Kingdom Cambodia
Nation Religion King

CAMBODIAN TRANSMISSION LIMITED

Initial Environmental and Social Impact Assessment (IESIA)

For Power Transmission Line Project 230kv from North Phnom Penh to Kampong Cham Province

Cambodian Transmission Limited ("CTL") Contact Details

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Content:

Abbreviation:

ADB	-	Asia Development Bank
AP	-	Affected People
ASEAN	-	
CITES	-	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DCC	-	Design and Construction Contractor
EDC	-	
EC	-	Environment Coordinator
MEF	-	Electromagnetic Field
EMP	-	Environment Management Plan
IEIA	-	Initial Environment Impact Assessment
IMO	-	Independence Monitoring Office
IPP	-	Independence Power Producer
IUCN	-	World Conservation Union
KV	-	
NML	-	No Man Land
NR	-	National Route
ROW	-	Right of Way
UXO	-	

Measurement:
KM -

Ha -
MVA -
KV -
KWh -
MWh -

CHAPTER 1
INTRODUCTION

1-1 General view of project

1) CAMBODIAN TRANSMISSION LIMITED is an oversea private company that has an investment on power transmission line project at voltage 230kV from Vietnam to Cambodia (Phnom Penh) and 115kV from Vietnam (Tary Ninh province) to Kampong Cham province. The demand of electricity power in this province is high and the electricity cost is from 900 – 3,000 KHR / kWh or 0.225 – 0.75 USD / kWh.

2) The electricity cost is different from one area to another area and it is very expensive comparing with the cost in other provinces. EDC in Kampong Cham province will be able to supply power in provincial town only. While in gathering places in district, there is no power supply from EDC; there is only power supply from private power supply with by small engines run by fuel oil to supply and it is not reliable. In this province, the cost of electricity is different from one commune to another communes depends on the source of power supply from the province electricity or private power supply. In Kampong Cham province, the cost of electricity is between 900 – 2,300 KHR / kwh. It is remarkable that most people in this province cannot access to powe r supply because dispatching system is poor and most places don't have transmission line.

3) Kampong Cham province is the country's main rubber plantation agriculture – industry, therefore the electricity demand is higher than other provinces. Nowadays, Kampong Cham electricity is able to supply power about 12.5MW only by the engine rented from private. This amount of power is not enough for the growth of tourism service and economic activities such as hotels, guest houses, restaurants, night clubs & karaoke. During the high electricity demand and the ability of power supply in this province, it shows the service lack of power the power demand in the present as well as the growth of power consumption in the future. With the power generation engine that can produce high capacity causes disturbing noise and spreads out carbon dioxide to the atmosphere in the town, by contrast, this pollution seems to be completely forgotten. Therefore, the power transmission line project is acceptable due to environmental and social conditions and potential economy.

1-2 Objective of IEIA report

4) The objective of IEIA report is to:

- Define and evaluate environment impact that caused by the construction activity and the operation of power transmission line 230kV as well as the substation construction and power distribution system.
- Take action on the construction plan preparation and operations & maintenance to avoid or reduce the impact to the environment and society that caused by the project.
- Make EMP in details and include the inspection plan for the construction and operation together with the estimated cost in the proposal.
- Evaluate the capability of the institution that will implement, follow up, and provide comment.

1-3 Size of Study

5) The study of IEIA report is to focus on physical environment, living environment, and social economy for the transmission line 230kV starting from Udong substation, Udong district, Kampong Spue till Kampong Cham substation, Kampong Siem district, Kampong Cham province.

6) IEIA report is based on the power transmission line construction drawing especially on environment and society concerns. The power transmission line construction drawing was made by the contractor and the drawing is attentive to with the detail of the plan. We can shift the transmission line that was already decided but the change must be small in order to reduce the effect on people house, land, and public property. Therefore, the drawing of transmission line and ROW can be changed in the gathering area.

7) IEIA report for power transmission line 230kV was arranged by Green Consultancy Firm (GCF) as per Contract No-gcf/sa-04-11/2008 dated on 17 November 2008 with CTL.

Furthermore, the IEIA report is written as per the policy of Ministry of Environment (MOE) that was approved in 2009 in which there are 8 chapters:

Chapter 1: Introduction
Chapter 2: Law condition and policy of ADB
Chapter 3: Description of project
Chapter 4: Environment
Chapter 5: Inspection on environment impact and reduce
Chapter 6: Public Discussion
Chapter 7: Demand from institution and environment inspection
Chapter 8: Conclusion and Comment

1-4 Strategy of the study

1-4-1 Study plan arrangement

8) The study plan is very important to make IEIA report because it is the way to deal with the problem. The study for this project includes:

1- Open the project starting from formability of law and technique
2- Find information resource and type of information including the strategy of the study
3- Make question list related with the project
4- Arrange team to conduct research and attend public discussion
5- Document and data collection related with the project
6- Define the impact on environment and society
7- Conclusion and comment

1-4-2 Location of the study

9) IEIA report will focus on location that the company proposed from EDC of MIME starting from Udong substation in Kampong Spue till Kampong Cham substation with the length of 97.20km. Therefore, this transmission line is crossing:

Table 1-1: Study location

Province	**District**	**Commune**		
Kampong Spue	Udong	Ksam Ksan	1	Sdouk Lapov
			2	Tropaing Krosaing
	TOTAL			**5 towers**
Province	**District**	**Commune**		**Village**
Kandal	Ponhea Lue	1- Tomnob	1	Svay Leap

			2	Sdouk Chhouk
			3	Tropaing Chrov
			4	Tropaing Russey
			5	Kamnob
		2- Chrey Lois	1	Thouk Trobek
			2	Thouk Angkrong
			3	Tropaing Roka
			4	Chombok Plos
			5	Thmor Sor
			6	Thmey
			7	Thoim Sras
			8	Kampong Krosaing
			9	Veal Thmey
			10	Por Ral
			11	Sras Por
		3- Phnom Bat	12	Tropaing Sleng
		4- Ponhea Lue	1	Toul Ampil
			1	Dang Kom
			2	Prek Chik
			3	Prek Kdam (1)
		5- Koh Chen	4	Prek Kdam (2)
	TOTAL			**61 towers**
Province	**District**	**Commune**		**Village**
			1	Sambo
			2	Sangkerb
			3	Chong
		1- Sambo	4	Tabek
			1	Chea Lea
		2- Chea Lea	2	Phnom Thom
		3- Chbar Ampov	1	Chbar Ampov
			1	Svay Pork
	Bateay	4- Bateay	2	Sras Pring
	TOTAL			**71 Towers**
			1	Bakrong
			2	Totol
		1- Kok Roviang	3	Chhouk
			1	Knol Dambong
		2- Knol Dambong	2	Roviang
		3- Pdao Chhom	1	Chher Teal
			1	Tasen
		4- Sotep	2	Thmey
			1	Pnov Koert
	Choerng Prey	5- Prey Chao	2	Pnov Lech
	TOTAL			**44 towers**
			1	Prey Kcheay
Kampong Cham	Prey Chhor	1- Samroung	2	Sodey

			1	Sensun Tboung
		2- Srogne	2	Srogne Tboung
			1	Taing Tropaing
			2	Taing Kok
			3	Tropaing Neang
			4	Tachak
			5	Kok Trea Lech
			6	Kok Trea Kert
		3- Lvea	7	Sdouk Antong
			1	Ampil Thom
			2	Trognol
		4- Kwet Thom	3	Kwet
			1	Sleng
			2	Tropaing Touk
		5- Chrey Vian	3	Taream
			1	Namken
			2	Otanov
			3	Khloy 1
			4	Khloy 2
			5	Tropaing Chhouk
			6	Toul Pon
			7	Pkay Proek
			8	Tropaing Krol
		6- Mian	9	Trerng
	TOTAL			**78 towers**
			1	Toul Beng
			2	Angkun Dey
			3	Trokuon
		1- Krola	4	Tropaing Trol
		2- Vihea Thom	1	Kong Moha
	Kampong Siem	3- Ampil	2	Andoung Chros
	TOTAL			**20 towers**
	SUB TOTAL			**279 towers**

Chapter 2
Law Cadre and ADB's Policy

10) IEIA is demanded to put under Cambodia Controlling Law and adapt to ADB's policy, these demand is the same.

2-1 Law on Asarmikor

11) Law on Asarmikor was approved on 29 December 2009 in the 3rd assembly meeting, session 4 and the senate agreed on the law without any changing on 14 January 2010 in the 6th senate meeting, session 2 and the constitution checked and decleared in the announcement no. 108/001/2010 dated on 04 February 2010 with the full meaning as below:

Article 1:

This law is called Aksarmikor in Kingdom of Cambodia about the reasonable compensation and fair for the construction plan, reform, and enlarge the public infrastructure to server for public and nation benerfit and for development in Cambodia.

Article 2:

The objective of this law is to:
- Ensure the withdraw ownership legally wih reasonalble and fair.
- Ensure to pay reasonable compensation and fair.
- Serve for public benerfit and nation benerfit
- For development of Cambodian's infrastructure.

Article 3:

This law is to implement on Aksarmikor that is related with the public infraction plan in Cambodia. This law will not cover on the agreement or MOU between the investment party and the government and the country that has aksarmikor.

Article 4:

Wording used in this law:
Aksarmikor: refer to withdrawing ownership on fixed asset or obvious ownership on fixed assets, legislator of public land such as: land, construction, plantation, reform, enlarge the infrastructure for public benerfit and nation benerfit and to provide advance reasonable compensation and fair.

Fixed asset owner or the owner: refer to …….. public such as: owner, …. and people having authorize on the land that is affected by the project.

Benerfit for the public or general: refore to the use of land or property by the general public or agency or institution or the public.

Requirment for nation benerfit: Refer to the activities or project:
- Construction, reform, enlarge, or necessary construction for nation defence, or security work.
- Land or property management in order to for historical land.

Project implement person: Refer to the people, enterprise, and public institution, contractors or investment.

Person who forbids the work: refer to person who is the masterhead, person who stir up the problem which is for personal activities or indirectly with dishonest idea in order to forbid the work or the implementation of this aksarmikor law.

Article 5:

Infrustruction project:
A- Construction or enlarge the railway, route, or bridge, or airport, or other infrastructures.
B- Construciotn or enlarge energy station, infrustruction, power transmission line, and power dispatch.

C- Construcion or enlarge the building, post office, telecommunication, or technology information system.
D- Construciton or enlarge city, car park, market, garden, and public field.

E- Construction or enlarge the water system, water supply system, drainage system, and places to serve for publics.

F- Construction or enlarge building for training or education, cultural preservation, natural protection, and environment.

G- Constructin or enlarge the place for render or performce the construction, materials for protecting natural resources.

H- Construction or enlarge the gas network and materials for research and for business of mines and other natural resources.

I- Construction or enlarge building one the zone that was destroyed by earth quack, flood, and fire or land collapse and to reform that zone again.

J- Construction or enlarge building for protecting people.

K- Construction and enlarge the border place.

L- Construction and enlarge the construction that is necessary for national defence and security work.

M- Creat a pipe to protect natural resources, forest, patrimony, historical culture, and environment.

N- Implement the requirement from the nation and from the government.

Article 6:

Aksarmikor can be applied to part of fixed assets, the whole fixed assets, or actual ownership of fixed assets.

Article 7:

Only the government can make up Asarmikor in order to used for public purpose and national benerfit. Aksarmikor can be implemented unless it is for project as per article 5 of the law.

Article 8:

The government need to buy parts of fixed assets that is remaining from the Aksarmikor at reasonable price and fair as per request from the owner or authorized person who cannot live nearby the project area or cannot build the house or have any business.

Article 9:

The fixed assets that are withdrawn shall be used in the purpose for public benerfit only and cannot be left free without any reason or transferred to anyone for personal purpose.

The remaining from the needs can be sold to the owners or if the owner doesn't want to buy, it can be considered as property of the government.

Article 10:

In special and urgent case for the public requirement such as fighting, fire, flood, forest fire, earhtquack, war that are about to happen or any torro, or other situation that is defined by the government, can withdraw the fixed asset or ownership on the fixed assets for temporary and no need to have any discussion and by returning it to the owners after having been withdrawn.

In the urgent and necessary case, the government has right to make Aksarmikor without any discussion ahead as per mentioned in chapter 4 of this law.

Article 11: Before preceding this Aksarmikor law, the government has to make budget annual plan to provide enough budget and has to provide enough credit on time to the Aksamikor committee as per request from the MOEF for paying compensation to the fixed assets owners and person who are suffered by the Aksamikor.

Article 12: Aksarmikor committee shall be created and lead by MOEF with representative from relevant institution.
The arrangement will be held by the Aksarmikor committee defined by the Anucret.

Article 13: Sub-committee of Aksarmikor is created to lead by provincial governor, representative of the ministry, and other relevant authorities to get involved.
The arrangement for the sub-committee of Aksarmikor is defined in Article 12 of this law.

Article 14: the committee settling with the complaint is created and lead by the representative of Land Management Ministry and other relevant ministries.
The committee settles the complaint base on the Anucret.

Article 15: Aksarmikor is held based on the infrustion plan with approval from the government as per request from the privat ministry of institution.

Article 16: Before request for Arksarmikor, the committee has to observe in publicly by recording in details all the assets of the owners and other properties that need to pay form compensation.
During the observation, the committee fo Aksarmikor has to discuss in public with local authority, province, distirct, commune with the commune councilor and representative of village, district, commune or community that are suffered by the Aksamikor in order to provide clear information and get ideas from all parties related with the request for the infrusture project.

In order to define the schedule to withdraw or provide new location or provide compensation, the Aksarmikor Committee has to check all relavent parties in details about the assets that are related with the project of public infrustruction.

After the observation complete in 30 days of working day, the committee of Aksarmikor has to report to the government for decision.

Article 17:

Base on the decision from the government, the committee of Aksarmikor has to issue Prokas about the Aksarmikor plan to inform the assets owner or the authorized person on the assets which will be withdrawn and inform about the purpose of withdrawing the assets as per below:

A- Define the objective of the project, locaton of the project, and the implementation period of the project including the authority arranged to withdraw the private asset.
B- Reasonable compensation & fair.
C- Send Prokas to all the asset owners.
D- Define the period of complaint.
E- Public the Prokas through public system.
F- Stick the Prokas at Commune court, District court, and other related places about the project and this Prokas has to be informed to the people whos have assets by the the Village Chief.

Article 18:

After receiving the Prokas about the Aksarmikor, the assets owners can sue about the observation in order to know whether it is for public benerfit or can change the project location. The lawsuit can be made through lawyer or representative.

The lawsuit must be in writing within 30 days (thirty days) of working day after the receiving the Prokas about Aksarmikor to the the committee to settle about the complaint lawsuit as per article 14 of this law. The important meaning of the lawsuit can be:

- Name of the asset owner/ address and telephone numbers
- Reason of the lawsuit
- Arrange legal document about the land
- Advantage of the land or assets that will be withdrawn for the owner

However, the owner cannot sue to ask for observation to for the development on national route, bridge, railway, water distribution network, electricity, petroleum pipe, sewage drainage, line network, and main water drainage.

After in observation within 30 days of working day, the committee will settle with the lawsuit and make report to request for decision from the government.

Article 19:

Withdrawing the assets can be made only if the Aksarmikor pay compensation to the asset owner at reasonable price and fair as per policy and law of paying compensation in Section 3, Chapter 4 of this law.

Withdrawing the assets can be made even the conflict is not yet settled. The asset owner who get the compensation amount from the representative of Aksarmikor committee can futher bring their lawsuit for settle as per article 34 of chapter 6 in this law.

Article 20:

The withdrawing the asset is made based on the decision from the Aksarmikor committee. The decision of Aksarmikor is as follow:

Article 21:

The Aksarmikor committee has to inform about Aksarmikor and have to pay full compensation to the assets owners before doing Aksarmikor.

Article 22:

The compensation to be paid to the asset owners must follow the market rate or date on the Prokas about Aksarmikor Plan.

The market rate or the replaced rate must be defined by the committee or the indepent agency which is selected by the Aksarmikor committee.

Article 23:

The asset owners can get compensation on actual damage starting from the the announcement of Aksarmikor Plan which is the final dated for getting reasonable compensation.

Article 24:

The compensation shall be in cash or replaced according to the actual with agreement from the asset ownersand from the committee of Aksamikor.

The form and procedure of the paying compensation is defined by the Anucret as per request from MOME.

Article 25:

The compensation is to according to the total amount; withdraw the tax on land not used which is yet to pay for the government so far and the committee of Aksarmikor has to pay withholding tax to the government budget as per law.

Article 26:

The compensaton for asset owner will not follow the change of the price increase, starting from the Prokas on Aksarmikor plan because the change might related with the reserved land as per plan of urbanism.

Article 27:

After receiving compensation amount, the asset owner has to be responsible for maintenance, staying, and controlling and still have right on the assets until the assets are withdrawn by the committee of Aksarmikor.

Article 28:

The committee of Aksarmikor can receive the assets after:
- Following the law and condition as per section 1 and section 2 in Chapter 4 of this law.
- Proving compensation as per policy and law in section 3, chapter 4 of the law.

Article 29:

The owner of assets who has proper contract agreement will receive the compensation for all disturbance related with withdraw such as removing construction, materials, and transportation to the new location.

For the owner fo assets that is for business can get compenstation for business too and extra compensation reasonable and fair on the actual expense starting from the Prokas of Aksarmikor.

Withdrawing the location of business activity, the owner has to receive extra compensation on the actual cost of the property starting from the Prokas of Aksarmikor.

Article 30:

Starting from the Prokas of Aksarmikor, the asset owner cannot sell or transfer the assets to other person. Any document and law which is oposit to this law is considered invalid.

Use of land or related assets will remain as its size and condition as when the Prokas of Aksarmikor and cannot construct more on that land. Any activity of this, the asset owner will not get compensation for new construction.

Article 31:

The asset owner can control his/her assets for 1 month after the Aksarmikor committee has paid full compensation as per chater 4 of this law, except ther is agreement or permission.

If the asset owner deoes not move out from the place, the Aksarmikor committee can request to the local authority or public authority to take action and that person has to move from out from the place that was already did the Aksarmikor.

Article 32:

The Aksarmikor committee will settle with complaint/lawsuit with local authority help to verify the complain/lawsuit.

Article 33:

The asset owner who does not agree with the decision from Aksarmikor committee can futher bring the complaint to the court if Aksarmikor is not implemented properly, the withdraw of the property is not for the public or nation benerfit, and the compensation amount is not reasonable and fair.

The form or rule of lawsuit is defined by Anucret.

Article 39:

The law must be Prokas urgently.

2-2 Law of Environment Protection Affair and Natural Controlling

12) Law of environment protection affair and natural controlling was consented by national parliament and declared on using by royal proclamation no. Nor Sor/Ror Kor Mor/36 on date December 24, 1996. Purposed:

- To protect and glorify the environment property and human health by stopping, reducing of pollution and pollution controlling
- To evaluate the environment impact before issuance of government official decision for all project proposition

- To ensure, it must be curator, development and organizing within reasonable implementation, continuity and environment property unceasingness of Kingdom of Cambodia.
- To be encourage and offer the compatriot to joint in protection environment and natural controlling
- To repress all performances which cause to affect the environment

13) Concerning with the natural property controlling, this law was demand to all companies to prepare the IEIA or EIA statement. Base on this law, it wrote in article no. 6 and 7 of charter 3 as follow:

Article No. 6:
EIA must practice on the project and private or public activities, it was checked and evaluated by Ministry of Environment before submitting to the government to make conclusion.

This evaluation was also practice on available and progress activities that is not do assessment on environment impact yet. Modality of operation on EIA must be noted by Anu Cret with Ministry of Environment requested. EIA on type, size, proposal, available and progress activities project in private and public must be noted by Anu Cret with Ministry of Environment requested

Article No. 7:
As for every investment and government project applications form must be IEIA or EIA as wrote in article no. 6 of this law. Ministry of Environment must be checked and advised on IEIA or EIA to competent institute during a definite period in Investment Law of Kingdom of Cambodia.

2-3 Law on water resource management of Cambodia

14) This law was approved by the National Assembly of Cambodia during the 6th meeting on 22 May 2007.

Article1: This law is to manage water resource with efficiency and stability for Cambodia in order to develop economy, society, and health of people. This law is about:

- Rights and duty of water users
- Important basic policy for water management
- Participation from water users to develop water resource and stability of water resource

Article 2: This law has technical words with meaning below:

- Water: water on the ground, water under ground, and water in the atmosphere
- Water resource: sea, river, stream, cannel, lake, pond, reservoir.
- Water under ground: water that flow under ground in between the stones and soil from place to place.
- Reservoir under ground: water permanently stays under ground and natural.
- Sub- river reservoir: part of the river reservoir
- International river: river that is relevant with more than two countries
- River side, stream, cannel, lake, water reservoir: part of the land that is naturally flooded in the river, stream, .. including the soil, stones, and other elements.
- Seaside, river, and stream: part of land or sand that is covered by water
- Public demand: is the water supply for city and province, for food production, for hydropower generation, for agriculture field, for industry field, and reserve for environment, human life, fish, and trees.
- Water work: dike construction, dike to protect flood, well, hydropower dike, and other construction to turn the water for reserve and use.
- Water License: License for water usage and supply water for business.
- Personal: either for personal or the public.

Article 3: Water & water resource is the property of the state.

Article 11: One has the right to use water resources in particular amount that is not exceeding the demand for cooking, washing, and bathing, including for raising animals or fish, garden, plantation. The demand above is not needed to have water license.

Article 12: Using water for plantation, for agriculture or industry more than limit as per article 11, and other water construction is needed to have water license or permission letter. The request form is mention in Anucret. Taking sand, stone, petroleum, gas, from the bottom of the river, sea, stream, and cannel is needed to have water license. The technical form regarding with this work is mentioned in the Anucret. Cancel river, streem, cannel, lake, and natural reservoir is needed to have water license or permission letter. The request form is mentioned in Anucret. Bridge construction crossing river, stream, port, or small/big buildings on the waterside or riverside is needed to have approval from the technician of Ministry of Water Resource and Meteorology first. Taking water from the natural resource in Cambodia is needed for permission and approval from Royal Government of Cambodia with approval from Law Institution.

Article 14: Before providing water license to anyone, Ministry of Water Resource and Meteorology has to discuss with relevant institution and local authority on the water usage, construction, and water work.

Article 22: Any discharge or throwing poison that can spoil the water or harm to human, animal, and plants, needs to have water license or permission first. The poison elements and water discharge system and waste is mentioned in Anucret. To process this wor, Ministry of Water Resource has to discuss with relevant Ministry.

Article 23: Ministry of Water Resource and Meteorology can announce it as a prohibited area for using water:

- Water on the ground or water under ground that can effect the quality and quantity of ecology.
- Water on the slope that is harmed by human activity or nature.
- Water that is harmful for people health.

The prohibited area is mentioned the Prokas of Ministry of Water Resource and Meteorology.

Article 32: All conflict regarding with water usage and water service shall be dealt by Ministry of Water Resource and Meteorology, relevant institution, and local authority.

Article 35: The Royal Government can provide awards and favor to those who attend in the study research and found new technology or can install modern equipment to reduce waste, improver water quantity, and water usage. The form of providing award is mentioned in the Prokas of Ministry of Water Resource and Meteorology.

Article 36: If disobey the law above, the punishment is as below:

1- Pay fine from 200,000 riels to 2,000,000 riels for those who are:

- Disobey the conditions in the water license.
- Not allow authority or water officer to carry their work without suitable reason
- Consume huge amount of water without having water license.

2- Pay fine from 2,000,000 riels to 5,000,000 riels and imprison from 1 month to 6 months for those who are:

- Use water without having water license or permission letter that law demands.
- Dig or drill well to take under ground water for business without having water license. The fine amount will be double if the digging or drilling work causes the collapse or breakdown of the land.

3- Pay fine from 5,000,000 riels to 10,000,000 riels for those who are:

- Cancel the natural lake, stream, pond, or water reservoir without permission letter
- Discharge poison into the water resource without having water license
- Have activities in the prohibited area
- Block the drainage of river, stream, cannel without having permission letter.
- Business of sand, stone, and soil from the bottom of river, stream, and cannel must have water license.

4- All cases that is repeated, will have to pay fine double.

Article 37: Anyone to spoil the public water construction will be fined.

Article 38: Addition to the articles above, the criminal has to remove his type of business construction and the machine of the criminal will be taken for the government's property.

Article 40: Any regulation that is against this law above is considered repeal.

2-4. Law on land

Article 3:

- Everyone has to respect property of the state and private asset that is legal. The management of cadastral survey on fixed asset that is the property of state and the ownership license on fixed asset in Cambodia is the authority of Ministry of Land Management, Urban Planning, and Construction. Rules and regulation of fixed asset management on property of the state is mentioned in Anucret.

Article 43:

- Property of the state is cannot be anyone's property. The owner of the state's property is unclear and not legal, if the not permitted by the law. The person who own the state's property has to move out immediately and responsible with the punishment as per article 259 of the law. The person who owns the state's property cannot demand for compensation or reform as its own property.

Article 58:

- Subsidy land is the private land apart of the state's. Subsidy land is not affected on the community's route, right of way, and water system or land of people.

2-5. Labor Law

2-5-1. Salary

Article 102:

- This law means that the wage is agreed and the employer has to give to the employee as per work agreement or service agreement in writing or by verbal.

Article 162:

- Every year ministry in charge of labor filed issue a Prokas about Public Holiday with wage for the worker or employee of all enterprise. The public holiday with wage is not included with the annual leave.

Article 163:

- Employees works as per working hours or amount of products can get bonus as per article 161.This bonus in under charge of employer.

Article 164:

- For enterprise that can not stop working due to the work load that needs the employee to work during public holiday, can get extra wage beside the bonus that is mentioned in the Prokas of ministry in charge of labor work.

2-5-2. Special leave

Article 171:

- Employer can allow employee to take special leave in the event that is related with the employee's family.
- If employee is yet to use up annual leave, the employer can offset with the special leave above.
- If employee already used up annual leave, the employer cannot offset with the next year's annual leave of employee.
- Working hours during public holiday can be replaced as per condition in Prokas of ministry in charge of labor law.

2-5-3. Hygiene and safety of employee

Article 238:

- As per article 1 of this law, the enterprise has to arrange for first aid medical service for employee.

Article 240:

- The nurse shall be available at each enterprise.
- Nurse has to assist doctor, the number of nurse depends on the number of employee of the enterprise.
- During working day time & night time should have at least one nurse stand by.

Article 243:

- As per article 228, the enterprise that has branch one or more with at least 50 employees and about 5km far from the head office, the employer has to provide the medical service to the branch like the head office as well.

Article 245:

- Beside the article mentioned above, employer has to responsible with own expenses on:

1- Chemistry group to protect disease in the enterprise
2- Vaccine for transmitting disease

- Transmitting disease, Ministry of Health can inform the enterprise to take preventive action.

2-6 Anu Cret of Water Pollution Controlling

15) Anu Cret no. 27 Or Nor Kror.Bror Kor of water pollution controlling has been approved on 06-April-1999. Purposed of Anu Cret:

- The goals, to define water pollution controlling in order to stop and reduce water pollution in public areas. Its aim to ensure human health protection and curator of mix ecologist
- There is an extent in practice of any debt resources and activities that is cause to have water pollution on other areas.
- Concerning with this Anu Cret, there are 5 index attachments in protection the public water pollution and also curator of mix ecologist and human health.
- **Index no. 1**: Kind of dangerous substance
- **Index no. 2**: Limit standard of expellable waste liquid from pollution resources into public water or waste water pipe system
- **Index no. 3**: Pollution resources, which is demanded to have permission from Ministry of Environment before throw out waste liquid or deliver to other places.
- **Index no. 4**: Limit the standard of water quality on public water areas for curator of mix ecologist in the water
- **Index no. 5**: Limit the standard of water quality on public water areas for protection of public health

2-7 Anu Cret of Hard waste Controlling

16) Anu Cret no. 36 Or Nor Kror.Bror Kor of hard waste Controlling has been approved on 27-April-1999. Purposed:

- The goals, to define hard waste controlling with sufficient technical characteristic and safety. Its aim to ensure public health protection, environment qualities and curator of mix ecologist
- There is an extent in practice of any abandon activities, keep in order, stock, collection, delivery, rearrange and to expel the garbage and dangerous waste
- Concerning with this Anu Cret, there are an index attachments to define the kind of dangerous waste

2-8 Anu Cret of Air Pollution Controlling and Sound Boring

17) Anu Cret no. 42 Or Nor Kror.Bror Kor of air pollution controlling and sound boring has been approved on 10-July-2000. Purposed:

- To define air pollution controlling and sound boring in order to stop and reduce the substance of them in atmosphere for air quality and public health protection
- There is an extent in practice to take action to any movable and unmovable pollution resources
- Concerning with this Anu Cret, there are 8 index attachments in protection the public air pollution and sound boring from movable and unmovable pollution resources and protect the human health
- **Index no. 1**: Limit standard of air quality
- **Index no. 2**: Limit maximum standard of dangerous substance that has permission in atmosphere
- **Index no. 3**: Limit maximum standard of pollution substance that has permission to expel from unmovable resources to atmosphere
- **Index no. 4**: Limit standard of expellable gas from unmovable resources
- **Index no. 5**: Limit maximum standard of sound express on the public road from vehicle resources
- **Index no. 6**: Limit standard of maximum sound that has permission to express in public and residence area
- **Index no. 7**: Limit standard of sound controlling in workshop and industrial factory
- **Index no. 8**: Limit standard of sulfur, lead, Banse, hydrocarbon that has permission in fuel and coal

2-10 Announcement of General Advice Principle in IEIA and EIA

18) Announcement no. 376 Bro Kor.Bor Sthor of general advice principle in IEIA and EIA was assigned an official usage on 20-September-2009 by Ministry of Environment. Preparation on general advice principle aims to prepare IEIA and EIA and demonstrate on necessary information that is issued in this statement. All necessary information is certifying in general advice principle it is attachment in IESIA.

2-11 ADB Policy

19) ADB environment policy (Novmeber-2002) created base on poorness reducing strategy of ADB which is the main goal. This policy assigned 5 main compounds toward reducing poorness

- To glorify intervention on natural and environment properties to reduce the poorness
- To help development country members in infiltration the project to consider environment for economic growth
- To protect universal and region of life system is demonstrating the vision of future development
- To build partnership in order to expend the loan issued and it is not ADB's loan
- To integrate all projects that is considering the environment in construction stage and project implementation

20) Concerning with this project, ADB considered as environment impact type (B) based on a little negative of EIA which occur during construction and transmission line project implementation high voltage 230kv.

21) All in all, preparation form of IESIA must prepare follow advice principle from Ministry of Environment that is the same ADB's principle.

Chapter 3
Description of project

3-1 Background of the company

22) CAMBODIAN TRANSMISION LIMITED is private enterprise limited. Investment amount 107.6 million USD for the developing transmission line project 230kV as Build-Operate-Transfer (BOT) for 25 years.

3-2 Formal standard letter of the project

23) Law policy the CTL received from RGC as per below:

A- Letter no. 67 Sor.Cho.Nor. U.Sor. dated on 19 January 2009 from Council of Ministers regarding with permission for Leader (Cambodia) Limited to invest power transmission line PNH-KPC (index no. 8-1).

B- Letter no. 145MIME dated on 26 January 2009 from MIME regarding with the power transmission line 230kV from PNH-KPC as BOT (index no. 8-2).

C- IA signed on 20 January 2010 between RGC represented by H.E.**Keat Chhun** Vice-Prime Minister, Minister of MoEF and H.E. **Suy Sem** Minister of MIME with CTL (index no. 8-3)

3-3 Type and location of the project

24) This high voltage power transmission is from south part of Vietnam across No Man Land (NML) and across Cambodian – Vietnam border (Tary Hinh and Chou Douk province). But our study on transmission line is from Udong substation in Udong district in Kampong Spue province at GPS 467975-1293999 till Kampong Cham substation in Kampong Siem district, Kampong Cham province at GPS 544516-1329079 and has 15 angle points (IP=15).

25) The transmission line will cross route 51 at IP1 & IP2 and it is a rice field between tower number 5 and number 6 at GPS 469033-1294550 and GPS 469421-1294586 in Udong district with length 13.50km from the corner of NR 5. In the east part of route 51, IP4 is in the flat and flooded area (in the west of NR 5) and IP 5 is in the east part of of NR 5 between tower number 49 and 50 with GPS 479834-1303599 and 489116-1303807 in Toul Ampil village (Ponhea Lue commune) nearby the Tonle Sap riverside. IP 6 os crossing Tonle Sap with GPS 480665-1304201 in Prek Chik village (Koh Chen commune) 802m length, at IP 5 & IP6 and need the tower with 80m height.

26) The transmission line is curve as route 61in the right side of the route (starting from IP6 to IP10) closed to the border of Ponhea Lue district and Bateay district at GPS 480665-1304200 and GPS 481546-1312898 in length 17.5km. The transmission line is crossing NR 6A at IP10 (GPS 481546-1312898) and IP11 (GPS498017-1327457) at Thnol Kaeng in Sambo & Chea Lea commune, Bateay district, Kampong Cham province between tower number 100 and 101 with GPS 491682-1314183 in length 15.6km by Totol village, Kok Roviang commune.

27) The transmission line will run as NR 6 and 7 in the right-hand side of the route (PNH-KPC) in length 63km starting from IP10 to IP15 till Andung Chross village, Ampil commune, Kampong Siem district near Kampong Cham provincial town at GPS 544516-1329097 (index 1-map1).

28) The transmission line 97.20km with steel towers in rice field and crossing small mountains starts from GPS 467975-1293999 in Udong district going to northeast in curve shape connecting with route 61 and NR6 &7 by Andung Chross village, Ampil commune, Kampong Siem district, Kampong Cham

province at GPS54416-1329097. It is remarkable that the connection will be crossing 3 provinces: (Kampong Spue, Kandal, Kampong Cham), 6 districts: (Udong, Ponhea Lue, Bateay, Chueng Prey, Prey Chhor, Kampong Siem district), 24 communes, and 76 villages and has **279 towers** (map 2).

29) Kampong Spue province: (refer to table 3-1) Geography location of transmission 230kV.

30) Kandal province: (refer to table 3-1) Geography location of transmission 230kV.

31) Kampong Cham: (refer to table 3-1) Geography locaton of transmission 230kV.

3-4 Size and border of the project

32) Size and border of project is shown in table 3-2:

- Transmission line 230kV starting from Udong substation in Udong district, Kampong Spue province till Kampong Cham substation in Kampong Siem district Kampong Cham province with length 97.20km using steel towers (picture 3-1).
- Clearance for ROW with 30m wide, meaning that 15m from the center for residential area (picture 3-2) and 30m wide, meaning that 15m from the center for forestry area (picture 3-3).
- Udong substation: location in Sdouk Lpov village, Ksam Ksan commune, Udong district, Kampong Spue province about 500m from the route 51 at milestone 13+500 (meaning that 500m from Milestone 13 = 13.5km). Udong substation need land size 5 hectare which is the rice field of people.
- Kampong Cham substation: location in Andong Chross village, Ampil Commune, Kampong Siem district, Kampong Cham province about 500m from NR7. This substation needs land size about 5 hectare which is the rice field of people.

33) The transmission line 230kV connected by steel towers 15m x 15m = 225m^2 for normal tower, and 20m x 20x = 400m^2 for angle towers and has 35m height, span is 320m from one tower to another or can be further depends on the actual place; for construction of detouring line (please see map 2).Type of cable is three, four, and five feeder used for transferring power from Udong substation to Kampong Cham substation in Kampong Siem district. The transmission line 230kV must be constructed at least 30mm far away from the NR. All construction is NOT allowed and planting in that area is to be limited in order to assure the safety for transmission line.

34) The reason to choose location for transmission line and substation is based on condition of the geography administration for construction plan arrangement in order to reduce serious impact (society & environment) as most of towers are constructed on the rice field-plantation and residential land.

Picture 3-1:picture of steel tower 230kV

Picture 3-2: removal of house and trees under ROW
[Resource: Engineer Guide Book (MIME) type 2.6.46].

Picture 3-3: Tree clearance under ROW

3-5 Land size needed for the construction

35) General land needed for the project:

- $225m^2$ = 0.0225 hectare for normal tower and $400m^2$ = 0.0400 hectare for angle towers of the transmission line 230kV from Udong to Kampong Cham Substation.
- 5 hectare of land needed for each substation.

36) Construction of transmission line 230kV and substation will need land and as limited to use under ROW. All substations is under private land. When we need the land that belong to people to construct towers, we will need to pay compensate to them.

Table 3-2: Special conditions for drawing transmission line

Special conditions for drawing	Transmission line Udong – Kampong Cham
Length of transmission line	97.20km
Type of tower	Steel
Number of tower	279
Average span	230m
Width of ROW	30m (15m from center for forestry area)
Width of ROW	30m (15m from center for residential area)
Average height of tower	35m
Height of tower when crossing NR	NR5 in east side=43.70m and west side=40m and NR6A=6A
Height of tower when crossing Tonle Sap	80m
Lowest height	8m for mountain , 8.5m for residential, and 14.2m for NR
Land needed for tower	15m x 15m = $225m^2$ = 0.0225 hectare (264 towers) and 20m x 20m =$400m^2$ = 0.0400 hectare (15 towers) **Therefore, total land needed = 6.54 hectare.**
Land needed for substation	5 hectare for each substation **Therefore, total land needed = 10 hectare.**

3-6 Labor force demand

37) The construction of transmission line 230kV and substation will need local labor force and expatriates as per table 3-3 below:

No.	**During construction**	Male	Female	Total	**During Operation**	Male	Female	Total
1	Local	194	34	228	Local	55	5	60
2	Expatriate	50	5	60	Expatriate	8	2	10

3-7 Plan for construction activity of power transmission 230kV

3-7-1 Construction

38) The construction of transmission line 230kV will start in year 2011 and takes 36 months for construction. The construction will firstly start during dry season (Nov-May) when the land is dry and easy to bring in the heavy machineries to the construction place for construction tower footing and towers as well as for foundation of substation. The transmission line must be continued even there is any disturbance activities.

39) The main activity for transmission line construction is to clear trees under ROW and make foundation for the tower footing, install towers, and run transmission line. The clearing of trees is by hand and shall keep gap 30m. No need to cut trees less than 3m high.

40) The foundation for tower footing will be started by drilling each tower leg with mobile drilling machine and make concrete on the drilling in order to install the towers. Other option is to pound the column into the ground in order to make basic point and join the part that is still outside the ground with the crossbar.

3-7-2 Operation & maintenance

41) The operation of transmission line generally is related with the maintenance. The maintenance is as per schedule, especially, for urgent inspection case. The normal checking and maintenance schedule shall be in the dry season. Whereas, the urgent inspection shall be in rainy season.

42) The land patrol shall be as per schedule and after windy season. The patrol person must inspect the tower, electricity bar box, electricity transfer equipment, and circuit, etc. Cutting tree branches by hands shall be carried as per schedule in order to secure the line.

43) Special inspection shall be carried out after flooded, storm, and electricity accident events. This urgent inspection is to check on the defected point of the line in order to find out the how much it damaged and need repair. The defective of electricity current need to change the cable.

Chapter 4

Environment

4-1 Physical resource
4-1-1 Weather
A- Temperature

44) Cambodia has humid tropical or tropical monsoon weather which is warm and wet and change according to the geographic location. The temperature is slightly different according to the place and other factors. The very different temperature can be due to the place of high clouds that changes seasonally. The temperature in Porchenton in the last 10 years (2000-2009) shows that annual temperature in Kampong Cham change between 32,1-32,9 ^{o}C. The annual minimum temperature change between 23-24.7 ^{o}C (index 7-1). Temperature data in Takmao for the last 10 years in Kandal province shows that maximum temperature change between 32.20 – 33.80 ^{o}C (temperature change in April- May; some time the temperature increase up to 37.10^{o}C); whereas the maximum temperature change between 23.80-24.80 ^{o}C (temperature change in December-January and sometime in decrease to 20.00 ^{o}C). (index 7-5).

B- Humidity of the atmosphere

45) The very different temperature can be due to the geography location, meaning the height of the cloud that change seasonally. Humid tropical or tropical monsoon is warm and wet due to the location. Temperature data in Chhroy Thmor station in the last 8 years (2000-2008) shows that Kampong Cham province has humid atmosphere and change between 78% to 89% (index 7-2). According to the humidity study in Takmao station in the last 10 years in Kandal province shows that the average humidity of the temperature change between 74.00-81.00% (index 7-6).

C- Rainfall

46) Generally the whether in Cambodia is different from place to place. Dry season is 6 months starting from November to April. Rainy season starting from May to October when the monsoon blows from south-west to the northeast of the country and bring rain to the central area and the rain effects the growth of trees. According to the wind speed data from Ministry of Metrology and Water Resource in the last 8 years shows that: D.Crocker 1962 and Anonymous, 1997-1999, the driest area in Cambodia is Tonle Sap Reservoir such as: Flat area in the north, Dangrek mountains in the south are very dry for 6 months and get annual rain lower than 1.47 mm. The study of rainfall that was recorded by Chhroy Thmor station in the last 10 years (200-2009) shows that average rainfall in Kampong Cham change between 1133.3-1852.2mm (index 7-3). The average rainfall (1998-2007) in Takmao station, Kandal province shows that the yearly rainfall changes between 910.30-1780.30mm (index 7-7).

D- Wind Speed and Direction

47) Generally, the wind of Cambodia blows from southwest to northeast, from May to October and bring rain. Dry season lasts for 6 months from November to April. Rainy season from May to October the monsoon blows from southwest to northeast and bring heavy rain to the central area the rain effects to the growth of trees. The wind speed & wind direction observation at Chhroy Thmor station in Kampong Cham in the last 8 years shows that: the speed and direction surprisingly change from 96 to 216m/second (index 7-4). The wind direction in Takmao station in Kandal province in the last 10 years shows that the year wind speed change from 5.83 -13.92m/second (index 7-8).

48) Kampong Spue province there is no data to include in the report and we must base on the data in Kandal and Kampong Cham province.

4-1-2 Geology and type of land

49) The land that CTL use for constructing transmission line is 16.5 hectare in which 10 hectares is for the two substations, 5.94 hectares is for normal towers, and 0.6 hectare is for angle towers. Base on the geology map there are 10 types of stones: (1)-alluvial plain deposits, (2)-beach ridges' and leaves, (3)-plooplains, (4)- organic deposits (swamps), (5)- pediment, (6)-peneplain leterite deppeposits, (7)- ryolits, (8)-terrace alluvailal deposits, (9)- terrace latenite deposits, (10)- water (index 2, map 2-1). Kampong Spue province has one stone type called pediment; Kandal province has 5 stone types called pediment, terrace latenite, water, organic deposits (swamps), beach riddges and leaves; and Kampong Cham has 8 stone types: alluvial plain deposits, beach riddges and leaves, floodplains, organic deposits (swamps), pediment, ryolits, terrace laterite deposits, and water.

50) Refer to the land type category; the land is type is divided as below: alluvial lithosol, brown alluvial soils, brown hydromorphic, cultural hydromorphics, great lake, lacustrine alluvial soils, red-yellow podzol, regurs (index 2, map2-2). The study shows that: Kampong Spue has only 1 type, red-yellow podzol; in Kandal has 6 type: red-yellow podzol, cultural hydromorphics, alluvial lithosol, great lake, brown alluvial soils, lacustrine alluvial soils; Kampong Cham has 6 types: lacustrine alluvial soils, alluvial lithosol, red-yellow podzol, cultural hydromorphics, brown hydromor-phic, regurs.

4-1-3 Land usage

51) The construction of transmission line need to use rice field & plantation land, resident land and flooded area. Rice field & plantation land = 5.33 hectare, resident land = 0.24 hectare, flooded area = 0.175 hectare and others (flooded forest, rock hill) = 0.27 hectare.

4-1-3 Water

52) According to the study, the construction of transmission line 97.20 km will be crossing flooded area in the rainy season in Ponhea Lue, Bateay, Chhueng Prey, Prey Chhor district (detail information is attached in table 5-2, page 34).

4-2 Ecology resource

53) Ecology resource in the construction area in reservoir: lake, river, stream, and across Chilea mountain. There isn't much tree in this area, it is rice field, resident land, and small hill in the south part of NR 6 in Bateay district. The land is agricultural especially, rice field and community (index 3).

54) All rice field along the route is mostly rainy season rice field but in some area such as Phnom Bat commune and Koh Chen commune in Ponhea Lue district, Sambo commune, Chea Lea commune and Pa-arv commune in Bateay district, and Knol Dambong commune and Pdao choom commune in Chueng Prey district, most people do the rainy and dry season rice. After harvest, the rice field is free until next year.

4-3 Economy development

55) The economic development in this area is different due to different gathering and town, especially, in Kampong Cham province that has hotels (ranging from small guest houses to luxurious hotels), restaurants, night clubs & karaoke.

56) Besides the provincial town, the area along the national road is countryside although there are small number of people living along the road in Udong, Ponhea Lue, Bateay, Chhueng Prey, Prey Chhor, and Kampong Siem district.

57) The main agriculture in this area is farming (rainy rice season only) in the average fertilizer land along national road no. 6 and good fertilizer land in along NR 7. The land along route 61 has less fertilizer than land along NR 6. Besides, farming in the rice field, along the national road people also grow some plantations in dry season and go fishing for family only in ditch, lake, and pond.

58) The economy in this area is a countryside economy accept in the gathering area such as Paov, Skun, Prey Totoeng, and Kampong Cham that seem like a business. In Udong and Pornhea Lue, there are some grinding rice machinery along the road. Annual income per family in the community is different depends on the work of each family. The povery study shows that the poverty rate in Kampong Spue, Kandal, and Kampong Cham: 1820% (105.3 thousand), 18.40%, and 12.10% differently. (Poverty map of Food Program, United Nations Organization in 2005 – 2006). Generally, people go to school for about 5 years only.

59) The study shows that people in the village are accessed to electricity power supply. However, most family have little power to use from battery and private power that generated by small engine to use among their neighbors only. Generally, their main power is from gas especially from burning woods, coal, and other waste of agriculture.

60) Traveling and transportation is mainly on NR 6 and 7. NR 6 starts from Phnom Penh crossing Kandal, Kampong Cham, Kampong Thom, Siem Reap and going to Banteay Meanchey province. NR 7 starts from Skun (Chuenng Prey district) going to Kampong Cham provincial town, Kratie, Stung Treng until Cambodia- Laos border.

4-4 Society and Culture resource

61) The transmission line is across Kampong Spue, Kandal, and Kampong Cham province with total length of 97.20km, crossing 6 districts, 24 communes, and 76 villages. The location condition is: (1) gathering area in Udong district, Ponhea Lue district, Bateay district (Paov area), Chueng Prey (Skun), Prey Chhor (Prey Totoeng) Kampong Siem district, and Kampong Cham provincial town; (2) location along road no. 61 and NR 6A & 7.

62) The project area is far away from historical and cultural site. The study shows that the location of substation in Kampong Spue, Udong district, Ksame Ksan commune, Sdouk Ampov village (near Trapaeng) is far away from Udong Mountain Resort about 10km and the nearest tower is about 6km. For Kampong Cham substation in Andoung Chross village, Ampil commune, Kampong Siem district is about 6km away from Phnom Bros Phnom Srey Resort. However, there isn't any historical study to show evidence or proof of old objects at the substation construction site.

Chapter 5
Inspection on environment impact and reduce

5-1 Define type of project

63) Due to working experience on field in northeast area and actual observation made by work team of Asia Development Bank, EDC, and LCL on 17 November 2008, Green Consultancy Firm conducted a study of IEIA for the project starting from 21 November 2008 until 13 December 2008 and on 29 January 2009 until 05 February 2009 and from 23 December 2009 till 02 January 2010 under service contract with CTL.

64) The company use Check list (table 5-1) to show about the impact on the environment and society caused by the construction and operation & maintenance (O&M). The impact of project is not remarkable because most of the land is rice field and there are only 341 family affected with their land. Therefore, the project is considered in B.

5-1 Work team of GCF

65) There are 8 GCF members named as below:

1- Dr. Ly Sophormony	D.V.M.Post Ph.D.
2- Teng Peng Sieng	GIS & RS Specialist
3- Lao Sarun	Data collector
4- Chea Lalin	Data collector
5- Veng Kimyou	Data collector
6- Un Channaro	Data collector
7- Sork Usaphea	Data collector
8- Sea Socheat	Data collector

66) The study covers road 97.20km of transmission line in which that **341** families affected within 76 villages (24 communes & 6 districts) to study and discuss. Those people living along route 61 and NR 6A & 7 in Ponhea Lue district, Bateay district, Chueng Prey district, Udong district, Kampong Siem district.

5-3 Environment and social impact evaluation and encouragement to reduce

5-3-1 Physical resource

A- Erosion

67) During construction: The study from Kampong Spue, Kandal to Kampong Cham province shows that the land is flat and suitable for all kind of agriculture. The use of land is for rice field along route 51, 61, 6, and 7. The main activity during construction is to make foundation and install steel tower. This activity will need land size 15m x 15m = 225m^2 for normal tower and 20m x 20m = 400m^2 for angle towers = 15 IP and has span = 320m and can be further for some span. The erosion caused by the construction of transmission line 97.20km is very little because the land condition is flat. However, the construction might break the land especially during heavy rainy season. The construction might cause cutting land and fill up land for the two substations but the amount of land for the substation is not much and not takes long time.

68) Action to reduce erosion

- Close the hole and compact the land after putting the steel tower immediately in order to avoid the erosion.
- Have agreement from the community or land owner when putting the exceeding soil nearby the road or rice field that is near by the tower construction site.
- Stop working when there is heavy rain in order to avoid cutting land.

Table 5-2: Transmission line crossing water system as below:

No.	Water resource	B/T IP - IP	Length	Commune	District	Province
1	Flooded forest	29-30 IP2 to IP3	354m	Phnom Bat	Ponhea Lue	Kandal
2	Dry season rice field nearby the flooded forest	38-39 (IP3 to IP4)	328m	Phnom Bat (Tropaing Sleng village)	Ponhea Lue	Kandal
3	Main water steam	41 (IP3 to IP4)	20m	Phnom Bat (Veal Thmey)	Ponhea Lue	Kandal
4	Deep rice field and flooded forest	Between IP5 to IP6)	2300m	Phnom Bat & Ponhea Lue	Ponhea Lue	Kandal
5	Tonle Sap river	52-66 (IP7 to IP8)	802m	Ponhea Lue and Koh Chen	Ponhea Lue	Kandal
6	Flooded area (some place is very deep)	52-66 (IP7 to IP8)	1200m	Koh Chen (Prek Kdam 1-2)	Ponhea Lue	Kandal
7	Rice field but flooded	67-99 (IP8 to IP10)	11.1km	Sambo	Bateay	Kampong Cham
8	Rice field but flooded	101-108 (IP10 to IP11)	2.5km	Chea Lea	Bateay	Kampong Cham
9	7 March water reservoir	109 (IP10 to IP11)	20m	Chea Lea	Bateay	Kampong Cham
10	Rice field but deep flooded	110-114 (IP10 to IP11)	1.4km	Chea Lea	Bateay	Kampong Cham
11	Rice field but deep flooded	115 (IP10 to IP11)	20m	Chea Lea	Bateay	Kampong Cham
12	Rice field but flooded	116-119 (IP10 to IP11)	1100m	Chea Lea	Bateay	Kampong Cham
13	Rice field but flooded	120-121 (IP10 to IP11)	373m	Bateay (Sras Pring)	Bateay	Kampong Cham
14	Rice field but deep flooded	122-129 (IP10 to IP11)	2500m	Bateay (Sras Pring)	Bateay	Kampong Cham
15	Tabarch Lake	130 (IP10 to IP11)	20m	Bateay (Sras Pring)	Bateay	Kampong Cham
16	Rice field but deep flooded	131-147 (IP10 to IP11)	1800m	Bateay (Sras Pring)	Bateay	Kampong Cham

17	Rice field but deep flooded	137-147 (IP10 to IP11)	3500m	Kok Roviang	Choeung Prey	Kampong Cham
18	Lotus lake	148 (IP11 to IP12)	20m	Kok Roviang	Choeung Prey	Kampong Cham
19	Rice field but flooded	149-168 (IP11 to IP12)	6800m	Knol Dambong, Pdao, Sotep	Choeung Prey	Kampong Cham
20	Nearby the lake area	259-260 (IP14 to IP15)	382m	Mian (Troeung)	Prey Chhor	Kampong Cham

- Fill up the land for substation campus should be in dry season and thereafter plant some trees or make garden or grow grass after filling the land for substation.

69) Operation and maintenance: There is erosion during this activity.

B- Cause to spoil water quality

70) During construction: The transmission line 97.20km will cross 21 important flood area as below: (Table 5-2)

Table 5-2: Transmission line will cross water resource as below:

71) Water resource nearby the construction is easily get dirty because of the leak or water flow from the construction site caused by the labor or mixing cement. This area will be affected by the construction of towers and substations, therefore, the mixing cement, making concrete flood, oil, rubbish, etc. will flow into the water resource nearby. Tower (1**)-**Tropaing Metoek 41 (IP3-IP4), (2)-Tonle Sap (IP5-IP6), (3)-7 march reservoir 109 (IP10-IP11), (4)-flooded forest 115 (IP10-IP11), (5)-Taparch lake 130 (IP10-IP11), (6)- Chhouk lake 148 (IP11-IP12); the 6 flooded area every season cause dirty water.

72) Action to reduce spoiling water quality:

- Reduce construction activity during heavy rainy season.
- Don't throw rubbish or construction material or flow the oil to water; keep them in the safe place and high from the flood water and at least 20m far from the water resource.
- Reduce erosion and dirty water flowing into the water resource in the construction area.
- The drawing plan of the substation must be high from the flooded area.

73) During operation and maintenance: During this period, there will be oil leak from transformer in the substation and it will cause dirty to the water and land. However, the pollution is little because the substation is on the rice field and high enough from flood and not near water resource.

74) Action to reduce:

- Transformer must be kept in safe place and able to protect oil leak from transformer. The transformer must be placed on crushed rocks in order to protect flame.
- To install equipment the can separate water and oil.

5-3-2 Living resource

A- Loss of trees

75) During construction: Trees higher than 3m in the ROW gap 30m of transmission line will be cut off in order to assure safety for the transmission line as per picture 3-3 and to avoid trees collapse on the transmission line. The issue is related with palm trees and coconut trees. The trees that are lover than 3m is allowed under ROW. The company has compensate for palm trees = **1,438 trees.**

76) Action to reduce:

- Cutting trees higher than 3m under ROW will be compensated in reasonable price according to the age of the trees by CTL.
- The trees that already cut down will be used by the owner as per their needs.

77) During operation and maintenance: During this period, there is no affect to the trees because we allow trees less then 3m under ROW and we will check/clear them regularly in order to assure safety for transmission line.

B- Loss of wild animal shelter and wild animals

78) There won't be any loss of housing caused by the construction activity because along route 61, NR 6A & 7 which is an agricultural & villages that is far away from the rice field. Due to the location condition, the cutting of trees for constructing transmission line does not affect forest and other existing lives and also the study shows types of animal that are threaten mentioned in red table of IUCN. Therefore, it is not necessary to mention and discuss about the study of affection on animals.

C- Impact on the natural place

79) The transmission line project 230kV with 96.67km length show that the project has little negative affection and this project is acceptable due to the environment and society conditions as well as the economic potential. The study does not find any possible affection on the existing lives and society. Actually, the area is not a preservation area or animal preservation area.

5-3-3 Economy – Society resource

A- Change of land usage

80) The transmission line construction project needs to use land about 16.54 hectare in which for tower = 6.54 hectare, and the two substation = 10hectare. Generally, people who own land (house and / or rice field) are affected by this construction project as the land is needed for construct towers and they will lose their land. However, it is not a serious effect because each tower size is only 15m X 15m=225m^2 for normal tower = 264 and 20m X 20m=400m^2 for angle tower = 15. For those whose land are at the substation location, they will lose most of their land but there is reasonable agreement between the project owner (EDC) and the families who are suffered, therefore, with the money they get for selling the land, they may buy another bigger land at anywhere they like.

81) Action to reduce: Pay compensate base on the market price to the owner by CTL.

82) During operation and maintenance: Plantation (rice or other plantation) in ROW gap each side of 15m is allowed if they are under 3m high.

B- Move to new living place

During construction: Due to the instruction from Ministry of Public Work and Transportation, the residence along the national road, especially NR6A & 7 must be 30m away from the road axis. Also, before CTL starts this transmission construction as per demand from Asia Development Back on this land issue, it was already settled by paying compensation to those people whose land and properties are affected before the transmission construction starts along NR6A & 7. Besides this, in order to avoid

anything happens during the construction process, CTL decides to install most towers away from NR6A & 7 from route axis. Due to the actual study on the project area from 21 November 2008 until 02 January 2010, we can see that people who are affected by the towers construction is on their dry season rice field only and plantation field and a few houses, lake and river; however, it's all settled by paying compensation by EDC and MoEF.

83) There are 16 family (table 5-3) who needs resettlement plan in order to avoid problem during construction and for this case CTL has contacted with RGC to send a letter to authority to help intervene and pay compensation before installing towers.

Table 5-3: Resettlement plan of people who are effected by the transmission line

No.	Family head	Village	Commune	District	Province
1		Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal
2		Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal
3		Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal
4		Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal
5		Prek Chik	Koh Chen	Ponhea Lue	Kandal
6		Prek Chik	Koh Chen	Ponhea Lue	Kandal
7		Prek Chik	Koh Chen	Ponhea Lue	Kandal
8		Prek Chik	Koh Chen	Ponhea Lue	Kandal
9		Chhouk	Kok Roviang	Choeung Prey	Kampong Cham
10		Prey Kcheay	Samroung	Prey Chhor	Kampong Cham
11		Toul Pon	Mian	Prey Chhor	Kampong Cham
12		Toul Pon	Mian	Prey Chhor	Kampong Cham
13		Toul Pon	Mian	Prey Chhor	Kampong Cham
14		Toul Pon	Mian	Prey Chhor	Kampong Cham
15		Sensun Tboung	Srogne	Prey Chhor	Kampong Cham
16		Tropaing Touk	Chrey Vian	Prey Chhor	Kampong Cham

The company has paid compensation to for houses and land already (according to Ms. Nuon Lakhena, Administration Manager of CTL).

84) Action to reduce:

- Houses , building, and other properties will be removed and set up as original and pay compensation as per market price and have agreement between CTL and the owner.
- The expense for moving and other compensation shall be paid to the family who are affected to pay for transportation and other living expenses during moving to new place.

85) During operation and maintenance: There is no moving of house during this period.

C- Define the land usage and other disturbance

86) During construction: The construction of transmission line not only disturb the harvest but also plants, rice field, dike, and other water system along NR. Expending the route 3-4m width toward the tower construction site and fill up the land for substation etc. The construction will cause cutting the rice field, and blocking the dike from flowing for short time.

87) Action to reduce:

- Arrange with technical condition and bring in machineries that not disturb much to the harvesting.
- After construction, need to repair the damage places such dike, rice field, etc..

- For the construction on the rice field or plantation field must be 2 months before harvesting season.
- Installing tower along ROW and must finish before rainy season especially for the line from Udong substation to Kampong Cham substation because of electricity demand.
- The compensation to the owner must base on the actual (production) and base on the market price. The land must be returned to original shape after completing construction and repair.

88) Operation and Maintenance: The transmission line will effect the harvest of people and spoil the agricultural product because we need to bring the machineries to the tower site for some actual repair.

89) Action to reduce:

- Compensation to the owner is base on actual (how much spoiled) and base on the market price at that time.
- Return the original shape after repair.

D- Weed pesticide usage under the transmission line

90) The use of pesticide under the transmission line 279 towers will spoil land about 7 hectare. However, this is not serous because (1): the land under ROW is not allowed for trees, (2): the use of weed pesticide is in low level, not cause any pollution to the agriculture (rice, cereal) nearby. However, the use of pesticide is to protect animal and people to come near the towers.

E- Noise pollution

91) The transmission line will cause noise pollution when constructing steel tower and the two substations. However, the noise pollution is not serous because the construction work is in day time and the work team will inform local people about construction schedule.

92) Action to reduce:

- The construction is during day time only and have to inform local people about construction schedule.

93) During operation and maintenance: The noise pollution during O&M period is expected to be very little when using machineries and having any accident.

F- Impact on historical and cultural site

94) The study of transmission line 230kV shows that there is no impact on historical and cultural site.

G- Health and safety

95) During construction: The labor force during substation and transmission line construction is about 150 pax. The management staff and skill staff of the contractor company is estimated about 10% of the total staff and workers the company employed. During the construction period 36 months, there might be some health problem such as sexually transmitted disease in the community.

96) Health problem and safety of staff-workers is caused by the construction activity; because they operate heavy engines and dangerous equipment and other construction activity. However, the health

issue of staff-workers is also because of the staying place that has no hygiene and because of throwing rubbish in public area and flow the waste into the water resource.

97) Related with the flooded area during the rainy season, the towers from Prek Kdam till Bateay district are flooded and it can cause electricity shock to the people who are fishing for their family in that area along the transmission line.

98) Related with the people who are growing rice along the transmission line can be harmed by the lightening during raining.

99) Action to reduce:

- Arrange health protection plan and safety during working and train staff-worker before giving work for them.
- Provide suitable place for them to stay with hygiene and water supply and place to keep rubbish & waste.
- Company owner should provide information about health, especially, HIV/AIDS to staff-worker before start working. Therefore, the company should bring up the health protection plan and safety of work and train to staff-workers.
- Recruit staff without skill in the area at least 50% in order to reduce the sexually transmitted disease.

100) During operation and maintenance: There might be danger for the people living in that area of transmission line 2.0kV. Electricity shock to death might happen if someone touches when it has electricity.

101) Action to reduce:

- Announce about the danger caused by electricity shock.
- Lay the barb wire around the towers area or stick the sign to tell people not to climb up the tower.

5-4 Other Negative impact

102) The transmission line is not cause any negative impact for developing country. Even though the tower footing is on the rice field-plantation field, it is already compensated and not cause disturb to the use of land.

5-5 Positive environment and society impact

A- Spread of polluted air and reduction

103) The reduction of pollution in the atmosphere is positive for the environment of the transmission line project. The pollution gas and polluted element in the atmosphere will be reduced as per balance with the power amount produced by the burning fuel oil in Kampong Cham province and other districts. Therefore, the change of power supply resource does not only help to improve the environment and its quality in the area that used engines but also help to reduce the disturb noise as well.

B- Benefit of the project

104) Advantage of the project include job opportunity that needs 402 people to work for 36 months that most of them are recruited from the local people in the project area. CTL will consider employing workers with no skill to work, if possible. After 3 years when the transmission line construction has been

completed, CTL will give agreement of plants maintenance (cutting the branches) along the transmission road to the contractors who are local people to take care.

C- Impact in the area

105) The construction and operation of transmission line project with high voltage will not cause any impact in the area. The study shows that recently there is no impact on the development in this area.

106) When the construction has been completed, the transmission line will be put online for use then the reliability and stability will improve that is the positive point of the project to develop this area. The better condition of power supply in this area will improve the economic development for medium and long period in this province in which its population growth is increasing.

Annex 4

Name list of section head in province/district/institution who attended the discussion

Date: 17 February 2009
Time & Venue: 8:30 am in MIME, Kampong Cham

Table 4-1: Public discussion in Kampong Cham province

Attendance:	**Position**	**Telephone**
1- Dr. Ly Sapor Mony	Director of GCT	
2- Mr. Lao Savon	Staff of GCT	
3- Ms. Ngeth Chanthan	Staff of GCT	
4- Mr. Lam Shih Yih	Project Manager	
5- Mr. Mohd Nizam Bin Mohd Nawi	Manager Transmission Limited	
6- Ms. Nuon Lakhena	Admin. Manager, CTL	
7- Mr. Ren Net	Staff of Cambodian Transmission Limited (CTL)	
1- Mr. Suon Dy	Chief of MIME Dept.	
9- Mr. Yin Vuntith	Secretary General of Kampong Cham provincial court	
10- Mr. Phuong Tyna	Deputy Director of Water	
11- Mr. Srey Savoeun	Deputy of Prey Chhor District	
12- Mr. Suo Mai	Deputy of Chhoerng Prey District	
13- Mr. Prak Noma	Deputy of Administration Forest Commune Office	
14- Mr. Kim Dy	Deputy of Kampong Siem District	
15-Mr. Pok Savuth	Deputy Chief Office of Provincial Environment	
16- Mr. Pon Run	Chief of MIME Office	
17- Mr. Pann Lim Chhoeu	Deputy of Bateay District	
18- Mr. Chen Sophanna	Deputy of EDC Office	
19- Mr. Chhorn Vutha	Staff of MIME Office	

Date: 19 February 2009
Time & Venue: 9:30 am in Conference room, Kandal provincial court

Table 4-2: Public discussion in Kandal province

Attendance:	**Position**	**Telephone**
1- Dr. Ly Sapor Mony	Director of GCT	
2- Mr. Lao Savon	Staff of GCT	
3- Ms. Ngeth Chanthan	Staff of GCT	
4- Mr. Lam Shih Yih	Project Manager	
5- Mr. Mohd Nizam Bin Mohd Nawi	Manager Transmission Limited	
6- Ms. Nuon Lakhena	Admin. Manager, CTL	
7- Mr. Ren Net	Staff of Cambodian Transmission Limited (CTL)	
8- Mr. Bong Ly	Deputy Chief	
9- Mr. Chil Phalla	Deputy Chief of Water dept.	
10- Mr. Huot Vanntho	Deputy of MIME Dept.	
11- Mr. Pen Sokhon	Chief of Energy Dept.	
12- Mr. Lim Gnuon Srun	Deputy Chief of Agriculture Dept.	
13- Mr. Yun Yuthrith	Forestry Dept.	
14- Mr. Bin Sopheakda	Staff of EDC	
15- Mr. Keat Bo	Deputy of Ponhea Lue	
16- Mr. Mey Chetra	Deputy of Ministry of Urbanism, Land Management & Construction	
17- Mr. Som Chivorn	Chief of ProvincialEconomy Office	
18- Mr. Sum Sareth	Chief of MOE	

Date: 03 March 2009
Place & Time: 08:30 in Kampong Spue provincial court meeting room

Table 4-1: Public discussion in Kampong Spue province

Attendance:	**Position**	**Telephone**
1- H.E. Kong Heang	Governor of Kampong Spue	
2- Dr. Ly Sapor Mony	Director of GCT	
3- Mr. Lao Savon	Staff of GCT	
4- Ms. Ngeth Chanthan	Staff of GCT	
5- Mr. Mohd Nizam Bin Mohd Nawi	Manager Transmission Limited	
6- Ms. Nuon Lakhena	Admin. Manager, CTL	
7- Mr. Ren Net	Staff of Cambodian Transmission Limited (CTL)	
8- Sao Satya	Chief of provincial cabinet	
9- Mr. Pat Kong	Deputy Chief of provincial cabinet	
10- Mr. Lay Kimsong	Dept. Chief of Urbanism, Land Management & Construction	
11- Mr. Lam Kimleng	Dept. Chief of MIME	
12- Mr. Ngun Veasan	Deputy Governor of Udong district	
13- Mr. Koy Soknin	Dept. Chief of MOE	
14- Mr. Chen Dara	Dept. Chief of EDC in Kampong Spue	
15- Mr. Chen Sophanna	Deputy of EDC Office	
16- Mr. Phom Samol	Chief of Technical Office, EDC	

Table No. 4-5: Public discussion in Bar Theay District

No.	Name	Position	Village/Commune	Telephone No.
01		Deputy District Governor	Bar Theay	
02		Deputy District Governor	Bar Theay	
03		Deputy District Governor	Bar Theay	
04		Chief of District Department	Bar Theay	
05		Chief of Agriculture Department	Bar Theay	
06		Chief of Bor.Re.Sor District Department	Bar Theay	
07		District Landed Officer	Bar Theay	
08		Chief of Commune	Som Bo	
09		Chief of Commune	Bar Theay	
10		Chief of Commune	Pha Arv	
11		First Assistant of Commune	Tang Krang	
12		Chief of Village	Cheung Chhnok	
13		Chief of Village	Song Keub	
14		Chief of Village	Phnom Thom	
15		Chief of Village	Chea Lea	
16		Chief of Village	Som Bo	
17		Village Member	Som Bo	
18		Chief of Village	Chung	
19		Chief of Village	Ta Beak	
20		Chief of Village	Srah Pring	
21		Chief of Village	Tang Baeng	

Date: January 15, 2009
Time and Place: 8:00-9:30 Prey Chhor District

Table No. 4-6: Public discussion in Prey Chhor District

No.	Name	Position	Village/Commune	Telephone No.
01		Deputy District Governor	Prey Chhor	
02		Chief of District Department	Prey Chhor	
03		Officer of Forest Department	Prey Chhor	
04		Kou.Ror.Thor Department	Prey Chhor	
05		Chief of Agriculture District Department	Prey Chhor	
06		Chief of Environment District Department	Prey Chhor	
07		Chief of Commune	Sror Ngea	
08		Chief of Commune	Lavea	
09		Chief of Commune	Som Roung	
10		Chief of Commune	Khvet Thom	

11		Chief of Commune	Mean	
12		Chief of Commune	Chrey Reang	
13		Chief of Village	Kook Trea Keut	
14		Chief of Village	Kook Trea Lech	
15		Deputy Chief of Village	Ta Chak	
16		Deputy Chief of Village	Lavea	
17		Chief of Village	Sdok Anteu	
18		Chief of Village	Sleung	
19		Chief of Village	Sror Ngea Thbong	
20		Chief of Village	Sen Soon	
21		Chief of Village	Koh Svay	
22		Chief of Village	Sbeang	
23		Chief of Village	Tropeang Reang	
24		Deputy Chief of Village	Som Roung	
25		Chief of Village	Sor Dey	
26		Chief of Village	Ta Gnal	
27		Chief of Village	O Tanove	
28		Chief of Village	Nam Ken	
29		Chief of Village	Ta Ram	
30		Chief of Village	Khvet Thom	
31		Chief of Village	Ampeul Thom	

Date: January 21, 2009
Time and Place: 8:30-10:30
Porngea Leu District

Table No. 4-7: Public discussion in Ponhea Leu District

No.	Name	Position	Village/Commune	Telephone No.
01		Deputy District Governor	Porngea Leu	
02		Chief of Dor.Nor.Sor.Phor Department	Porngea Leu	
03		Chief of Water Department	Porngea Leu	
04		Chief of Industry Department	Porngea Leu	
05		Chief of Agency Department	Porngea Leu	
06		Chief of District Department	Porngea Leu	
07		Deputy Chief of District Department	Porngea Leu	
08		Office Organizer	Porngea Leu	
09		Commune Counselor	Prek Kdam	
10		Chief of Phnom Bat Commune	Phnom Bat	
11		Chief of Tomnup Chin Commune	Tropeang Thnong	
12		Chief of Kompong Loung Commune	Kompong Loung	
13		Deputy Chief of Thnol Bot Village	Kos Chin	

14		Chief of Village	Kom Nop	
15		Chief of Village	Tropeang Russey	
16		Chief of Village	Svay Leap	
17		Chief of Village	Thmor Sar	
18		Chief of Village	Oslat	
19		Chief of Village	Tropeang Rokar	
20		Chief of Village	Khleang Sbaek	
21		Chief of Village	Thlork Angkrong	
22		Chief of Village	Banteay Touch	
23		Chief of Village	Veal Thmey	
24		Chief of Village	Deum Poo	
25		Chief of Village	Thoum Srah	

Date: January 20, 2009
Time and Place: 14:30-16:30
Oudong District

Table No. 4-8: Public discussion in Oudong District

No.	Name	Position	Village/Commune	Telephone No.
01		Deputy District Governor	Oudong	
02		Chief of Agriculture District Department	Oudong	
03		Chief of Environment District Department	Oudong	
04		Chief of Dor.Nor.Sor.Phor Department	Oudong	
05		Chief of Administration District Department	Oudong	
06		Deputy Chief of District Department	Oudong	
07		Chief of Commune	Ksem Ssan	
08		Deputy Chief of Village	Tropeang Krosang	
09		Chief of Village	Sdouk Lapov	
10		Chief of Sang Village	Ksem Ssan	
11		Chief of Village	Tropeang Krosang	

Name List Table of Authority Representative and People Which is participated in publice consultation of IEIA

Date: 16-18/June/2009

Table No. 4-9: General Discussion and Data Collection of Oudong District, Kompong Speu Province

No.	Name	Position	Participator	Subject	Telephone No.
2		Chief of Commune	1	ICAOCL	
3		Chief of Village	1	-	

4		Deputy Chief of Village	1	-	
			3		

ICAOCL: Impact caused by daily construction in the community

Table 4-9-1: Owners met at the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
-	-	-	-	-	-	-	-

Table 4-9-2: Owners not met at the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
-	-	-	-	-	-	-	-

Table 4-9-3: Owners not met outside the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1			Prek Phnove		Phnom Penh		
2					Phnom Penh		
3					Phnom Penh		

Date: 19-24/November/2009

Table 4-10: General Discussion and Data Collection of Ponhea Leu District

No.	Name	Position	Participator	Subject	Telephone No.
1		Chief of Commune	2	ICAOCL	
2		Chief of Village	5	-	
3		Chief of Village	3	-	
4		Chief of Village	1	-	
5		Chief of Village	2	-	
6		Chief of Village	5	-	
7		Commune Clerk	1	-	
8		Chief of Village	1	-	
9		Chief of Village	2	-	
10		Chief of Village	4	-	
11		Chief of Village	5	-	
12		Chief of Village	2	-	

13		Deputy Chief of Village	2	-	
14		Chief of Village	3	-	
15		Chief of Village	2	-	
16		Chief of Village	1		
17		Chief of Village	1		
18		Chief of Village	2		
19		Chief of Village	3		
20		Commune Clerk	1		
21		Deputy Chief of Village	4		
22		**Chief of Commune**	5	-	
23		Chief of Village	2	-	
24		Chief of Village	6	-	
25		Chief of Village	6	-	
			67		

ICAOCL: Impact caused by daily construction in the community

Table 4-10-1: Owner met at the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1		Svay Leap	Tomnup Thom	Porngea Leu	Kandal		
2		Svay Leap	Tomnup Thom	Porngea Leu	Kandal		
3		Svay Leap	Tomnup Thom	Porngea Leu	Kandal		
4		Svay Leap	Tomnup Thom	Porngea Leu	Kandal		
5		Tropeang Chrove	Tomnup Thom	Porngea Leu	Kandal		
6		Tropeang Chrove	Tomnup Thom	Porngea Leu	Kandal		
7		Kom Nop	Tomnup Thom	Porngea Leu	Kandal		
8		Toul Prech	Chrey Lors	Porngea Leu	Kandal		
9		Toul Prech	Chrey Lors	Porngea Leu	Kandal		
10		Toul Prech	Chrey Lors	Porngea Leu	Kandal		
11		Toul Prech	Chrey Lors	Porngea Leu	Kandal		
12		Thlork Trobek	Phnom Bat	Porngea Leu	Kandal		
13		Tropeang Rokar	Phnom Bat	Porngea Leu	Kandal		
14		Tropeang Rokar	Phnom Bat	Porngea Leu	Kandal		
15		Tropeang Rokar	Phnom Bat	Porngea Leu	Kandal		
16		Chambork Phlous	Phnom Bat	Porngea Leu	Kandal		
17		Thmey	Phnom Bat	Porngea Leu	Kandal		
18		Thmor Sar	Phnom Bat	Porngea Leu	Kandal		
19		Thmor Sar	Phnom Bat	Porngea Leu	Kandal		
20		Kompong Krosung	Phnom Bat	Porngea Leu	Kandal		

21		Kompong Krosung	Phnom Bat	Porngea Leu	Kandal		
22		Thmor Sar	Phnom Bat	Porngea Leu	Kandal		
23		Thmor Sar	Phnom Bat	Porngea Leu	Kandal		
24		Veal Thmey	Phnom Bat	Porngea Leu	Kandal		
25		Po Rual	Phnom Bat	Porngea Leu	Kandal		
26		Thoum Srah	Phnom Bat	Porngea Leu	Kandal		
27		Thoum Srah	Phnom Bat	Porngea Leu	Kandal		
28		Po Rual	Phnom Bat	Porngea Leu	Kandal		
29		Po Rual	Phnom Bat	Porngea Leu	Kandal		
30		Toul Ampuel	Porngea Leu	Porngea Leu	Kandal		
31		Toul Ampuel	Porngea Leu	Porngea Leu	Kandal		
32		Toul Ampuel	Porngea Leu	Porngea Leu	Kandal		
33		Dorng Ngoom	Kos Chin	Porngea Leu	Kandal		
34		Dorng Ngoom	Kos Chin	Porngea Leu	Kandal		
35		Prek Chik	Kos Chin	Porngea Leu	Kandal		
36		Prek Chik	Kos Chin	Porngea Leu	Kandal		
37		Prek Chik	Kos Chin	Porngea Leu	Kandal		
38		Prek Chik	Kos Chin	Porngea Leu	Kandal		
39		Prek Chik	Kos Chin	Porngea Leu	Kandal		
40		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
41		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
42		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
43		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
44		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
45		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
46		Prek Kdam (1)	Kos Chin	Porngea Leu	Kandal		

Table 4-10-2: Owner not met at the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1		Kom Nop	Tomnup Thom	Porngea Leu	Kandal		
2		Tropeang Rokar	Phnom Bat	Porngea Leu	Kandal		
3		Thlork Angkrong	Phnom Bat	Porngea Leu	Kandal		
4		Thmor Sar	Phnom Bat	Porngea Leu	Kandal		
5		Thmor Sar	Phnom Bat	Porngea Leu	Kandal		
6		Toul Ampuel	Porngea Leu	Porngea Leu	Kandal		
7		Toul Ampuel	Porngea Leu	Porngea Leu	Kandal		
8		Prek Chik	Kos Chin	Porngea Leu	Kandal		

9		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
10		Prek Kdam (2)	Kos Chin	Porngea Leu	Kandal		
11		Prek Kdam (1)	Kos Chin	Porngea Leu	Kandal		
12		Prek Kdam (1)	Kos Chin	Porngea Leu	Kandal		
13		Prek Kdam (1)	Kos Chin	Porngea Leu	Kandal		
14		Prek Kdam (1)	Kos Chin	Porngea Leu	Kandal		
15		Prek Kdam (1)	Kos Chin	Porngea Leu	Kandal		
16		Prek Kdam (1)	Kos Chin	Porngea Leu	Kandal		

Table 4-10-3: Owner not met outside the place

No.	Name	Village	Commune	District	Province/City	Telephone No.	Others
1				Phnom Srouch	Kompong Speu		
2					Phnom Penh		
3					Phnom Penh		
4					Phnom Penh		
5					Phnom Penh		
6					Phnom Penh		
7					Phnom Penh		
8					Phnom Penh		
9				Khum Vihea Loung	Kandal		
10					Phnom Penh		
11					Phnom Penh		
12					Phnom Penh		
13					Phnom Penh		
14					Phnom Penh		
15					Phnom Penh		
16					Phnom Penh		
17					Phnom Penh		

Date: 23-31/December/2009

Table 4-1: General Discussion and Data Collection of Bateay District

No.	Name	Position	Participator	Subject	Telephone No.
1		Chief of Commune	1	ICAOCL	
2		Deputy Chief of Village	8	-	
3		Chief of Village	5	-	
4		Chief of Village	2	-	

5		Chief of Village	5	-	
6		Chief of Village	3	-	
7		Chief of Commune	2	-	
8		Chief of Village	3	-	
9		Deputy Chief of Village	15	-	
10		Chief of Commune	2	-	
11		Chief of Commune	1	-	
12		Chief of Village	4	-	
13		Chief of Village	16	-	
			67		

ICAOCL: Impact caused by daily construction in the community

Table 4-11-1: Owner met in the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1		Som Bo	Som Bo	Bar Theay	Kompong Cham		
2		Som Bo	Som Bo	Bar Theay	Kompong Cham		
3		Som Bo	Som Bo	Bar Theay	Kompong Cham		
4		Som Bo	Som Bo	Bar Theay	Kompong Cham		
5		Som Bo	Som Bo	Bar Theay	Kompong Cham		
6		Som Bo	Som Bo	Bar Theay	Kompong Cham		
7		Som Bo	Som Bo	Bar Theay	Kompong Cham		
8		Song Keub	Som Bo	Bar Theay	Kompong Cham		
9		Chung	Som Bo	Bar Theay	Kompong Cham		
10		Chung	Som Bo	Bar Theay	Kompong Cham		
11		Chung	Som Bo	Bar Theay	Kompong Cham		
12		Chung	Som Bo	Bar Theay	Kompong Cham		
13		Ta Beak	Som Bo	Bar Theay	Kompong Cham		
14		Ta Beak	Som Bo	Bar Theay	Kompong Cham		
15		Ta Beak	Som Bo	Bar Theay	Kompong Cham		
16		Ta Beak	Som Bo	Bar Theay	Kompong Cham		
17		Phnom Thom	Chea Lea	Bar Theay	Kompong Cham		
18		Phnom Thom	Chea Lea	Bar Theay	Kompong Cham		
19		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
20		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
21		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
22		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
23		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
24		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
25		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		

26		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
27		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
28		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
29		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
30		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
31		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
32		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
33		Chbar Ompouv	Chbar Ompouv	Bar Theay	Kompong Cham		
34		Svay Pork	Bar Theay	Bar Theay	Kompong Cham		
35		Svay Pork	Bar Theay	Bar Theay	Kompong Cham		
36		Svay Pork	Bar Theay	Bar Theay	Kompong Cham		
37		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
38		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
39		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
40		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
41		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
42		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
43		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
44		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
45		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
46		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
47		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
48		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
49		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
50		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
51		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		

Table 4-11-2: Owner not met at the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1		Som Bo	Som Bo	Bar Theay	Kompong Cham		
2		Som Bo	Som Bo	Bar Theay	Kompong Cham		
3		Song Keub	Som Bo	Bar Theay	Kompong Cham		
4		Song Keub	Som Bo	Bar Theay	Kompong Cham		
5		Song Keub	Som Bo	Bar Theay	Kompong Cham		
6		Song Keub	Som Bo	Bar Theay	Kompong Cham		
7		Chung	Som Bo	Bar Theay	Kompong Cham		

8		Phnom Thom	Chea Lea	Bar Theay	Kompong Cham		
9		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
10		Chea Lea	Chea Lea	Bar Theay	Kompong Cham		
11		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
12		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		
13		Srah Pring	Bar Theay	Bar Theay	Kompong Cham		

Table 4-11-3: Owner not met outside the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1					Phnom Penh		
2					Phnom Penh		
3					Phnom Penh		
4					Phnom Penh		
5					Phnom Penh		
6		Cheung Chhnok	Phnom Thom	Bar Theay	Kompong Cham		
7		Cheung Chhnok	Phnom Thom	Bar Theay	Kompong Cham		
8					Phnom Penh		
9					Phnom Penh		
10					Phnom Penh		
11					Phnom Penh		
12					Phnom Penh		

Date: 16-23/June/2009

Table 4-12: General Discussion and Data Collection of Cheung Prey District

No.	Name	Position	Participator	Subject	Telephone No.
1		Chief of Commune	1	ICAOCL	
2		Chief of Village	3	-	
3		Chief of Village	8	-	
4		Deputy Chief of Village	6	-	

5		Chief of Commune	2	-	
6		Chief of Village	8	-	
7		Chief of Village	3	-	
8		Chief of Village	9	-	
9		Chief of Commune	2	-	
10		Deputy Chief of Village	5	-	
11		Chief of Village	2	-	
12		Chief of Commune	2	-	
13		Chief of Village	6	-	
14		Chief of Village	6	-	
			63		

Table 4-12-1: Owner met at the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1		Bar Krorng	Ngook Roveang	Cheung Prey	Kompong Cham		
2		Bar Krorng	Ngook Roveang	Cheung Prey	Kompong Cham		
3		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
4		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
5		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
6		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
7		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
8		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
9		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
10		Chhouk	Ngook Roveang	Cheung Prey	Kompong Cham		
11		Chhouk	Ngook Roveang	Cheung Prey	Kompong Cham		
12		Chhouk	Ngook Roveang	Cheung Prey	Kompong Cham		
13		Chhouk	Ngook Roveang	Cheung Prey	Kompong Cham		
14		Chhouk	Ngook Roveang	Cheung Prey	Kompong Cham		
15		Khnool Dombang	Khnool Dombang	Cheung Prey	Kompong Cham		
16		Khnool Dombang	Khnool Dombang	Cheung Prey	Kompong Cham		
17		Khnool Dombang	Khnool Dombang	Cheung Prey	Kompong Cham		

18		Khnool Dombang	Khnool Dombang	Cheung Prey	Kompong Cham		
19		Khnool Dombang	Khnool Dombang	Cheung Prey	Kompong Cham		
20		Khnool Dombang	Khnool Dombang	Cheung Prey	Kompong Cham		
21		Khnool Dombang	Khnool Dombang	Cheung Prey	Kompong Cham		
22		Ror Veang	Khnool Dombang	Cheung Prey	Kompong Cham		
23		Ror Veang	Khnool Dombang	Cheung Prey	Kompong Cham		
24		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
25		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
26		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
27		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
28		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
29		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
30		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
31		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
32		Ta Sen	Sor Teap	Cheung Prey	Kompong Cham		
33		Ta Sen	Sor Teap	Cheung Prey	Kompong Cham		
34		Ta Sen	Sor Teap	Cheung Prey	Kompong Cham		
35		Ta Sen	Sor Teap	Cheung Prey	Kompong Cham		
36		Ta Sen	Sor Teap	Cheung Prey	Kompong Cham		
37		Thmey	Sor Teap	Cheung Prey	Kompong Cham		
38		Phnove Lech	Prey Char	Cheung Prey	Kompong Cham		
39		Phnove Lech	Prey Char	Cheung Prey	Kompong Cham		
40		Phnove Lech	Prey Char	Cheung Prey	Kompong Cham		
41		Phnove Lech	Prey Char	Cheung Prey	Kompong Cham		
42		Phnove Lech	Prey Char	Cheung Prey	Kompong Cham		
43		Phnove Keut	Prey Char	Cheung Prey	Kompong Cham		
44		Phnove Keut	Prey Char	Cheung Prey	Kompong Cham		
45		Phnove Keut	Prey Char	Cheung Prey	Kompong Cham		
46		Phnove Keut	Prey Char	Cheung Prey	Kompong Cham		

47		Phnove Keut	Prey Char	Cheung Prey	Kompong Cham		

Table 4-12-2: Owner not met at the place

No.	Name	Village	Commune	District	Province	Telephone No.	Others
1		Tor Teal	Ngook Roveang	Cheung Prey	Kompong Cham		
2		Chhouk	Ngook Roveang	Cheung Prey	Kompong Cham		
3		Ror Veang	Khnool Dombang	Cheung Prey	Kompong Cham		
4		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
5		Cheu Teal	Phdaov Chum	Cheung Prey	Kompong Cham		
6		Ta Sen	Sor Teap	Cheung Prey	Kompong Cham		
7		Thmey	Sor Teap	Cheung Prey	Kompong Cham		
8		Thmey	Sor Teap	Cheung Prey	Kompong Cham		
9		Phnove Keut	Prey Char	Cheung Prey	Kompong Cham		

Table 4-13-2: Owners not met at the place

No.	Name	Village	Commune	District	Province	Tel	Others
1		Sodey			Kampong Cham		
2		Sodey	Samroung	Prey Chhor	Kampong Cham		
3		Sodey	Samroung	Prey Chhor	Kampong Cham		
4		Sodey	Samroung	Prey Chhor	Kampong Cham		
5		Sodey	Samroung	Prey Chhor	Kampong Cham		
6		Sensun Tboung	Srogne	Prey Chhor	Kampong Cham		
7		Taing Tropaing	Lvea	Prey Chhor	Kampong Cham		
8		Taing Tropaing	Lvea	Prey Chhor	Kampong Cham		
9		Taing Tropaing	Lvea	Prey Chhor	Kampong Cham		
10		Kok Trea Lech	Lvea	Prey Chhor	Kampong Cham		
11		Sdouk Angtong	Lvea	Prey Chhor	Kampong Cham		
12		Tagnal	Kwet Thom	Prey Chhor	Kampong Cham		
13		Kwet	Kwet Thom	Prey Chhor	Kampong Cham		
14		Tropaing Touk	Chrey Vien	Prey Chhor	Kampong Cham		
15		Tropaing Touk	Chrey Vien	Prey Chhor	Kampong Cham		
16		Tropaing Touk	Chrey Vien	Prey Chhor	Kampong Cham		
17		Tropaing Touk	Chrey Vien	Prey Chhor	Kampong Cham		
18		Tropaing Touk	Chrey Vien	Prey Chhor	Kampong Cham		

19		Namken	Mian	Prey Chhor	Kampong Cham		
20		Otanov	Mian	Prey Chhor	Kampong Cham		
21		Otanov	Mian	Prey Chhor	Kampong Cham		
22		Khloy I	Mian	Prey Chhor	Kampong Cham		
23		Khloy I	Mian	Prey Chhor	Kampong Cham		
24		Khloy I	Mian	Prey Chhor	Kampong Cham		
25		Khloy I	Mian	Prey Chhor	Kampong Cham		
26		Chhouk	Mian	Prey Chhor	Kampong Cham		
27		Khloy II	Mian	Prey Chhor	Kampong Cham		
28		Toul Pon	Mian	Prey Chhor	Kampong Cham		
29		Pkay Proek	Mian	Prey Chhor	Kampong Cham		
30		Tropaing Krol	Mian	Prey Chhor	Kampong Cham		
31		Tropaing Krol	Mian	Prey Chhor	Kampong Cham		

Table 4-13-3: Oner met outside the place

No.	Name	Village	Commune	District	Province	Tel	Others
1					Phnom Penh		

Date: 19-23 June 2009

Table: 4-14 General discussion and data collection in Kampong Siem district

No.	Name	Position	Participant	Topic	Tel
1		Commune Chief	1	ICAOCL	
2		Commune Chief	2	-	
3		Village Chief	6	-	
4		Village Chief	4	-	
5		Village Chief	7	-	
6		Village Chief	6	-	
7		Village Chief	2	-	
			28		

Table 4-14-1: Owner met at the place

No.	Name	Village	Commune	District	Province	Tel	Others
1		Toul Beng	Krola	Kampong Siem	Kampong Cham		
2		Toul Beng	Krola	Kampong Siem	Kampong Cham		
3		Kong Moha	Vihea Thom	Kampong Siem	Kampong Cham		
4		Kong Moha	Vihea Thom	Kampong Siem	Kampong Cham		
5		Kong Moha	Vihea Thom	Kampong Siem	Kampong Cham		
6		Toul Beng	Krola	Kampong Siem	Kampong Cham		
7		Toul Beng	Krola	Kampong Siem	Kampong Cham		
8		Toul Beng	Krola	Kampong Siem	Kampong Cham		
9		Toul Beng	Krola	Kampong Siem	Kampong Cham		
10		Angkun Dey	Krola	Kampong Siem	Kampong Cham		
11		Angkun Dey	Krola	Kampong Siem	Kampong Cham		
12		Angkun Dey	Krola	Kampong Siem	Kampong Cham		
13		Angkun Dey	Krola	Kampong Siem	Kampong Cham		
14		Angkun Dey	Krola	Kampong Siem	Kampong Cham		
15		Angkun Dey	Krola	Kampong Siem	Kampong Cham		
16		Tropaing Trol	Krola	Kampong Siem	Kampong Cham		
17		Tropaing Trol	Krola	Kampong Siem	Kampong Cham		
18		Tropaing Trol	Krola	Kampong Siem	Kampong Cham		
19		Otrokun	Krola	Kampong Siem	Kampong Cham		
20		Otrokun	Krola	Kampong Siem	Kampong Cham		
21		Otrokun	Krola	Kampong Siem	Kampong Cham		
22		Otrokun	Krola	Kampong Siem	Kampong Cham		
23		Otrokun	Krola	Kampong Siem	Kampong Cham		
24		Andong Chros	Ampil	Kampong Siem	Kampong Cham		

TABLE 5-1: CHECK LIST OF IEIA AND ABOUT METHODS TO REDUCE IMPACT

Activities that effect environment and society	Negative impact	Size of impact				Action to reduce	Remark
		None	Little	Medium	Much		
1- <u>During construction</u>							
Easement diverting line and substations	-Disturbance on the plantation, destroy the plants, ditch, and water system		√			* Select proper vehicles and technical to use in order to reduce affection on the land as much as possible. * The construction on the plantation and rice field must be completed before planting and collection productions season. * The compensation on the damage plantation and disturbance before collection production must be based on the total land size that is destroyed and the amount of production at its current cost in the market. * Filling the ground or blocking the water system for temporary must not at the area that have flood; example, around Udong substation and Kampong Cham substation.	
Erosion	-Might cause erosion and land break especially in the heavy rainy season. -The construction activity when filling up the land for the two substations might cause the erosion as well if there is no proper inspection.		√			-filling up the hole immediately after installing the steel towers in order to avoid erosion. -Have agreement from community when filling the exceed soil near road or rice field of people living near the tower construction site. -Stop working when there is heavy rain in order to avoid erosion. -Add more land layer which has fertilized in the substation campus and grow some plant or grass, or make garden immediately after the filling up the land for substation.	
Digging the ground to install towers	Decrease quality of land		√			- The soil for digging the ground to install tower must be placed along the road or nearby the man's house who has requested for it.	
Construction activities	Erosion and land for planting		√			- Digging and pilling up the land must be completed before heavy rainy season in order to avoid serious disturbance and impact to the land. -The top layer of the ground must be used to spread on substation area and after that some kinds of plants and long life plants must be grown to cover the ground in order to maintain the substation land. - Making fence around substation to prevent animal coming to eat the plants.	

	Decrease water quality and land			√		- Fuel oil and other dangerous materials must be kept up higher from the flood level and must be 20m at least from the water resource (water way, ditch, and lake).	
	Noise		√			- Must inform the community about construction schedule and construction activities must be in day time.	
	Health			√		- Must provide information to the people about the health problems, especially, social disease before starting to work. -All kinds material used for substation construction must be clean and the clean; water must be available; and also the place to throw waste must be convenient. -Must have metal bar or wire around the tower to prevent animals and human being to come nearby	
2- <u>During Operation & Maintenance</u>							
Operation	-Use of land under ROW			√		-Land owner is allowed to grow plants as normal under ROW.	
	-Disturb the agriculture product collection because of bringing in the machinery to the tower site in order to do actual repair.		√			-Pay compensation to the owner base on the actual product collection and base on the market price at that time.	
	-Dirty to the land and water because facility is flooded		√			-Transformer must be kept in safe place and preserved by close reservoir that will stock the oil leak from the transformer. Also, Transformer must be placed on the crushed rocks in order to avoid flame.	

Chapter 6
Public Discussion

107) General discussion about IEIA report was held with representative of RGC include: H.E. Provincial Governor, Provincial Secretary, Chief of MIME provincial department, Chief of MOE provincial department, Chief of Agriculture provincial department, Department of Forestry Administration, EDC, and representative of CTL who is the contractor. The discussion was on 17-19 February and 03 March 2009 in Kampong Cham province, Kandal province, and Kampong Spue province with name list as per index 4-1, 4-2, 4-3 and photo in index 6, and minute of meeting in index 9.

108) The discussion was held with representative of relevant public and community in order to prepare IEIA report and to forecast about impact and management action. The public and community includes commune chief, commune police, commune and village councilor, and local people in Udong, Bateay, Chueng Prey, Prey Chhor, Kampong Siem district. (Table 4-9 to 4-13).

Brief report about primary discussion of IEIA

109) The discussion was held among government organization such as: district governor, deputy district, district environment office, district agriculture office, district land office, sangkat forest administration, district industry mine and energy office, Urbanism, Land Management & Construction, electricity whole buyer, chief of commune and assistant, chief of village (see index 4-4 till 4-8 & pictures of those who involved in index 6). The result shows that people have positive attitude toward the transmission line project and there isn't any bad affect to environment and society. The fuel oil consumption of the whole buyers in each district depends on the price of electricity provided by EDC in the province. Actually, as far we need to use the engine generator because we don't have other choice beside that, but if the cost of electricity provided in the province is cheaper the cost of electricity we are using now and the fee of connecting electricity is suitable, we will change to use power from EDC.

110) GCF work team met with 250 families in 6 districts such as: Udong, Ponhea Lue, Bateay, Chueng Prey, Prey Chhor, and Kampong Siem district in which those families' houses are affected by the electricity poles that the team work met with during the study of IEIA. The result shows that 250 families meaning 71.03% of the total 321 family are aware that Cambodian Transmission Limited cooperates with EDC will construct power transmission lines 230kV from Cambodia-Vietnam border to Udong district, Kampong Cham province. They learn this information from one person to another and see someone come to study and measure the pole basic and electricity poles across rice field way starting from substation Kampong Spue, Udong district, Ksam Ksan commune, Sdouk Ampov village to Kampong Cham province. The other 102 families meaning 28.97% are not aware of this information.

111) People who were involved in this study expressed that: the transmission line construction is very important for it help develop the living standard of people and improve tourism section. At the same time, they know that the construction activity will cause disturbance to them such as: noise, dust, smoke, and other disturbances on their daily living. However, this affection is not serious and it will last for a short period only.

112) Most of them expressed positive interest on the construction. The 250 families said that the transmission line is on their rice field, village land, and houses; they requested for compensation because some of them own small rice field only but have many members in the family. They have difficulty in receiving compensation since they are worried that they will lose field nearby their

house and the new field is also far away. However, there must be subsidy for moving the house and property such as trees and fruit plants that they will get from EDC and MOEF.

113) Another 5 discussions were held to show the result of draft report about IEIA in order to adjust and finish the report. The discussion was held in Chueng Prey district, Prey Chhor district, Bateay district, Udong district, and Ponhea Lue district from14 till 21 January 2009. Each discussion took about 2 hours and the minutes of discussion was also recorded. The attendees of the participations were district governor, deputy district governor, and related institution, chief of commune and assistant, and chief of village. After presentation of the brief report about IEIA, the participators brought up a lots of comments and questions, but most of the questions were almost the same; therefore, the work team decided mix into one only (see index 5). IEIA council provided answers to their questions depends on the result of draft report (table 4-4 till 4-8) and recorded the minutes.

Minutes of public discussion on IEIA in 6 districts (Udong, Ponhea Lue, Bateay, Chueng Prey, Prey Chhor, and Kampong Siem district)

114) Participates from the 6 districts who had attended the public discussion and presentation about IEIA were district governor, deputy district govern, local agriculture office, local environment office, lacal land district, forest office, chief of commune and assistant, chief of village and district.

115) After greeting from the district governor, consultant of IEIA answered the questions from participates based on the result of IEIA report. The questions and answers are as follows:

Questions:

B- Who is the owner of the transmission line?
C- When will the construction of transmission line start? When finish?
D- Can people in the community use the electricity power?
E- If they can use, how much is the electricity power?
F- Will IPP continue to provide power by purchasing power from EDC through bid?
G- When can people use electricity power?
H- Does the company have any methods to reduce impact for the project implementation?
I- Does the company have any policy to pay compensation for the impact lands and houses?
J- Does the company have any method to prevent accident caused by the transmission line?

Answers:

A- The transmission line belongs to CTL and CTL will manage it for some period then it will transfer to EDC.
B- The transmission line construction is 97.20km and the construction will start when the land issue with people is completed; the construction might be finished by year 2011 or 2012.
C- Actually, I cannot answer if the people can use the electricity power or not. I help CTLto prepare IEIA report but I don't know how the power distribution system which is under EDC's charge is. I would like to clarify to people that the power transmission and power distribution is different. CTL is responsible for the construction of transmission line,

whereas, EDC is responsible for power connection from substation in the province to the provincial town.

D- Of course, the cost of electricity will be cheap than the cost now because most of power from Vietnam is generated by hydropower; but I cannot tell how much does it cost.

E- I would like to apologize that I cannot answer this question. Again, I would like to inform people that I am asked to help Cambodian Transmission Limited to prepare IEIA report but this company does not ask me to study on the power distribution to the provincial town. I am asked by EDC to study and evaluate on the impact of power distribution, I will inform the people.

F- Please do not confuse between power transmission and power distribution. They are different, in which one is under responsibility of Cambodian Transmission Limited and one is under responsibility of EDC. It might be a priority for the provincial town to have power supply before district and village.

G- The methods in table 1 is very important to reduce affection during the study of IEIA of this project (please refer to table 1: 6-1 for detail information).

H- As people know that Cambodian Transmission Limited has a license from the royal government to construct the transmission line. Therefore, all related issues such as moment of house and land must be settled before construction starts. (All family whose houses and lands affection by the project, they must receive compensation).

I- The methods to avoid accident cause by power transmission line are mentioned in table 1. (Please refer to table 1 for detail information).

Request and appeal from district governor:

J- District governor and deputy district governor brought up their request and appeal for chief of village and chief of commune. They informed chief of village and chief of commune that though we don't get direct benefit, we all need to join with the process of transmission line construction. As we have listened to the presentation from Green Consultancy Firm about the affection on the environment that the transmission line project is acceptable due to the environment and society condition as well as the stability of economy. We will have an urgent meeting with those families whose houses and lands on are on the Right of Way. These families should not increase the price of house and land as they want because the company, EDC, and Ministry of Finance will pay at reasonable and suitable price. This instruction must be followed. At the same time, chief of village and chief of commune were aware of it and said that they would explain to those families; and those families promised to join in this transmission line project.

Conclusion:

	Positive Result	Negative Result	Request
1-Kampong Spue	Happy with the project that electricity price decrease and people can afford.	The company must check very carefully; most people are not aware of the electricity shock to death.	- Build tower high 25m–30m. -Put warning sign.
2-Kandal	According to the local authority, people are happy with the project.	Effect agricultural land (dry season); in Ponhea Lue it effect the land of Phanimex company that already had license from	The compensation must be with agreement from people.

		CDC so it is a difficult issue.	
3-Kampong Cham	The authority and local people support the project and it is the government's goal to develop the country by 2020, most people will have electricity or battery to use and by 2030, 70% of people will electricity to use.	Small number of people are effected by the constriction.	Pay compensation at reasonable market price.

Chapter 7
Demand from institution and environment inspection

116) Due to the observation on the field and data collection during detail study shows that the transmission line project does not demand participation from any organization or much environment monitoring because there is little negative impact. The project does not need to have Environment Coordinator and Independent Monitoring Organization to check the implementation. But DCC will have main responsibility in environment management plan (EMP). In order to make sure that DCC is taking action to reduce environment and society impact, CTL must follow up and monitor the implementation of the project directly.

Table 7-1: Brief about action to reduce impact

Construction activity	Environment impact	Action to reduce impact	Action by	Estimate cost
Before construction				
Plan arrangement for transmission line and construction	Danger	* Health arrangement plan and work safety, training and instruction for staff and workers before starting work.	DCC	35,000$
Land used for installing towers	Land loss and change the owner	* The compensation for the land must be made with reasonable cost and fair base on the land condition and land rate at recent time.	EDC & MEF	Base on actual
During construction				
Easement diverting line and substations	Disturb the plantation activity, rice field, and dike	* Select proper vehicles and technical to use in order to reduce affection on the land as much as possible. * The construction on the plantation and rice field must be completed before planting and collection production season. * The compensation on the damage plantation and disturbance before collection production must be based on the total land size that is destroyed and the amount of production at its current cost in the market. * Filling the ground or blocking the water system for temporary must not at the area that have flood; example, around substation in Udong district and Kampong Siem district, in Kampong Cham province.	DCC DCC CTL DCC	None 20,000$ 100,000$ None
Drilling hole to install towers	Decrease the land quality	* The soil for digging the ground to install tower must be placed along the road or nearby the man's house who has requested for it.	DCC	None
Construction	Erosion	* Digging and pilling up the land must be completed before heavy rainy season in order to	DCC	None

		avoid serious disturbance and affection to the land.	DCC	None
		* The top layer of the ground must be used to spread on substation area and after that some kinds of plants and long life plants must be grown to cover the ground in order to maintain the substation land.	DCC	140,000$
		* Make fence around substation to prevent animals from coming in to spoil the plantation.		
	Decrease quality of water and dirty to the land		DCC	None
		* Fuel oil and other dangerous materials must be kept up higher from the flood level and must be 20m at least from the water resource (water way, ditch, and lake).	DCC	6,000$
		* Must inform the community about the schedule of construction and construction activities during day time.	DCC	None
	Health	* Must provide information to the people about the health problems, especially, social disease before starting to work.	DCC	None
		* All kinds material used for substation construction must be clean and the clean; water must be available; and also the place to throw waste must be convenient.	CTL	14,000$
		* Must have metal bar or wire around the tower to prevent animals and human being to come nearby.		
During Operation & Maintenance				
Operation the transmission line	Change the use of land under ROW.	* The land owner is allowed to grow plantation as normal under ROW.	CTL	None
	Cause dirty to the water & land when the facility is flooded	* The substation basis must be constructed on where it is not flooded.	DCC	None

		* Transformer at the substation must be protected by surrounding dam and must be able to store oil from leaking outside. The transformer must be on the crushed rock in order to protect flame.	DCC	None
	Weed pesticide used under ROW	* The land under ROW is not allow to plant	CTL	None
		* The pesticide is in low level and will not cause pollution to the agriculture product (rice & cereal) nearby and it will prevent animal from coming in or near the tower.		5,000$

117) Total budget for the EMP during transmission line construction is about **364,600.00USD** (Three hundred and sixty four thousand and six hundred USD) in which: (1)-320,000 (Three hundred and twenty thousand USD) is for taking action to reduce environment impact, (2)-44,600USD (Forty four thousand and six hundred USD) for following up and inspecting the EMP. Whereas, the spare budget for compensation for people's land is not included because it is under government's charge that EDC cooperate with MOEF and provincial authority to deal. Other spare budget is to sponsor the local community and staff-worker of the company who might have accident during operation work. However, the company or contractor must have spare enough budget for this project in case there is any accident. (please see Table 7-2).

Table 7-2: Estimate cost for implementing the Environment Management Plan and Inspection.

Schedule	Activity	Amount	Cost (USD)	
			Unit	Total
Implementation of EMP	Health plan + work safety	-	-	3,500
	Compensation for the effected plants	-	-	20,000
	Make fence around the two substations	-	-	100,000
	Inform the community about the construction	-	-	140,000
	schedule	-	-	6,000
	Put barb wire around the tower	-	-	14,000
	Put weed pesticide under ROW			5,000
	Total 1			**320,000**
Inspection	EDC, MEF, and Provincial Authorities			3,500
	CTL			6,500
	DCC			34,600
	Total 2			**44,600**
	Total 1 + 2			**364,600**

Table 7-3: Brief about impact inspection

Bring up the method to reduce affection	Parameter needed to monitor	Location	Measurement	Frequency	Action by	Estimated cost
Before construction						
* Health arrangement plan and work safety, training and instruction for staff and workers before starting work.	OH & S Plan and training for all staff.	Office.	OH & S Plan and training for staff.	Every month before or during construction period.	DCC	35,000$
* The compensation for the land must be made with reasonable cost and fair base on the land condition and land rate at recent time.	The land owner receive the payment for selling land.	Field.	The land owners receive the payment for selling land.	Once.	DEC & EF	35,000$
During construction						
* Select proper vehicles and technical to use in order to reduce affection on the land as much as possible.	Technical construction & Vehicle	Field.	Technical and construction must not cause serous break to the land.	Once before start.	DCC	35,000$
* The construction on the plantation and rice field must be completed before planting and collection production season.	Schedule before start	Transmission line.	Before collect production season.	Once per month.	DCC	35,000$
* The compensation on the damage plantation and disturbance before collection production must be based on the total land size that is destroyed and the amount of production at its current cost in the market.	Compensation for effected production.	Transmission line.	Record payment.	Once.	CTL	35,000$
* Filling the ground or blocking the water system for temporary must not at the area that have flood; example, around Udong substation and Kampong Cham substation.	Land clearance or piling the land for temporary	Transmission line and substation area.	No land clearance or piling where might be flooded.	Once during construction.	DCC	35,000$
* the soil for digging the ground to install tower must be placed along the road or nearby the man's house who has requested for it.	Where to throw the waste soil	Where to throw all waste.	Acceptable place to throw waste.	Every two weeks.	DCC	35,000$

* Digging and pilling up the land must be completed before heavy rainy season in order to avoid serious disturbance and impact to the land.	Set working period	Substations and other disturbed places.	Set working period for the construction at place that is disturbed.	Every two weeks.	DCC	35,000$
* The top layer of the ground must be used to spread on substation area and after that some kinds of plants and long life plants must be grown to cover the ground in order to maintain the substation land.	The top layer of the land around substation must be used to grow plants	Substations.	Making fence around substation.	Once when starting to construct substation.	DCC	1,200$
* Fuel oil and other dangerous materials must be kept up higher from the flood level and must be 20m at least from the water resource (water way, ditch, and lake).	Where keeping the materials	Field.	At least 20m from the water system resource.	Once for each substation.	DCC	1,200$
* Must inform the community about the schedule of construction and construction activities during working hours.	Set working period	Field.	At day time.	Every month	DCC	3,500$
* Must provide information to the people about the health problems, especially, social disease before starting to work.	Information about health for workers	Construction area.	Staff and all workers to aware about health.	Every two weeks	DCC	1,200$
* All kinds material used for substation construction must be clean and the clean; water must be available; and also the place to throw waste must be convenient.	Materials and others for construction purpose and worker's use	Construction area.	Available as per needed.	Once per month during the construction.	DCC	3,500$
* Must have metal bar or wire around the tower to prevent animals and human being to come nearby and climb.	Safety & Prohibit signs	All towers.	Must have safety & prohibit signs.	Once per month during construction.		
Operation and maintenance						
* The land owner are allowed to grow plantation as normal under ROW.	Growing plants under the towers	Transmission line.	Growing plants or might affect the plants.	Depend on the place.	CTL	3,500$
* Pay attention on Conductors connection.	Conductors and connection	Field.	Conductor connection must not be split or open.	Option.	DCC	1,800$

* The substation must be constructed on where it is not flooded.	Plan arrangement and raise up the land	Substation.	The basis of substation must be high up from flood.	Once.	DCC	3,500$
* Transformer at the substation must be protected by surrounding dam and must be able to store 10% of the oil in the transformer and spare oil to use for installing fire protection materials.	Dikes surrounding the substation and materials to protect fire.	Substation.	To prevent fire.	Once.	DCC	3,500$
* Use weed pesticide under the 303 towers.	Use weed pesticide as per schedule.	Substation.	Able to prevent fire.	Once.	DCC	1,200$

DCC= Design and Construct Contractor, CTL= Cambodian Transmission Limited, OH & S= Occupational Health and Safety

Annex 5

Table 1: Location and name of people effected by the transmission line project (Udong district, Kampong Spue province; Ponhea Lue district, Kandal province; Bateay, Prey Chhor, Choeung Prey, and Kampong Siem district, Kampong Cham province)

No.	UTM no.	Status	Location				Owner	Contact	Others
			Village	Commune	District	Province			
1	467975 1293999	Rice field	Sdouk Lapov	Ksam Ksan	Udong	Kampong Spue			
2	468230 1294249	Rice field	Sdouk Lapov	Ksam Ksan	Udong	Kampong Spue			
3	468485 1294499	Rice field	Sdouk Lapov	Ksam Ksan	Udong	Kampong Spue			
4	468814 1294530	Rice field	Tropaeng Krosang	Ksam Ksan	Udong	Kampong Spue			
5	469033 1294550	Rice field	Tropaeng Krosang	Ksam Ksan	Udong	Kampong Spue			
6	469421 1294586	Rice field	Svay Leap	Tonob Thom	Ponhea Lue	Kandal			
		Rice field	Svay Leap	Tonob Thom	Ponhea Lue	Kandal			
7	469750 1294617	Rice field	Svay Leap	Tonob Thom	Ponhea Lue	Kandal			
8	470076 1294647	Rice field	Svay Leap	Tonob Thom	Ponhea Lue	Kandal			
9	470449 1294682	Rice field	Sdouk Chhouk	Tonob Thom	Ponhea Lue	Kandal			
10	047072 6129896	Rice field	Tropaeng Chhrov	Tonob Thom	Ponhea Lue	Kandal			
11	471008 1295115	Bush	Tropaeng Chhrov	Tonob Thom	Ponhea Lue	Kandal			
12	471279 1295325	Field	Tropaeng Russey	Tonob Thom	Ponhea Lue	Kandal			
13	471560 1295543	Rice field	Tropaeng Russey	Tonob Thom	Ponhea Lue	Kandal			
14	471833 1295753	Rice field	Komnob	Tonob Thom	Ponhea Lue	Kandal			
		Rice field	Komnob	Tonob Thom	Ponhea Lue	Kandal			
15	472109 1295968	Rice field	Komnob	Tonob Thom	Ponhea Lue	Kandal			
16	472386 1296182	Rice field	Komnob	Tonob Thom	Ponhea Lue	Kandal			
17	472675 1296405	Rice field	Toul Prich	Chrey Lois	Ponhea Lue	Kandal			
18	472952 1296620	Rice field	Toul Prich	Chrey Lois	Ponhea Lue	Kandal			
		Rice field	Toul Prich	Chrey Lois	Ponhea Lue	Kandal			
19	473216 1296825	Rice field	Toul Prich	Chrey Lois	Ponhea Lue	Kandal			
20	473493 1297039	Cashew nut trees	Toul Prich	Chrey Lois	Ponhea Lue	Kandal			
21	473770 1297253	Rice field	Toul Prich	Chrey Lois	Ponhea Lue	Kandal			
22	474035 1297459	Rice field	Thlouk Trobek	Phnom Bat	Ponhea Lue	Kandal			
23	474323 1297682	Rice field	Tropaeng Roka	Phnom Bat	Ponhea Lue	Kandal			
24	474653 1297937	Rice field	Tropaeng Roka	Phnom Bat	Ponhea Lue	Kandal			

25	474877 1298110	Field	Tropaeng Roka	Phnom Bat	Ponhea Lue	Kandal			
26	475190 1298353	Field	Tropaeng Roka	Phnom Bat	Ponhea Lue	Kandal			
27	475430 1298539	Rice field	Tropaeng Roka	Phnom Bat	Ponhea Lue	Kandal			
28	475701 1298748	Plantation field	Chomboh Phlos	Phnom Bat	Ponhea Lue	Kandal			
29	475984 1298968	Flooded forest	Tropaeng Roka	Phnom Bat	Ponhea Lue	Kandal			
30	476261 1299182	Flooded forest	Thlouk Ankrong	Phnom Bat	Ponhea Lue	Kandal			
31	476557 1299411	Rice field	Thlouk Ankrong	Phnom Bat	Ponhea Lue	Kandal			
32	476845 1299635	Village land	Thmor Sor	Phnom Bat	Ponhea Lue	Kandal			
33	477091 1299825	Rice field	Thmey	Phnom Bat	Ponhea Lue	Kandal			
34	477334 1300013	Rice field	Thmor Sor	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Thmor Sor	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Thmor Sor	Phnom Bat	Ponhea Lue	Kandal			
35	477445 1300345	Rice field	Kampong Krosaeng	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Kampong Krosaeng	Phnom Bat	Ponhea Lue	Kandal			
36	477555 1300677	Rice field	Thmor Sor	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Thmor Sor	Phnom Bat	Ponhea Lue	Kandal			
37	477666 1301010	Rice field	Thmor Sor	Phnom Bat	Ponhea Lue	Kandal			
38	477776 1301342	Rice field	Sres Por	Phnom Bat	Ponhea Lue	Kandal			
39	477879 1301650	Flooded forest	Tropaeng Sleng	Phnom Bat	Ponhea Lue	Kandal			
40	477998 1302006	Border of plantation field	Tropaeng Sleng	Phnom Bat	Ponhea Lue	Kandal			
41	478318 1302125	Rice field	Veal Thmey	Phnom Bat	Ponhea Lue	Kandal			
42	478638 1302244	Flooded forest	Veal Thmey	Phnom Bat	Ponhea Lue	Kandal			
43	4789581 3022364	Rice field	Por Ral	Phnom Bat	Ponhea Lue	Kandal			
44	479278 1302484	Rice field	Thoim Sras	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Thoim Sras	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Por Ral	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Por Ral	Phnom Bat	Ponhea Lue	Kandal			
45	479598 1302603	Rice field	Por Ral	Phnom Bat	Ponhea Lue	Kandal			
		Rice field	Toul Ampil	Phnom Bat	Ponhea Lue	Kandal			
46	479918 1302722	Water	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			
		Water	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			
47	479890 1303014	Rice field	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			
		Rice field	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			
48	479862 1303307	Rice field	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			

		Rice field	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			
49	479834 1303599	Water	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			
50	489116 1303807	Village land	Toul Ampil	Ponhea Lue	Ponhea Lue	Kandal			
51	480665 1304201	Rice field	Prek Chhik	Koh Chen	Ponhea Lue	Kandal			
52	480940 1304416	Village land	Dang Kom	Koh Chen	Ponhea Lue	Kandal			
53	480851 1304742	Rice field	Dang Kom	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Chhik	Koh Chen	Ponhea Lue	Kandal			
54	480763 1305068	Rice field	Prek Chhik	Koh Chen	Ponhea Lue	Kandal			
55	480674 1305394	Rice field	Prek Chhik	Koh Chen	Ponhea Lue	Kandal			
56	480586 1305719	Rice field	Prek Chhik	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Chhik	Koh Chen	Ponhea Lue	Kandal			
57	480497 1306045	Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
58	480560 1306413	Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
59	480623 1306780	Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
60	480686 1307147	Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
61	480686 1307147	Rice field	Prek Kdam II	Koh Chen	Ponhea Lue	Kandal			
62	480817 1307921	Rice field	Prek Kdam I	Koh Chen	Ponhea Lue	Kandal			
63	480875 1308258	Rice field	Prek Kdam I	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Kdam I	Koh Chen	Ponhea Lue	Kandal			
		Rice field	Prek Kdam I	Koh Chen	Ponhea Lue	Kandal			
64	481129 1308509	Rice field	Prek Kdam I	Koh Chen	Ponhea Lue	Kandal			
65	481377 1308756	Rice field	Prek Kdam I	Koh Chen	Ponhea Lue	Kandal			
66	481326 1309002	Rice field	Prek Kdam I	Koh Chen	Ponhea Lue	Kandal			
67	481875 1309248	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
68	482123 1309494	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
		Rice field	Sambo	Sambo	Bateay	Kampong Cham			
69	048272 1309741	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
70	482621 1309987	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
71	482869 1310233	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
72	483118 1310480	Rice field	Sambo	Sambo	Bateay	Kampong Cham			

73	483367 1310726	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
74	483615 1310972	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
75	483864 1311218	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
76	484113 1311465	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
77	484425 1311774	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
78	484767 1311850	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
79	485108 1311926	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
80	485450 1312003	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
81	484811 1311860	Rice field	Sambo	Sambo	Bateay	Kampong Cham			
82	486133 1312155	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
83	486475 1312231	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
84	486816 1312307	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
85	487060 1312362	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
86	487294 1312414	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
87	487521 1312643	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
88	487748 1312872	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
		Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
89	488086 1312963	Rice field	Sang Koerb	Sambo	Bateay	Kampong Cham			
90	488424 1313055	Rice field	Chong	Sambo	Bateay	Kampong Cham			
91	488762 1313146	Rice field	Chong	Sambo	Bateay	Kampong Cham			
92	489100 1313237	Rice field	Chong	Sambo	Bateay	Kampong Cham			
		Rice field	Chong	Sambo	Bateay	Kampong Cham			
93	489438 1313329	Rice field	Chong	Sambo	Bateay	Kampong Cham			
94	489776 1313420	Rice field	Chong	Sambo	Bateay	Kampong Cham			
95	490113 1313511	Rice field	Chong	Sambo	Bateay	Kampong Cham			
96	490475 1313609	Rice field	Chong	Sambo	Bateay	Kampong Cham			
97	490789 1313693	Rice field	Tabek	Sambo	Bateay	Kampong Cham			
98	491127 1313784	Rice field	Tabek	Sambo	Bateay	Kampong Cham			
99	491546 1313898	Rice field	Tabek	Sambo	Bateay	Kampong Cham			
100	491682 1314183	Rice field	Tabek	Sambo	Bateay	Kampong Cham			
101	491832 1314498	Rice field	Phnom Thom	Chea Lea	Bateay	Kampong Cham			
102	491983 1314814	Rice field	Phnom Thom	Chea Lea	Bateay	Kampong Cham			
		Rice field	Phnom Thom	Chea Lea	Bateay	Kampong Cham			
103	492133 1315129	Rice field	Phnom Thom	Chea Lea	Bateay	Kampong Cham			

104	482283 1315444	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
105	492434 1315759	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
106	492586 1316078	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
107	492726 1316371	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
108	492887 1316709	Mountain land	Chea Lea	Chea Lea	Bateay	Kampong Cham			
109	493038 1317025	Lake land	Chea Lea	Chea Lea	Bateay	Kampong Cham			
110	493202 1317368	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
111	493340 1317657	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
		Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
112	493490 1317973	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
113	493641 1318289	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
114	493792 1318605	Dry season rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
		Dry season rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
115	493926 1318885	Flooded forest	Chea Lea	Chea Lea	Bateay	Kampong Cham			
116	494094 1319237	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
117	494244 1319553	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
118	494395 1319868	Rice field	Chea Lea	Chea Lea	Bateay	Kampong Cham			
119	494546 1320184	Rice field	Chbar Ampov	Chbar Ampov	Bateay	Kampong Cham			
120	494688 1320482	Community land	Svay Pok	Bateay	Bateay	Kampong Cham			
121	494847 1320816	Community land	Svay Pok	Bateay	Bateay	Kampong Cham			
122	494998 1321132	Rice field	Svay Pok	Bateay	Bateay	Kampong Cham			
123	495149 1321448	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
		Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
124	495299 1321763	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
		Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
		Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
125	495450 1322079	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
126	495601 1322395	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
127	495752 1322711	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
128	495902 1323027	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
129	496063 1323343	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
130	496204 1323659	Lake land	Sres Pring	Bateay	Bateay	Kampong Cham			
131	496355 1323974	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
132	496493 1324263	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			

133	496656 1324606	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
134	496807 1324922	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
135	496938 1325196	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
		Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
136	497528 1325230	Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
		Rice field	Sres Pring	Bateay	Bateay	Kampong Cham			
137	497279 1325911	Rice field	Bakrong	Kok Roveang	Chueng Prey	Kampong Cham			
138	497446 1326260	Rice field	Bakrong	Kok Roveang	Chueng Prey	Kampong Cham			
139	497561 1326502	Rice field	Bakrong	Kok Roveang	Chueng Prey	Kampong Cham			
140	497712 1326818	Rice field	Bakrong	Kok Roveang	Chueng Prey	Kampong Cham			
141	497862 1327134	Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
		Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
		Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
142	498017 1327457	Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
143	498341 1327587	Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
		Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
144	498680 1327722	Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
		Rice field	Totol	Kok Roveang	Chueng Prey	Kampong Cham			
145	499014 1327856	Rice field	Chhouk	Kok Roveang	Chueng Prey	Kampong Cham			
146	499284 1327965	Rice field	Chhouk	Kok Roveang	Chueng Prey	Kampong Cham			
		Rice field	Chhouk	Kok Roveang	Chueng Prey	Kampong Cham			
147	499574 1328081	Resident land	Chhouk	Kok Roveang	Chueng Prey	Kampong Cham			
		Village Land	Chhouk	Kok Roveang	Chueng Prey	Kampong Cham			
148	499969 1328240	Lotus lake	Chhouk	Kok Roveang	Chueng Prey	Kampong Cham			
149	500331 1328384	Rice field	Knol Dambong	Knol Dambong	Chueng Prey	Kampong Cham			
150	500682 1328525	Rice field	Knol Dambong	Knol Dambong	Chueng Prey	Kampong Cham			
151	500997 1328651	Rice field	Knol Dambong	Knol Dambong	Chueng Prey	Kampong Cham			
152	5101645 1328791	Rice field	Knol Dambong	Knol Dambong	Chueng Prey	Kampong Cham			
153	501650 1328913	Rice field	Knol Dambong	Knol Dambong	Chueng Prey	Kampong Cham			
154	501997 1329052	Rice field	Knol Dambong	Knol Dambong	Chueng Prey	Kampong Cham			
155	502329 1329186	Rice field	Knol Dambong	Knol Dambong	Chueng Prey	Kampong Cham			
156	5602691 1329331	Rice field	Roveang	Knol Dambong	Chueng Prey	Kampong Cham			
157	503048 1329474	Rice field	Roveang	Knol Dambong	Chueng Prey	Kampong Cham			
158	503329 1329587	Rice field	Roveang	Knol Dambong	Chueng Prey	Kampong Cham			

159	503663 1329720	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
160	503995 1329854	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
161	504329 1328888	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
162	504663 1330121	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
163	5049925 1330255	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
164	505329 1330388	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
		Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
		Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
165	505661 1330522	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
166	505995 1330656	Rice field	Cheer Teal	Pdao Chhom	Chueng Prey	Kampong Cham			
167	506329 1330789	Rice field	Tasen	Sotep	Chueng Prey	Kampong Cham			
		Rice field	Tasen	Sotep	Chueng Prey	Kampong Cham			
168	050668 1330925	Rice field	Tasen	Sotep	Chueng Prey	Kampong Cham			
169	506995 1331057	Rice field	Tasen	Sotep	Chueng Prey	Kampong Cham			
170	507327 1331190	Rice field	Tasen	Sotep	Chueng Prey	Kampong Cham			
171	507661 1331324	Rice field	Thmey	Sotep	Chueng Prey	Kampong Cham			
		Rice field	Thmey	Sotep	Chueng Prey	Kampong Cham			
172	508011 1331464	Rice field	Thmey	Sotep	Chueng Prey	Kampong Cham			
173	508362 1331472	Rice field	Pnov Lech	Prey Choa	Chueng Prey	Kampong Cham			
		Rice field	Pnov Lech	Prey Choa	Chueng Prey	Kampong Cham			
174	508714 1331481	Rice field	Pnov Lech	Prey Choa	Chueng Prey	Kampong Cham			
175	509066 1331490	Rice field	Pnov Lech	Prey Choa	Chueng Prey	Kampong Cham			
176	509419 1331499	Rice field	Pnov Lech	Prey Choa	Chueng Prey	Kampong Cham			
177	509771 1331507	Rice field	Pnov Koert	Prey Choa	Chueng Prey	Kampong Cham			
	509771 1331507	Rice field	Pnov Koert	Prey Choa	Chueng Prey	Kampong Cham			
178	510123 1331516	Rice field	Pnov Koert	Prey Choa	Chueng Prey	Kampong Cham			
179	510428 1331527	Rice field	Pnov Koert	Prey Choa	Chueng Prey	Kampong Cham			
		Rice field	Pnov Koert	Prey Choa	Chueng Prey	Kampong Cham			
180	510809 1331533	Rice field	Pnov Koert	Prey Choa	Chueng Prey	Kampong Cham			
181	511164 1331542	Rice field	Prey Kcheay	Prey Choa	Prey Chhor	Kampong Cham			
182	511516 1331551	Rice field	Prey Kcheay	Prey Choa	Prey Chhor	Kampong Cham			
183	511867 1331560	Rice field	Prey Kcheay	Samroung	Prey Chhor	Kampong Cham			
184	512186 1331568	Rice field	Prey Kcheay	Samroung	Prey Chhor	Kampong Cham			
185	512558 1331577	Rice field	Prey Kcheay	Samroung	Prey Chhor	Kampong Cham			

186	512925 1331586	Rice field	Prey Kcheay	Samroung	Prey Chhor	Kampong Cham			
		Rice field	Prey Kcheay	Samroung	Prey Chhor	Kampong Cham			
187	513246 1331595	Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
188	513627 1331604	Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
		Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
189	513979 1331613	Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
		Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
190	514331 1331622	Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
		Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
191	514663 1331630	Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
			Sodey	Samroung	Prey Chhor	Kampong Cham			
192	515035 1331639	Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
193	515387 1331648	Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
		Rice field	Sodey	Samroung	Prey Chhor	Kampong Cham			
194	515739 1331657	Rice field	Semson Tboung	Sro Nge	Prey Chhor	Kampong Cham			
195	516091 1331666	Rice field	Semson Tboung	Sro Nge	Prey Chhor	Kampong Cham			
		Rice field	Semson Tboung	Sro Nge	Prey Chhor	Kampong Cham			
		Rice field	Semson Tboung	Sro Nge	Prey Chhor	Kampong Cham			
		Rice field	Semson Tboung	Sro Nge	Prey Chhor	Kampong Cham			
196	516443 1331675	Rice field	Semson Tboung	Sro Nge	Prey Chhor	Kampong Cham			
		Rice field	Semson Tboung	Sro Nge	Prey Chhor	Kampong Cham			
197	516794 1331683	Rice field	Srogne Tboung	Sro Nge	Prey Chhor	Kampong Cham			
		Rice field	Srogne Tboung	Sro Nge	Prey Chhor	Kampong Cham			
198	516794 1331683	Rice field	Srogne Tboung	Sro Nge	Prey Chhor	Kampong Cham			
		Rice field	Srogne Tboung	Sro Nge	Prey Chhor	Kampong Cham			
199	517495 1331701	Rice field	Srogne Tboung	Sro Nge	Prey Chhor	Kampong Cham			
200	517849 1331710	Rice field	Taing Trapaeng	Lvea	Prey Chhor	Kampong Cham			
201	518200 1331719	Rice field	Taing Trapaeng	Lvea	Prey Chhor	Kampong Cham			
202	518546 1331727	Rice field	Taing Trapaeng	Lvea	Prey Chhor	Kampong Cham			
		Rice field	Taing Trapaeng	Lvea	Prey Chhor	Kampong Cham			
203	518904 1331736	Rice field	Taing Kok	Lvea	Prey Chhor	Kampong Cham			
204	519256 1331745	Rice field	Tropaeng Chineang	Lvea	Prey Chhor	Kampong Cham			
205	519608 1331754	Rice field	Tachark	Lvea	Prey Chhor	Kampong Cham			
206	519960 1331762	Rice field	Tachark	Lvea	Prey Chhor	Kampong Cham			

207	520312 1331771	Rice field	Koktrea Lech	Lvea	Prey Chhor	Kampong Cham			
		Rice field	Koktrea Lech	Lvea	Prey Chhor	Kampong Cham			
208	520663 1331780	Rice field	Koktrea Koert	Lvea	Prey Chhor	Kampong Cham			
209	521015 1331789	Rice field	Koktrea Koert	Lvea	Prey Chhor	Kampong Cham			
210	521397 1331798	Rice field	Sdouk Antong	Lvea	Prey Chhor	Kampong Cham			
		Rice field	Sdouk Antong	Lvea	Prey Chhor	Kampong Cham			
211	521719 1331806	Rice field	Ampil Thom	Kwet Thom	Prey Chhor	Kampong Cham			
212	522071 1331815	Rice field	Ampil Thom	Kwet Thom	Prey Chhor	Kampong Cham			
213	522423 1331824	Rice field	Ampil Thom	Kwet Thom	Prey Chhor	Kampong Cham			
214	522795 1331833	Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
215	523127 1331842	Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
		Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
216	523479 1331850	Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
		Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
217	523831 1331859	Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
		Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
218	524182 1331868	Rice field	Targnal	Kwet Thom	Prey Chhor	Kampong Cham			
219	524534 1331877	Rice field	Kwet	Kwet Thom	Prey Chhor	Kampong Cham			
220	524886 1331886	Rice field	Sleng	Chrey Vien	Prey Chhor	Kampong Cham			
221	525238 1331894	Rice field	Sleng	Chrey Vien	Prey Chhor	Kampong Cham			
222	525590 1331903	Rice field	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
		Rice field	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
223	525942 1331912	Village Land	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
		Village Land	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
224	526291 1331921	Rice field	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
225	526643 1331929	Rice field	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
		Rice field	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
		Rice field	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
226	526951 1331937	Village Land	Tropaeng Touk	Chrey Vien	Prey Chhor	Kampong Cham			
227	527347 1331947	Rice field	Taream	Chrey Vien	Prey Chhor	Kampong Cham			
		Rice field	Taream	Chrey Vien	Prey Chhor	Kampong Cham			
228	527699 1331956	Rice field	Taream	Chrey Vien	Prey Chhor	Kampong Cham			
229	528051 1331965	Rice field	Taream	Chrey Vien	Prey Chhor	Kampong Cham			
		Rice field	Taream	Chrey Vien	Prey Chhor	Kampong Cham			

230	528403 1331973	Village Land	Namken	Chrey Vien	Prey Chhor	Kampong Cham			
		Village Land	Namken	Chrey Vien	Prey Chhor	Kampong Cham			
231	528755 1331982	Rice field	Namken	Mian	Prey Chhor	Kampong Cham			
		Rice field	Namken	Mian	Prey Chhor	Kampong Cham			
232	529108 1331991	Rice field	Otanov	Mian	Prey Chhor	Kampong Cham			
		Rice field	Otanov	Mian	Prey Chhor	Kampong Cham			
233	529469 1332000	Village Land	Otanov	Mian	Prey Chhor	Kampong Cham			
234	529814 1332005	Rice field	Khloy I	Mian	Prey Chhor	Kampong Cham			
		Rice field	Khloy I	Mian	Prey Chhor	Kampong Cham			
235	530160 1332010	Rainy season rice field	Khloy I	Mian	Prey Chhor	Kampong Cham			
236	530504 1332016	Plantation field	Khloy I	Mian	Prey Chhor	Kampong Cham			
		Plantation field	Khloy I	Mian	Prey Chhor	Kampong Cham			
237	420849 1332021	Rainy season rice field	Khloy I	Mian	Prey Chhor	Kampong Cham			
238	531194 1332025	Rainy season rice field	Khloy II	Mian	Prey Chhor	Kampong Cham			
		Rainy season rice field	Khloy II	Mian	Prey Chhor	Kampong Cham			
239	531539 1332031	Rainy season rice field	Chhouk	Mian	Prey Chhor	Kampong Cham			
		Rainy season rice field	Chhouk	Mian	Prey Chhor	Kampong Cham			
240	531884 1332036	Hill land	Khloy II	Mian		Kampong Cham			
		Hill land	Khloy II	Mian	Prey Chhor	Kampong Cham			
		Hill land	Khloy II	Mian	Prey Chhor	Kampong Cham			
241	531884 1332036	Rainy season rice field	Khloy II	Mian	Prey Chhor	Kampong Cham			
242	532229 1332041	Rainy season rice field	Khloy II	Mian	Prey Chhor	Kampong Cham			
243	532581 1332046	Rainy season rice field	Toul Poun	Mian	Prey Chhor	Kampong Cham			
244	432919 1332052	Village Land	Toul Poun	Mian	Prey Chhor	Kampong Cham			
		Village Land	Toul Poun	Mian	Prey Chhor	Kampong Cham			
		Village Land	Toul Poun	Mian	Prey Chhor	Kampong Cham			
		Village Land	Toul Poun	Mian	Prey Chhor	Kampong Cham			
245	533610 1332061	Rainy season rice field	Toul Poun	Mian	Prey Chhor	Kampong Cham			
246	533953 1332067	Rice field	Toul Poun	Mian	Prey Chhor	Kampong Cham			
		Rice field	Toul Poun	Mian	Prey Chhor	Kampong Cham			

247	534322 1332073	Plantation field	Pkay Proek	Mian	Prey Chhor	Kampong Cham			
248	534643 1332077	Hill land	Pkay Proek	Mian	Prey Chhor	Kampong Cham			
249	534995 1332083	Plantation field	Pkay Proek	Mian	Prey Chhor	Kampong Cham			
250	535353 1332088	Mountain land	Pkay Proek	Mian	Prey Chhor	Kampong Cham			
251	535678 1332092	Rainy season rice field	Pkay Proek	Mian	Prey Chhor	Kampong Cham			
252	536023 1332098	Plantation field	Pkay Proek	Mian	Prey Chhor	Kampong Cham			
253	536369 1332103	Rice field	Tropaeng Krol	Mian	Prey Chhor	Kampong Cham			
254	536712 1332108	Rainy season rice field	Tropaeng Krol	Mian	Prey Chhor	Kampong Cham			
255	537059 1332114	Rainy season rice field	Tropaeng Krol	Mian	Prey Chhor	Kampong Cham			
256	537403 1332118	Rainy season rice field	Tropaeng Krol	Mian	Prey Chhor	Kampong Cham			
257	537748 1332123	Rainy season rice field	Troerng	Mian	Prey Chhor	Kampong Cham			
		Rainy season rice field	Troerng	Mian	Prey Chhor	Kampong Cham			
258	538086 1332129	Rice field	Troerng	Mian	Prey Chhor	Kampong Cham			
		Rice field	Troerng	Mian	Prey Chhor	Kampong Cham			
259	538439 1332134	Rice field	Troerng	Mian	Prey Chhor	Kampong Cham			
		Rice field	Troerng	Mian	Prey Chhor	Kampong Cham			
260	538779 1331960	Hill land	Toul Beng	Krola	Kampong Siem	Kampong Cham			
261	539040 1331827	Plantation field	Toul Beng	Krola	Kampong Siem	Kampong Cham			
262	539338 1331674	Plantation field	Kong Moha	Vihea Thom	Kampong Siem	Kampong Cham			
		Plantation field	Kong Moha	Vihea Thom	Kampong Siem	Kampong Cham			
263	539638 1331521	Rice field	Kong Moha	Vihea Thom	Kampong Siem	Kampong Cham			
		Rice field	Toul Beng	Krola	Kampong Siem	Kampong Cham			
264	539970 1331351	Rainy season rice field	Toul Beng	Krola	Kampong Siem	Kampong Cham			
265	540240 1331214	Hill land	Toul Beng	Krola	Kampong Siem	Kampong Cham			
266	540539 1331060	Rainy season rice field	Toul Beng	Krola	Kampong Siem	Kampong Cham			
267	540840 1330906	Hill land	Angkurn Dey	Krola	Kampong Siem	Kampong Cham			
268	541139 1330753	Hill land	Angkurn Dey	Krola	Kampong Siem	Kampong Cham			
269	541422 1330609	Hill land	Angkurn Dey	Krola	Kampong Siem	Kampong Cham			
270	541684 1330476	Hill land	Angkurn Dey	Krola	Kampong Siem	Kampong Cham			
		Hill land	Angkurn Dey	Krola	Kampong Siem	Kampong Cham			
271	542040 1330293	Rainy season rice field	Angkurn Dey	Krola	Kampong Siem	Kampong Cham			

272	542340 1330140	Rice field	Tropaeng Trol	Krola	Kampong Siem	Kampong Cham			
273	542640 1329986	Plantation field	Tropaeng Trol	Krola	Kampong Siem	Kampong Cham			
274	542940 1329833	Plantation field	Tropaeng Trol	Krola	Kampong Siem	Kampong Cham			
		Plantation field	Tropaeng Trol	Krola	Kampong Siem	Kampong Cham			
275	543240 1329680	Rice field	Otrokurn	Krola	Kampong Siem	Kampong Cham			
276	543539 1329527	Rice field	Otrokurn	Krola	Kampong Siem	Kampong Cham			
277	543840 1320373	Rice field	Otrokurn	Krola	Kampong Siem	Kampong Cham			
		Rice field	Otrokurn	Krola	Kampong Siem	Kampong Cham			
278	544165 1329207	Rainy season rice field	Andong Chros	Ampil	Kampong Siem	Kampong Cham			
279	544517 1329079	Substation	Andong Chros	Ampil	Kampong Siem	Kampong Cham			

Annex 6

6- Photo of discussion progress of section head of province, district, commune, village

6-1 Photo of discussion progress of section head of province, district, commune, and village

6-2 Photo of people who are affected

Annex 7

7- Temperature table, atmosphere humidity, wind speed, and rainfall

7-1 Maximum and minimum temperature (^{o}C), (Longitude: 105^{o}27', Latitude: 12^{o}00', Altitude: 14m) – Chroy Thmor meteorology station (Kampong Cham)

7-2 Average atmosphere humidity per month (%), N:105^{o}27, E: 12^{o}00', Altitude: 14m) – Chroy Thmor meteorology station (Kampong Cham)

7-3 Rainfall (mm) – N:105^{0}27' , E:12^{0}00' , Altitude: 14m Kampong Cham Substation

7-4 Wind Speed and Direction – N:105^{0}27', E: 12^{0}00' , Altitude: 14m Kampong Cham Substation

Ammex 7

Table 7-1: Maximum and minimum temperature (^{0}C), (Longitude: 105^{o}27', Latitude: 12^{0}00', Altitude: 14m) – Kampong Cham substation

Year	Temperature ^{o}C	Month												**Monthly average**
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2000	Maximum	31.2	31.9	33.7	34.1	33.7	32.9	31.5	31.8	31.2	30.4	30.5	30.6	**31.9**
	Minimum	22.8	22.7	24.6	25.3	25.3	25.3	25.0	25.7	25.3	24.8	23.7	23.2	**24.5**
2001	Maximum	31.9	33.1	33.7	35.4	34.9	34.3	33.3	32.3	31.4	31.5	29.3	30.3	**32.6**
	Minimum	23.0	23.4	24.4	25.7	25.6	25.0	25.2	24.9	25.6	24.8	22.6	22.3	**24.4**
2002	Maximum	31.4	33.2	35.6	36.0	35.7	33.7	34.1	31.4	31.5	32.4	31.7	32.7	**33.3**
	Minimum	21.5	22.6	24.8	25.6	26.0	25.3	26.2	25.0	25.6	25.3	24.4	24.0	**24.7**
2003	Maximum	31.1	34.3	34.9	35.4	35.3	34.6	33.4	33.5	32.3	32.5	32.4	30.6	**33.3**
	Minimum	21.0	23.3	24.7	24.8	25.5	25.7	24.9	25.4	25.1	24.9	23.7	21.2	**24.3**
2004	Maximum	24.6	33.7	36.1	36.0	35.4	33.1	33.4	32.1	31.1	31.3	32.1	30.6	**33.1**
	Minimum	22.1	22.5	24.9	26.1	25.9	24.5	25.1	25.4	25.1	24.5	24.0	21.5	**24.3**
2005	Maximum	31.2	34.6	35.1	36.4	35.9	35.1	32.4	32.3	31.1	31.1	30.8	29.3	**32.9**
	Minimum	31.2	34.6	35.1	36.4	35.9	35.1	32.4	32.3	31.1	31.1	30.8	29.3	**32.9**
2006	Maximum	21.2	23.5	24.4	26.0	26.3	26.0	24.9	25.5	25.2	25.1	24.2	22.1	**24.5**
	Minimum	21.2	23.5	24.4	26.0	26.3	26.0	24.9	25.5	25.2	25.1	24.4	22.1	**24.5**
2007	Maximum	31.4	33.3	34.7	35.4	33.4	33.5	32.4	31.7	31.8	30.1	29.0	30.3	**32.2**
	Minimum	22.5	22.3	23.4	24.4	24.0	24.4	23.4	23.7	24.1	23.4	21.2	20.9	**23.1**
2008	Maximum	31.0	31.6	33.1	35.0	33.4	33.9	33.3	31.8	31.8	31.9	30.0	29.1	**32.1**
	Minimum	21.0	21.0	22.8	24.3	23.9	24.3	24.3	24.2	23.9	24.0	21.9	20.9	**23.0**
2009	Maximum	29.2	32.5	34.2	34.0	33.5	33.8	32.7	32.7	31.0	30.7	30.7	30.1	**32.1**
	Minimum	19.1	22.3	24.3	26.6	23.6	23.5	23.2	32.7	23.2	23.0	22.2	22.3	**23.8**

Table 7-2: Average humidity of atmosphere per month in every year (%), N: 105^{0}27', E: 12^0 00', Altitude: 14m) – Chloy Thmor substation in Kampong Cham Province

Year	Month												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2000	78	75	74	78	83	84	85	83	86	88	80	79	**81**
2001	84	78	93	85	92	92	94	91	94	95	92	83	**89**
2002	74	71	69	73	74	83	79	86	85	82	83	81	**78**
2003	72	71	74	75	83	83	86	83	86	84	78	80	**87**
2004	79	79	80	92	88	93	90	93	95	94	85	80	**87**
2005	74	73	86	72	77	79	86	85	87	86	82	76	**79**
2006	75	69	73	78	80	82	83	85	87	84	79	72	**79**
2007	-												
2008	76	74	74	79	84	84	83	86	85	86	84	82	**81**

Table 7-3: Rainfall (mm) – N: 105^{0}27', E: 12^{0}00', Altitude: 14m Chroy Thmor Meterology Station in Kampong Cham Province

Year	Month												Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2000	18.7	26.0	51.1	265.2	154.5	238.4	192.6	114.7	106.7	226.8	100.3	30.5	1505.5
2001	5.9	0.2	200.1	75.2	121.7	107.1	52.9	206.7	147.7	379.5	14.5	12.1	1323.6
2002	-	-	5.7	85.8	51.2	294.0	80.2	253.1	116.1	89.5	94.0	63.7	1133.3
2003	-	-	153.9	27.3	288.8	137.2	164.0	142.2	285.2	199.8	15.8	0.7	1414.9
2004	1.4	-	0.5	104.5	103.3	249.0	128.6	190.6	210.3	162.4	32.2	-	1182.8
2005	6.8	-	31.9	80.7	83.6	122.2	323.9	101.7	361.3	188.6	104.0	41.3	1446.0
2006	19.1	35.9	84.9	138.2	197.0	181.5	162.7	281.2	246.0	218.1	12.7	13.8	1591.1
2007	7.8	-	34.4	71.8	284.9	189.5	296.1	143.6	284.4	210.6	52.4	-	1575.5
2008	52.3	1.3	72.0	110.9	144.6	81.3	150.7	128.3	275.1	258.3	226.4	12.1	1503.3
2009	0.0	38.2	68.7	150.3	233.5	152.2	379.2	200.3	336.9	289.0	3.9	0.0	1852.2

Table 7-4: Wind speed and direction – N: 105^0 27', E: 12^{0}00' , Altitude: 14m Chroy Thmor Meterology Station in Kampong Cham Province

Year	Windspeed/ direction	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	W - dd	NNE	N/NNE	SSE	S	S	SSW	S/SSW	S/SSW	E	NNE	NNE	N/NNE
2000	W - ss	9.0	7.0	8.0	8.0	8.0	8.0	7.0	6.0	7.0	9.0	10.0	9.0
	W - dd	NE	N	SE	SSE	SW	SW	SW	NW	E	NE/SE	N/SE	N
2001	W - ss	9.0	7.0	12.0	9.0	12.0	13.0	11.0	7.0	11.0	15.0	9.0	11.0
	W - dd	NE	SE	NE	NNE	SW	SSW	S	SSW	NE	NE/SE	SE	NNE
2002	W - ss	9.0	4.0	6.0	6.0	6.0	5.0	6.0	7.0	7.0	9.0	11.0	11.0
	W - dd	NE	NNW	SSE/SW	SSW	SSE	NNW	S	SSW	Sep	NE/SE	NE	NNE
2003	W - ss	N	9.0	18.0	9.0	15.0	8.0	15.0	12.0	13.0	15.0	25.0	10.0
	W - dd	10.0	N	NNE	S	SW	WNW	SW	SW	Sep	WNW	NNE	NNE
2004	W - ss	9.0	11.0	24.0	18.0	20.0	25.0	20.0	20.0	18.0	21.0	15.0	15.0
	W - dd	NNE	SSE/S	N/NNE	SSE	SSE/SSW	SW/SSW	SW/SSW	SSW	SSW/SSE	NE	NNE	NE
2005	W - ss	7.0	4.0	8.0	9.0	9.0	9.0	7.0	10.0	7.0	8.0	10.0	10.0
	W - dd	SE	NE	NE	SE	NE	S/SW	SW/SSW	NNW	SSW/SSE	NNW	SE	NNE
2006	W - ss	18.0	7.0	15.0	14.0	14.0	12.0	14.0	17.0	7.0	12.0	11.0	10.0
	W - dd	NE	NE	SE	SSE/SE	SSW	WNW	NE	SSW	WNW	SE	NNE	NNE
2007	W - ss	10.0	16.0	24.0	15.0	13.0	15.0	15.0	8.0	15.0	18.0	8.0	7.0
	W - dd	NNE	NE	N/NNE	WNW	NW	S	SSW	SW	E	NE	NNE	NNE
2008	W - ss	9.0	18.0	5.0	15.0	15.0	12.0	11.0	12.0	6.0	7.0	5.0	10.0

Note: W-SS Wind Speed (m/s)
N = Norht
S = South
E = East
W = West
W-ss = Wind Speed
W-dd = Wind Direction

Table 7-5: Maximum and minimum temperature (^{0}C), (Longitude: 103^{0}51', Latitude: 13^{0}22', Altitude: 15m) Takmao Meterology Station in Kandal Province

Year	Temperature ^{o}C	Month												**Monthly average**
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	Maximum	32.2	33.6	35.9	35.1	34.7	33.3	32.6	32.4	32.2	30.1	28.9	29.6	**32.6**
1998	Minimum	22.0	23.6	25.2	25.6	25.6	24.9	24.7	25.1	24.6	24.0	22.5	20.0	**24.0**
	Maximum	31.5	32.7	36.3	34.6	33.2	32.7	32.1	32.6	32.6	30.9	30.2	27.3	**32.2**
1999	Minimum	21.9	22.4	24.7	25.0	24.9	24.5	24.7	24.4	24.5	24.2	23.8	20.5	**23.8**
	Maximum	31.6	32.6	34.2	34.2	34.1	32.9	32.3	32.1	32.0	30.4	30.1	30.2	**32.2**
2000	Minimum	22.8	22.7	24.3	25.1	25.3	24.74	24.2	24.8	24.5	23.8	23.4	23.4	**24.1**
	Maximum	31.1	32.6	33.5	35.4	34.5	33.3	33.3	32.5	32.8	31.4	29.3	30.9	**32.6**
2001	Minimum	23.1	22.5	24.2	25.6	25.7	24.9	24.9	24.4	24.0	23.8	21.9	21.8	**23.9**
	Maximum	31.7	33.3	35.1	36.0	35.6	34.6	34.5	32.3	32.2	31.7	30.9	31.5	**33.3**
2002	Minimum	21.3	22.2	24.4	25.5	25.8	25.6	25.7	24.5	24.8	24.6	24.2	24.2	**24.4**
	Maximum	30.9	33.5	34.9	35.7	34.4	34.7	34.0	34.2	33.6	34.0	33.1	31.0	**33.7**
2003	Minimum	21.1	22.8	24.7	25.8	25.6	25.3	25.0	24.4	24.0	23.6	23.6	22.7	**24.1**
	Maximum	32.3	33.5	36.2	37.0	35.4	33.3	33.7	33.1	32.3	31.1	31.8	31.1	**33.4**
2004	Minimum	22.1	22.4	24.8	26.1	25.9	24.8	25.3	25.0	24.4	24.3	24.2	20.8	**24.2**
	Maximum	32.1	34.5	34.5	36.6	37.1	36.5	33.4	34.2	32.8	32.2	31.6	29.7	**33.8**
2005	Minimum	21.0	22.9	23.9	25.8	26.1	25.9	24.8	25.0	25.2	25.0	24.7	23.2	**24.5**
	Maximum	32.5	34.4	34.3	35.5	35.0	35.1	33.6	33.3	32.2	31.9	32.6	31.4	**33.5**
2006	Minimum	23.5	24.4	24.9	25.8	25.7	25.6	25.4	25.1	25.1	24.9	24.8	22.6	**24.8**
	Maximum	32.0	33.4	34.7	36.1	34.4	33.7	32.2	32.7	32.9	31.2	29.7	31.5	**32.9**
2007	Minimum	23.0	22.7	24.7	26.3	26.0	26.0	25.5	25.2	25.5	25.0	23.2	22.9	**24.7**

Table 7-6: Humidity of atmosphere yearly average (%), N: 103^{0}51', E: 13^{0}22', Altitude: 15m) – Takmao Meterology Station in Kandal Province

Year	Month												Monthly average
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1998	75.0	74.0	71.0	71.0	72.0	77.0	80.0	83.0	82.0	79.0	73.0	69.0	**75.0**
1999	79.0	75.0	82.0	82.0	81.0	80.0	81.0	81.0	84.0	87.0	84.0	77.0	**80.0**
2000	76.0	74.0	81.0	81.0	82.0	84.0	83.0	82.0	84.0	88.0	82.0	78.0	**81.0**
2001	80.0	75.0	76.0	76.0	80.0	80.0	80.0	82.0	85.0	86.0	79.0	73.0	**80.0**
2002	80.0	75.0	76.0	76.0	80.0	80.0	80.0	82.0	85.0	86.0	79.0	73.0	**80.0**
2003	74.0	71.0	71.0	71.0	78.0	77.0	83.0	80.0	83.0	84.0	76.0	72.0	**76.0**
2004	74.0	69.0	68.0	68.0	72.0	78.0	78.0	78.0	83.0	80.0	76.0	73.0	**75.0**
2005	74.0	72.0	69.0	69.0	72.0	71.0	79.0	76.0	80.0	80.0	78.0	73.0	**74.0**
2006	68.0	70.0	76.0	76.0	78.0	77.0	78.0	81.0	84.0	83.0	79.0	72.0	**77.0**
2007	67.0	70.0	71.0	71.0	80.0	80.0	79.0	80.0	83.0	82.0	76.0	70.0	**76.0**
Total for monthly	820.4	799.2	813.9	813.9	847.1	857.5	880.7	885.7	916.7	919.8	862.0	803.0	**850.5**
Average for monthly	74.6	72.7	74.0	74.0	77.0	78.0	80.1	80.5	83.3	83.6	78.4	73.0	**77.3**
Maximum	79.5	75.2	81.9	81.9	81.6	83.4	83.4	82.6	84.6	88.5	83.8	78.4	**80.9**

Table 7-7: Rainfall – (N: 103^{0}51', E: 13^{0}22', Altitude: 15m) – Takmao Meterology Station in Kandal Province

Year	Month												Yearly average
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1998	-	-	-	76.5	68.0	141.1	144.2	171.7	206.1	159.0	217.9	19.8	**1204.4**
1999	0.0	2.5	13.0	218.3	161.5	81.2	157.0	224.9	162.2	356.4	194.5	68.2	**1639.7**
2000	34.4	26.1	64.3	111.4	156.4	217.2	152.3	161.4	93.5	390.4	98.8	274.2	**1780.3**
2001	67.2	0.0	83.4	25.8	152.7	150.6	116.0	181.7	231.6	360.2	56.9	3.5	**1429.6**
2002	0.0	0.0	0.0	76.6	91.5	173.1	49.2	190.9	192.8	261.6	167.3	13.7	**1216.7**
2003	0.0	0.0	10.4	8.6	155.0	73.5	282.0	113.6	198.4	190.9	116.9	17.0	**1066.3**
2004	0.0	0.0	0.0	19.2	97.4	113.9	126.2	92.6	165.3	206.4	89.3	0.0	**910.3**
2005	0.0	0.0	0.0	37.0	95.5	48.6	208.2	151.7	262.9	179.2	47.0	61.9	**1092.0**
2006	0.0	0.0	61.1	44.8	133.9	132.2	71.7	197.2	119.2	179.6	12.6	5.0	**957.0**
2007	0.0	0.0	50.6	44.6	135.1	201.4	92.5	179.9	170.0	169.8	13.0	0.0	**1074.9**

Table 7-8: Wind speed and direction (m/s) – (N03^{0}51', E: 13^{0}22', Altitude: 15m) – Takmao Meterology Station in Kandal Province.

Year	Windspeed/ direction	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1998	W - dd	N/SE	S/SE	S/SE	S/SE	S/SW	W/SW	SW/W	W/SW	W/N	N/SE	N	N
	W - ss	8.0	8.0	6.0	10.0	15.0	18.0	14.0	16.0	16.0	8.0	10.0	10.0
1999	W - dd	N/NE	N/NE	SE/S	S/SW	W/SW	SW/W	SW	W/SW	W/S	N/E	N	N
	W - ss	12.0	10.0	14.0	12.0	18.0	17.0	14.0	24.0	24.0	12.0	8.0	12.0
2000	W - dd	N/NE	N/NE	SE	S/SE	S/SW	SW/W	S	W/SW	W/SW	N/W	N	N
	W - ss	12.0	12.0	17.0	14.0	14.0	20.0	22.0	16.0	16.0	8.0	10.0	8.0
2001	W - dd	N/NE	N/SE	S/SE	S/SE	S/SW	S/SW	S	W/SW	N	N/SE	N	N
	W - ss	8.0	6.0	16.0	7.0	20.0	12.0	20.0	10.0	10.0	16.0	6.0	8.0
2002	W - dd	N/NE	NE/SE	S/SE	S/SE	W/SW	W/SW	SW	W/SW	W/SW	N/NW	NE	NE/SE
	W - ss	6.0	4.0	6.0	17.0	8.0	12.0	11.0	12.0	12.0	6.0	6.0	5.0
2003	W - dd	MN/NE	S/SE	S/SE	SE/S	SW/S	S/W	SW/SSW	W/SW	W/SW	N/SE	N/NE	N/NE
	W - ss	7.0	7.0	6.0	7.0	16.0	14.0	10.0	14.0	14.0	8.0	8.0	10.0
2004	W - dd	N/SE	SE/S	SE	SE	SW/W	W/SW	SW/SSW	SW/W	S/W	N/SE	N/NE	N/NE
	W - ss	8.0	8.0	8.0	8.0	12.0	12.0	16.0	14.0	14.0	10.0	8.0	8.0
2005	W - dd	N/SE	SE	S/SE	S/SE	S/SW	SW/W	SW/W	SW	SW/NW	SW/NW	N/SE	N/NE
	W - ss	6.0	4.0	6.0	4.0	10.0	6.0	6.0	6.0	4.0	4.0	8.0	6.0
2006	W - dd	N/SE	NE/SE	SE	SE/S	SW/S	SW/W	SW	SW	SW/W	N/S	N/SE	N/NE
	W - ss	4.0	3.0	6.0	6.0	5.0	5.0	8.0	10.0	4.0	6.0	6.0	9.0
2007	W - dd	N/NE	SE/NE	SE/S	SE/S	SE/SW	SW	SW	SW/W	SW	N/SW	N	N/NE
	W - ss	6.0	5.0	4.0	4.0	5.0	4.0	8.0	10.0	7.0	8.0	10.0	8.0

Annex 8

8-1 Letter No. 145 MIME, dated 26 January 2009 from MIME

Kingdom of Cambodia
Nation Religion King

Council of Minister
Ref.no.: 67 So.Chho.Nor.U.So.

Phnom Penh, 19 January 2009

Vice Prime Minister, Minister in charge of Council of Minister
Attention:
H.E. Minister of MIME

Subject: Request for approval for Leader (Cambodia) Limited to carry out Transmission Line Project Phnom Penh – Kampong Cham.

Reference: - Letter no. 024 U.Ro.Tho.Or.Tho.Lo.So. dated 05 January 2009 from MIME.
-Approval from Samdech Akka Moha Senapatey Decho HUN SEN, Prime Minister of Cambodia, dated 09 January 2009.

As per subject and references above, Council of Minister would like to inform that: the government has approved as follows:

1- provide government budget to clear mines along the transmission line area. (if necessary)
2- create an inter-ministerial committee to negotiate directly with the company; the members of the committee are:

- MIME Chairman
- EAC Member
- EDC Member
- MoEF Member

Therefore, kindly be informed and implement accordingly.

For. Minister in charge of Council Minister
Signed and sealed by
BUN UY

Copy to:

- Ministry of Economy and Finance
- Ministry of Interior
- Ministry of Environment
- Kampong Speu Provincial Court
- Kandal Provincial Court
- Kampong Cham Provincial Court
- General Secretariat of Royal Government
- Cabinet of Samdech Prime Minister
- Cabinet of Lokchhomteav Vice Prime Minister
- File

- MIME
- EDC
"For action"
21/01/09

8-2 Letter no. 145MIME dated on 26 January 2009 from MIME

ANNEX – 5

ព្រះរាជាណាចក្រកម្ពុជា
ជាតិ សាសនា ព្រះមហាក្សត្រ

Kingdom of Cambodia
Nation Religion King

ក្រសួងឧស្សាហកម្ម រ៉ែ និង ថាមពល
Ministry of Industry, Mines and Energy

លេខ :...145.MIME...

LETTER OF INVITATION
For

26 January 2009

Mr. SEAN H'NG CHUN HSIANG
Chief Executive Officer
Leader Universal Holding Berhad
55 Jalan Sultan Ahmad Shah
Penang, Malaysia

Subject: Development of 230 kV Phnom Penh- Kampong Cham Transmission System BOT - Project - **Submission of Proposal**

Dear Sir,

1. We are pleased to inform that the Royal Government of Cambodia, represented by the Ministry of industry, Mines and Energy (MIME) has decided to develop 230 kV Phnom Penh- Kampong Cham Transmission System (the Project) on Build- Operate - Transfer (BOT) basis.
2. We are grateful to you for conducting the feasibility study of the captioned Project at your own cost and greatly appreciate your interest to develop the Project on BOT basis.
3. MIME would like to invites you to submit the proposal for the development of the Project as soon as possible but not later than three months from the date of issue of this Invitation.
4. The Proposal must be prepared in accordance with the "Instructions for the preparation of the Proposal" (the Instruction Documents).
5. Please be informed that the Instruction Documents may be collected at the address given below.

   Address:

   H.E. Tun Lean, Director General

   Ministry of Industry, Mines and Energy

   #45 Preah Norodom Blvd., Phnom Penh, Cambodia.

6. Please inform us, upon receipt:

   (a) that you received the letter of invitation; and

   (b) whether you will submit a proposal alone or in association.

Yours sincerely,

SUY SEM
MINISTER

45 Preah Norodom Boulevard, Khan Daun Penh, Phnom Penh. Phone : 855-23-211141, Fax : 855-23-428265

cclxvii

8-3 Implementation Agreement on Power Transmission Project PNH-KPC signed on 20 January 2010

8-4 Construction Permission

Kingdom of Cambodia
Nation Religion King

Ministry of Interior
Kandal Provincial Court
Ref.no.: 686 Sor.Cho.Nor.

Governor of Kandal Province

Attention

H.E. RGC in Charge of Mananging EDC

Subject: Permission for construtction of power transmission line 230kW in Ponhea Lue district, Kandal province.

Referece: - Letter no. 5150 Lo.Sor. Or.Kor.2009 dated on 16 November 2009 from EDC.
- Writing dated on 27 November 2009 from H.E. Governor of Kandal Province.

As per subject and reference above, I would like to inform H.E. that: the request to construct power transmission line 230kw with length 28 km from Kampong Cham substation to North Phnom Penh substation in Ponhea Leu district, Kandal province and need to conduct study feasibility before starting to construcitonthe tower base. For this case, Kandal province will handle the work to compensation team and cooperate with EAC.

Therefore, kindly H.E be informed.

Best regards,

Kandal, 07th December 2009
For. Provincial Governor

Stamp & seal

Ruy Chhunly

Director of Planning Department
For action
10/12/09

Mr. Mao Visal
For File.
14/12/09

Mr. Sophanna
For action
14/12/09

Copy to:
- Ministry of Interior

"For information"
- Ponhea Leu District Court
- Compensation team of the province
- "for action and cooperation"
- File

Kingdom of Cambodia
Nation Religion King

Ministry of Interior
Kampong Spue Provincial Court

Ref.no.: 331 Or.Bor.Kho. Kampong Spue, 13 October 2010

Permission Letter for Construction

Referring to the application for constructing substation for obtaining and transmitting power of Mr. Ting Kong Hung, Sex: Male, Age: 42, a representative of Cambodian Transmission Limited, Address: power plant #2, national route #2, Sangkat Chak Angre, Khan Meanchey, Phnom Penh, requested to construction on land area= 59229.00 sqm that has land title no. Kor.Sor.006372 dated on 10 April 2009 in Sdouk Lapov village, Ksam Ksan commune, Udong district, Kampong Spue province at construction size = 873sqm.

Referring to the approval from local authority and department of provincial expert as per attachment, the construction owner has to fill up the condition as per below:
The construction owner has to fill up condition as below:

1- Before construction:
   A. Request for technician from Department of Land Management, Urban Planning, Construction, and Cadastral Survey to set border for the land.
   B. Request for permission letter for construction from Department of Land Management, Urban Planning, Construction, and Cadastral Surrey with attachment of:
   - Copy of this permission letter with legalization from the provincial court
   - Copy of letter to open enterprise or company that the government issued with legalization from provincial court and construction agreement. After having permission letter, the construction owner has to request for technician from Department of Land Management, Urban Planning, and Cadastral Survey of province to install the column for the building properly as plan.

2- The construction owner has to pay for pavement and sewage for its own use according to the technical condition from Department of Public Works and Transportation of Kampong Cham Province and has to plant trees as per instruction from Department of Agriculture, Forestry, and Fishery after construction.

3- After construction, the owner has to liaise with Department of Land Management, Urban Planning, Construction, and Cadastral Survey in order to get License certifying the correct construction as plan. Construction or part of construction that is not correct as plan will be pulled down without any compensation and has to pay penalty.

4- The construction owner has to follow rule and regulation in the construction plan and carry all its duties in the contract documents.

5- During construction, the owner has to assure safety & order and take away the wastes by itself and cannot use the public place for its personal benefit.

Remarks:

1- Cannot transfer the permission letter for construction to other person without prior approval from Provincial Court, otherwise, this permission letter will be confiscated or cancelled.
2- This permission letter is valid for one year only. If the construction is not completed within its schedule, the construction owner has to bring it to extend from the provincial court.
3- If the work is not in progress for one year, starting from the signing date of issuing this letter; the Provincial Court can confiscate or cancel the permission letter for construction.

Kampong Speu Provincial Governor
Signed & Sealed
Kong Heang

Kingdom of Cambodia
Nation Religion King

Ministry of Land Management, Urban Planning, and Construction
Department of Land Management, Urban Planning, Construction
And Cadastral Survey of Kampong Spue Province

Ref.no.: 505/10 Dor.No.Sor.Sor.Kor.Sp.

Permission Letter to Open Construction Site

Reference: - Permission letter for construction no. 331 Or.Bor.Kho. dated on 13 October 2010 from Kampong Spue Provincial Court.
- Application letter for construction dated 25 September 2010 from the construction owner.

Chief of Department of Land Management, Urban Planning, Construction,
And Cadastral Survey

Hereby Allowed

Mr. Ting Kong Hung, Sex: Male, Age: 42, Nationality: Malaysian, Passport number: A19220850 dated on 12 August 2008, Address: power plant #2, national route #2, Sangkat Chak Angre Leu, Khan Meanchey, Phnom Penh, representative of Cambodian Transmission Limited to open construction site official starting from the signing date.

The construction owner and the contractor must follow the regulation as per plan that was approved and the Prokas (announcement) regarding with the construction site management, rules, construction techniques, and law of Cambodia.

Kampong Spue, 14 October 2010

Chief of Dept.
Signed & sealed
Lay Kimheang

Copy to:
- Ministry of Land Management, Urban Planning, and Construction
- Kampong Spue Provincial Court
- Managing Director (for information)
- Udong District Court
- Office of Land Management, Urban Planning, and Land of Udong District (For action)
- File

Kingdom of Cambodia
Nation Religion King

EDC
Ref.no. 5151 Lo.Sor.Or.Kor Phnom Penh, Date: 16 November 2009

Attention

H.E. Governor of Kampong Speu Province

Subject: Request for permission to build transmission line 230kV in Udong district, Kampong Speu province.

As per subject above, I would like to inform H.E. that: EDC has conducted feasibility study on power transmission line project 230kV from Phnom Penh to Kampong Cham province in which there are two substations, one in Udong district and one near Kampong Cham provincial town. This transmission line will across three provinces: Kampong Spue (Udong district), Kandal (Ponhea Lue district), and Kampong Cham (Bateay district, Choerng Prey district, Kampong Siem district, and Kampong Cham town). The construction of project will start in the forthcoming future; compensation needs to be completed before construction starts. However, the works in Kampong Speu are:

1- Construction of North Phnom Penh substation (Udong district), construction of route to substation in Udong district, and construction of tower footing 230kV about 05km from Kampong Cham substation to North Phnom Penh substation (as per attachment).
2- Construction of transmission line needs cutting some trees or tree branches that effect the construction process.

In order to implement the project on time and to comply with electricity demand from year 2010 onwards, EDC would like to request H.E. to compromise with people and other relevant parties in order to enable EDC to achieve the work successfully.

Therefore, kindly be informed and verify it accordingly.

Best regards,

RGC Delegate in charge of Managing EDC

Signature & seal

Keo Rottanak

Copy to:
- Ministry of Interior
- MIME
- File

Kingdom of Cambodia
Nation Religion King

Kampong Cham Provincial Court
Ref.no.: 353 Lo.Or.Nho.Kor.Chor.

Permission Letter for Construction

Referring to the construction plan that was approved by Kampong Cham Provincial Court dated on 23 September 2010 as per attached herewith.

Mr. Ting Kong Hung, address #..., National route #2, Sangkat Chak Angre Lue, Khan Meanchey, Phnom Penh was allowed to construct substation for obtaining and transmitting power made of reinforced concert on ground floor and first floor with tile roof and total land 1527 sqm located in Andoung Chros-Krola village, Ampil commune, Kampong Siem district, Kampong Cham province.

The construction owner has to fill up condition as below:

6- Before construction:
   C. Request for technician from Department of Land Management, Urban Planning, Construction, and Cadastral Survey to set border for the land.
   D. Request for permission letter for construction from Department of Land Management, Urban Planning, Construction, and Cadastral Surrey in Kampong Cham province.
   E. After having a permission letter for construction, the owner needs to request for a technician from Department of Land Management, Urban Planning, Construction, and Cadastral Survey to install column for the building properly as per plan.

7- The construction owner has to pay for pavement and sewage for its own use according to the technical condition from Department of Public Works and Transportation of Kampong Cham Province and has to plant trees as per instruction from Department of Agriculture, Forestry, and Fishery.

8- After construction, the owner has to liaise with Department of Land Management, Urban Planning, Construction, and Cadastral Survey in order to get License certifying the correct construction as plan. Construction or part of construction that is not correct as plan will be pulled down without any compensation and has to pay penalty.

9- The construction owner has to follow rule and regulation in the construction plan and carry all its duties in the contract documents.

10- During construction, the owner has to assure safety & order for neighbors (making fence around the construction site, keeping the machineries, and construction materials, etc..), keep hygiene, and take away the wastes by itself and cannot use the public place for its personal benefit.

Remarks:

4- Cannot transfer the permission letter for construction to other person without prior approval from Kampong Cham Provincial Court.

5- This permission letter for construction is valid for one year, starting from the signing date. If the construction is not completed within its schedule, the construction owner has to bring this permission letter to extend at the provincial court through Department of Land Management, Urban Planning, Construction, and Cadastral Survey; this letter can be extended for one time.

6- This permission letter for construction is invalid if the work is not in progress for one year, starting from the signing date of issuing this letter; Kampong Cham Provincial Court can confiscate or cancel the permission letter for construction. The construction is considered as having started when the column of the building are founded.

7- When the government needs to develop this area, the construction own has to follow the government's policy without claiming for compensation.

Kampong Cham, 23 September 2010

Provincial Governor
Signed & Sealed
HUN NENG

Copy to:

8- Department of Land Management, Urban Planning, Construction, and Cadastral Survey of KPC province
9- Kampong Siem District Court
10- File

Kingdom of Cambodia
Nation Religion King

EDC
Ref.no.: 5149 Lo.So.Or.Ko. Phnom Penh, Date: 16 November 2009

Attention

H.E. Governor of Kampong Cham Province

Subject: Request for permission to build transmission line 230kV in (Bateay, Chhoerng Prey, Prey Chhor, Kampong Siem) district, and Kampong Cham town, Kampong Cham province.

As per subject above, I would like to inform H.E. that: EDC has conducted feasibility study on power transmission line project 230kV from Phnom Penh to Kampong Cham province in which there are two substations, one in Udong district and one near Kampong Cham provincial town. This transmission line will across three provinces: Kampong Spue (Udong district), Kandal (Ponhea Lue district), and Kampong Cham (Bateay district, Choerng Prey district, Kampong Siem district, and Kampong Cham town). The construction of project will start in the forthcoming future; compensation needs to be completed before construction starts. However, the works in Kampong Cham are:

3- Construction of Kampong Cham substation, construction of route to substation in Kampong Siem district, and construction of tower footing 230kV about 73km from Kampong Cham substation to North Phnom Penh substation (as per attachment).
4- Construction of transmission line needs cutting some trees or tree branches that effect the construction process.

In order to implement the project on time and to comply with electricity demand from year 2010 onwards, EDC would like to request H.E. to compromise with people and other relevant parties in order to enable EDC to achieve the work successfully.

Therefore, kindly be informed and review it accordingly.

Best regards,

RGC Delegate in charge of Managing EDC

Signature & seal

Keo Rottanak

Note:
Approve on the request.
Relevant district & commune to compromise & cooperate.
Date: 24/11/09
Sign & seal:
HUN NENG

Copy to:

- Ministry of Interior
- MIME
- File

Kingdom of Cambodia
Nation Religion King

Ministry of Land Management, Urbanism and Construction
Department of Land Management, Urbanism, and Construction
And Cadastral Survey of Kampong Cham Province

Ref.no.: 0614/10 Dor.No.Sor.Sor.Kor.Chor

Permission Letter to Open Site Field

Reference: - Construction Permission Letter no. 353 Lo.Or.Nho.Kor.Chor. dated on 23 September 2010 from Kampong Cham provincial court
- Application letter to open site field dated on 17 September 2010 from the construction owner
- Verification on document for opening site field no. 38 Dor.No.Sor. dated on 20 September 2010 from Expert Office

Chief of Land Management, Urbanism, and Construction
And Cadastral Survey Department

Hereby Allow

Mr. Ting Kong Hung, Sex: Male, Age: 42, Nationality: Malaysian, Occupation: Representation of Cambodian Transmission Limited, the construction own of substations and power transmission lime in land no….. road no……., Andoung Chros – Krola village, Ampil commune, Kampong Siem district, Kampong Cham province, to OPEN CONSTRUCION SITE FIELD ABOVE FROM THE SIGNING DATE BELOW:

The construction owner must follow the rule in the drawing plan that was approved, announcement about the construction site management, regulations, construction technique and law of Cambodia.

Kampong Cham, 28 September 2010

Chief of Department
Signed & sealed by
Dy Kaliny

Copy to:
- Ministry of Land Management, Urbanism, and Construcion
- Kampong Cham Provincial Court
- General Department of Construction
  (For information)
- Kampong Siem District Court
- Office of Land Management, Urbanism, Construction, and Land
  (For action)
- File

Annex 9
Minutes of Public Discussion

Kingdom of Cambodia
National Religion King

Minutes of discussion about
IEIA report on Transmission Line Project 230kV of Cambodian Transmission Limited
In Bateay, Chueng Prey, Prey Chhor, and Kampong Siem district district, Kampong Cham province

At 0830hrs on February 17, 2009 in Conference room of MIME office, there was a meeting to discuss on Transmission Line Project of Cambodian Transmission Limited in Bateay, Chueng Prey, Prey Chhor, and Kampong Siem district (Kampong Cham province) chaired by **Mr. Suon Dy**, Chief of MIME office.

Attendance:

1- Dr. Ly Sapor Mony	Director of GCT
2- Mr. Lao Savon	Staff of GCT
3- Ms. Ngeth Chanthan	Staff of GCT
4- Mr. Lam Shih Yih	Project Manager
5- Mr. Mohd Nizam Bin Mohd Nawi	Manager Transmission Limited
6- Ms. Nuon Lakhena	Admin. Manager, CTL
7- Mr. Ren Net	Staff of Cambodian Transmission Limited (CTL)
8- Admin. Manager CTL	Staff of CTL
9- Mr. Yin Vuntith	Secretary General of Kampong Cham provincial court
10- Mr. Phuong Tyna	Deputy Director of Water
11- Mr. Srey Savoeun	Deputy of Prey Chhor District
12- Mr. Suo Mai	Deputy of Chhoerng Prey District
13- Mr. Prak Noma	Deputy of Administration Forest Commune Office
14- Mr. Kim Dy	Deputy of Kampong Siem District
15-Mr. Pok Savuth	Deputy Chief Office of Provincial Environment
16- Mr. Pon Run	Chief of MIME Office
17- Mr. Pann Lim Chhoeu	Deputy of Bateay District
18- Mr. Chen Sophanna	Deputy of EDC Office
19- Mr. Chhorn Vutha	Staff of MIME Office

After manual discussion, the chairman of the meeting informed that: the discussion is to check on the IEIA report of transmission line project from Udong to Kampong Cham province.

Mr. Suon Dy: The investment on transmission line project 230kV was already approved by the royal government for Cambodian Transmission Limited to construct and also the IEIA report needs to be reported by Green Consultancy Firm by Dr. Ly Saphor Mony. Therefore, in order to make National Transmission System positive for the environment and society economy, I would like to request all participates in the meeting today to pay attention on the presentation so that you can share comments on this investment to make it successful in the future.

I would like to inform that Cambodian Power Development Policy has two main objectives: (1) in year 2020, all the villages in the country has power supply including power from battery. (2)

in year 2030, 70% of Cambodian resident has power supply with high sufficiency and efficiency; these are the main goals of the royal government and Ministry of Industry. For the National Transmission System from 2008 – 2020, Ministry has implemented as per its corporate planning and project.

Dr. Ly Sophor Mony: I am the director of Green Consultancy Firm; Green Consultancy Firm was requested to provide service and evaluation (IEIA) on the transmission line project 230kV of Cambodian Transmission Limited running across Kampong Spue, Kandal, Kampong Cham province with length 97.20km; before, we studied in November 2008, it was 112.17km from the south of Pring Bey Doem School toward north of national road going to Kampong Cham province. But in January 2009, the company has changed at (IP) 13 to 15 in the south of national road with length 15km, so the transmission length decrease to 97.20 km only in which 15.5km less and the company can reduce the expense on the construction. I would like to appreciate the technician of the company; the length of transmission line 97.20km = 279 towers crossing 6 districts in 03 provinces, 24 communes and 76 villages. The transmission line will be crossing substation in Udong district starting from IP1 till Bateay district at Pornhea Lue district, Kandal province border across Chhoerng Prey, Prey Chhor district ending at IP15 in Kampong Cham substation. The work team of IEIA who conducted Ecology Observation asked why it takes 97.20km? And how this area affect the 279 tower in which Kampong Cham has the most land cover from tower 70 till tower 279. The work team studied the conditions of the natural resources and the land use in that area and other related points. At this distance, the work team spends about one week or ten days to complete but since the work team could not work in the field in November, it took about 40days to complete the work; the work team was divided by 3 groups and worked seven times to complete. Tower 70 at border Pornhea Lue district, Kandal province and Bateay district, Kampong Cham province the water is 3m dept and the work team used the boat to do measurement and that area is a flooded area but there is no flooded forest that can affect to the fishery; also most of the land is rice field and small plantation along the national road only. The other location, the water is very deep at Trol bridge in Chea Lea commune that is on the right side until dam near Bateay district; besides this is about the rice field and some house areas. Please look at Kampong Siem district, how is the landscape? It is from tower 274 to tower 279 which is the abandoned land near the village in which there is a lot of rock that is not needed by people in Kampong Cham provincial town.

Our work team conducted interview and discussion with local people including chief of village, chief of commune, and governor of district. Look at the report, what did they comment? We read the report, we see that there is no reason that people not agree with the project because they are lacking of electricity power; though there is no connection to the transformer of each tower for them to have power supply now; it is import to have power supply in provincial town as per chief of MIME office mentioned the goal in 2020 & 2030. Due to economic development, Kampong Cham province is very good at agriculture- industry section that power supply is its mains need. If we have enough power supply, we will consider other section artificial industry; if the electricity cost is cheap then the production is also cheap in which we can compete in the market or even with international market; this is the multi-goal of transmission line construction. Our work team also discussed with commune level and its local people with other village, commune and district level. How is the land used for the 279 towers? For example, tower 1 is a lake located in Sdouk Ampov village, Ksame Ksan commune, Udong district, what is the owner's name & telephone number? In conclusion, most of the land is rice field and because the transmission line is behind the village area such as tower 72-74. The land is used to store water belong to Sambo village, Sambo commune, Bateay district, Kampong Cham province. If you have any question or doubt, you may bring it up when I have finished the presentation.

The study about Kampong Cham province: (Please refer to table 3-1 in Chapter 3).

Environment condition, the landscape is flat accept the landscape in Bateay and Kampong Siem district which are a bit up and down. However, the climate and geography is necessary to explain because the land related with the transmission construction is less than 16.54 hectare. The ecology in the transmission area is not remarkable because most of land is rice field and there no presence of wild animals living there; there is only small plantation field between the small hill in the south of national road no. 6 in Bateay district. Most towers are installed in the rice field which is the main agriculture (growing rice) for the community.

Besides, the economic development is in provincial town, most area is about the countryside though there are some small gathering areas along national road such as Udong, Bateay, Chhoerng Prey, and Prey Chhor, Kampong Siem and Kampong Cham district. The transmission line area is far from historical area. Due to study, Ithros mountain (Udong Mountain) resort is the nearest located in Pornhea Lue district and Phnom Bros Phom Srey Mountain and Chhoerng Prey Mountain are the nearest in Kampong Cham province. However, there isn't an ancient object found in these areas.

Due to the study for almost two months, we can make conclusion as below:

The transmission line project 230kV with length 97.20km has low affection to the environment and society and it is acceptable for its multi-benefit due to environment and society conditions. She compensation and authorize transfer the land is made under policy between EDC and the family who are suffered. This project will provide reliability of power supply in Kampong Cham and decrease electricity cost but increase power supply that can improve the economic field for medium and long period. Related to this case, I would like to mention one example in Malaysia and Thailand; this transmission line does not need to evaluate the environment case because it is assume that in order make development in one country, power supply is the most essential factor and since most of the transmission line is high up from the ground; for example, tower with 25 – 35m height; the part to store the power is about 10m high from the ground; therefore, it does not affect seriously. Generally, the transmission line is high up from the ground with capacity 100kV up, the most important is to increase the Magnetic field which increase due to electron; if we stand under the tower, we will hear the sound but the technology used for construction is related to the creation of electronic magnetic field that causes little affection to human health and the living of people in that area. The power transmission under the ground is the most worried and needs most attention because it is across water system. The two main causes for water system under the ground: (1) it spoils the water quality, making the water taste brackish and (2) it decrease the water amount in the ground. The power transmission line of Cambodian Transmission Limited cooperates with EDC is to install tower on the ground, therefore, it cause very little affection to the environment and society. Another impact related with the environment and society is to bring machinery such as Bulldozer and Excavator to the working site in order to construct the tower. Most towers is in the rice field in which is related with the dike of rice field and we need to clear the dike of rice field in order that the machinery can go in to work at the site. It is just a small problem that happens during the construction period; but with compromise with the land owner, they requested for compensation to repair back their dike.

Another affection on the rice field that is about $15m^2$ and some place is $25m^2$, the affection is not much and in order to have construction in that area, the contractor together with EDC and MoEF must negotiate with the land owner and make agreement due to the land rate in the market in that area. Therefore, the social conflict is reduced; we cannot construct tower on the land that is not negotiated with the owner yet, so the problem can be reduce to 100%. Since the project has little affection, we don't need to have environment management like other complicated project like mining. The most important is to make sure that Cambodian Transmission Limited and EDC

cooperate with Department of Evaluation Department have cooperation with local authority village, commune, district, and province really monitor on environment management plan as per table 1 & 2 of the IEIA report and we know they really implement the environment management plan properly. The monitoring should be made before and after the construction. For example, if we want to know weather Bateay district was completely conducted study before construction in June 2010, we must visit one time if needed, but if not, we just refer to the working report. And during construction, we should have one visit to see if the waste of the land is in order and tidy and after construction, to see weather or not they have clear the land to return like before construction. This is the most important point in monitoring and evaluating the implementation of environment plan of Cambodian Transmission Limited. For the social issue, we just make sure that all the family who are suffer receive compensation fairly or not.

Mr. Yin Buntith: I would like to ask how far it is from the power transmission to the national road?

Mr. Ly Sophor Mony: We cannot define the exact distance; it depends on the turning point where the tower is installed. In the map, after Prek Kdam river, close to national road and across the road at Thnol Robot village and continue until road corner about 500m, continue to Bateay commune behind Bateay Mountain about 2,000m from the national road; the distance from the national road is not the same. It is just the first judgment, not only our work team, the company also cooperates with some other technical team that has Topography machine, so distance from the national road will be defined clearly and exactly but now our work team has not provide the company to check again.

Mr. Yin Buntith, Secretary General of Provincial Court: I know that in 1994 there was one Anucret related with culture. Does this project affect any resort or cultural area?

Mr. Ly Sophor Monu: Phnom Bros Phnom Srey and Chhoerng Prey Mountain are on the right side of Kampong Cham – Phnom Penh road and the transmission line running to Chhoerng Prey Mountain is on the left hand side. For social and cultural resource, only Udong Mountain, Chhoerng Prey Mountain resort, and Phnom Bros Phnom Srey Mountains are near but they are not affected.

Mr. Prak Noma, Deputy Khan Administration of Forest: Power resource is very important for country development. What are the conditions related with transmission tower such as trees are not allowed to grow and other construction is not allowed on the transmission road? This long term project running, transmission line forward is crossing old forest in which the government will grow new plants, so I would like to know how is the arrangement in the future?

Dr. Ly Sophor Mony: As per table 1 & 2 about the environment management plan, if the transmission line runs across the village land and close to the road that has tress such as mango, coconut, and palm fruit tree or any place that is affected, Cambodian Transmission Limited will negotiate because they needs to be cut down. If the trees are cut, we need to pay compensation to the owners of the trees due to type of tree. For example, one mango tree he sells for one million riels, so we need to calculate how long it can provide fruit for him in the future but multiplying the number of years it can produce fruit with the cost. EDC cooperates with Cambodian Transmission Limited will work with the community. I know that nowadays, the Administration of Forest does not any plan to grow trees. Therefore, I think that Administration of Forest will send it technician officer to study how far it is to grow the tree away from the transmission line. If there is a plan to grow the tree, who will set up conditions? The company or Administration of Forest?

Dr. Ly Saphor Mony: I think there is a distance limit on how far is not allowed to grow tree, it can be 20m or 30m far. As I have mentioned earlier, Cambodian Transmission Limited and EDC is the one who responsible. For example, DCC depends on the negotiation if it include in DCC to responsible. If Cambodian Transmission Limited does not accept, then the EDC and MoEF will be the one who responsible. I would like to ask you back if the transmission line is BOT or just a Constructor? If it is a Contractor, it is not related, but if it BOT it means Build Operate and Transfer, so they are different. Build and Transfer is DCC. If this transmission line is the national line, EDC just cooperate with Cambodian Transmission Limited only. For example, I would like to compare CTL with CPTL of Oknha Ly Thaipeang who bought power from Thailand across Poi Pet going to Banteay Meanchey, Siem Reap, and Battambong province, he received loan 20 million USD and he has in hand16 million USD; the transmission line is contructed under BOT, meaning that build and operate for 30 years and after that he will transfer to government, EDC. Since he has money that is called Pro-Finance and some money is from ADB that he has to deal with EDC until ADB can accept it. The difference is that the land that he construct is on (ROW) Right Of Way of national road 5 & 6. Fo r the construction, needs to read the law of Ministry of Public Work and Transportation. Nation road no.6 is 25m from road axis and national road no. 5 is 30m from the road axis so he must install the tower in the ROW area that cannot affected other land. CPTL tower is different from CTL tower that has $15m^2$ or $25m^2$, so for each tower 200 – 400 m^2 of land side is needed. However, for CPTL that has Competual with width 1.2m and length 1.8m, height 2m is installed in the land with putting the stone and cement floor on the top so that is take small space and from one tower to another is only 80m.. But CTL is Steel Power made from metal, from one tower to another is 230m.

Mr. Chen Sophanna, Chief of EDC Office. Why it is needed to evaluate on environment impact. It is necessary for all kinds of project in Cambodia need to have primarily or completely evaluation on environment impact due to the size and type of each project. Therefore, EDC and CTL must prepare documents to submit to department until Inter-Ministries to evaluate and this is only the primary evaluation of the study and discussion with related institutions in order that the consultancy company can amend it and submit to Ministry of Environment. The power transmission line is increasing as well as the power supply in the provincial town and city. To me, I am also having a transmission line from Phnom Den Mountain to Phnom Penh and I have some relevant documents to inform. I am interested when the company mentioned about road issue, but I focus on the point to install the tower, as I know we need land 15m x 15m, but at turning point we need land 20m x 20m or 25m x 25m. Therefore, 279towers needs several Ha of land that affects on people's land and needs to have negotiation and solution in order for the company to process the transmission line project Phnom Penh – Kampong Cham or Kampong Cham – Phnom Penh. For the related land, I would like to request land authority to allow me to prepare a letter on behalf of EDC to H.E. Provincial Governor to request for one relevant district, commune, and village officer to solve about the land that needed to install tower and solve about trees and houses that are affected. To bring the machinery to work in the site may also affect people's land and plantation. Therefore, the contractor must arrange it back for them. Affection on the trees (1) community land or state land, we can solve this problem; (2) for people land, we must pay compensation for them. I would like to mention about the policy on how to pay compensation for the affected land that have been implemented; I informed in detail to the commune and village level so that they will further inform people in advance. For safe, from road axis 15m (both side) we allow growing plantations less than 3m height such as rice, sugar can, banana, etc. Therefore, I would like to request provincial authority, district authority, related institutions, village and commune to cooperate with us to solve the land issue.

Suon Dy, chief of MIME provincial office: I would like to thank all participations from district governor, ministries, and related institutions who have attended in this discussion of IEIA.

After having listened to Dr. Ly Sophor Mony, local authority, and related institution's manual discussion on CTL's project, we can assume that result of IEIA is acceptable and thank to Green Consultancy Firm and its staff who worked hard on the study to get such result the meeting can accept. On my behalf of provincial governor as, I would like to request CTL to faster the transmission line construction soon after all related issues have been settled down because the demand of power is increasing nowadays, not only in Kampong Cham province, but also in other countries as it will help to reduce poverty as well.

The meeting was adjourned at 1100hrs on the same day under warm atmosphere.

Made in Phnom Penh, February 20, 2009
Minutes taken by: Lao Savon

Kingdom of Cambodia
National Religion King

Minutes of discussion about
IEIA report on Transmission Line Project 230kV of Cambodian Transmission Limited in Pornhea Lue district, Kandal province

At 0930hrs on February 19, 2009 in Conference room of Kandal provincial court, there was a meeting to discuss on Transmission Line Project of Cambodian Transmission Limited Pornhea Lue district, Kandal province chaired by Mr. Bong Ly, Deputy Secretary General of Kandal provincial court.

Attandance:

1- Dr. Ly Sapor Mony	Director of GCT
2- Mr. Lao Savon	Staff of GCT
3- Ms. Ngeth Chanthan	Staff of GCT
4- Mr. Lam Shih Yih	Project Manager
5- Mr. Mohd Nizam Bin Mohd Nawi	Manager Transmission Limited
6- Ms. Nuon Lakhena	Admin. Manager, CTL
7- Mr. Ren Net	Staff of Cambodian Transmission Limited (CTL)
8- Mr. Chhil Phalla	Deputy District of Fishery Administration
9- Mr. Huot Vanthou	Deputy chief of MIME office
10- Mr. Liim Gnuon Kruy	Deputy chief of Agriculture office
11- Mr. Yun Yuvarith	Chief of administration of forest
12- Mr. Ben Sophakda	Staff of society and environment office (EDC)
13- Mr. Keat Bo	Deputy Governor of Pornhea Lue district
14- Mr. Mey Chetra	Deputy chief of Urbanism, Land Management & Construction office
15- Mr. Som Chivon	Chief of economic provincial court
16- Mr. Ben Sokhon	Chief of Energy office and Industry office
17- Mr. Sum Sarit	Chief of Environment Office

After manual discussion, the chairman of the meeting informed that: the discussion is to check on the IEIA report of transmission line project from Udong to Kampong Cham province.

Dr. Ly Sophor Mony: I am director of Green Consultancy Firm, one part of manual discussion with relevant institutions in order to share comments to adjust on what I have prepared for Cambodian Transmission Limited's transmission line project to assure the environment and not affected on local community; it is our main objective of the manual discussion today. I would like to inform one of the main focuses of the government is on Electricity Power Supply field for countryside by 2020 & 2030. The source of power is from south of Vietnam crossing Takeo, Kampong Spue, and Kampong Cham province with length of 285km; in which Cambodian Transmission Limited (CLT) is the one who construct transmission line from Udong district to Kampong Cham province with length 97.20km.

Please see Table 3-1 in chapter 3 (Transmission line crossing Kandal province)

Due to geography condition, the landscape of most the transmission areas is flat, accept the area before Bateay district that is up and down. Climate and geology data is not necessary to mention because the length 97.20km is less than 20 hectare and the bottom size of the tower is only

$10m^2$ - $15m^2$ only; especially in Pornhea Lue district and Bateay district. In Chea Lea commune near Tral Bridge, the bottom of the tower is made from Steel Tower in T-Shape or U-Shape at the deepest point is $20m^2$.

Before showing the pictures about ecology, I would like to read it out and maybe all of you who live near Phnom Penh know this place. In conclusion, the ecology in the transmission area is not a concern as gentleman from administration of water has mentioned that the area is flat but since we construction in small and deep area, we need to install construct power before installing steel tower in order to power transmit and other steels bar. We will put concrete up high from the ground then we construct steel tower, the size of land needed is $400m^2$; however, the lost land is a concrete pole 30-$40cm^2$. The place that fish lay eggs during rainy season is Bateay and Pornhea Lue district. But it is not a flooded forest that we need clear to bring machine to work in the site.

The transmission line project in Malaysia and Vietnam, the IEIA is not made because the benefit for economic development is more and the affection on environment is less. But in Cambodia, it is different. Environment Category is divided into 3: Category A is Serious impact, Category B is medium impact, and Category C is low impact. Our study on society and environment is quality, not quantity. Related with the cultural and historical area, Udong is the nearest mountain which is about 3.5km from the transmission line but it is not affected. 8^{th} tower – 19^{th} tower are located in Pornhea Lue district, the 1^{st} tower is nearby national road, it can be in front or behind the house, or next to the house but there is no serious impact; what we concern and need to do is to pay compensation, for example, the 8^{th} tower is resident house in Pornhea Lue district, due to the construction plan; we need $15m^2$ of land. What is the policy of EDC and MoEF for this issue? EDC & MoEF needs to pay compensation to buy the house and land from the owner at agreed cost. Due to the picture, some place across rice field, some across flooded forest; for example, if the transmission line 97.20km is near the palm tree, EDC needs to cooperate with local authority to find owner to cut down the tree and pay compensation. Not only palm tree, but also other trees such as mango, coconut, or any trees that belong to resident and affected by the transmission line, EDC and the company must cooperate and meet with the local authority. In Pornhea Lue district, there are 61 towers with 70 families, therefore, EAC must meet with those families in order to negotiate with them for an agreed policy, EDC cooperate with MoEF needs to pay compensation for the families who are suffered. The rice field under transmission line is fine because the distance from one tower to another is 320m – 350m and each tower is 35m height. The transmission line 230kV will affect anything or not? The electron field will make sound but it will not disturb environment and society because it is overhead. If the transmission line is underground, it will spoil the quality of water, making the water tasteless (Water Taboo).

In conclusion, the transmission line 230kV with length 97.20km has little impact and it is acceptable due to environment and social conditions and for multi- benefit to economic development. The compensation for the land that is affected by the tower construction is based on negotiation policy between the company with families who are suffered. This project will assure the reliability of power supply in Kandal province and decrease the cost of electricity, but increase power supply and help to develop economic field for medium and long period.

As comment, Cambodian Transmission Limited has its main responsibility on environment management of its project based on methods of management in IEIA report and environment management plan and must comply all methods to reduce affection on environment and society as per table 1 & 2; EDC must cooperate with department of environment evaluation to conduct inspection on the project implementation (1) conduct inspection before and after construction, (2) monitor other tasks as per mentioned in environment management plan, especially, paying compensation for the families who are suffered.

Mr. Lim Gnoun Kruy, Agriculture Office in Kandal province: The Company needs to meet with the land ower to clarify the benefit and solution for them. One company name Phanny Mex, having license from CDC, so any project across this land, needs to have negotiation, company needs to pay compensation on how the land is affected. For rice field, it is affected on agricultural land because most family depend on growing dry season rice. We need to conduct study in advance to find out about compensation amount and find solution due to the people's account effect, not work first, and pay compensation later. We cannot force them because it is opposite with the government policy. We need them to agree by themselves because some place it affects their whole house and rice field, so if the we give the price that is not acceptable for them, it will affect on the living standard.

Ly Sophor Mony: As I have mentioned earlier, Cambodian Transmission Limited is not responsible for any other beside Construction. The transmission line is the national transmission line or we can say that for the national transmission line, Malaysia partner is selected for the construction. Nowadays, this company is supplying power in Phnom Penh, 35MW, in Chak Angre Lue II district, besides construction, CTL is not responsible on any other. I would like to clarify that the company is not the one who meet and discuss with local people or land owner, but the company can find other independent agency to discuss and does not have right to set the price of the land and house. We just get information about people who are suffered, their land, and their rice field together with the project to submit to EDC and MoEF who is the committee to find solution to pay compensation for those people to find now house, etc.

We all know that power 230kv is such a big economic potential that cannot be compared with less land that is affected. I understand that Pornhea Lue district is good for growing dry season rice and can provide lot of rice, but on the 97.20km length with 279 towers, it needs only 16.70 hectare of land that it will not affect on the rice production for Ministry of Agriculture. Is there any cultural center or modern construction in this area? If yes, I think that it is easy of Phanny Mex company to construction transmission line by just connecting substation with the power used in that area, so the company should be happy for transmission line construction and how this construction affect is on EDC's policy to deal with it.

Mr. Yun Yuvarith, Forest Administration: Will the transmission line construction affect on people's health? Will it cause lots of lightening? How high is the lowest line?

Mr. Ly Sophor Mony: This transmission line construction is an international standard investigation, so it will not cause any bad ipact, accept accident by storms or helicopter crashing the towers that is rarely happen and no need to mention. The only daily problem is the sound of electron field that you only hear when standing under the tower, but it does not affect on human's health.

I would like to clarify that the lightening is not caused by electricity current, the metal power will absorb the lightening, but I am not sure how many lightening protection bars are installed per each tower. Two years ago I conducted evaluation on one project 115kV; each Conrad poll is installed with two lightening protection bars and it is in process until nowadays, but never have any lightening on it. For example, the transmission line from Stung Chhral never causes any lightening accident or shock people to death. Each tower is 25m height and the power is up high at 8.5m, so it will not cause any affection because 230kV is equipped by Double Circuit and the lightening protection bar is installed in a technical way that is called Reverse by Effect, so there is no affection of electro magnetic field.

I would like to clarify that I am just a Consultant company; the one to deal with this problem is EDC and MoEF. Therefore, the operator is these two institutions and this project was already approved by the royal government but needs IEIA to reduce affection on the environment and society.

Mr. Ben Sokhon, Chief of Energy and Industry Office: The Company is just a construction contractor; it is not responsible to deal with any problem. I used to work on this kind of project from Vietnam to Phnom Penh by having work team, sub-provincial committee, and inter-ministerial committee. The work team must study not only on the cost of land, house, trees, and other affected areas but also study on the cost of other location in order to send the total cost to MoEF to set policy to deal with those who are involved. For transmission line 230kV, we have some methods to reduce affection on the environment and society, all trees higher than 3m must be cut down and the tower must be 15m x 15m. Therefore, local people need to cooperate with us by counting number of trees that are cut down in order to agree on the compensation payment. Then, we need to may contract agreement with them and pay for the compensation. The problems that was mentioned in the meeting earlier regarding with the affection on Phanny Mex Company, is not under responsibility of Contractor to deal.

Mr. Keat Bo, Deputy of Pornhea Lue district: Authority in village, commune, and district agreed on the development but the affection on Phanny Mex Company, the construction contractor has agreed with each other on the construction plan and technical already. Therefore, if there is any project that will affect on the construction, it will be different from what they have agreed with other earlier. This is what I want to mention because Phanny Mex Company's width land is 3km. For resident's land affection is not a problem because the compensation has been made for them. But for the affection on Phanny Mex Company is a difficult issue.

Mr. Sum Sarit, Chief of environment provincial office: I agree with the work team who has conducted study where is easy to get affection on environment. Kampong Luong district and Koh Chen district are considered Ministry of Inferior and Ministry of Environment as the place that is easy to get affection on the environment, especially, flooded forest.

Dr. Ly Sophor Mony The affection on the land is little and the land that environment office said it is easy to suffer is in Kampong Luong commune and Koh Chen commune. He said that it will affect to the flooded forest but due to the study, it is not related with the flooded forest. The study is based on technical standard. Representative of EDC mentioned that the team work, sub committee and EDC and local authority will deal with this issue but so far the towers are not constructed yet. Before constructing the tower, we need to study about construction design because each tower is different and we need to use Topography machine to check one by one and maybe need to use the Differential GPS in order to know the space between each tower, if necessary.

We are not sure weather to build tower in the lake or divert it into steel tower which has 50m height and gap between 500m – 600m. It is not Actual Filed Survey for construction design. Representative of the contractor company said that the construction will start in dry season next year. I understand the concern from the local authority but this concern seems to be early.

The meeting adjourned at 1030hrs on the same day under warm atmosphere.

Made in Phnom Penh, 23 February 2009
Minutes taken by: Lao Savon

Kingdom of Cambodia
National Religion King

Minutes of discussion about
IEIA report on Transmission Line Project 230kV of Cambodian Transmission Limited
Udong district, Kampong Spue province

At 0830hrs on March 02, 2009 in Conference room of Kampong Spue provincial court, there was a meeting to discuss on Transmission Line Project of Cambodian Transmission Limited in Udong district Kampong Spue province chaired by **Mr. Kong Heang**, Governor of Kampong Spue province.

Attendance:

1- Dr. Ly Sapor Mony	Director of GCT
2- Mr. Lao Savon	Staff of GCT
3- Ms. Ngeth Chanthan	Staff of GCT
4- Mr. Mohd Nizam Bin Mohd Nawi	Manager Transmission Limited
5- Ms. Nuon Lakhena	Admin. Manager, CTL
6- Mr. Ren Net	Staff of Cambodian Transmission Limited (CTL)
7- Mr. Sao Sathya	Provincial cabinet
8- Mr. Pann Kong	Deputy of provincial cabinet
9- Mr. Lay Kemsong	Chief of Land Management and Construction Office
10- Mr. Lam Kimleng	Chief of MIME Office
11- Nguon Veasna	Deputy Governor of Udong district
12- Mr. Chen Dara	Chief of EDC in Kampong Spue province
13- Mr. Chen Sophannara	Deputy chief of EDC in Kampong Spue province
14- Mr. Phom Sam Ol	Chief of Technical office, EDC

After manual discussion, the chairman of the meeting informed that: the discussion is to check on the IEIA report of transmission line project from Udong to Kampong Cham province.

Dr. Ly Sophor Mony: I would like to brief about the construction of transmission line project 230kV which is EDC's project cooperates with Cambodian Transmission Limited from Malaysia to construction transmission line for EDC purchased power from south of Vietnam across Takeo, Kampong Spue, and Kampong Cham province for the total length of 285km, in which starting from substation in Udong district and ending in Kampong Cham province with length of 97.20km = 279 towers; there is only one district in Kampong Cham province, the substation is located in Ksame Ksan commune and there are 5 towers in Kampong Spue province, 3 tower in Sdouk Ampov village, and 2 towers in Trapaeng Krosang village. The substation occupied on 5hectare of land ending by the 7th tower and 8th tower on the right side in Pornhea Lue district. For the 7 towers, there is no worry about the land condition because it is not crossing the forest and so no ecology; the owners of the land are: Bunna and Chap Chan Sat, (the 4th tower) not meet, (the 5th tower) the owner live in Phnom Penh, (the 7th tower) owner live in Tropaeng Krosang village, Sorn Doen and Ket Sreymom. towers are across the rice field, and 1 tower on the villager's house.

I would like to inform the affection caused by the transmission line construction. Due to the geography study, it shows that actually the transmission towers are in the rice field and due to EDC's policy is negotiate with people who lose their land and pay compensation according to land lose. The other thing is that it will affect on the land used for cultivation. The metal tower size is

$15m^2 – 20m^2$ depends on the place to install each tower. In Pohnea Lue district each tower size is between $15m^2 – 20m^2$ and the related land is between $100m^2$ or $200m^2$. Therefore the size of affected land is not much. For example, if we want to bring machinery to, we need to clear the rice dike or dike first before starting the construction. There must be a representative from EDC to lead working team to cooperate with local authority: village, commune, district, and province in order to negotiate with the land owners about affected land. The other issue is about the transmission line under the ground, but this transmission line is overhead on the tower. Therefore, there will be disturbance from electromagnetic but due the technical arrangement, the disturbance will not happen. It is not only one time that EDC do experiment in work. Udong Mountain is the historical place located 5-6km from the transmission line, so there is problem or affection to concern.

In conclusion, I would like to inform that (1) The installation of transmission line 230kV on 97.20km length has little affection only and this project is acceptable due to the environment and social conditions for economy development. For the compensation to the land owners how lose the land and house will be under charge of EDC and the company. (2) This project will assure the reliability for power in Kampong Cham and makes the cost of electricity power decrease, but increase the amount of power supply to improve economy field for medium and long period. The company needs to assure for environment management based on the Environment Management Plan as per mentioned in the IEIA report in order to reduce pollution and affection on the environment and society, shown in table 1 and table 2 of my report. EDC needs to cooperate with Department environment evaluation to inspect and monitor the project implementation during and after construction period and monitor on other tasks mentioned in Environment Management Plan. For the monitoring from EIA, I believe that EIA will cooperate with local authority as well as the other related constitution to conduct this work. I would like to end up here and give the floor to all of you to ask questions and reveal doubt or misunderstanding for me and representative of EDC, as well as the representative of the company as we all are here to answer all your questions.

H.E.Kong Heang, governor of Kampong Spue province: How high is the transmission tower? How far is it from one tower to another?

Dr. Ly Sophor Mony: The general height is 25m from the ground and the lowest point is 8.5m; from one tower to another is 320m – 350m depends on the landscape; if it is across river, it is about 625m.

H.E. Kong Heang, governor of Kampong Spue province: We all welcome to this transmission line project because it will decrease the price of electricity and help development. However, most of local people are not aware of any accident caused by the transmission. There is one transmission line from Kirirom, it caused death to people every year; that time I was just a deputy governor and I did not complaint with the Chinese Company named Sitech that cooperates with MIME. I told the boss of the company, but he said it could not be changed and it was difficult to change because it was related with many lines. I told him that the lines were too low and would caused accident to people. As per experience so far, people were not aware of electricity current when he raised up the bamboo tree to put microphone, it shocked him until death. In the first year of connecting transmission line from Kirirom, it caused 3 people died, then about one or two died every year. Now the transmission line has capacity 230kw which is bigger than transmission line from Kirirom, 150kw. I would like to request to build transmission tower 25m – 30m high from the ground and at the lowest point 12m, if not, it can be 10m as long as it is higher than bamboo tree. Although it is the standard construction, it can be related with people living and working. Also, people are not aware of the accident like power in other country; therefore, we need to make sure that no accident will happen. For transmission line project, we need to put up sign to prohibit people

from climbing up or surrounded with wire. Therefore, kindly representative of EDC clarify this worry.

Mr. Chen Sophanna, Deputy chief of EDC, Environment Impact Department: I would like to add up Dr. Ly Sophor Mony's speech for H.E. Governor that: what Dr. Ly Sophor Mony has mentioned is just the IEIA, for the actual implementation, there might be some changes such as: for tower 230kV, the tower must be 40m – 45m high; and for the lowest point of transmission line must be 7.5m – 8m due to study from JICA, MIME, and EAC, with distance 400m from each tower. However, due to CTL study the distance for each tower is only 320m and the furthest is 350m. For the affection on the lands, houses, and trees, the company has cooperated with local authority and EDC that trees higher than 3m between the transmission line roads must be cut down, and it must be 15m away from the tower; the compensation must be paid to the owners. There must be prohibiting signs at each tower for not allowing any house construction under the transmission line.

Finally, the chairman of the meeting concluded the result of presentation of IEIA on this transmission line project and thanked to all participates for attending the meeting.

The meeting adjourned at 1030hrs on the same day under warm atmosphere.

Made in Phnom Penh, 04 March 2009

Minutes taken by:
Signature: **Lao Savon**

Annex 10
Kingdom of Cambodia
Nation Religion King

Regulation

In order to keep beautiful view for the city and ensure the strength of the building, refer to Anucret no. 86 Or.No.Kro.Bor.Kor. dated on 19 December 1997 and Anucret no. 62 Or.No.Kro.Bor.Kor. dated on 20 July 1999:

1- Before construction, the construction owner has to:

- Have detail plan of construction in order to request for construction license from Ministry of Land Management, Urbanism, Construcion, and Cadastral of the province.

2- During construction, the construction owner has to:

- Seek for the company or enterprise that has permission letter from Ministry of Land Management, Urbanism, Construcion and Cadastal of Kampong Spue province or Ministry of Land Management, Urbanism, and Construcion for making construction.
- Follow the detail plan of construction attached herewith and follow the architech plan that was approved.
- Keep safe for the building nearby and ensure order for the public such as making border to surround the site field, keep machinery or construction materials and hygien work, etc..

3- After construction, the construction owner has to:

- Have a certificate certified for correct construction as per plan from the Ministry of Land Management, Urbanism, Construcion and Cadastral of the province.
- Follow the policy from the government without any condition as per contract signed on date……. Attached herewith the application for construction license.

I am Ting Kong Hung, representative of Cambodian Transmissin Limited will follow the rule and regulation above without any condition. If I don't follow, I agree to let authority take action to stop the construction, fiscate, or not give the authorization or business and make report to the court.

Kampong Speu, 09 September 2010

Right Thumb print
Company Stamp

Ting Kong Hung

Ref.no.: 478/10 Dor.No.Sor.Sor.
Seen and Checked
Submitted to **H.E. Provincial Governor** to check and decide
Kampong Speu, 29 September 2010
Chief of Department of Land Management, Urbanism, Construction,
And Cadastral of Kampong Speu province.

Signature & Stamp

Lay Kimheang

Ref.no.: 562 Sor.Ro.Sor.Ro.Sor.Nor.
Seen & Agreed
Kampong Speu, 03 October 2010

Provincial Governor

Signature & Stamp

Kong Heang

Signature & stamp

Ting Kong Hung

Regulation

In order to keep beautiful view for the city and ensure the strength of the building, refer to Anucret no. 86 Or.No.Kro.Bor.Kor. dated on 19 December 1997 and Anucret no. 62 Or.No.Kro.Bor.Kor. dated on 20 July 1999:

4- Before construction, the construction owner has to:

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Kampong Speu, 09 September 2010

Right Thumb print
Company Stamp

Ting Kong Hung

Ref.no.: 592/10 Dor.No.Sor.Sor.
Seen and Checked
Submitted to **H.E. Provincial Governor** to check and decide
Kampong Speu, 27 September 2010
Chief of Department of Land Management, Urbanism, Construction,
And Cadastral of Kampong Cham province

Signature & Stamp

Dy Kaliny

Ref.no.: 6007 Kor.Chor.
Seen & Agreed
Kampong Cham, 23 September 2010

Provincial Governor

Signature & Stamp

Hun Neng

Signature & stamp

Ting Kong Hung