumulative Impacts	
- 1	7. Climate Change	/5
VII.G	RIEVANCE REDRESS MECHANISM	77
Α.	Type of Grievances	77
В.	Grievance Redress Mechanism	
C.	Legal Guarantees for Complaints and Grievances	78
VIII.	ENVIRONMENTAL MANAGEMENT PLAN	
Α.	Implementation Arrangements	
	1. National Power Transmission Corporation (NPT) / Viet Nam Electricity (EVN)	
	2. Southern Power Project Management Board (SPPMB)	
	3. Power Transmission Corporation No. 4 (PTC4)	
В.	Mitigation Plan	
C.	Monitoring Plan	
D.	Reporting	
E.	Environmental Management and Monitoring Costs	103
IX C	ONCLUSION AND RECOMMENDATIONS	104
C	Appendix 1: Rapid Environmental Assessment Checklist	
	Appendix 2: Minutes, Attendance and Photo of Consultation Meeting	
	Appendix 3: EIA Approval Letter for 500kV My Tho - Duc Hoa Transmission Lines	
	Appendix 4: Letter on UXO Clearing	
	Appendix 5: Emergency Response Plan	
	Appendix 6: Environmental Compliance Audit of 500kV My Tho Substation, Tien Giang P	
		185

## **List of Tables**

Table 1: Environmental Protection Laws and Regulations	15
Table 2: EIA Requirements for Electricity Transmission Lines and Power Stations Projects	
Table 3: Power Network Legislation and Associated Legal Instruments	18
Table 4: Land and Construction Laws and Regulations	
Table 5: Legal Documents and Approvals of the 500kV My Tho-Duc Hoa Transmission Lin	nes 19
Table 6. Sections of the 500 kV My Tho- Duc Hoa Transmission Line	22
Table 7: Tower Coordinates	22
Table 8. Summary of the crossings of the transmission line	24
Table 9. Land within the ROW	25
Table 10. Summary of the main features of the project	25
Table 11: Implementation Schedule	26
Table 12: Construction camps to be used in all segments	27
Table 13: Construction machinery and equipment	28
Table 14: Tower type requirements on the transmission line	28
Table 15: Construction materials requirements for tower foundations	30
Table 16: Construction works	
Table 17: Sources of construction materials	33
Table 18: Representative surface water quality sampling	40
Table 19: Representative groundwater quality sampling	40
Table 20: Representative ambient air quality and noise sampling	41
Table 21: Vegetation along the transmission line route	43
Table 22. Land use within the ROW	
Table 23: Cultural and heritage sites	
Table 24. Population distribution in the affected areas of the project	52
Table 25: Health statistics in the provinces of Long An and Tien Giang (2011)	53
Table 26: HIV/AIDS Statistics in the Southeast Region (2011)	54
Table 27: Participants during the community consultation meetings	
Table 28: Summary of Public Questions, and Response by PECC2, and Subproject	
Table 29: Responsibilities on Environment Safeguards	
Table 30: Environmental Management Plan during Pre-construction Phase	
Table 31: Environmental Management Plan during Construction Phase	
Table 32: Environmental Management Plan during Operational Phase	
Table 33: Environmental Monitoring Plan during Construction Phase	
Table 34: Environmental Monitoring Plan during Operational Phase	
Table 35: EMP Reporting Plan	
Table 36: Activities and Indicative Cost for Environmental Management for 500kV My Tho	
Hoa Transmission Lines	103

## List of Figures

Figure 1:	Location Map	13
	Location of My Tho-Duc Hoa Transmission Line	
0	Administrative maps of the provinces of Long An and Tien Giang	
•	Average temperature in provinces of Long An and Tien Giang (2009 – 2012)	
•	Average rainfall in provinces of Long An and Tien Giang (2009 – 2012)	
•	Average monthly temperature and rainfall at Duc Hoc District, Long An Province	
•	<b>–</b> 2009	
Figure 7:	UXO contamination in Viet Nam	51
Figure 8:	Flooded area from 1m sea level rise from 2020 to 2100	76
•	Steps in the Grievance Resolution Process	

### 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 (T/L) 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 T/L 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. ThisIEE reportis 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); Government of Viet Nam's (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 T/L and temporary access road 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. There are no trees in the affected land. Compensation for the loss of agricultural production will be paid to the affected households 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 PPEs 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 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, spent lead acid batteries, and busted lamps 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 andincludes 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 T/L 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 electromagnetic field to communities. The local authorities also requested SPPMB to inform them about the mitigation measures inorder 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 affected people's (AP) grievances related to the subproject.
- 22. A grievance resolution process for compensation was established during the preconstruction 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 GRMare 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.

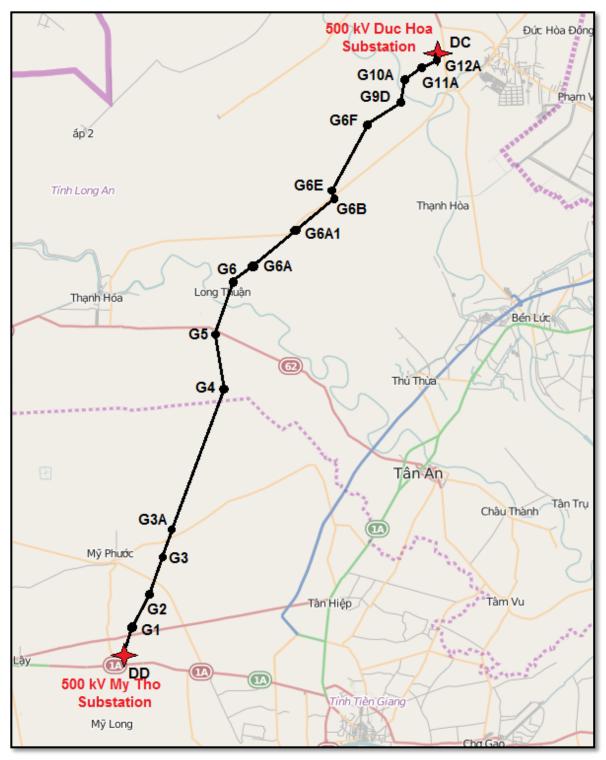


Figure 1: Location Map

Source: Power Engineering and Consulting Joint-stock Company No. 2 (PECC2). 2014. Environmental impact assessment for the 500 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 quidelines:
  - 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 2020<sup>2</sup>, 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 (SR1) 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.

<sup>&</sup>lt;sup>1</sup> Operations Manual Bank Policies (BP) issued on 1 October 2013, based on ADB Safeguard Policy Statement, 2009.

<sup>&</sup>lt;sup>2</sup>ADB. 2008. Strategy 2020: The Long-Term Framework of the Asian Development Bank 2008-2020. Manila.

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

- 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/QH10dated December 25, 2001 of the 10 <sup>th</sup> National Assembly;this law stipulates biodiversity conservation and sustainable development.	

Laws and Regulations	Description
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, dated Feb. 14, 2015	Regulation detailing a number of articles of the Environmental 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.27/2015/TT- BTNMT dated May 29, 2015	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/QD-	National technical regulation on surface water quality (QCVN

Laws and Regulations	Description
BTNMT dated December 31,	08.2008/BTNMT); Underground water quality (QCVN
2008	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 isrequired 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/QD-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	<220kV	EPP (Environmental Protection Plan)
	>220kV	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		
Description		
Amends and supplements a number of articles of the Electricity		
Law No. 28/2004/QH11 of December 3, 2004		
Prescribes the electricity development planning and investment;		
electricity saving; electricity markets; rights and obligations of		
organizations and individuals conducting electricity activities and		
using electricity; protection of electric equipment and facilities,		
electricity works and electric safety.		
On the safety and protection of high-voltage power grids.		
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.		
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.		
Pagarding protection on high voltage newer network		
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, the People's Committee of the provinces (Tien Giang and Long An) covered by the project. The EIA for the 500kV My Tho-Duc Hoa connection lines was approved under Decision No. 2271/QD-BTNMTon 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	Approval of decision of the Prime Minister on
Date issued: July 21, 2011	the national electricity development plan from 2010-2020
Ministry of Industry and Trade	Approval of the construction of the investment
Decision No. 4986/QD-BCT	project
Date issued: June 3, 2014	
MONRE	Decision on the approval of the EIA of the
Decision No.2271/QD-BTNMT	500kV My Tho – Duc Hoa Transmission Lines
Date issued: Oct. 13, 2014	project
Tien Giang Province People's Committee	Agreement on the direction of transmission
Document No.: 6109/UBND-CN	line at section passing Tien Giang Province
Date issued: December 24,2013	
Long An Province People's Committee	Agreement on the direction of the

Documents and approvals	Description
Document No. 3362/UBND-KT	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/CCĐTNĐPN-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/ĐNB-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. The program was approved by the ADB for financing through multi-tranche financing facility (MFF). 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 AnProvincesis 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 (T/L) 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 T/L will cross over existing roads, power and phone lines, bodies of water, and structures among others. A total of 73 structures within the 36 m right-of-way (ROW) have to be cleared and 148 located 16 70 m of ROW centerline will be earthed (Figure 2).
- 48. The route of the 54.83 cct-km³ T/L 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 T/L 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 T/L 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).
- 49. Along the route, several existing lines will be crossed: 26 medium-voltage T/L 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).
- 50. The T/L 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 T/L 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;

-

<sup>&</sup>lt;sup>3</sup> Cct-km – circuit kilometer

that is, high towers are located such that T/L will cross river in a single span. Supported by castin-place reinforced concrete slab pier and pile foundations, total area required for all tower foundations is  $56,935 \, \text{m}^2$  (Table 9).

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

No.	Province	District	Commune	Section	Distance (m)
1	Tien	Chau Thanh	Diem Hy	DD - G1	1,800
	Giang		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	21,066
2	Long An	Thanh Hoa	Tan Tay	G4- G5	4,953
		Thu Thua	Long Thuan, Tan	G5- G6	4,110
			Lap	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
				G10 A -	1,661
				G11A	
				G11A -	1,610
				G12A	
			Ho Khanh Dong	G12A - DC	560
	Subtotal	4	6	12	33,764
	Total	6	12	17	54,830

**Table 7: Tower Coordinates** 

Coordinates us	ing VN-2000 c	oordinate sys	ste	m (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.

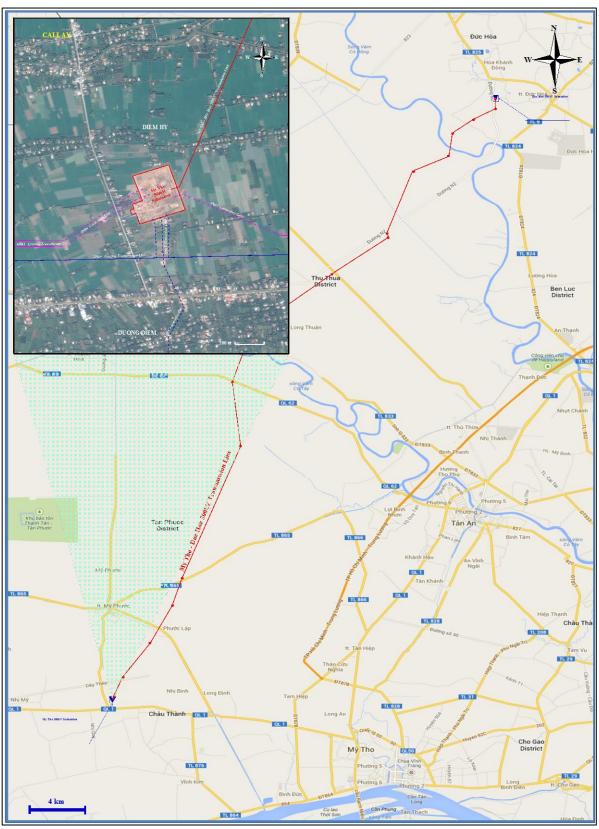


Figure 2: Location of My Tho-Duc Hoa Transmission Line

Table 8. Summary of the crossings of the transmission line

No.	Province	District	Commune	Section	Distance	Gas	Express	MV	Phone	Prov.	Canal	River	Struc	tures
					(m)	Pipeline	Way	T/L	line	Road			ROW	ΕZ
		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
		IIIaiiii	Nhi Binh	G1 - G2	3,114	1	-	2	-	-	5	-	14	21
1	Tien Giang		Phuoc Lap	G2-G3	3,180	-	1	2	1	1	2	-	11	42
		Tan Phuoc	My Phuoc	G3 - G3A	2,176	-	1	3	ı	1	1	-	6	10
			Hung Thanh, Tan Hoa Dong	G3A-G4	10,796	-	-	5	-	-	5	-	8	4
		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
		<b>T</b> I	Lana Thuan	G5- G6	4,110	-	1	4	-	1	2	1	7	15
		Thu Thua	Long Thuan, Tan Lap	G6 - G6A	2,003	-	I	3	-	-	1	-	-	6
		maa	Tan Lap	G6A - G6A1	5,042	-	ı		-	-	-	-	-	-
0				G6A1 - G6B	4,151	-	I	3	-	-	1	-	3	6
2	Long An	Ben Luc	Thanh Loi	G6B - G6E	321	-	I	-	-	1	-	-	-	-
		Dell Luc	Thanii Lui	G6E - G6F	5,004	-	ı	-	-	-	1	-	-	-
				G6F - G9D	2,551	-	-	-	1	-	-	-	-	4
				G9D - G10A	1,798	-	-	-	-	-	-	1	7	7
		Duc	Huu Thanh	G10 A - G11A	1,661	-	-	1	-	-	-	-	4	7
		Hoa		G11A - G12A	1,610	-	-	-	-	-	-	-	-	1
		1100	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

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 9. Land within the ROW

No.	Land Type	Tien Giang Pr	ovince	Long An Province			
NO.	Land Type	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 500 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 4xACSR666.6MCM – 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 20mm/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 <sup>3</sup> (average per tower: 1,015 m <sup>3</sup> )
	Concrete requirement	19,274.3 m <sup>3</sup> (average per tower: 172.1 m <sup>3</sup> )
	Area requirement	60,500 m <sup>2</sup> (average per tower: 540 m <sup>2</sup> ); 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	ltom		Estimated Construction Month																	
No.	Item	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 T/L was undertaken through cadastral survey, site survey and soil investigation. Cadastral survey determines the route for the development of the T/L, 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 and 148 within the earthing zone. A Resettlement Assistance Plan is being prepared separately. Compensation shall be designed in accordance with the ADB and GOV requirements. The SPPMB shall be incharge 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 T/L; 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, Lonn 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 m<sup>2</sup> (Table 12).

Table 12: Construction camps to be used in all segments

No.	Туре	Se	gment, area (	m²)	Total Area
		1	2	3	(m²)
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

				Quantity	
No.	Machinery and equipment	Туре	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

No.	Types	Symbol	Quantity (unit)	Weight (ton)	Length (m)	Spacing (m)
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

		Qty	D	imensio	n	Concrete	R-concrete	Cement	Sand	Gravel	Formwork	Ladder	Bolt
No.	Foundation Type	Qty	length	Width	depth	volume	volume	volume	volume	volume	volume	volume	weight
		unit	m	М	m	m <sup>3</sup>	ton	ton	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	kg
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

		Qty	D	imensio	n	Concrete	R-concrete	Cement	Sand	Gravel	Formwork	Ladder	Bolt
No.	Foundation Type	Qty	length	Width	depth	volume	volume	volume	volume	volume	volume	volume	weight
		unit	m	М	m	$m^3$	ton	ton	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	kg
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 where trees need to be cut will be performed. After cutting of trees, subsequently land will be leveled. With the large volume of soil to be excavated, these will be prioritized for use as backfill whenever possible. 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. Afterwards, construction of tower foundations will commence. 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).

Table 16: Construction works

No	Item	Item Unit Value Construction Notes				
140	Itom	Oille	Value	unit	Notes	
I.	Construction preparation					
1	Clearing	m <sup>2</sup>	255.64	85,213.33	Areas only where trees will be cut	
2	Cutting down trees	Tree	739.28	246.43		
3	Leveling	m <sup>2</sup>	82,489.19	27,496.39		
II.	Excavation, erosion control and backfill					
1	Excavation Pit (soil level 1)	m <sup>3</sup>	177,740.36	59,246.78	Manual, combined with machine	
2	Backfill Pit	m <sup>3</sup>	98,578.91	32,859.64	Manual	
3	Excavation to build road	m <sup>3</sup>	2,063.04		Manual, combined with machine	
4	Backfill to build road	m <sup>3</sup>	1,676.44		Manual	
5	Geotextile	m <sup>2</sup>	22,552.80	7,517.60		
6	Estimated land shortage	m <sup>3</sup>	24,644.73	8,214.91		
7	Erosion control - Melaleuca tree	Tree	44,752.00	17,917.33	Density = 3 trees/m <sup>3</sup> ; Height = 2 m	
8	Erosion control - Bamboo Wattle	m <sup>2</sup>	15,500.88	5,166.96	Height = 1m	
III.	Concrete foundation works					
1	Concrete M100	m <sup>3</sup>	9,165.54	3,055.18	Manual, combined with machine	
2	Concrete M150	m <sup>3</sup>	3.20	1.07	Base	
3	Concrete M200	m <sup>3</sup>	47,849.24	15,949.75	Manual, combined with machine	
4	Concrete M300	m <sup>3</sup>	296.50	98.83	Manual, combined with machine	
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 component	ts				

No	Item	Unit	Value	Construction unit	Notes
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; m<sup>2</sup> -square meter; m<sup>3</sup> - 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	From Segment 1, 2,
3	Cables, wires	Commune, Binh Tan	3: 90 km; 70 km; 60 km (respectively)
4	Insulators, other accessories	District, Ho Chi Minh City)	
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 vianational, 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 areatoeach 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. 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 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 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.

- 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 T/L and towers. For trees planted outside of ROW that threaten to infringe upon the safety distance, such will be cut or felled 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 influenceare 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 km<sup>2</sup>. 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 south<sup>4</sup>.
- 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 District<sup>5</sup>(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 km²and 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 0.8m from sea level. Highest and lowest elevations are 0.1m and 6.5m, 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 T/L 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 T/L 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 T/L 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.

<sup>&</sup>lt;sup>4</sup>Viet Nam National Administration of Tourism.The Socialist Republic of Viet Nam. http://vietnamtourism.com/e\_pages/country/overview.asp

<sup>&</sup>lt;sup>5</sup>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

### LONG AN MAP TÂY NINH CAM PU CHIA TÂN HƯNG ТР. НО СНІ МІЛН MÔC HOÁ THẠNH HÓA SVAMCOTAY ĐỒNG THÁP THỦ THÙA INDEX TÂN THẠNH Industrial Zone TIỀN GIANG Boundary of Nation Boundary of Province Boundary of District

106"30



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

River, Sping Administrative Center

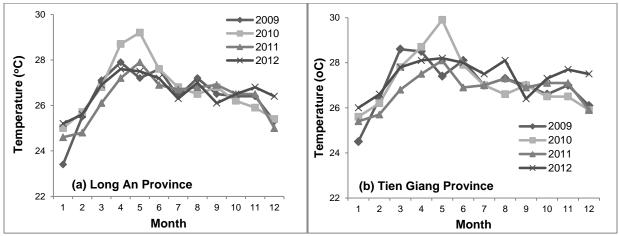
# C. Geology

- 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 T/L route revealed the following soil stratigraphy:
  - a. Soils at the field
  - Layer 1 (aQ<sub>IV</sub>), topsoil: clay (brown-yellow); average thickness from 0.3 to 0.5 m
  - Layer 2 (aQ<sub>IV</sub>): mud clay (black grey, ash-grey); water-saturated; with organics; average thickness of 2.5 to 7.6 m
  - Layer 3 (aQ<sub>I-III</sub>): 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<sub>IV</sub>), topsoil: clay (brown-grey, ash-grey); soft-plastic status; average thickness of 1 m
  - Layer 2 (aQ<sub>IV</sub>): mud clay (black-grey, ash-grey); water-saturated with organics; average thickness of 6.8 m
  - Layer 3 (aQ<sub>I-III</sub>): 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<sub>IV</sub>), topsoil: clay (brown-grey, ash-grey); soft-plastic status; average thickness of 0.5 m
  - Layer 2 (aQ<sub>IV</sub>): mud clay (black-grey, ash-grey); water-saturated; with organics; average thickness of 2.4 m
  - Layer 3 (aQ<sub>I-III</sub>): 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<sub>1-|||</sub>): 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 changeslittle 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

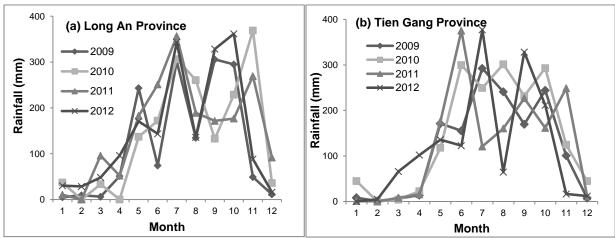
26.6°C in Long An Province. Temperatures in Tien Giang Province, for year 2009-2012, relatively were high throughout the year, as compared with Long An Province (Figure 4)



Adapted from: <sup>a</sup>2012 Statistical Yearbook of Long An Province (Metrological station: Tan An City, Long An Province) <sup>a</sup>2012 Statistical Yearbook of Tien GiangProvince(Metrological 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: <sup>a</sup>2012 Statistical Yearbook of Long AnProvince(Metrological station: Tan An City, Long An Province) <sup>a</sup>2012 Statistical Yearbook of Tien GiangProvince (Metrological 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 AnProvince are fairly highcompared 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).

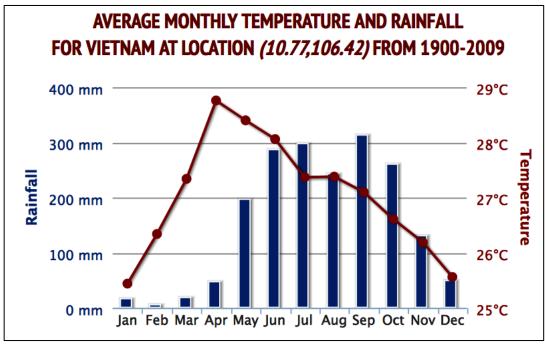


Figure 6: Average monthly temperature and rainfall at Duc Hoc District, Long
AnProvince from 1990 – 2009

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 - 6.5m above sea level. The area is profoundly influenced by flood levelof the rivers duringrainy 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

				Samplii	ng poin	ts <sup>a</sup>	QCVN
No.	Parameter	Unit	1	2	3	4	08:2008/BTNMT C (Column B1) <sup>b</sup>
1	рН		7.30	6.89	7.17	7.63	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 <sub>3</sub>	mg/L	1.930	0.315	1.032	1.138	10
8	Oil, total	mg/L	0.015	ND	0.008	ND	0.1
9	Total Coliform	MPN/100mL	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; NO<sub>3</sub> - nitrate; mg/L milligram per liter MPN/mL – most probable number per milliliter; ND – not detected; NTU – nephelometric turbidity unit Notes:

<sup>a</sup> 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)

<sup>b</sup> 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 T/L 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 T/L route; one household each for each province. Similarly, PECC2contracted 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	Samplin	g point <sup>a</sup>	QCVN 09:2008/
NO.	Farameter	Offic	1	2	BTNMT <sup>b</sup>
1	рН		6.73	6.84	5.5 – 8.5
2	TS	mg/L	167	138	
3	TDS	mg/L	164	135	1500
4	Hardness	mg/L	218	223	500
5	Alkalinity	mg/L	0.62	0.74	-

No.	Parameter	Unit	Samplin	g point <sup>a</sup>	
NO.	Farameter	Oille	1	2	BTNMT <sup>b</sup>
6	Turbidity	NTU	0	0	0
7	Conductivity	μs/cm	153	147	-
8	Oxygen	mg/ L	1.1	1.4	-
9	COD (KMnO <sub>4</sub> )	mg/L	0.2	1.1	4
10	CI-	mg/L	2.1	1.7	250
11	F-	mg/L	0.12	0.11	1.0
12	E.coli	MPN/100mL	ND	ND	-
13	Total coliform	MPN/100mL	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:

- 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)

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		Samplin	g points	a	QCVN	QCVN 26:
NO.	Parameter	Onit	1	2	3	4	05:2013/BTNMT <sup>b</sup>	2010/BTNMT
1	TSP	mg/m <sup>3</sup>	0.15	0.13	0.16	0.20	0.3	-
2	СО	mg/m <sup>3</sup>	3.24	3.65	2.28	2.84	30	-
3	NO <sub>2</sub>	mg/m <sup>3</sup>	0.054	0.067	0.077	0.081	0.2	-
4	SO <sub>2</sub>	mg/m <sup>3</sup>	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; SO<sub>2</sub> – sulfur dioxide; NO
2 – nitrogen dioxide; CO – carbon monoxide; dBA – decibel adjusted; mg/m³ – milligram per cubic meter

<sup>&</sup>lt;sup>a</sup> Sampling points:

<sup>&</sup>lt;sup>b</sup>QCVN 09: 2008/BTNMT: National Technical Regulation on Groundwater Quality

#### Notes:

- <sup>a</sup> 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)
- <sup>b</sup> 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 impactassessment 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 papaya andbananas. 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<sup>6</sup>. Along the T/L, there is no forest land traversed.

#### 2. Fauna

92. Along the T/L 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.

#### 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).

42

<sup>&</sup>lt;sup>6</sup>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	Area		Ar	ea for Ann	ual crops (	m²)		Trees
140.	1 TOVILICE	District	Commune	Section	(m)	(m²)	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
	J	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
			- 3	G5- G6	4,110	110,911	101,361	-	80	90	-	-	-
			Thuan,	G6 - G6A	2,003	67,167	63,041	-	-	-	-	-	-
			Tan Lap	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	G9D - G10A	1,798	48,441	36,011	2,124	90	-	-	392	-
			Thanh	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	Area	Agricultural	Residential	Rivers, canals,
INO.	FIOVILICE	District	Commune	Section	(m)	(m2)	Agricultural	Nesideriliai	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
			Nhi Binh	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
			My Phuoc	G3 - G3A	2,176	90,044	83,843	2,502	3,699
			Hung Thanh, Tan Hoa Dong	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
		Thu Thua	Long Thuan,	G5- G6	4,110	110,911	101,531	-	9,380
			Tan Lap	G6 - G6A	2,003	67,167	63,041	-	4,126
				G6A - G6A1	5,042	167,817	159,565	-	8,252
		Ben Luc	Thanh Loi	G6A1 - G6B	4,151	364,609	354,109	-	10,500
				G6B - G6E	321	34283	26,483	1	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
		Duc Hoa	Huu Thanh	G9D - G10A	1,798	48,441	38,617	6,913	2,911
				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
			Hoa Khanh Dong	G12A - DC	560	7433	6,288	-	1,145
	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 T/L 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 (1500 m to the west), and Phuoc Long Temple (300 m to the east). These however are not protected areas.

Table 23: Cultural and heritage sites

No		nces to e of line	Name of cultural heritages and structures	Locations
	Left	Right	Structures	
	(m)	(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	Bac village, Diem Hy commune,
			relics)	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, Nhị Binh
				commune
9		1000	Nhi Binh health station	Center of Nhi Binh commune
10		1000	Bui Van Hoa secondary school	Center of Nhị 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).<sup>7</sup>
- 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:

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

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.

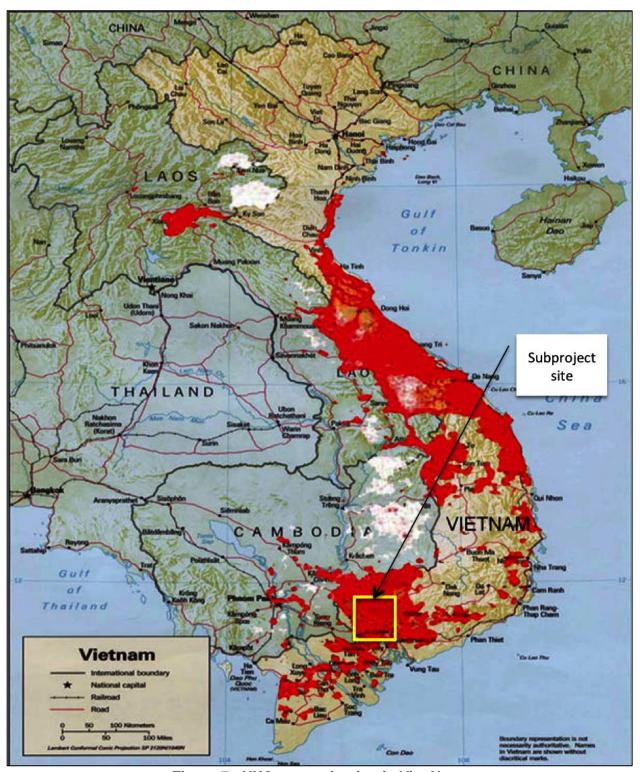


Figure 7: UXO contamination in Viet Nam

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 Provinceaccounts 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	Diem Hy	10,065	4,011	6,054
		Thanh	Nhi Binh	17,524	8,776	8,748
			Commune Subtotal	27,589	12,787	14,802
		Tan	Phuoc Lap	9,450	4,723	4,727
		Phuoc	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	Tan Tay	5,024	2,496	2,528
		Hoa	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	E SUBTOTAL	42,194	21,439	20,765
TOT	AL			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 Hoa<sup>8</sup>.

52

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

- 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 City<sup>9</sup>.
- 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 m<sup>3</sup>/day<sup>10</sup>.
- 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)

			Da	ata on	Provinces (L	ong An   Tie	n Giar	ng)		-
Item	Hos	Hospital Region polyclin			Sanitario rehabilitatio	Medical Tota service unit			tal	
Health	15	11	5	13	-	-	190	169	210	193

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

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

<sup>&</sup>lt;sup>11</sup>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%2Fcapnuocmienr

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

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

			Da	ata on	Provi	nces (L	ong A	n   Tie	n Giar	ng)		
Item	Hospital		Regional polyclinic		Sanitarium and rehabilitation hospital			Medical service unit		Total		
establishment												
S												
				21								
Patient beds	2,440	2,150	160	5	-		-		732	845	3,332	3,210
	Doctor		Physi	cian	Nurs	е	Midv	vife	Pharn	nacist		
			103	81	90		45	48				
Medical staff	751	824	4	2	7	1,213	5	1	422	856	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 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 5<sup>th</sup> 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	Accumula December		Number of AIDS
	HIV infected people	AIDS patients	HIV infected people alive	AIDS patients alive	deaths
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 Province<sup>13</sup>.

- 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% forupper 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.

#### 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, respectively<sup>14</sup>. 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.
- 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.

 <sup>&</sup>lt;sup>13</sup>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
 <sup>14</sup>General Statistics Office of Viet Nam. 2015. Volume of freight traffic by province.

<sup>&</sup>lt;sup>14</sup>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

<sup>&</sup>lt;sup>15</sup>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

# 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. 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) Affected households 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

					Attendees	
No	Province	District	Communes	Official	Households	Total
			Diem Hy	4	42	46
		Chau Thanh	Nhi Binh	4	19	23
1	Tien Giang	Tan Phuoc	Phuoc Lap	3	24	27

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

## 117. The public meeting 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 answered and explained all questions to the participants. The following are the comments raised during the consultation meetings:
  - All local authorities and the affected people have agreed completely on the national power development plan and the subproject will cross over their localities.
  - The transmission line should 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 should closely coordinate with local authorities on compensation support and site clearance
  - The Contractors should 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 should 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 should 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 should be clearly informed about impacts of electro-magnetic field 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 should 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 should 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 consultants are summarized in Table 28.

## C. Follow-up Stakeholder Consultations

120. Follow-up consultations will be managed through the Grievance Redress Mechanism of 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 should 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 should be available at the same offices.

Table 28: Summary of Public Questions, and Response by PECC2, and Subproject

Location and time	Comments/questions from local authorities <sup>16</sup>	Answers of Project owners and consultants company PECC2
	Agreecompletelythattheprojectcrossesoverthecommune	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
	How can the affected people monitor if measures on protecting the environment is implemented strictly or not and how force the Contractors to compensate damage before moving	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
Diem Hy commune, Chau Thanh district, Tien Giang province on 21 Mar. 2015		The affected persons and local authorities are entitled to participate in environmental monitoring and require Contractors to have corrective actions.
on 21 mar. 2010		Without agreement of local authorities after completion of construction, Contractors will not receive all payment from the project owner.
	How to avoid and reduce the impacts of electro-magnetic field	All houses under the RoW must be relocated (16m from the line centre of each side) and the houses located within 16 – 60m must be earthed.
	for people's health when working under RoW	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.
Nhi Binh commune, Chau Thanh district, Tien Giang province	Agreecompletelythattheprojectcrossesoverthecommune;	Noted

\_

 $<sup>^{16}</sup>$  Questions, issues raised during public consultation meetings recorded in table as received

Location and time	Comments/questions from local authorities <sup>16</sup>	Answers of Project owners and consultants company PECC2
on 21 Mar. 2015	The transmission line should not cross the residential areas to avoid impacts on relocationand health of inhabitants;	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.
	The Contractors should commit to implementing the mitigation measures mentioned in the approved EIA/ EMP while compensating damages of crops, trees cut for the affected person.	Will do that
	Contractor is required to repair community roads if they are damaged by the project's activities	Will do that
Hung Thanh commune, Tan Phuoc district, Tien	The project owner is required to discuss with local authority to have	The project owner will inform the affected communities on its working plan before execution.
Giang province on 18 Mar. 2015		Contractors will be responsible for negotiate directly with the affected persons on the issues before doing;
		All losses will be adequately compensated to the APs as agreed under witness of the project owner.
	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.	Will do that
	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.	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

Location and time	Comments/questions from local authorities <sup>16</sup>	Answers of Project owners and consultants company PECC2
Phuoc Lap commune, Tan Phuoc district, Tien Giang province on 18 Mar. 2015	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 monitoring on environment.	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.
		Contractors will:
	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;	- 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.
	Constructors 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	Contractors will rend/ borrow land or payment of losses for crops to prepare temporary site and roads to gather materials, dragging wires;
	conditions after construction completion;	Contractors will rehabilitate grounds after completion of work.
Tan Hoa Dong commune, Tan Phuoc district, Tien Giang province on 19 Mar. 2015	CPC requires constructors 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	Contractors will rend/ borrow land or payment of losses for crops to prepare temporary site and roads to gather materials, dragging wires;
	completion of construction;	Contractors will rehabilitate grounds after completion of work.

Location and time	Comments/questions from local authorities <sup>16</sup>	Answers of Project owners and consultants company PECC2
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 affected persons;	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 Ahs 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 and ADB's consultants.
	The executive plan of constructor should be disseminated openly to the affected persons 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 activities.	Will do that

Location and time	Comments/questions from local authorities <sup>16</sup>	Answers of Project owners and consultants company PECC2
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 constructor should be disseminated openly to the affected persons 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 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 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 effect on the area of planning to grow green trees of the garbage processing private company, so the company would like to corporate closely with the project owner during the time of implementing the project;	Project owner will inform the company right of way 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 exactly RoW and what activities allowed doing under the RoW.	Under RoW trees' height maximum is 6m,
	<b>3</b>	the distance from any part of tree when the tree falls to any part of line must not be less than 2m
	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,	The project owners and related agencies are required to collect and treat the wastes discharged by construction and recreation of	Will do that

Location and time	Comments/questions from local authorities <sup>16</sup>	Answers of Project owners and consultants company PECC2
Long An province on 25 Mar. 2015	workers as regulated; compensate any damages and return site grounds to the original conditions after finishing the construction	
	The executive plan of constructors should be disseminate openly to the affected person 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;	Contractors will comply with transportation rules and community regulation on vehicle load when transporting materials to the roads, cover to prevent dust generation; compensate any damage and rehabilitation after completion.
	Most of the towers located in the paddy field so the schedule of excavating foundation should be in period of after harvesting, while the constructors 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, incase because of progress requirement, Contractor will negotiate with the Ahs for compensation before doing
	Constructors should collect and treat the construction and recreation wastes as regulated;	Will do that
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.

Location and time	Comments/questions from local authorities <sup>16</sup>	Answers of Project owners and consultants company PECC2	
	Are the compensated land areas calculated the safety corridor of the underground cable?		
Conclusion	All commune CPCs and affected households agree and will support the construction of the 500KV My Tho – Duc Hoa transmission line.		

#### 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, HCMC 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, it will be sited to avoid houses to the maximum extent possible. The minimum vertical clearance of 6 m for houses, trees, and other structures will be designed in the ROW, as allowed in Viet Nam. Land will be permanently acquired for the construction of the tower foundations by SPPMB. Tall trees within the ROW will be removed as necessary to comply with the minimum conductor clearance. In addition, to maintain conductor clearances and to establish safe operating distances within 16 60m wide of each side for earthing zone, households will be required to install lightning arresters.
- 127. 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.

#### 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 linesis 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.

## C. Impacts and Mitigation during Construction Phase

- 131. Construction activities will include excavation of the oil containment and transformer pad, filling, movement of construction vehicles, operation of heavy equipment, 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.** Thetransmission 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 100m from banks of rivers and canals. Runoff may be transported to the rivers and canals causing sedimentation and turbidity, i.e. reduction 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 should be set-up to trap and settle out runoff from the construction area. Likewise, temporary barriers and trenches should 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 will be concreted 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 should 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, SOx, NOx, 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 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 should coordinate with the concerned communities on the agreed schedule of construction and transport of materials.

#### 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 cropplantations and irrigation canals should 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 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 personal protective equipment (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 shortterm.
  - 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 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 nonhazardous waste.
  - c) Designation of areas of impervious surface for equipment services, refueling, and wash down. The maintenance area should 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 (10 and 90 tons) 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. For the 90 ton crane, it will only be used once during transformer installation. Duration of use will be within the day the transformer is delivered onsite. Therefore, impacts on traffic are anticipated to be moderate and short-term.
- 150. **Mitigation Measures.** The Contractor will be required to prepare 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
  - 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 electromagnetic field (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 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 and implement an Electrical Safety Plan; Fire Prevention, Safety and Management Plan; Education and Awareness Plan for HIV/AIDS and other

- STDs; and Integrated Control Strategy for Mosquito and Other Arthropod-borne Diseases as part of the Health and Safety Plan of the CEMP.
- c) Provision of first-aid facilities readily accessible by workers.
- d) Post safety signs, reminders, or warning notices at visible areas onsite.
- e) Follow electrical safety regulations and good practices.
- f) Hire only trained and certified workers on electrical works.
- g) Plan work site layout to minimize need for manual transfer of loads.
- h) Provide appropriate and accessible fire-fighting equipment.
- i) Ensure unobstructed access of fire responders and egress of vehicles
- j) Provide security personnel in areas where appropriate.
- k) Strictly implement a "No Alcohol and Drug Policy".
- I) Prohibit illegal activities such as but not limited to gambling.
- m) 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 Community Health and Safety Plan (CHSP) that incorporates good international practice and recognized standards. The CHSP should include emergency response and preparedness procedures to be developed in close consultation with potentially affected communities and local authorities. The plan should 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 should 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 should 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.

#### 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.

#### 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 highvoltage electrical equipment, working in high elevation, exposure to electromagnetic field (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 electromagnetic fields (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.<sup>17</sup> 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 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 should 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 should 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.

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

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 should 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<sup>18</sup>, 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 demonstrating adverse health effects. However, the public should 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.

#### 3. Generation of domestic and hazardous wastes

- 167. **Impacts.** Chemicals that are commonly handled in the transmission lines are mineral oil in transformers and other electrical components and liquid petroleum fuel. There are potential hazardous materials and oil spills associated with the maintenance and repair of equipment. Storage facilities of liquid petroleum fuels for the generator sets and for vehicles and other equipment are also potential sources of accidental spills. Other hazardous wastes include used lead acid batteries, oily rags from maintenance activities, and busted lamps. Oil leak and accidental spills of hazardous waste could give rise to contamination of soil and groundwater.
- 168. **Mitigation Measures.** The transformers and equipment should meet international standards including regular maintenance and inspection program to check leaks. The areas around the substation transformers and oil storage areas should be provided with secondary containment with impervious bund capable of holding the oils, fuels, and hazardous wastes in the area. Discharges from these spill bunds with the potential to be contaminated with oil should be directed to the oil-water separators. These are particularly necessary within substation site and at the maintenance yard.

-

<sup>&</sup>lt;sup>18</sup>Footnote 1.

## 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. There should 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, e.g. from transformer.

#### 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 Anand 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 1m sea level rise in 2020 to 2100.

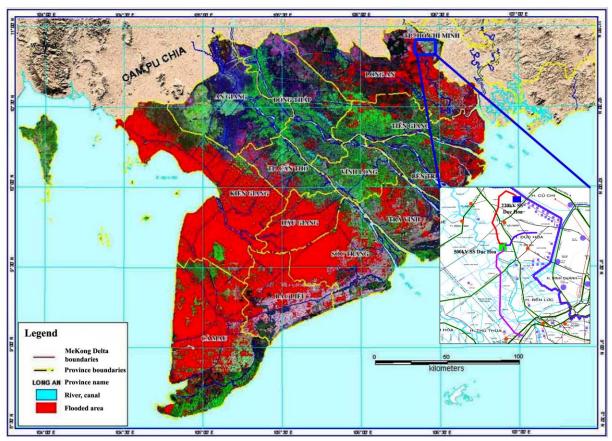


Figure 8: Flooded area from 1m sea level rise from 2020 to 2100 Source: PECC3

#### VII. GRIEVANCE REDRESS MECHANISM

# A. Type of Grievances

- 177. Any affected person (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 affected person(s).

#### 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 affected person (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.
- 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)
- 182. **Step 1:** For complaints occurring during the construction phase, affected persons 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 contactor 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.

- 183. **Step 2:** If the complainant is not satisfied with the action(s) undertaken by the Contractor, the affected person 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.
- 184. **Step 3:** If the complainant is not satisfied with the action(s) undertaken at the level of Commune People's Committee, the affected person may elevate the case to the district level for resolution.
- 185. **Step 4:** Complaints not resolved at the district level is elevated to the People's Committee at the provincial level for resolution.
- 186. **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.

# C. Legal Guarantees for Complaints and Grievances

- 187. 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.
- 188. 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.
- 189. Under the law, all meetings to resolve complaints and grievances should be documented and the minutes of meetings should be disclosed and posted at the Commune People's Committee.

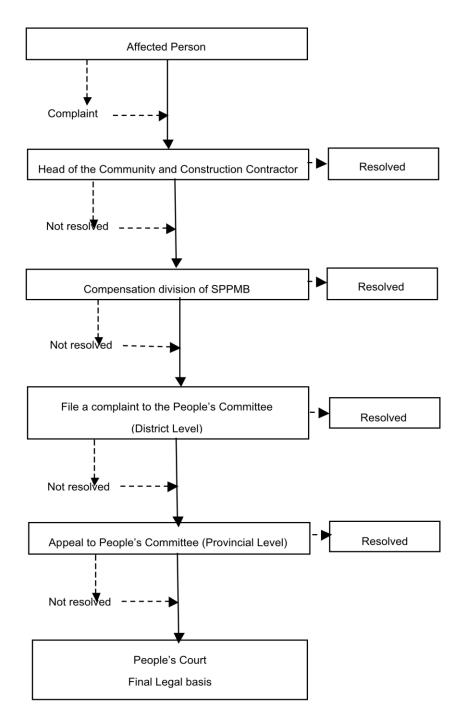


Figure 9: Steps in the Grievance Resolution Process

#### VIII. ENVIRONMENTAL MANAGEMENT PLAN

190. This Chapter presents the mitigation and management measures for the proposed 500kV My Tho - Duc Hoa transmission lines. Information includes the mitigation measures to the 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

191. The NPT, 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)

- 192. 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 will assume overall responsibility in implementation and compliance with loan assurances, including all the requirements specified in the EMP.
- 193. The NPT 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.
- 194. In relation to environment safeguards, the NPT 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), World Bank Environmental, Health and Safety (EHS) Guidelines, 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)

195. The SPPMB is the implementing agency (IA) of the subproject during the construction phase. Under supervision of the NPT, the SPPMB through its implementation unit will be responsible for the field surveys, detailed engineering and design (DED), 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.

196. 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' construction environmental management plan.
- 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 on a semi-annual basis.
- 197. Prior to project construction, the SPPMB through the ESU will require the construction Contractor to develop a Construction Environmental Management Plan (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.
- 198. 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 semi-annual environmental monitoring reports for submission to NPT and ADB.

# 3. Power Transmission Corporation No. 4 (PTC4)

- 199. 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.
- 200. 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 semi-annual environmental monitoring reports to DONRE and NPT.
- 201. The following summarizes the tasks of the key institutions involved in subproject implementation:

Table 29: Responsibilities on Environment Safeguards

	Project Stage and Environmental Responsibility							
Responsible Entity	Project Preparation	Detailed Engineering	Tendering and Pre-	Construction	Operation			
		Design	construction					
NPT/EVN		The Executing Agency (EA) responsible for overall implementation and compliance with loan assurances and the EMP.						
	Ensure that SPPMB has conducted an EIA, prepared an EMP and secured the necessary environmental clearance.	Confirm that mitigation measures have been included in detailed engineering design.	Oversee the procurement process of SPPMB	Review the quarterly project progress reports and semi-annual environment monitoring reports of SPPMB prior to submission to ADB.	<ul> <li>Instruct PTC4 on environment management and monitoring requirements.</li> <li>Review semiannual environmental monitoring reports of PTC4 until a Project Completion Report (PCR) is issued.</li> </ul>			
SPPMB		. ,	•	ion phase. The IA will ensumorks and environmental n				
	<ul> <li>Engage consultants to prepare the FS, EIA report, RP.</li> <li>Check alignment of subproject proposal with the Power Development Plan.</li> </ul>	Engage consultants to assist SPPMB with the DED, preparation of bid documents, prequalification of bidders, tender administration, award of contracts.     Contract administration	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.	Supervise     Contractors and     ensure compliance     with the CEMP.     Coordinate     construction     supervision and     quality control     Coordinate with     EMC on     environmental     monitoring     according to the     environmental     monitoring program     in the approved				

	Project Stage and Environmental Responsibility					
Responsible Entity	Project Preparation	Detailed Engineering Design	Tendering and Pre- construction	Construction	Operation	
				CEMP. Review and consolidate monthly environmental monitoring reports submitted by construction Contractors. Submit semi-annual environmental monitoring reports to NPT/EVN. Testing and handover of the subproject to PTC4.		
Contractors			<ul> <li>Prepare site-specific CEMP containing method statements on implementation of pollution control and mitigation measures listed in the EMP.</li> <li>Submit the CEMP to SPPMB/ESU for review and approval.</li> <li>Ensure sufficient funding for proper and timely implementation of required mitigation and monitoring</li> </ul>	<ul> <li>Appoint an environment, health and safety (EHS) officer to oversee EMP implementation.</li> <li>Ensure health and safety of workers.</li> <li>Act as the local entry point for the project GRM.</li> <li>Prepare monthly construction progress and status of implementation of CEMP for submission to SPPMB / ESU.</li> </ul>		

	Project Stage and Environmental Responsibility					
Responsible Entity	Project Preparation	Detailed Engineering Design	Tendering and Pre- construction	Construction	Operation	
			measures in the CEMP throughout the construction phase.			
PTC4	The PTC4 will be the IA d	uring the operational phase	and will ensure continued in	nplementation of the EMP.		
					<ul> <li>Ensure proper operation of the subproject according to design standards.</li> <li>Act on community complaint(s) related to the project operation.</li> <li>Undertake regular inspection and environmental monitoring.</li> <li>Submit semi-annual environmental monitoring results to DONRE and EVN/NPT.</li> </ul>	
Consultants						
Project Implementation Consultant (PIC) – International and National Consultants (Environment)		<ul> <li>Assist in the completion of the detailed subproject designs</li> <li>Provide technical direction and support to SPPMB/ESU for</li> </ul>	<ul> <li>Work with the SPPMB and Contractor to update the CEMP</li> <li>Deliver capacity development and training to the SPPMB/ESU</li> </ul>	<ul> <li>Assists work of the EHS Officer (EO) of Contractor in implementing CEMP</li> <li>Provide advise and support to EMC in their monitoring</li> </ul>	<ul> <li>Ensure EMP measures are inplace during commissioning</li> <li>Deliver capacity development and training to PTC4</li> </ul>	

		Project Stag	ge and Environmental Re	sponsibility	
Responsible Entity	Project Preparation	Detailed Engineering Design	Tendering and Pre- construction	Construction	Operation
Environmental monitoring consultant (EMC)		implementation of EMP	construction	activities  Conduct inspections at the construction sites relative to EMP implementation.  Review reports prepared by Contractors and EMC  Field sampling with ESU Prepare semi- annual environmental monitoring reports	Field sampling with Environment Officer of PTC4 Evaluate compliance of subproject with the
				and provide copies to SPPMB/ESU.	EMP and determine corrective actions, if necessary.  • Prepare semiannual 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

	Tubic 60: Environmental management Flair during Fre constituction Flace							
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	Review mitigation measures defined in this EMP, update as required to reflect detailed design.  Include updated EMP in all bid documents.	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			

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 theCEMP. Measures to be applied include:  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.	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 WB EHS standards  Property maintain machinery to minimize noise	SPPMB / Contractor	Part of construction management 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
		No construction shall be allowed between nighttime hours of 22:00 to 06:00  Prohibit drivers of construction vehicles to minimize blowing of horn and limit speed when passing through residential areas.			
Use of hazardous construction chemicals	Spill or leakage of hazardous chemicals which could contaminate land and groundwater	<ul> <li>Contractor will be required to prepare Hazardous Chemicals Management Plan in theCEMP.</li> <li>Measures to be applied include:</li> <li>Prepare a list of hazardous chemicals to be brought at the site including information on quantity and hazard classification.</li> <li>Minimize or avoid long storage of hazardous materials onsite.</li> <li>Comply with the labeling and storage requirements of hazardous chemicals, including provision of MSDS</li> <li>Conduct refueling and equipment servicing only in designated areas with impervious surface.</li> <li>Provide oil and grease traps and other spill containment measures.</li> <li>Contractor to provide readily available clean-up equipment.</li> <li>Inform and educate workers about the Hazardous Chemicals Management Plan in the CEMP through training and orientation.</li> <li>Provide workers with PPE.</li> </ul>			
Generation of construction wastes	Domestic solid wastes, domestic wastewater, inert construction	Contractor will be required to prepare Waste Management Plan in theCEMP. Measures to be applied include:  Provision of adequate onsite sanitation	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
	wastes,and hazardous wastes during construction may result to pollution of land.	<ul> <li>facilities to prevent untreated sewage from being channeled into drainage canals, river and on land.</li> <li>Undertake waste reuse and recycling, where possible, and dispose only in approved sites.</li> <li>Undertake segregation of hazardous and non-hazardous wastes, including properly labeled waste disposal bins.</li> <li>Instruct workers not to indiscriminately dispose wastes particularly at surrounding areas</li> <li>Comply with the GOV requirements on hazardous waste labeling, temporary storage, transport, and disposal.</li> <li>Store hazardous wastes on leak-proof containers with proper label and place on areas with concrete surface and secondary containment.</li> <li>Contract only accredited company by MONRE for waste collection, transport and disposal.</li> <li>Prohibit burning of wastes</li> <li>Conduct refueling and equipment servicing only in designated areas with impervious surface.</li> <li>Provide oil and grease traps and other spill containment measures.</li> <li>Contractor to provide readily available clean-up equipment.</li> <li>Inform and education workers about the Waste Management Plan in the CEMP through training and orientation.</li> </ul>			
Traffic hazard and road degradation	Risks to community health and safety and road degradation due	Contractor will be required to prepare Traffic Management Plan in the CEMP. Measures to be applied include:	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
	to movement of heavy vehicles during transport of materials and equipment.	<ul> <li>Movement of heavy vehicles to avoid peak hours of local road network, wherever practicable</li> <li>Monitor traffic at access roads</li> <li>Ensure vehicles are maintained regularly</li> <li>Conduct road safety training for drivers</li> <li>Impose speed limits particularly when passing through settlement areas.</li> <li>Rehabilitate damaged sections of roads.</li> <li>Manage traffic by posting warning signs and assigning flag persons to direct traffic on affected roads.</li> </ul>			
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	Contractor will be required to prepare Health and Safety Plan in theCEMP. Measures to be applied include:  Implementation of electrical safety plan, fire prevention, safety and management plan, education and awareness plan for HIV/AIDS and other diseases  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	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> <li>appropriate</li> <li>Strictly implement a "No Alcohol and Drug Policy"</li> <li>Prohibit illegal activities including gambling</li> <li>Inform and educate workers on the Health and Safety Plan.</li> </ul>			
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	Contractor will be required to develop a Community Health and Safety Plan (CHSP) in the CEMP that includes:  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	Potential Impact	Options for Prevention or Mitigation or	Responsible	Cost	Guarantee/ Financial
Aspect		Enhancement	Entity		Arrangements
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.	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 TL.  Only authorized and trained personnel will be allowed to work or have access to electrical equipment.  Adhere to electrical safety standards.  Provide proper grounding and deactivation of live power equipment during maintenance work or if working in close proximity to equipment.  Provide PPE for workers  Observe guidelines to minimum approach distances when working around operational equipment.  Identify potential exposure levels in work area including surveys of exposure levels and establish safety zones at the T/L.  Post safety reminders and warning signs.  Warn personnel of potential electric arc flash hazards when inspecting or working with energized equipment.  Comply with the WB EHS guidelines for electric	PTC4 thru the Environment Officer	Part of the operational cost	Health and safety guidelines
		power transmission and distribution (April 2007)			

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
Generation of hazardous waste	Potential oil spill from maintenance or retrofitting of equipment and accidental spills of hazardous waste may contaminate soil and groundwater.	Transformers and equipment should comply with the international standards and should not contain PCB.  Provide secondary containment with impervious bund around the transformers and oil storage areas.  Provide a hazardous waste storage area  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.  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	Regularly check compliance of TL with safety clearances Conduct monitoring of EMF levels along the	PTC4 thru the Health and Safety Officer	Part of the operational cost	

Environmental Aspect	Potential Impact	Options for Prevention or Mitigation or Enhancement	Responsible Entity	Cost	Guarantee/ Financial Arrangements
•	high voltage electricity, exposure to EMF	Provision of warning signs at transmission towers  Grounding of conducting objects such as fences			
		or other metallic structures near power lines			

# C. Monitoring Plan

202. 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 and ADB. The following tables present the proposed environmental monitoring plan of the subproject during the construction and operations phases.

**Table 33: Environmental Monitoring Plan during Construction Phase** 

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
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)	Sampling and laboratory testing	Quarterly	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 (My Loi Village) 4: Tributary/Canal (Hung Village)	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
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 <sub>10</sub> , TSP, SOx, NOx, 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	Once per month	EMC	SPPMB / ESU
	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	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
Noise	Noise levels, dB	1: Highway No. 62 (Thanh Loi Commune, Ben Luc	Use noise meter; compare results with	Daily or everytime	EMC	SPPMB / ESU

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
		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)	QCVN 26:2010/BTNMT	high-noise generating equipment is used		
	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 TL 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)	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

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
		K5: Thanh Duc commune, Ben Luc (connection line 2)				
	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
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,	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

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
	training/orientation on safety					

Table 34: Environmental Monitoring Plan during Operational Phase

Item	Monitoring Parameter	Location of Monitoring	Method of Monitoring	Monitoring Frequency	Implementing Entity	Supervising Entity
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)	Sampling and laboratory testing	Every 6 months	EMC in cooperation withEnvironment 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
Air quality	PM <sub>10</sub> , TSP, SOx, NOx, 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)	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

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)				
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
Electromagnetic field	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	EMF meter; compare results with Decree 14/2014/NDD-CP	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
		Commune, Chau Thanh District, Tien Giang province)				
Waste management	Waste segregation, presence of leaks/spills, quantity of hazardous waste stored onsite and collected by third party HW treated, 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 TL	Substationsand TL	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

- 203. **Construction Phase.** Throughout the construction period,the Contractor will submit monthly progress reports to SPPMB through the ESU while the SPPMB will submit semi-annual reports to the NPT. The semi-annual 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.
- 204. 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 semi-annual environmental monitoring reports in English to be submitted to NPT and then to ADB.
- 205. 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 semi-annual environmental monitoring reports to be submitted to NPT and ADB.
- 206. Within three months after subproject completion, environmental acceptance monitoring and audit reports for each subproject completion shall be prepared by the NPT through the SPPMB and submitted to the ADB.
- 207. **Operational Phase.** The EMP monitoring during the operational phase of a subproject will continue through a contracted environmental monitoring consultant (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.
- 208. The following presents the reporting plan.

Table 35: EMP Reporting Plan

Type of Report	Basic Content	Prepared by	Submitted to	Frequency
Construction Phas	e		-1	
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	Semi-annual until project completion report (PCR)

Type of Report	Basic Content	Prepared by	Submitted to	Frequency
Reports to ADB	Subproject progress report, including section on EMP implementation and monitoring	NPT	ADB	Semi-annual until PCR
<b>Operational Phase</b>				
Environmental monitoring report	Subproject progress report, EMP implementation and monitoring	EMC	PTC4	Semi-annual
Reports to DONRE	Subproject progress report, EMP implementation and monitoring	PTC4	DONRE	Semi-annual

# E. Environmental Management and Monitoring Costs

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

Table 36: 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
Construction Phase	
Environmental quality monitoring	\$16,000.00
Public consultation	\$1,000.00
Training and capacity development of	\$3,000.00
SPPMB / ESU	
Orientation of Contractors on EHS	
Operation Phase	
Environmental quality monitoring	\$6,000.00
Training and capacity development of PTC4 /	\$4,000.00
EHS Officers	
Total	\$31,000.00

#### IX. CONCLUSION AND RECOMMENDATIONS

- 210. 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 Anand 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).
- 211. 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.
- 212. 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.
- 213. 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		Х	No cultural or historical heritage sites are affected.
Protected area		Х	The transmission line does not cross any protected areas.
Wetland		Х	The transmissionline does not cross any wetland areas.
Mangrove		Х	Notapplicable.
Estuarine		Х	The transmission line does not cross any estuarine areas.
Buffer zone of protected area		Х	The project does not intrude into the buffer zone of any protected area.
Special area for protecting biodiversity		Х	Theproject does not cross any special areas that have been set aside for protecting biodiversity.
B. POTENTIAL ENVIRONMENTAL IMPACTS Will the project cause			

Screening Questions	Yes	No	Remarks
Encroachment on historical/cultural areas, disfiguration of landscape and increased waste generation?		х	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)?		х	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 100m. Therefore nochanges in surface water hydrology will occur.
Damage to sensitive coastal/marine habitats by construction of submarine cables?		х	Not applicable
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.

Screening Questions	Yes	No	Remarks
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 limitedrisks during construction and operation. In construction phase, these particularlyapplyto constructing tower foundations, erecting towers, liftingandstringing the conductors, therefore no chemical, biological and radiological hazards will occur. The constructioncompanies are required to be experiencedintheseprocedures andin providing accepted best practices during construction, which will notincreasethe riskofaccidents. 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 clearanceprocess.Thetowersaregalvanize dandnopaint will be used.
Noise and vibration due to blasting and other civil works?		Х	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?		х	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?	х		The roads in the area are already heavily used and increased construction access willbe minimal and of short duration.

Screening Questions	Yes	No	Remarks
Creation of temporary breeding habitats for vectors of disease such as mosquitoes and rodents?		х	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?		х	Vietnamese regulation for high voltage network safety, requires all houses and structural works within the 32m wide RoW for 500 kV T/L to be relocated.
Environmental disturbances associated with the maintenance of lines (e.g. routine control of vegetative height under the lines)?		х	No tree with height higher than 6 m under transmission line;
Facilitation of access to protected areas in case corridors traverse protected areas?		х	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)?	х		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?		х	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?	х		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?	х		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

Screening Questions	Yes	No	Remarks
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 - 79m 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?	х		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 anticlimbing 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 <sup>19</sup>
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 TL 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 TL 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 hydrometeorological 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 <u>low risk</u> 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 <u>medium risk</u> 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 <u>high risk</u> project.

Result of Initial Screening (Low, Medium, High): LOW	
Other Comments:	
Prepared by:	

110

<sup>&</sup>lt;sup>9</sup> 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)
CHUONG TRÌNH ĐƯỜNG ĐẦY TRUYỀN TẠI ĐIỆN (MFF)

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

Xa Holag Thank, Ngày A. tháng .. 3... năm 2015

# BIÊN BẢN HỘP THAM VẤN CỘNG ĐÒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐINH CƯ

Tiểu dự án: Dương đây 500 KV Mỹ thọ Dức Hoa Phường/Xã Dhung Thank Quận/Huyện Ton Phyles Thành phố Liên Gày

#### 1. Thành phần tham dự

- Ong/Ba Vã van Tiln Chức vụ Bị thư Đơng ky X Ong/Ba Nguyên Van Mal Chức vụ Chế trob MAND XX
- Ong/Ba Pham Cong wi Chức vụ P. Chu Feb UBMP XX
- Ong/Ba Trisday Though Tong Chire vu CT MITE Xo
- Ong/Bà Tran The Physing Chức vụ CT HOT Phy ME XX
- Ong/Ba. Phan. 210a1. 2xan Chức vụ CJ. HAV. Nong data xã
- Đại diện những người bị ảnh hưởng: ......người (chỉ tiết xem danh sách đỉnh kèm)

#### Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường chây 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 tồn 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 khiểu nại khi có các vấn đề xã hội và môi trường xây ra.

#### 3. Ý kiến thảo luận

3.1 Vè các tác động môi trường tiêu cực và biện pháp giảm thiếu

(V) Chư do an (nhà thoát thi bay) cán mươn/thuế đợi lain

thờng tam vào Guy trinh, bao tạ ket vật lian thi cũp,

bố. thường thiết hai và hoại trư mát bằng day tư?

Sau (Chi hoái thành, thư cũy.

TA-7742 VIE: Power Transmission Investment Program (MFF)

CHUONG TRÌNH ĐƯỜNG ĐÂY TRUYỀN TẠI ĐIỆN (MFF)

(1) Chư ôn as (nhà kháu Ki (ông) (án Che Chás tại bad đại

mong tru, trunh trai ra bês ngoại gây ail hướng o

tày (áng Côs, hoại màu vì mối Trường xung quanh.

(111) Chu du an (án phối hợp với trịa phướng tế tưa

(111) Chu du an (án phối hợp với trịa phướng tế tưa

ra 10 hoạil Họ vey hiệp ly, tràin thiến tại đơng

ra 10 hoạil Họ vey hiệp ly, tràin thiến tại đơng

tày mua vị trong khóng (duá) (mà nhâu lài).

(iv) Ngoài ra, chu ôn an (án quan tru tôn việc hạn (hơi

(ac thi truy mội trường trài cức thac vhư

quản thiệ vòng công, vẽ ninh mãi trường au

grân thiệ vòng công, vẽ ninh mãi trường au

trài nư khoể Gui Công đồng /.

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

(1) Người dẫn mong muối làm rõ cac van để hạn chỉ từ dụng đat duố đường điển.
(11) Nhin chung ng dẫn và chủ quyển địa phương ung

hỗ DA công trữ quốc gia. Truy nhưn để nghi chủ đài tư có cac phy an boi thờ hỗ trở một cách thỏa đáng, do tac động thi đất bà và cây cói hoa màu.

(iii) Chủ đài tư ĐA cán cấn nhấc xem xét giám sát các vấn để anh hương trong phát sinh trong giai đưan thư công, tới đất đài và hoa màu của người dân. Đảm bảo hōan trả mặt bằng, bối thể hỏ tro các tác động tạm thổi và uĩ vió.

(iv) (o' một tố y' kuố thac mác vẽ din trá đất còn lài không, sử dụng được, ko huệ quá binh tế, ng BAH để nghị còn nhac thu hi nót.

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

#### 4. Kết luân

- Như chung, chính quyền địa phương và ngiải dân đống ý với dư trường đài từ Trẻ Đi an, ph trốn - săng phá hợp hỏ tro để Đi an được thi công và hàan thais đươ vào từ dựng hưu quả. Chú bư an đã ghi nhận các ý kun phản hói của người dân về cac vấn để mỗi trường và xã hơi; và tỉ cứ các giải pháp phủi hợp, khác phục các vàn để.

Đại diện Chủ đầu tư Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã

Ngayễn Văn Minh

### A-7742 VIE: Power Transmission Investment Program (MFF) CAUONG TRÌNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỆN (MFF)

PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

lo. T	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Địa chi (Organization/Address)	Chữ ký (Signature)
	Va Von Tie			Bo Therag 440	Hay Thank	he
7	Le von Xe	-		CB1H5	76.	Clean
	Nguyên sốn Mil	/		CTUBNO VE	Thing shoul	lu
	plean Cong Mit	/		PCT HAND KE	Ч	
)	phain thed Han	_		CT HG ND	N .	Inshor
,	Nouth was tie			Cruto Cers	47	Thuy C
7	Thing That In	51		ein pirtta	וע	1 Joese
3	Tran Chi Nghiệp	1/		NBAH	11	rughey
3	Ma Quan Trych	-		ıl	П	Etujus
0	Names Winh Thai	1		11	1	Thai , r
1	Autohi Sis	-		phis offe	M	O Ceyelina
2	Gran Thanh Tu	1		NBAH.	1) "	THE
5	Theo Thorn Jam.	1		MBAH		Ayus
4	40 This The XAM	_		NBAH	1/	XAM
5	to your cua	1		NB 414	Į.	cux
6	Moun Tuas Jic	/		BT Doan	0	paul
7	Od on Jan	_		ec & chi		Charin
8	aguya last	1		HABN	t	ru
9_	DE V Thon	-		NBAH	- 4	TRON
0	nongen Hong philos	/		11	n	Philips
1	thing at them	1		Tap HP	4	day
	To the Thank		-	NBAH	v	That
	Bon the icin Sic		-		ti .	Lien
9	Nguyen lly Bail	?	-	1	,	Bah.
	- Gion Chi plu			MAHED	_	ML

# TA-7742 VIE: Power Transmission Investment Program (MFF) CHƯƠNG TRÌNH ĐƯỜNG ĐẦY TRUYỀN TẠI ĐIỆN (MFF)

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

12 Planie Lak, Ngày 18 tháng 3 năm 2015

# BIÊN BẢN HỢP THAM VẨN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

Tiểu dự án: Đường đây 500 KV Mỹ THO - Đức Hoa Phường/Xã. Phyloc Lap ..., Quận/Huyện Tạn Phylos Thành phố Tinh Trên giảng

## Thành phần tham dự

- Ong/Bà Nguyễn Họi Đảng Chức vụ ĐƠ ULNO.... Ong/Bà Phon Tax Like Chức vụ ĐƠ UB NITO...
- One/Ba Nguyer Van Loan Chức vụ ki thư Chi ba lợ ky Fuich
- Ong/Ba Dulong Dirth Dung Chire vy TV ATMI MOR
- Ong/Ba. LE with awing Chức vụ TV AT XH MPB.
- Ông/Bà......Chức vụ .....
- Đại diện những người bị ảnh hưởng: .....người (chi tiết xem đanh sách đính kèm)

# Nội dung tham vấn

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường đức và chiều dài tuyến trên địa
- 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 kể hoạch bởi 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 tồn 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 khiểu nại khi có các vấn để xã hội và môi trường xảy ra.

#### Ý kiến thảo luận

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

(1) Nhà thái can phai" quan ly sat tao, mice har? vat be xay duy the xay duy cae' may trul, trail, and hisory xail der most trub'y xary quanh.

- (1) Trong que trial the tong Kes day, van chuştis tag ket val lian the ting, who thate phase mulen/ Rue mad being tem their, but thurse, she chular cas had being tem their, but had being they due had hong va hour tre mad being day due.
- (111) Nhà thác thi chy con phai scris sout bui, on phat winds the the cong mong tru, not klu são as Trusão dels the tong, mha khau cong thông bas cho news Xã (ai bia, plap the big và bres plag Gen; White to' clock quyer of philog than the flaw sal an toais me truding Trong que' Trial Ho by di and

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

- Nhin chung, land đạo và người dần ủng hò viec this his DA, by when mong muon tripe bis thirty va ho to mot call this daing.
- Nguồi dẫn có một to thac mác vi and Riting dat, nhã à dung như việc kinh deanh buôn ban.
- New his chon the TOC the dia chem, và lieu tại khu TĐC có tạp tục công việc kinh downh die thong.

4. Kết luân

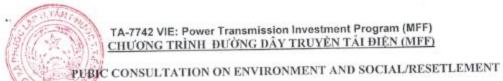
Day to di an laip que pà phus my lis sel quot qua vò dia phusony, chinh que tra sta phusony và người dân mụng di an nung là di an tru tr trên địa bat, chung thi mong muốn rong chu dout the vò Coc' bès bênqua lài mong muốn rong chu dout the vò Coc' bès bênqua can kei khức hoào cac' bià phap gián thrất về an trais uis trườig và xã lài nhân giúp ryương br anto hướng sốin ôn binh cuốs song vò phay triện trá hòn. Phá do an glo hài tao là là là là hòn phụ luo người dân, thoáy mhai tra ro gọi phap khoể phue người dân, thoáy mhai tra ro gọi phap khoể phue người dân, thoáy mhai tra ro gọi phap khoể phue quyết binh thúc lòa do an'.

Đại diện Chủ đầu tư Đại diện cộng đồng Đại diện tư vấn Đại diện UBND xã

Gưa

Vố Thị gường. Tổ Đượng

Nguyễn Hải Đăng



# THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TẢI ĐỊNH CƯ

No.	Ho và tên	Nam	Nir	Chức vụ	Tan plice - Eml Grein Co quan/Dja chi	Chu ky
TT	(Name)	(M)	(F)	(Position)	(Organization/Address)	(Signature)
1	nã thị Hồi	na	1	NEAH	tôm ap his	Wi Hong
2	Pham Van Ngoc	0/		¥	093/B, to 6, on NO	Binh Philo
3	TRan The Thy die		/	п	AP my okusy va photo	gul.
4	Ugo von pin	-	_		APMS OXEPL	A
5	togager I am The	-		V.	April 19 Drige	P H
E	Phan V Hoary	-		y	AP My 181 Phuet la	
7	rog Van DAu	-	-	- H	ap 14y 23: phicela	DĂU
9	ra Hily ange	1	,	И	APHAZAI PLZ	0
9	US the Guan	-	/	.II	Ân Mỹ lài P-L	GU
10	Erain Thi Uni my		/	11	Ap my dir	40-S
44	le Thi Nam		/	- Lt	Ap mig to PL	nes
N	LE van ved	-	-	- U	of 1 mg 12: P-L	tile
15		-	-	4	- 1	bian
14	phan The bay		-	U	N.	100
45		-	-	V	1	und
46	_ 0 - 1 (	P		V		Dil
17	TRan Thiphe		-	"	1	+ com
48	Thoday Orior Dell		-	1	11	court
	Plan Clark pla			1	l.	at-
20	Manx lele		-	- "	lı	Auto 5
21	elouis Van Jour	-			anolly have die 12.	Mun
23	Ohan Tel lui	-		Pet MOO	Fe new Tender , Long	Min

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

## CỘNG HOẢ XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự Đo - Hạnh phúc

Tan Hia Dong Ngày Atháng 3 năm 2015

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

Tiểu Phườ	dự án mg/Xã	Dương dấy 500 kV Mỹ Thọ Đức Hòa Tần Hòa Đơng Quận/Huyện Tớn Phước Thành phố Tinh Từn Giảng
1. 7	Γhành	phần tham dự
		ông/Bà Lê Ha Tay Chức vụ PCT US
	-	Ong/Ba Huynh Thi Hong Chire vy P.CT HPN Xa
		Ong/Ba Trudag Mark Ding Chic vu Cf How Nong Jan
	-	Ong/Ba Dung Birth Ding Chức vụ Từ Vốn MT ABB
		Ong/Ba La winh Huong Chức vụ Từ vấn XH ADS
		Ông/BàChức vụ
		Đại diện những người bị ảnh hưởng:Q3người (chỉ tiết xem danh sách đính kèm)
2.	Nôi du	ing tham vấn
		f a sha hi a sa a sa a sa Vi tai tuyến Avèna; vị trí và chiếu đài tuyến trên địa

- Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường; vị trí và chiều dài tuyên 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 tồn 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 khiểu nại khi có các vấn để xã hội và môi trường xảy ra.

#### 3. Ý kiến thảo luận

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

1) Nhà tháit kho long Cần phái ' much'/ thuế mát beng/
th'ơng trụ át " vài, chuyể, vài bia, tập kết vật
(tru, to Hulo'ng Hoa het hoa mai, làg Có!
và hrai tạ mat beng triệ đu".

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

Hola that this long can quan'ty dost das, vastian, ple that xay dury, minor that " though and holoup day most trilory that note xung quant.

Hola that this long can thing has the hoard the copy las day que can thing has the pay, with the that the long can then But that has the num. Kent Trilory was xanh ve to bill has the true to be cho that has an toar gras thing there is be cho ugus! day nume de an toar gras thing there is be cho ugus!

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

Lanh đạo đưa phương và người dân thống nhất chủ trường của bư an. Mong muốn han chế đến mưc tới đã thrêt hai cho người dân. và có chính saig đến bũ thờa đáng.

chinh quyết địa phương xã và người đấu nưng đợ ay nưng họ chư pương và trữ, khan phua hoặc dự dự hới thời dà đại hoặc đó dự Đường đẩy str kư huị tho - thái Hới phán lớn bị qua khu chi đười đười, thư vài lới đười lương và lương vài lương vài lương vài lương với hiệ khu hiể đười đười lương vylo dự dự vì kh chuyển nhỏ cuối. Chung the là trinh cư thường và hiệu biểu bối kurơng tai trinh cư thười khuế hiệu biệu bối kurơng tai trinh cư thười thườ

Đại diện Chủ đầu tư Đại diện cộng đồng Đại diện tư vấn

KI LEP

Nguyên Văn KI LEP

GE, 77 Luyer

Tê Hà Cây

# TA-7/42 VIE: Power Transmission Investment Program (MFF) CH CONG TRINE ĐƯỜNG DÂY TRUYỀN TẠI ĐIỆN (MFF)

#### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

THAM VAN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

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

Date (Ngày tháng): 19/3/2015 Location (dia diem): Xa Tan Hoa Dag - H. Tan plude Chức vụ Cơ quan/Địa chỉ Chữ ký Họ và tên Nam Nű No. (Organization/Address) TT (Name) (M) (F) (Position) (Signature) Junea Van KiED BAH

# TA-7742 VIE: Power Transmission Investment Program (MFF) CHUONG TRÎNH ĐƯỜNG ĐẦY TRUYỀN TẬI ĐIỆN (MFF)

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

Xã. Mỹ. Phylos Ngày J. 9. tháng ... 3. năm 2015

# BIÊN BẢN HỢP THAM VẤN CỘNG ĐỜNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

Tiểu dự án: Dương Đây 500 KV Mỹ Tho - Đức Hoa Phường/Xã. Mỹ phươc , Quận/Huyện (án Phước Thành phố Trên Giong

### Thành phần tham dự

ann	phan tham by
	ông/Bà. LE van Dief. Chức vụ VP-TK XÃ
ু	Ông/BàChức vụ
	Ông/BàChức vụ
	Chức vụ
	Anales Dilana Birt Dung Chire vy Chire vy
	Angre & Mink Hyong Chức vụ
+	Đại diện những người bị ânh hưởng:người (chỉ 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 khiểu nại khi có các vấn đề xã hội và môi trường xảy ra.

#### Ý kiến thảo luận

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

tam, bei tep toet vat hen trong gid stav this wing, bei thing has hen hen mair, cay 6. va heat tree mat bang that he has hen mair, cay 6. va heat tree mat bang thing the san this hear thank.



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

1) Nhà thait phải don dep (ving prương, và minh làn' trai trug nhàs đàng tao và sinh màs trường.

3) Nhà thait the long ch trails nhiềus coda chương trong và vàs chungs the bete gay lu hong?

4) Đàm bas ay trai piao thing đường thuy;

4) Đàm bas ay trai piao thing đường thuy;

4) Đàm bas ay trai piao thing đường thuy;

que trinh the long.

## 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 can bộ đra phương nhất trí với chủ trường xây dụng bự an đường day 500 kV Mỹ Tho- trúc Hòa. Mong muốn của người dân là được bối thương hợp lý, thòa đáng, tranh và quản thiếu thiệt hại to người dân.

- Cac hệ dân mong muốn giá đến bũ phải hòp lý để người dân có thể an tám du dã, tai đư cư, tranh gây anh hiting trêu củo và / hoặc huy giảm đười kiến tổng của họ.

#### TA-7742 VIE: Power Transmission Investment Program (MFF) CHUONG TRÎNH ĐƯỜNG DÂY TRUYỀN TẢI ĐIỀN (MFF)

4. Kết luân

Đại diện Chủ đầu tư Đại diện cộng đồng Đại diện tư vấn Đại diện UBND xã

Thuật



# PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

No. TT	Location (dia dien Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Dia chi (Organization/Address)	Chữ ký (Signature)
N	Le voir Dien	×		VP-TIL	UMANO Xã Mỹ phố:	JONE
9.	1 Gan yan Hun	4		BAH		) later
2 -	Tran lown that	X		y		Coulte
4	Bui Van Ey	K		ll .	1	64
5	TRUR JOR HIC	i x				Hisp
6	Nguyên Tlain	×		1	1	OL-
7	plan ran star	1		1	V	The
8	Ho'Thi trong	h-	X	Ch xvF	- II	fleet
9	Trans The And		X	CB X4		There
10	Oban Thi Min Bu	7	X	CRO X6	-	15
12	15 19 60	×	X	NOTE	11	Twens
12	Den Wolf NO	1		HOUD		Tyler
19	Ng V (con-1)a	o ×		ecn.	, (	nelly
15	Maryin Van Din	d C		PETHND		angric
16	November 10	1 ×		CB H TO BA	11	Napor
17	obbus vão puis	X	_	eg xa	6	Mun
2000	, , , , , , , , , , , , , , , , , , ,					
			-			
			-			
_		-	-			

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

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

Xa Tan Tay..., Ngày 2.0 tháng... 3... năm 2015

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

Tiêu dự án: Dương Dây 500KY DAY THO - ĐƯC HOA Tiêu dự án: Dức ng. Dây 500KV MAY DHO ... Dươ Trinh Long An. Phường/Xã Than Tay ... Quận/Huyện Ibanh Hóa Thành phố Tinh Long An. Thành phần tham dự Ong/Bà Nguyễn Van Hoarg Chức vụ CT troi CLB Ong/Bà Nguyễn Van Hoarg Chức vụ CT troi CLB Ong/Bà Nguyễn Chách thai Chức vụ CT HITO Sã Ong/Bà Chức vụ

- .....Chức vụ .....
- Ong/Ba Dulding Dirt Dung Chức vụ T.V. M.T. A.R.B.
- Ong/Ba. Nguyen Trilong Thong Chire vy TV XH. AMN ABB Đại diện những người bị ánh hưởng: ......người (chi tiết xem danh sách đính kèm)
- 2. Nội dung tham vẫn
  - 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 bối 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 tồn 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 thiếu 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 thiều

1) Cac' bien phap an toan moi truing con dick this. his top to trong que' turil chuẩn hi, the Org' vo vair hard du an' to day had an trais, m'o' khoe' cong tring wing du an!

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

E Ke hoard thi long did and coin those thing too way said the sign chur the day the bier chur's try phry người tà giang Hoều tạc has trong say xuết và trì xãy.

(1) Chu' du an' lai, bo. shương thoo' dang' toi (6) thiết hat, hu hong do du an' goig re cho người. dan rung du an'/

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

- phone that dury house long to ben thirting how thing va bin thirting which was a long thing clay to thirt phop xay dury who was can come the chain the hour things the regard onto having the chain was come chaining they be regard onto having their view chain run things the through the through the day they are the must that most be in the region of the can how they there are thrown to the region of the can sory.

In the cure shory.

In the cure sory.

In the cure shory.

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

#### 4. Kết luân

Dia philony and his clus triving crong what their white thich hiter du and ve mong muon rong clus du and ve cai be hier quan train this clin't sail an train we clin't sail an train we clin't philos is note to to the des drain bout do and when the control cong rote us do to the cong tree wing the us des un to cure soin com day.

Di ay glo what cai y' soin that has her drain the do not y do vat his so did and, xees that the hier Tray que to triving the did and it was the hier Tray

Đại diện Chủ đầu tư Đại diện cộng đồng Đại diện tư vấn Đại điện UBND xã

Đường Van Đườ Trang Tr Tuyết

Ngô Công Chiêu

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

#### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VẢN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁLĐỊNH CƯ

	Date (Ngày tháng) Location (địa điển	i): ×a	Tan 7	ay Leyfu Fl	god Hoa trob Long	An
No.	Ho và tên	Nam	Nü	Chức vụ	Cơ quan/Địa chỉ	Chữ ký
TT	(Name)	(M)	(F)	(Position)	(Organization/Address)	(Signature)
1	Nguyen T. Chia		×	&A H	Red Tan Tay	della
1	No vou Be	X		0	, 0	Bon
3	Huyih di Hugt		_			Hough
4	rigger Shi SanSo		x			200
5	Mai Thi Nguya		+		+	lly-
6_	le van Ga	1 6				There
7	Le The The phily		×		-	1) likely
9	Allison Villey	X			-	77
9	Diloky Thi Mgocyn	un	X		*	- Juge
10	Dug Mas du	×		- 10	+ + +	Dun
14	N' 20 Hat Hens	1		-	" <	7
LL.	The second secon	1		*	"	700
3	Ho thi Manth	2	4	W.	"	Manda
4	Delow Van Ach	200		10	· · · · · · · · · · · · · · · · · · ·	- Aw
16	Ho win xum	×		4	- 11	200700
17	Dhum Nger Cettos	×		"	1	C3347
18	naught tien	*		11		new
19	Sugar Man be	+		II.	,	lun
20	No T. Noer Hop		×			Floor.
21	Ole ton avan	X	-	lf.		lugh
1	Dick ThiBich	- 1	х	16	W.	Bich
92	Das VED Va	+				Jan

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

#### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/T<del>ÁI ĐỊ</del>NH CƯ

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Dia chi (Organization/Address)	Chữ kỷ (Signature)
24	Wai van plin	×			A 5 Tan Tag	permo
25	Ton Nan Nam	×		<u> </u>	, 0	Nam
26	LE Van Car	x	-		lı lı	, en
7	uguju CharLa	PX			Ap 1- Tan Tay	hour
8	votti di Zie		×		, ,	Luci
g	Bui Hoay Son	x	-		- II	Son
0	Ha the roy phate		A		- 6	phuty
_	1					
			-			
_		-	-			
_			-			
			-			

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

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

Xa. Lang Levan Ngày 2. A. tháng ... 3. năm 2015

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

Tiểu dự án: Đường Đây 500 KV, Mỹ TH.9 - Đức HOA

Phường/Xã Long Thườn, Quận/Huyện Thủ Thưa Thành phố Trinh Long An.

1. Thành phần tham dự

- Ông/Bà Nguyễn vào Trung Chức vụ P. B.T. Đảng 21ỷ

- Ông/Bà Nguyễn Thoát Tại Chức vụ CT UBRD Xơ

- Ông/Bà Đơng Thư Vào Chức vụ CT HAR Phụ nư

- Ông/Bà Trướn Phươc Thái? Chức vụ CT MITTA XO
- Ong/Bà Driding Dank Dung Chức vụ TV MT APB.... Ong/Bà Nguyễn Trường Tháng Chức vụ TV XH MIN APB.
- Đại diện những người bị ảnh hưởng: M...người (chỉ tiết xem danh sách định 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 để 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

I can bien plag grain this tax dong some den min landing can dule the how tof trong que' trink this cong và vàn hond dy an de dam' has an tour và mi schoe wear người dân rung dư ay!

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

2/ 18 had the wing du au con there thong ton noing rai ten nguisi dan schu nic du ar të nguisi dan schu nic du ar të nguisi dan biet chu' dong ploig ngua, grain shire shiret has trong san xuat toing too, clas nuis us sinh heat was nguis: dan,

3/ Bor shu's of show sang tar 6 throp has, hu ho y, do dy ay gay re cho nguis: das du ar!

3.2 Về các vấn đề thu hỗi đất và các tài sân trên đất và các chính sách

- Đất ngoàn hành lang dước phép xây dung nhà và các cáng truh

Min bin Không?

- Nến phải lại dih Cư, gia dih lời muốn xây dung nhà thên dất
lua hiện to của gia địh thị có được phép Không, chỉ an sẽ hồ
thỏ như thể nào.

- Đế nghị dư am cần giai quyết việc làm cho các hỏ do cáh

hương đến đái san xiết.

- Đế nghi dư am cần bởi thường trước Khi triển Khai thi công

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

4. Két hiện

Cuốc than vàs' ti đơ kiết luật song Ching quyền số chác than vàng du ar hoạt loạt rung họ Chung prướng that day họi thuộ khai thựn hòạn dụ ar hà đợ bạc trung thời yếu cái Chu đườ ar và các hóa biển quống Cam kai và thực hoạt thị công tạc họi phương mài là nh phống nhất hang, ôn đị luật mật người là nh hương nhất hang thiết các tạc sing họi củi khai lian quan đời nưới trười các tạc sing họi củi khai lian thai làm trười trưởi trưởi trưởi thười làm trong thực thười làm thời to chúc khưi loàn tong quan tại hỏ mi du ar, thời khai bư ar!

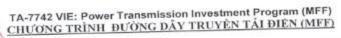
Dại diện Chủ dầu tư Đại diện cộng đồng Đại diện tư vấn Đại diện UBND xã

Trười tong quan tại hỏ thười khai bư ar!

Dại diện Chủ dầu tư Đại diện cộng đồng Đại diện tư vấn Đại diện UBND xã

Trười thuộ phốt thiến:

Nguyễn Thành Tài



# PUBLIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

## THAM VÁN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỌI/TÁI ĐỊNH CƯ

). Г	Location (địa điểm Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	The Ula trol los Co quan/Địa chi (Organization/Address)	Chữ ký (Signature)
1	Nough Thank Toi	4		CF. LIBNIP	4	100
	Nougen Hew Tri	×		CF. HIVD		Pi
	Exam phier Chi	5. N		CT META.		N W
1	Doay Thi Van		×	6 pm		1
	DE chi Charl	v		Ten.		01
	Dring hong Ngo	p. V		BT DIN.		Migrans
	And Duc Che	X		OB VIVH		
	BE I Mong Thuy		×	PCI UBNO		7901
	Sanci			100		0
7	92 thank	Sa	mg	BAH		ang
0	Ng V Thous	X	-	Pridig 204		John
1	Namen The Sare	7		BAH		Soq
2	- har van Pha	2 ×	-	d.		Phon
3	Le van D.	X		ч		De
4	n suite was Sil	×		lt .		391 X
5	nout va	re L	1	P		id list
6	18 hours ku	Jx		h	Ap I	19110
7	w. wan the	×		le .	Ap 2	- the
8	La Ho and Bace	A x		r	Ap I	Bach
9	No The Hubi		X		Ap 1	parter
0	No Van Took	×			0.1	tan
1	1 é vaanh	n X			Apr 02	nent
22		n of	+	,	XP 2	at

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

# PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

## THAM VẨN CỘNG ĐÒNG VÈ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

lo.	Họ và tên	Nam (M)	Ng (F)	(Position)	Co quan/Dia chi (Organization/Address)	Chữ ký (Signature)
Т	(Name)	(M)	(1)	(Fusition)	7.	- Oul
23	Egyn + Colin	1.			Apr	1
24	ug wich ch Mai	9/14	nu		An 2	July
	LI all				A 2 2	NW
25	Do Thouh nguyê	м.	Manc		# 2	there
26	Organican Chao		ran		my a	1 hts
4	16 g uzen Ven IC	huiza	ham		ap 1-	7
28	785 V. Kon Musi	U	~		AD 2	Muos >
						WHi
29	Ban Tille Hai		×		-	11- 11
30	Ean T. Ulu Ka		×		· ·	110
11	No Thi Dan		×		4	Dan
200	[2] - at	1000	1		1	Ma 1
Se		1				Muna
23	Ng Thi Dung	-	×		4	150
24	YOUTH HANG		X		*	tay
35	WilliamoHoguest	uno			U	tung
	Vie . W	800	*			brong "
86	nguyên ban	3			2)	mart
57	Duding cong ?	y the			2	and the
38	Do AN Tuy	en X			8	Brut
69	Alanil . Sa	, F51	U		1	SW
-	1		-		0	Plann
40	1998 Bus 1080	7			1	las
4	Jo, an far to	) A			1	
42	nguyên van B	36+ x	1		2 ×	07/100
1	Thing V Ho	× ×			1	Contie
43	1	O x			1 6	Thu
4	tom vir stat	<del>) ^</del>	-		,	-
4	But The Dear		X		1 4	17

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

# PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

## THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

. Ho	on (địa điển và tên Name)	Nam (M)	Nú <sup>2</sup> (F)	Chức vụ (Position)	Co quan/Địa chi (Organization/Address)	Chữ ký (Signature)
		(2/1)		(1 Canton)	6-	Thu
	hu tog		×		Ap 1	São
7 7	The vao		×		Apr 1	000
8 Tegu	yen This	-	×		F/2	Samo
14341	li Ba		X		_ 1	100
Newie	n & Bay				-1	Bey
Ve 700	18m7100	X			Ep 11	Mall
101 15	Thanh To	1, 1			4	Tails
1199	Yant 2	1			11	22
Nguy	4 1 2	1			1	1Der 5
dan	Van Hai	1				-
Dang	lly Hai	1 0-0	×		1	moi
	varittà	7			1	Thoug "
pha	CY THE W	1	X		1	with
Nouve	TAgo Elle	1	4		Ţ	College
Jung e	the agospho	6	4		T	Theling
	581 Do	-	4			Don
	g van B					Be
-	ngoc H		×		"	Aue
nguye	n ngoc II		1		I	, Leve-
3 Wgey	an van Th	anh 7			4	Tim
4419 14	may Phi	MAN X	-			0
- Ga -	as That	Jang x	-		J	201
6 Can	van Dilin	N			1	20
7 Hugi	1 The Ca.	?	X		1	Can
0	JEW The H	P.V.J.	×		1	onhising
	100 mm 100	uto-)				Page
, .	the Ba	10				24
100	y this	M				1.1
M	6 100	en .				agelul

My vai Thanh Trais vai Thice

Mul



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

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

Denn Hay Ngày 21 tháng 3 năm 2015

#### BIÊN BẢN HỢP THAM VẨN CỘNG ĐÔNG VÈ ĐÁNH GIẢ MÔI TRƯỜNG VÀ TÁI ĐINH CƯ

Phuong/.	Xã. Dela Hy Quận/Huyện Thành phố
1. Thàn	h phần tham dự
5 5 6 6	Ong/Bà Ruy Van Chung Chức vụ PCT VBND Xã thên thy ông/Bà Ác Th Ruệ Chức vụ Cơ thời Ông/Bà Ngưy ng Tan Tại Chức vụ Cơ thài Ông/Bà Dươn Thi Ga Dư Chức vụ Cơ thát chia Ông/Bà Dươn Dưa Dươn Chức vụ TV ARK Ông/Bà Ngưy ng Charbo Hương Chức vụ TV Thát tố Đại diện những người bị ảnh hưởng: người (chi tiết xem danh sách định kèm)

- 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 kể hoạch bổi 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 để 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 hỗi 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 xây ra.

#### 3. Ý kiến thảo luận

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

+ Vân chuyển ngưyển vật lưu xây duy cánh hưới như thể não?

+ Các biến phóp anh hưới HT như thế não?

4 Diếs HL tuyến được phép cánh thể như thế hão? Anh hưởng hư thể não?

# TA-7742 VIE: Power Transmission Investment Program (MFF) CHUONG TRÌNH ĐƯỜNG DÂY TRUYỆN TẢI ĐIỆN (MFF)

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

+ Vũ chủ thường ung họ Độ cán nhưng mong muốn được chấn bu thoá đáng.

+ Cho hiệt trên độ bối thường để người dân có lới hoael sub sống.

+ Sam cho biết phường cán truyền chi như thể nào qua nhã / đườ cưa dão.

#### TA-7742 VIE: Power Transmission Investment Program (MFF) CHƯƠNG TRÌNH ĐƯỚNG DÂY TRUYỀN TÀI ĐIỆN (MFF)

4. Kết luận

- Chính quyển cha phương và người dân ciống tinh với mộc xây

- dưng DA tiến đưa bàn xã.

- Để nghi chi dâu trì cho biết tiến ció xây chủng DA.

- Chỉ dâu trì rên có múc tối thường hợp ly cho người dẫn.

- Nhà thâu thi công cần tuần thứ cai quy cho liề môi tường.

- các câm két về môi trường như chá niêu ra.

Đại diện Chủ đầu tư Đại diện cộng đồng Đại diện tư vấn chủ TĐại diện UBND xã buyê thực Chủ Tịch thực Từ, TT Duyến thực Từa Chủ Tịch

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

#### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VÂN CỘNG ĐÔNG VÈ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Dia chi (Organization/Address)	Chữ ký (Signature)
No Van Hai	CX1				Her;
Le Van Sou	170				Sāu
Trần Văn Lâm	174				1 2000
Bach Van Tan	×				TAN
Dong Van Hong	x				toler_
Nguyễn Viện Được	x				m
The aute Citing	×				Crus
though The Chains		1			philos
-	×				varia
	×				Ating
	×				1
	×	X			ngoan
	*	V			pull -
Nguyan Van Liern	×				Liem
Trần Văn Điện	X				bun
	*				Oho
Le The Dung		×			Jung
Trần Nhọc Mắt	*				43
Fram Vain Ham	X				Thanhar 2
Neuger Von Chun	X				CW
					elayelal
	K				The
Bach Van Tai	X				TOU
Nayen Van Do	4				Bo
Oxtone Van Boi	*				mac
Cham Van Tal	×				0,
the same of the same of					Taul
	(Name)  Ng Van Hai  Le Van Sou  Tian Van Lam  Bach Van Lam  Bach Van Hong  Nguyên Van Hong  Chay Van Hong  Chay Van Hong  Chay Van Hong  Chay Van Hong  Nguyên Van Linn  Nguyên Van Lin  Nguyên Van Loi  Nguyên Van Loi	(Name) (M)  Ng Van Han (X)  Le Van Sou (X)  Tiàn Van Lam (X)  Bach Van Tan (X)  Bach Van Hong (X)  Thing Van Hong (X)  Thing Van Hong (X)  Thing Van Hong (X)  Debig Van Hong (X)  Debig Van Hong (X)  Nguyên Van Lign (X)  Nguyên Van Lign (X)  Nguyên Van Han (X)  Nguyên Van Luin (X)  Nguyên Van Loin (X)	(Name) (M) (F)  No Van Hai (X)  Le Van Sou (X)  Tiàn Van Lam (X)  Bach Van Tan (X)  Bach Van Hong (X)  Thing Van Hong (X)  Thing Van Hong (X)  Thing Van Hong (X)  Chan Van Van (X)  Debig Van Hong (X)  Nguyên Van Liêm (X)  Nguyên Van Liêm (X)  Nguyên Van Liêm (X)  Nguyên Van Liêm (X)  Nguyên Van Hau (X)  Nguyên Van Hau (X)  Nguyên Van Hau (X)  Nguyên Van Liêm (X)  Nguyên Van Hau (X)  Nguyên Van Hau (X)  Nguyên Van Liêm (X)	(Name) (M) (F) (Position)  (Name) (M) (F) (Position)  (Name) (M) (F) (Position)  (Name) (M) (F) (Position)  (Name) (M) (M)  (Name) (M) (M)  (Name) (M) (M)  (Name) (M) (M)  (Name) (NAME) (NAME)  (Name) (Name) (NAME)  (Name) (Na	(Name) (M) (F) (Position) (Organization/Address)  No Van Hai (X)  Darin Van Lam (X)  Bach Van Lam (X)  Bach Van Hai (X)  Bach Van Lin (X)



## PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

## THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

No. TT	Họ và tên (Name)	Nam (M)	Nûr (F)	Chức vụ (Position)	Co quan/Dia chi (Organization/Address)	Chữ ký (Signature)
N	Li Thanh Ly	*				Li
9	Nguyên Von Hung	*		/		Aure
0	Mayon the tire		X	of the second		Evic
1	Ding The Tri		*			Eve
K	Nauja The Los		*			120
33-	Day The Go		4			Rã
34	the Van De	1				Dã I
35	Hugh Thi Deo		X		As box B	Deal 1
56_	phan Di Ew		×			1 /2
7	To Vi The		x			1/2 9
9	Mai Hong vi	×			To Bac A	Vij
(o	Citing Clark Holy	X			2	(-)40
1	2 3 8 ht	×			AT DIE B	any
9	Vo Thi Kim Khô		X		To trait	phylic
					/	
_						
-						
-			_			
-						
						_

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

## CỘNG HOẢ XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự Đo - Hạnh phúc

Xa. N. L. Bed Ngày 21 tháng 3 năm 2015

#### BIÊN BẢN HỌP THAM VÁN CỘNG ĐÔNG VÈ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

	va rai bini co
Tiểu dự án Phường/Xi	Dường đây SORKV Mỹ Cho Được Hoà 1. Nhi Birl Quận/Huyện Chốn Thanh phố Tinh Tiến Chom
1. Thành	phần tham dự
	Ông/Bà     Hồ     Chác họ     Chức vụ     Lợ     Xa       Ông/Bà     Hộ     Vài     Tử     Chức vụ     NP. Thống tế     Xa       Ông/Bà     Huyar     The Nga     Chức vụ     Chức vụ     Th. Th. Xa       Ông/Bà     Dường tính     Dương     Chức vụ     Th. Th. Xa
	Ong/Ba Noverse Thort Hera Chirc vy Thirt to del De

#### 2. Nội dung tham vấn

 Tư vấn thiết kế giới thiệu dự án: Vị trí tuyến đường dây và chiều dài tuyến trên địa bản phường, xã.

Đại diện những người bị ánh hưởng: ......người (chi tiết xem danh sách đính kèm)

- Tư vấn môi trường trình bày về: Chính sách mỗi trường của ADB; Các quy định về mỗi trường trong ngành điện của chính phủ Việt Nam; Các tác động về mỗi trường và các biện pháp giảm thiểu tương ứng (như trong IEE);
- Chính sách kế hoạch bổi 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 để 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 nai khi có các vấn đề xã hội và môi trường xây ra.

#### 3. Ý kiến thảo luận

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

Tranh xây dưng tuyết gra khu dân ar, nhoà goin kiccie vice
do do cac hể dat.



. . .

- Nhà thau khi thi công phoù thur hier tot car can ket trong phân don't giá tác trong nós trường loạ du aus! Công cơi phoù chất phá' thi chu tria thi phái tên bu cho dân - Đường or thi công rên hong phái làm ku cho dân

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

Thức kiết, tot các chính sách của chính phủ với đôn ku nhậu

Mục đi d giản thiếc, tại đại để các duo cược sống cuố đến

bị ánh hưởng ti t kin hoặc là khát king khi dư củ, chươn sách dượng,

trát bị ánh kưởng thong hoạt làng thi được kỗ trở do

giái, thiểi cân năng sối shưng that theo nghi kinh từ thời lợ

Dupling in das at trong so akad to see dung dering lang soot May Tho. Del terri 300 to May Tho. Del terri Cher the to plan the his tro theo thing alored and consecuted the plan the muce that the day he and he hig to ceede ceed chill plus, when muce that the day he and he hig to ceede and that he truste.

Đại diện Chủ đầu tư Đại diện cộng đồng

A Hugh the Luger

Đại diện tư vấn

Đại diện UBND xã

KT. CHỦ TỊCH

Ho Chanh Chuy

#### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT



#### THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

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

No.	my va ten	Nam	Nű	Chuc vu	au Class til Tien a Co quan/Dja chi	Chữ ký
TT	(Name)	(M)	(F)	(Position)	(Organization/Address)	(Signature)
1	Ngô Văn bống	M			Whi Dish	Bono
2	-Pour Van San	M			Nhi linh	San
4	Tran Van Dien	M			all Sinh	bigh
	Lê Van-Duc	M			, "	fue
5	No the My Linh	<u> </u>	F		V	erinh
	Naugon Van Hing	M			t	+ wing
t	Mayin Van Chiam	M			CP CP	CHIEM
V.	Down Van Ket	M			()	REA
	Novên Van Chât	M			Nihi Rinh	chast
D	Margin Van Riving	M			* 71	( pin/2
1	Hugen The luyer		F		#	gover
	No The Thinh too		F		· ·	Xum
3	Mayer Magar Mile		F		lr .	Muraé
7	# Thi Danh		F		lt.	oanh
5	Não Thi Quin		F			Quien
6	Algunen The ties		F		1	Lier
	- Day The Mainh		F		k	manh
1	Trân thi Cive		F		7	evic
1	Namen Van autin	N			Nhi tinh	erios
	0 "					

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

Xa. Thank Los, Ngày 25tháng. 3. năm 2015/

#### BIÊN BẢN HỢP THAM VẦN CỘNG ĐỎNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

Tiểu dự án: Dương dong 500 K. Mỹ The Dức 1000 Phường/Xã Thanh Lái Quân/Huyện Bến Lưc Thành phố tình Long An

#### 1. Thành phần tham dự

- Ong/Ba Ha van Han Chức vụ LT. Đơng ky Xã
- Ong/Ba IV guyen Moog Tar Chic vy P. J. URNO XS
- Ong/Ba. Frugab Thonk Phong Chirc vy C. B. Hig Shink N N-XD-NT
- Ong/Ba Huyrb T My Link Chức vụ CT HPN XX
- Ong/Ba Dulong Dial Ding Chức vụ TY MT ADB.
- Ong/Ba LE Minh Italing Chic vy D. XH ADR.
- 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 kể hoạch bỗi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hỗi 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 hỗi 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.

#### Ý kiến thảo luận

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

1/ Nhà thái thi tông để chí (án phái thu gous Xu' ly' chất Hai xây đủ y và minh hoạt thie que sinh, Bôi thường cae thiệt has do the công gây no và hoại 52° một hong thiệt thị.

Re heart the cong du an cañ those thing tro ning rai dei, người dâu thuy thiế dự ar the rgibi dan biệt chu drug, phong người và quảng thiếu thoệt has tong san " scuất tổng tot, that durs và sont hoạt cuo das,

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

Nhãn chung, người được BAH và chính quyết; xã rung hệ chu Trương xãy đưng dự chí đường được 500 KV Nưy Thi - Điể Hoà Lai mai về (see all hướng plai roinh tong Ho công có quốte bởi thười, hướng plai roinh tong Ho công có quốte bởi thười, hay schông:

- Một roo' họ thai mec vã - giá bội thười thuộ thuộ thuộ thười thươ vị thi Đời (VN Mát Le)

- Người dân mong muin thờe đất bắ lail lạp ly', thờa được trọi đão trinh anh lail lạp ly', thờa được trọi đơc,



Du as Diling day sooker my Tho- Die Hoa Dique 4. Kết luận XI Thenk Us to Od any to and mo và là sel que gia vã da phươy. Địa phương rung là chu Truidy vi tia klas du an tra ois his. Doing this to ugle very chur or an' plus lay chât chi với địa phương to lai nã, giải quyết (ce' vài de phát sinh Trung act que tain the cry, van hond vi chus A do'ai,

Đại diện Chủ đầu tư Đại diện cộng đồng

Euseh nyac xuan.

Nguyễn Hồng Tâm

T. CHU TICH

Đại diện UBND xã

#### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VẨN CỘNG ĐÒNG VÈ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

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

No. TT	Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Địa chi (Organization/Address)	Chữ ký (Signature)
	Quach Ngre Xuân	×		(Continuity)	(organizations radioss)	Luc
	Dishy The Buysh to	n	x			Zan
	Nayer The NEO		X			Méo
	Hujinh Van Bank	X				canh
	Mayin W Hickory		X			Hướng
5	Magin W Thanh		X			Thanh
7	Hough Van Curry	x				Cilona
9	La Older Light	X				vinte
10	than Tan thu	X				Slealit
11	twich Van Dile	X				Su-
12	Nguyta Nach Hung	x				Hung
13	IE in ut	X			Apr Thunk (2)	uit
14	Vo m -Day	X			ap 2 Thank La	lla
15	Vothi est phiny		x		And Thoch (8)	Theby
6	Humpl Vie Man	6	-		A/2.	nya
17	Phase Vag Son	Nan	-		if 4 Thanh ldi	Son
8	Hughha Irom	X			PP & Shauh hos	apple
9	Huyah @ My Ligh		V		HPH Xa	Hin
20	Thuybu Van Dan	X	-		ap 4 x a Thanklar	- dus
1	NSuga Von Brich	×			ap 5 xa That Lo	Thian
2	Marker hay the ord	X			and Va Tan Try That have	Ording
23	May Loy	X	У		ap2 xa Than Lor	- ging
24	Norwish T Be	0	X		Ap 4	Br

### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VẬN CỘNG ĐÔNG VÈ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

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

lo.	Location (địa điểm Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Dia chi (Organization/Address)	Chữ kỷ (Signature)
25	VO VI Dan	×			At 2	Duo
24	namen van di	- X			AP 2	CI
7	Huinh van Tone	V			Ap 2	Toy
is	V3 that true	+			An 4	Ka Ding
ea .	Town How Tie	>0			Dp Cx	tien
2	Nomen dall puro		X		AP. 4	Dugen
31	No the Tuo		x		24	tigo
32	na thi phi		b		202	Phi
33	Humb thi Din		b		Ap 2	17 Ams
34	A Namativ. LST	0			Ap2	late
35		×			Ap 2	I AVW
36	La Thi Dans	,	×		Ap 2	Pary
37	Trausen Wang	Sieux	K		10 2	The
38	Names Vac Da	2 ×			Ap 4	Just .
39	Vo thand Nha	صره			8p2	hhan
460	vo Thand 00	x			802	2001
44	Mg T. Thu Kulde	100	×		HEN	flug
		1				
						1
-	W					
4						

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

Tan Lap ..... Ngày 24 tháng Bnăm 2015

#### BIÊN BẢN HỢP THAM VẬN CỘNG ĐÔNG VỀ ĐÁNH GIẢ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

Tie Ph	ều dự án ường/Xâ	Tan Lap Quan/Huyên Thủ Thua Thành phố Long An
1.	Thành	phần tham dự
	12	ông/Bà 190 Minh Tiến Chức vụ CT UBND Xã
	12	ông/Bà Nguyễn Văn Lương Chức vụ CT MITO Xã
		ông/Bà Tran The Kim Lua Chức vụ PCI Hố Phu Nữ
	12	Ong/Ba Huyne Van Cong Chức vụ CT Hại Cứn Chiến Bris
	-	Ong/Bà Dilong binh Dùng Chức vụ Tư van MT ADRON
	12	ông/Bà Lê Minh Hương Chức vụ Từ van XH
		Đại diện những người bị ảnh hưởng:Q.2 người (chi tiết xem danh sách định kèm);
2.	Nội du	ng 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 diện 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 bỗi thường, hỗ trợ và tái định cư của ADB và Chính phủ Việt Nam; Chương trình phục hỗi kinh tế; Hỗ trợ đối với các nhóm để 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 hỗi thu nhập và các biện pháp giảm thiểu tương ứng (như trong RP);
- Cơ chế khiếu nại khi có các vấn để 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

- Đương day đi qua bài rac Tân tạp song rong kenh Bo bo sẽ có tác động đến phân quy hoas ning đến cáy xanh của lông ty xử lý rac. Bởi vây, công ty mong muin Chi bị an cán phòi hợp chặt chế

với Công ty trong quá triề Thực hiện DA, cho Công ty biết trước các tác động đến Mỹ trừờng như phạm vi hal lang an toan, đo phép làm gi và không làm gĩ trong hal lang và lắn cần trong khu vực DA đi qua.

Quá trữ thu công phải đảm bảo không ảnh hợ đời tham thực vớt ngàu hài làng an toàn của Công ty. Công ty yếu cấu có Bản Cam kết VSMT, ATLB và phòng chống chấy nó quio đơn ni thi công và Công ty.

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

- Công ty e ngại vi trí máng trư sẽ các kương đến đường dan vào cáu, do vày thuết trẻ của hai bên sử làm việc để xac đie chính xac pham vi át hỷ.

- Câng ty BAH 86.632 m² đời trong cây (tram) trong đó có 3671 m² bị thu hỏi việ viện để xấy duy móng trư và 82.961 m² đất BAH tam thời duới HLT. Xac định liên Nhà Điều hai của Công ty có năm duối HLT hay không? hoặc trong pham vi bao nhiều?

4. Kết luận

Chinh quyền địa phương và tổ chức BAH là Công ty VWS ưng hỗ Chủ trường thực hiện DA. Tuy nhiên Công ty VWS có một số thac mac về việc ans hổ hành làng cây xanh của Công ty và muốn nghiên cứu thiết tế thay thế trống loại cây thac để phủ hỏp hón.

Đại diện Chủ đầu tư Đại diện cộng đồng Đại diện tư vấn Đại diện UBND xã

Tựch

Võ Minh Tiến

# TA-7742 VIE: Power Transmission Investment Program (MFF) CHUONG TRÌNH ĐƯỜNG ĐÂY TRUYỀN TẠI ĐIỆN (MFF) PEBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VẨN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

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

No. TT	Location (địa điểm Họ và tên (Name)	Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Địa chỉ (Organization/Address)	Chữ ký (Signature)
1	Nguyanahi Ngec Hain		V	PET HOUD	xã Tân Lập	netwo
1	Cien Che Kim Lun		1	KI TUN	xá Tấn đấp	- lu
3	Mujuly Vin Cong	1		OTHE CES	Vi-134 (27	lin
4	Name Van Legar			CTMTTO.	VE Way lan	may -
5	Vo Nink Tien	V		CT. UBND SI	XA TEN HAP	alnu
6	Dudy Van Culty			81 Con Tever	cong by MS	Jul
1	AU KIM ANH		V	The ly GODAH	1 2	-

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

Kland ton Dog Ngày 25 tháng 03 năm 2015

#### BIÊN BẢN HỢP THAM VẨN CỘNG ĐỒNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

Tiểu dự án: Đường day 500 KV Mỹ Tha Đức Hòa.

Phường/Xã Hòa Kháng Độ Quận/Huyện Đức Hòa Thành phố T. Long An

1. Thành phần tham dự

Ong/Bà La Van Co Chức vụ CT xã

	Ong/Ba Lo Van Co	Chức vụC7
-	Ong/Bà Nguyêr Honng Chail	Chức vụ .C.T MT.T.QXa
	Ong/Ba. Dan Vain Herry	Chức vụ .CT th N Dans
	Ông/Bà	Chức vụ
-	Ong/Ba Dudng Dinh Dung	
-	Ong/Ba. Le Minh Huchq.	Chức vụ Tư. van XH ADB
	Đại diện những người bị ảnh hưởng: 03	người (chi tiết xem danh sách định kèm)

#### 2. Nội dung tham vấn

- Tư vẫn 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 trưởng của ADB; Các quy định về môi trưởng trong ngành điện của chính phủ Việt Nam; Các tác động về môi trưởng 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 để 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 thiếu

- Điơng dãy đi qua đồng lúa của ấp kinh lời, khá xa khu dân cư . Chủ DA được yôu cấu kiến sóat chất thải xây dựng, han chế anh hấ

ring rai dei, người dàu thuy thiết thing tro thể người dan biệt chư drug, pháp người Và quảng thiết that has tong say rough tong tot, chân durs và sond hoạt Cuco das,

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

Nhãn chung, người được BAH và chính quyết; xã rung hệ chu Trương xãy đưng được đường được thiếng được 500 KV Nuy Thi - Điể Hoà - Có một với thi - Điể Hoà Hai mai vẽ (ac' ail hướng plai roinh tong Ho công có quốc bối thười, hay schông:

- Mại với họ thai mac' võ- giá bột thườy tuy kuết thươ vị trí đợt (VN mát là)

- Người dân mong muốn được đất bắ lail lạp ly, thoá được được đãt tanh anh scall họp ly, thoá được tại das,



Du as Diving day sooker neg Tho- Dic Hoa Doug Du as Diving day sooker neg Tho- Dic Hoa Doug The Die par Thene Unit to Du an to que wo và là rel que mà và Die phương rung là gia Thuống rung là chu Thuống vi tra khao du an tha die has. chu Thuống vi tra khao du an tha die has. Chu Thuống vi tra khao du an tha die has. Chu Thuống vi tra khao du an phá hay Đống thi. từ ngh rong chu di ar phá hay chá chí vi chu với tha phương the law rã, giá trinh the lày, vài honh vi chuốn th dươn, quiế trinh the lày, vài honh vi chuốn th dươn,

Đại diện tư vấn

Deer Marie War

Đại diện Chủ dầu tư Đại diện cộng đồng

Dai diện UBND xã

Nguyễn Hồng Tâm

#### PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VÁN CỘNG ĐÔNG VÈ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

#### LIST OF PARTICIPANTS DANH SÁCH NGƯỜI THAM DƯ

Date (Ngày tháng): 25/5 12015 Location (dja diem): Xã Hoa Khanh Dong, Leujer Duc Hoa, took Long Ar. No. Họ và tên Chức vụ Nam Nữ Cơ quan/Địa chi Chữ ký TT (Name) (M) (F) (Position) (Organization/Address) (Signature) 1 Naugen you No Unutt 2 3 CI MITO Xa 4 5 CT HND 6 BVP Xa 7 8 9 tean con 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

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

This Val., Ngày 25 tháng 03 năm 2015

#### BIÊN BẢN HỘP THAM VÁN CỘNG ĐÔNG VỀ ĐÁNH GIÁ MÔI TRƯỜNG VÀ TÁI ĐỊNH CƯ

1.	Thành	phần tham dự
		Ong/Ba Nguyan Van Xill Chức vụ P.CT XX
		Ông/BàChức vụ
		Ông/BàChức νμ
		Ông/BàChức νμ
		Ong/Ba Dudra Sinh Dung Chức vụ Tư vậc MI ADB
		Ong/Bà Dương Định Đứng Chức vụ Tư vận MI ADB Ong/Bà Lê Minh Hương Chức vụ Tư vận XII ADB
		Đại diện những người bị ánh hưởng:người (chi tiết xem danh sách đính kèm
2.	Nôi di	ung tham vấn
	1,50	r vận thiết kế giới thiệu dự án: Vị trí tuyến đường: vị trí và chiều dài tuyến trên địa

- 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 kể 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 để 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 luân

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

1/ Hấu hết đương dân sinh do dân đồng góp xây dụng. Bởi vấy, yếu cấu DA khi hì dụng cấn tuần thủ tài trọng, hìa chúa hu hồn g khi xây ka và đám bảo an toan giao trông.

2/ Phán lớn tru tiên xây dựng trên đồng luâ, miá do đó yếu câu nhã thâu thuế mươn mặt bằng lam đương tạm, bắu tập kết vật liêu không gây hu hai cây cối, hoa māu và hòan trá một bằng đáy đủ

3/ Nhà thấu cấn phải quản lý chất thái xây dựng và sinh hoạt không ánh hý đến mới trừng xung quanh.

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

Cuốc tham vấn công đồng được thúc hiện trong giai đoạn chuẩn bị dụ an. Nhin chung, người dân đồng tinh ung hộ việc thực hiện DA. Có một số hộ dân thác mắc về đơn gia BT hố trợ và mong muốn được đến bũ thảa đáng trál gây ás hương tiêu cưc toi sinh hế i đối sống của người dân.



#### 4. Kết luận

Đại diễn chính quyển địa phương và các hỗ dẫn BAH ting hỏ chủ trường, chính sách thực hiện DA Đương dây 500 KV Nữ Tho-Đức Hoa nhằm phục rụ phát triển KTXH đất rước. Các thác mắc liên quan tỏi các vấn để mỗi trừơng cũng như bời thừong, hỗ tro, TOC đã được đấi diễn Từ vấn Điện L trả là và giải thích.

W HOA

Đại diện Chủ đầu tư Đại diện cộng đồng

Đại diện tư vấn

Đại diện UBND xã TM. ỦY BAN NHÂN DÂN XÃ

Com The

W A S

Youven Van Rieu

M di vin Din

# TA-7742 VIE: Power Transmission Investment Program (MFF)

PUBIC CONSULTATION ON ENVIRONMENT AND SOCIAL/RESETLEMENT

#### THAM VÁN CỘNG ĐÔNG VỀ MÔI TRƯỜNG VÀ XÃ HỘI/TÁI ĐỊNH CƯ

#### LIST OF PARTICIPANTS DANH SÁCH NGƯỜI THAM ĐỰ

No		Nam (M)	Nữ (F)	Chức vụ (Position)	Co quan/Địa chi (Organization/Address)	Chữ ký (Signature)
4	Ng Ul Ngao		x	8AH	AP & A XX Thin Was	· wga
2	26 de Dung		x	ie	1	Bun
3	Mai Van Ean	k				TAN
4	No Van Pla	×			AP 1 A	Tha
3	Dinh von Than	X		4		Dw2
6	newyene minh to	Tim y		D.	le le	Fran
7	Hayer Car Men	*		li .		Mes
2 8	Stan Ngac Dang	×				Dues
9	Na van Hai	8		-		Hai
10	Na T lam Non	,	χ.	И	h	man
11	Nausin Chi kim		×		N N	7/6
12	roboduren varigue	a X	8			Zuena
13	Naverenvan	1/4 X		- 11	,	jily
14	No van Dan	x		h.		Co
15	- Nã Van Olice	x		-	- A	huse
16	nu an anna	h	¥	"		- MC
Ac	THE CAN COMMISSION	)	1			
		-				
-		-				

Diem Hy commune, Chau Thanh district, Tien Giang province



Nhi Binh commune, Chau Thanh district, Tien Giang province



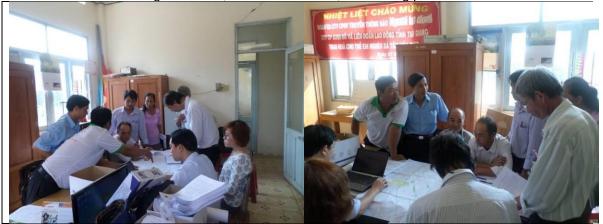
Hung Thanh commune, Tan Phuoc district, Tien Giang province



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

#### 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

#### QUYÉT ĐỊNH

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

## BỘ TRƯỚNG BỘ TÀI NGUYÊN VÀ MÔI TRƯỜNG

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

Căn cử 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 phù 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 dánh 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 đây 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 giả tác động môi trường của Dự án "Đường dây 500 kV Mỹ Tho – Đức Hòa" đã được chính 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 trường Tổng cục Môi trường,

#### QUYÉT 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:

- 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.
  - 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 lờ, 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; lấp đặt biển báo hoặc có hình thức thông báo kế hoạch phân luông giao thông đến các chủ phương tiện giao thông trong thời gian kéo đây 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 di qua biết về các hoạt động thi công của Dự án.
- 3.4. Tuân thủ các quy định ph áp 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:

 Lập, phê duyệt và niêm yết công khai kế hoạch quản lý môi trường của Dư 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 khoán 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 chi 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 nhân:

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

gu v

KT. BỘ TRƯỜNG THỨ TRƯỜNG

Bùi Cách Tuyến

## Ministry of Natural Recourses and Environment

Socialist Republic of Viet Nam Independence- Freedom –Happiness

No: 2271/ QĐ-BTNMT

Ha Noi, October 13, 2014

#### **DECISION**

#### APPROVING THE REPORT ON ENVIRONMENTAL IMPACTS ASSESSMENT OF PROJECT <u>"500KV MY THO – DUC HOA TRANSMISSION LINE".</u>

#### 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 4<sup>th</sup> 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 18<sup>th</sup> April 2011 providing strategic environmental assessment, environmental impact assessment and environmental protection commitment.

Pursuant to the Circular 26/2011/TT-BTNMT dated 18<sup>th</sup> 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 9<sup>th</sup> April 2007 of the Government on solid waste management, Circular No. 12/2011/TT-BTNMT dated 14<sup>th</sup> 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

Số: {161/QSLA-TM

Long An, ngày 24 tháng M năm 2010

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 đây 500kV trước khi thi công công trình.

Nơi nhận:
-Như trên;
-Lưu: VT, BCB, D03b.

Thương tá Trần Văn Trai

HUY TRƯỞNG

UY TRƯỞNG

CONG VÂN ĐẾN

7674

# The headquarter of Military Zone 7 Military Commands of Long An Province

No.1164/QSLA-TM

Re: the matter of mines and explosive

Remnants of war.

#### Social Republic of Viet Nam 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 11<sup>th</sup> 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 can not 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.

214.

Attention:

- As above

- Filing

On behalf of the Commandant Deputy Commander Tran Van Trai

(signed)

215.

#### BỘ TƯ LỆNH QUÂN KHU 9 BCHQS TỈNH TIẾN 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 tinh 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 tinh có ý kiến như sau:

Điểm đầu Trạm 500kV Mỹ Tho tại xã Điềm 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 tinh Tiền Giang, không ảnh hưởng đến vị trí đóng quân, hệ thống Thông tin liên lạc quân sự do Bộ CHQS tinh quản lý.

Qua khảo sát bom, mìn, vật liệu nổ còn sót lại sau chiến tranh trên địa bàn tính Tiền Giang. Mật độ bom, mìn, vật liệu nổ các khu vực thi công đường dây 500kV qua địa bàn tính, 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./.

Nơi nhân:

- Như trên
- Liru VT,S02

KT. CHỈ HUY TRƯỞNG PHÓ CHỈ HUY TRƯỞNG - TMT

Đại tá Nguyễn Văn Châu

CÔNG VĂN DÊN

8149

#### The headquarter of Military Zone 9 Military Commands of Tien Giang Province Independence – Freedom- Happiness No 2308/BCH-TM

Social Republic of Viet Nam

Re: agreement on the alignment of 500kV

Tien Giang, December 13, 2010

My Tho - Duc Hoa transmission line,

#### To: Power Engineering Consulting Joint Stock Company 2

Pursuant to the Official Letter No. 3451/TV2-TLĐ on 19<sup>th</sup> 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 guo 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

216.

On behalf of the Commandant

**Deputy Commander** Nguyen Van Chau

(signed)

#### 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;
  - 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

Table 1. Notes and Nespons	Sibilities in Linergency includin Nesponse			
Entity	Responsibilities			
Contractor Team (ERT)	<ul> <li>Communicates / alerts the EERT.</li> <li>Prepares the emergency site to facilitate the response action of the EERT, e.g., vacating, clearing, restricting site.</li> <li>When necessary and requested by the EERT, lends support / provides assistance during EERT's response operations.</li> </ul>			
External Emergency Response Team (EERT)	- Solves the emergency/incident			
Contractor Resources	<ul> <li>Provide and sustain the people, equipment, tools and funds necessary to ensure Subproject's quick response to emergency situations.</li> <li>Maintain good communication lines with the EERT to ensure prompt help response and adequate protection, by keeping them informed of Subproject progress.</li> </ul>			

- 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:
    - (i) 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
  - (ii) 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.
  - (iii) 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**

Table 2.Evaduation 1 Toccure					
Procedure	Remarks				
<ul> <li>Move out as quickly as possible as a group, but avoid panic.</li> </ul>	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.	<ul> <li>Foremen to do head counts of their sub- groups; ERTL/Deputy ERTL of the ERT.</li> </ul>				
Once outside, conduct head counts.	<ul> <li>Foremen to do head counts of their sub- groups; ERTL/Deputy ERTL of the ERT.</li> </ul>				
Report missing persons to EERT immediately.	<ul> <li>ERTL/Deputy ERTL to communicate with the EERT.</li> </ul>				
<ul> <li>Assist the injured in evacuation and hand them over to the ERT first-aiders or EERT medical group</li> </ul>	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.	<ul> <li>ERTL/Deputy ERTL communicates with EERT to get instructions/directions in handling the injured.</li> </ul>				

**Table 3.Response Procedure During Medical Emergency** 

	<u> </u>			
Procedure	Remarks			
<ul> <li>Administer First Aid regardless of severity immediately.</li> </ul>	<ul> <li>Fundamentals when giving First Aid:</li> <li>Safety first of both the rescuer and the victim.</li> </ul>			
	<ul> <li>Do not move an injured person unless:</li> </ul>			
	<ul> <li>victim is exposed to more danger</li> </ul>			

Procedure	Remarks		
Call the EERT emergency medical services and/or nearest hospital. Facilitate leading the EERT to the emergency site.	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.  First AID to be conducted only by a person who has been properly trained in giving First Aid.  ERTL/Deputy ERTL or authorized on-site emergency communicator  ERTL/Deputy ERTL to instruct:  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.		
If applicable, vacate site and influence area at once, restrict site, suspend work until	<ul> <li>Follow evacuation procedure.</li> </ul>		
further notice.			

**Table 4.Response Procedure in Case of Fire** 

Procedure	Remarks				
<ul> <li>Alert a fire situation.</li> </ul>	<ul> <li>Whoever detects the fire shall immediately:</li> <li>call the attention of other people in the site,</li> <li>sound the nearest alarm, and/or</li> <li>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)</li> <li>report/communicate the emergency situation to the ERTL/Deputy ERTL.</li> </ul>				
<ul> <li>Stop all activities/operations and evacuate.</li> </ul>	<ul> <li>All (non-ERT) workers/staff sub- contractors, site visitors and concerned public to move out to safe grounds following the evacuation procedure.</li> </ul>				
<ul> <li>Activate ERT to contain fire/control fire from spreading.</li> </ul>	<ul> <li>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.</li> </ul>				

Procedure	Remarks		
<ul> <li>Call the nearest fire and police stations and, if applicable, emergency medical services.</li> </ul>	<ul> <li>When alerting the EERT, ERTL will give the location, cause of fire, estimated fire alarm rating, any injuries.</li> </ul>		
Facilitate leading the EERT to the emergency site.	<ul> <li>ERTL/Deputy ERTL to instruct:</li> <li>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.</li> <li>some ERT members to stop traffic in, and clear, the access road to facilitate passage of the EERT.</li> </ul>		
<ul> <li>ERT to vacate the site as soon as their safety is assessed as in danger.</li> </ul>	<ul> <li>Follow appropriate evacuation procedure.</li> </ul>		

# 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 levelling, 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.



Swtichyard and connection lines

Woman worker at the lodging house for staff

Women workers at the excavation of S/S drainage line



At the switchyard area

Access road from Provincial Road No. 62

Operation building of the S/S

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 run off was 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	o. Item	Yes	No	Remarks			
1.	1. Natural source protection						
1	Are there any protected areas around the ss		х	Only farm crops surround the S/S			
2	Is there any special area for protecting biodiver	sity	х	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 instead equipment for controlling fire	talling X					
3.	Waste Management						
1	Is domestic solid waste collected and dispos regularly place?	ed at	х				
2	Is construction waste collected and dispose regulated organization?	ed by	х				
3	Does the SS have domestic wastewater prelin treatment prior to discharging into body water	ninary 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	?	Х				
2	Are there safety guidelines?	X					
3	Have safety orientation and trainings conducted for workers on labor safety?	been X					
4	Areworkers wearing personal protective equip (PPE)?	oment	х				
5	Are the worker's camps located in safe places?						
6	Have fist aid and drinking water for workers provided?	been X					
7	Noise and vibration due to blasting and othe works?	r civil X		Very low impact			
8	What is the nearest distance from households SS?	to the		About 4km			
5.							
1	Is the Environmental Certificate for this SS obtained?	being X		EPC approval already obtained			
2	Is environmental monitoring report conducted construction?	luring	Х	No report			
6. Air quality impact							
1	Increased local air pollution due to rock crus cutting and filling?	shing, 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.

# Annex A. CERTIFICATEOF ENVIRONMENTAL PROTECTION COMMITMENT

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 26<sup>th</sup> 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 9<sup>th</sup> 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 24<sup>th</sup> 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 8<sup>th</sup> December 2008 guiding strategic environmental assessment, environmental impact assessment and environmental protection commitment.

According to the Proposal No.114/TTr-TNMT dated 11<sup>th</sup> 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 24<sup>th</sup> 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)

### ŮY BAN NHÂN DÂN HUYỆ<u>N CHÂU</u> 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

#### GIẢY XÁC NHẬN ĐĂNG KÝ BẢN CAM KẾT BẢO VỆ MÔI TRƯỜNG của Dự án: Trạm biến áp 50<u>0Kv Mỹ T</u>ho và các đường dây đấu nối

- Căn cứ luật tổ chức Hội đồng nhân dân và Uỷ 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/NĐ-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/NĐ-CP ngày 28 tháng 02 năm 2008 của Chính phủ về sửa đổi, bổ sung một số điều của Nghị định 80/2006/NĐ-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 dánh giá môi trường chiến lược, đánh giá tác động môi trường và cam kết báo vệ môi trường.
- Theo tờ trình số 114/TTr-TNMT ngày 11/3/2009 của Phòng Tải 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 dã 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 đấu nối.

Điều 2. Chủ dự án có trách nhiệm thực hiện dúng và đầy dủ 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;
- Nước thải phải đạt tiêu chuẩn TCVN 5942:1995, nước thải sinh hoạt phải đạt tiêu chuẩn TCVN 6772:2000;
  - 3. Khí thải phải dạt 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 nhân:

- Nguyễn Tiến Hải Trường ban Ban quản lý dự án các công trình điện Miễn Nam;
- Phòng Tài nguyên và Môi trường;
- UBND xã Điểm Hy;
- Lưu Văn thư.
   Số TT 04

Eron Van Chạo