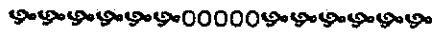
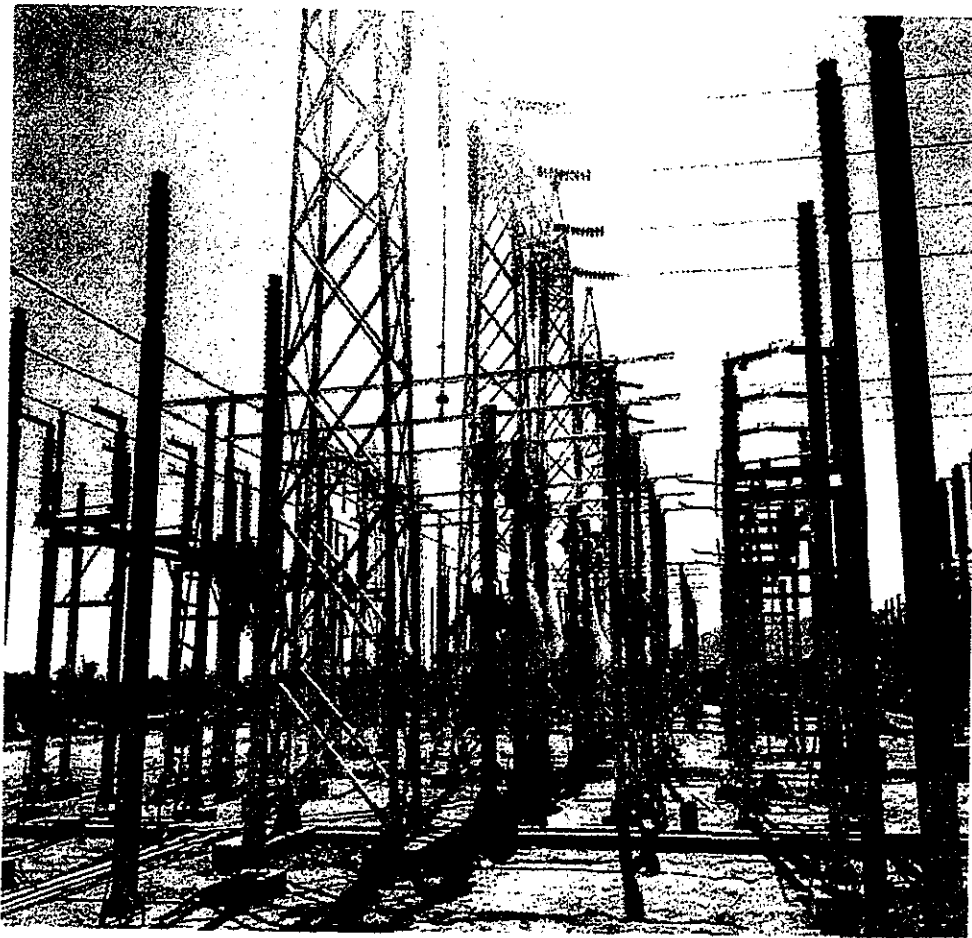


**LAO PEOPLE'S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY**



Mornitoring Report

**Implementation of Environmental and Social
Management for Savahnakhet – Saravan 115kv
Transmission Line Project
(Report from 6 MonthF, Year, 2017)**



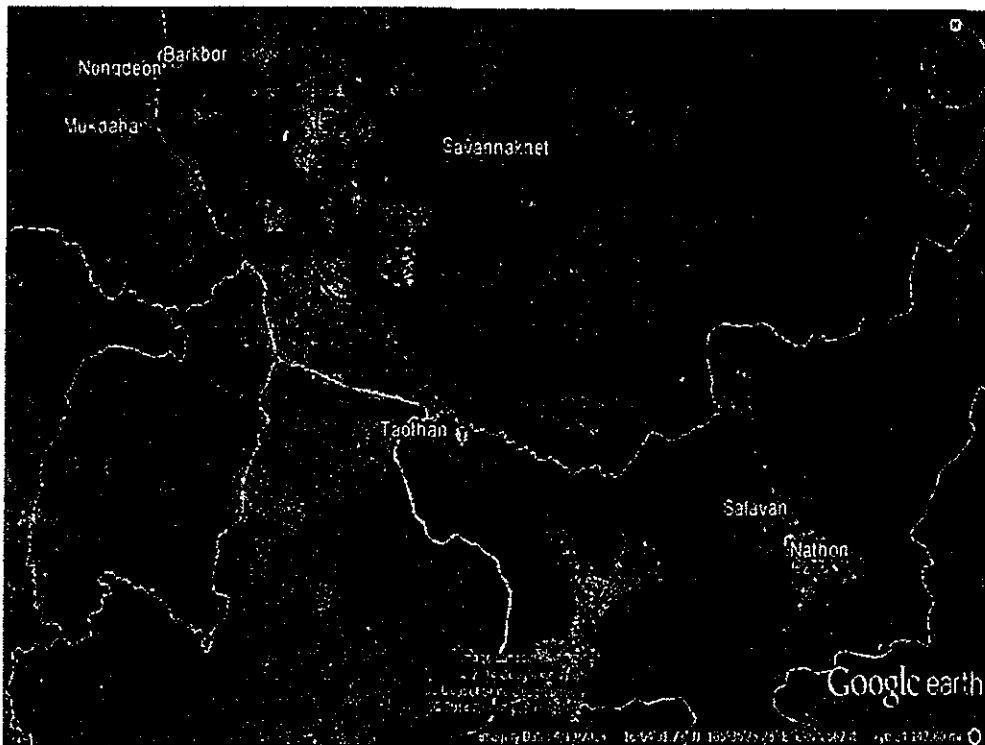
June, 2017

I. Introduction

According to the Government of Laos (GoL) development plan up to 2020 on the domestic electricity consumption and exports to the neighboring countries. In order to contribute in the GoL policy, the Electrification project, 115kv substation from Pakbor substation - Nongdorn substation in Savannakhet province through Taothan substation - Nathon substation in Saravan province is also one of the GoL development projects, which is supported from the Japan International Cooperation Agency (JICA). The project aims to supply the current electricity demand, which is more likely to increase as well as to connect the electricity network from upcoming dam constructions including the interconnection of the central and southern electricity network.

The length of Transmission line is about 226.9km, with 711 towers and consisting four substations which are: Pakbor substation – Nongdorn substation, Taothan Substation – Nathon Substation. Furthermore, the project is covering on two provinces, 7 districts and 90 villages, 890 HH which are: Kaisonephomvihan district, Champhone district, Xaiphouthong district, Songkhone district in Savannakhet province and Saravan district, Vapi district, Nakhonepheng district in Saravan province.

❖ Project location



- when workers do wear helmets, and wearing reflective vests, gloves and boots.
 - construction zone warning to dangerous construction footprints, the tower erection and stringing power lines.
 - the camp party workers have separate garbage each medicine cabinet and party workers camp.
- k. **Job location history and ancient literature**
The organization operates in construction zones and boundaries, and got through of the history and ancient literature based on the extent the project scope and implementation. the actual survey field is not found.

❖ **Measures to reduce environmental impact**

- a. **Management Clearance contour Line**
The implementation work cutting trees and bushes program recommended contractors is took wood and luxurious grass to the left where the guarantee is set for cutting trees if wood was allowed to people in the area.
- b. **Management of various types of waste**
 - waste using live daily from party workers camp program recommended construction contractor to dig the various types of waste.
 - Waste materials and construction of various types of building all the poles and along lines in implementing the contractors building the gathered waste window burn types of waste solid was buried and protected to prevent spread.
 - Agricultural soil from the pit building early Saturday every first Saturday will be the later pillars will bring the guard later on Saturday will bring the guard left holes Old nights Health renewed after construction completion.
- c. **Wildlife Management Areas**
Organize practical work areas along the construction line without affecting wildlife.
- d. **Management of soil erosion and sedimentation**
The organization operates mainly affect sediment to the rain which projects recommended contractors cement and waste land filling waste on board the ship.
- e. **Management dust**
The organization operates transport material construction services the areas of road construction contractors have water path one day 3 times to reduce the impact of air and the other is in the construction zone is in a field which is far away from residential areas.
- f. **Management structures of various types**
Organize practical tasks in construction zones and corridors transmission through the property of the people some of the impact which the Project Committee to coordinate and tucked the project signed MOU calculated compensating by getting consent from the property owner by unit price compensation received permission from the Governor of Savannakhet and Saravan.
- g. **Reduction affect water sources**
 - in building a canal dump kid drainage area of the construction area- each station.
 - in building container waste and waste from construction.
 - pit water from building.
- h. **Reduction impact air**
 - The service area construction contractors have water path 3 times a day to reduce impact. Air and other areas not in the building which is in a field far from residential areas.
- i. **Reduction sound effects**
Is not affected because the contractor has to schedule the work and the building is far from the busy commercial area housing people and according to consider the size of the construction as in the case of distance close to the accommodation (200m away from the building). it is not necessary to use measuring sound.
- j. **Management of health and safety**
Program staff office environment in the field and who have the training and supply of equipment to protect workers receive equipment to protect synchronous like:

Annex
From Monitoring Report

Monitoring Form to JICA

MONITORING FORM

Date: 30 December 2016

Location: Transmission line and Substation

Period: from January to December 2016

 Monitored by: Mr. Youthaxay SOMVICHIT
 Mr. Vanpaseut PHOMMAXAY

1. Responses/Actions to Comments and Guidance from Government Authorities and the Public

Monitoring item	Monitoring results during report period
Responses/Actions to Comments and Guidance from Government Authorities	None for this period

2. Mitigation Measures

- Air Quality (Emission Gas / Ambient Air Quality)

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Sprinkle water to control dust	Access road near village (nearby national road 13 South)	Daily in dry weather*	On completion of construction activities	<u>Month 01/2016:</u> None <u>Month 02/2016:</u> None <u>Month 03/2016:</u> None <u>Month 04/2016:</u> None <u>Month 05/2016:</u> None <u>Month 06/2016:</u> None <u>Month 07/2016:</u> None <u>Month 08/2016:</u> None <u>Month 09/2016:</u> None <u>Month 10/2016:</u> None <u>Month 11/2016:</u> None <u>Month 12/2016:</u> None

*Monitored and recorded the result by constructor daily and the record inspected by Environmental and Social Unit (ESU) monthly

- Water Quality (Effluent/Wastewater/Ambient Water Quality)

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Contamination of water in watercourse near the Thaothan Substation	No river/stream at Confluent point where effluent from the construction site of Thaothan Substation reaches	Monthly*	On completion of construction activities	<u>Month 01/2016:</u> None <u>Month 02/2016:</u> None <u>Month 03/2016:</u> None <u>Month 04/2016:</u> None <u>Month 05/2016:</u> None <u>Month 06/2016:</u> None <u>Month 07/2016:</u> None

Monitoring Form to JICA

				<u>Month 08/2016: None</u> <u>Month 09/2016: None</u> <u>Month 10/2016: None</u> <u>Month 11/2016: None</u> <u>Month 12/2016: None</u>
--	--	--	--	--

*Implement visual inspection by ESU

- Waste

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Construct hygienic human waste disposal systems such as a dig hole	Worker's Camp	Monthly*	On completion of construction activities	Location: T 1/0, T 88/0 <u>Month 01/2016: None</u> <u>Month 02/2016: None</u> <u>Month 03/2016: None</u> <u>Month 04/2016: None</u> <u>Month 05/2016: None</u> <u>Month 06/2016: None</u> <u>Month 07/2016: None</u> <u>Month 08/2016: None</u> <u>Month 09/2016: None</u> <u>Month 10/2016: None</u> <u>Month 11/2016: None</u> <u>Month 12/2016: None</u>
	Construction site (transmission line)			Location: T 1/0, T88/0 transmission line <u>Month 01/2016: None</u> <u>Month 02/2016: None</u> <u>Month 03/2016: None</u> <u>Month 04/2016: None</u> <u>Month 05/2016: None</u> <u>Month 06/2016: None</u> <u>Month 07/2016: None</u> <u>Month 08/2016: None</u> <u>Month 09/2016: None</u> <u>Month 10/2016: None</u> <u>Month 11/2016: None</u> <u>Month 12/2016: None</u>

Monitoring Form to JICA

	Substation			<p>Location: locate inside Substation</p> <p><u>Month 01/2016:</u> None</p> <p><u>Month 02/2016:</u> None</p> <p><u>Month 03/2016:</u> None</p> <p><u>Month 04/2016:</u> None</p> <p><u>Month 05/2016:</u> None</p> <p><u>Month 06/2016:</u> None</p> <p><u>Month 07/2016:</u> None</p> <p><u>Month 08/2016:</u> None</p> <p><u>Month 09/2016:</u> None</p> <p><u>Month 10/2016:</u> None</p> <p><u>Month 11/2016:</u> None</p> <p><u>Month 12/2016:</u> None</p>
<p>-Install garbage bins at the site</p> <p>-Make arrangement to dispose of recyclable waste such as paper, cans, tins, bottles, and cardboard</p> <p>-Dispose of non-recyclable waste such as vegetable waste at a dig hole</p> <p>*as for polythene, either to be recycled or disposed of at a hole depends on the availability of local collector</p>	Worker's camp	Monthly*	On completion of construction activities	<p>Location: T 1/0, T 88/0</p> <p><u>Month 01/2016:</u> None</p> <p><u>Month 02/2016:</u> None</p> <p><u>Month 03/2016:</u> None</p> <p><u>Month 04/2016:</u> None</p> <p><u>Month 05/2016:</u> None</p> <p><u>Month 06/2016:</u> None</p> <p><u>Month 07/2016:</u> None</p> <p><u>Month 08/2016:</u> None</p> <p><u>Month 09/2016:</u> None</p> <p><u>Month 10/2016:</u> None</p> <p><u>Month 11/2016:</u> None</p> <p><u>Month 12/2016:</u> None</p>
	Construction site (transmission line)			<p>Location: T1/0, T88/0 transmission line</p> <p><u>Month 01/2016:</u> None</p> <p><u>Month 02/2016:</u> None</p> <p><u>Month 03/2016:</u> None</p> <p><u>Month 04/2016:</u> None</p> <p><u>Month 05/2016:</u> None</p> <p><u>Month 06/2016:</u> None</p> <p><u>Month 07/2016:</u> None</p> <p><u>Month 08/2016:</u> None</p> <p><u>Month 09/2016:</u> None</p>

Monitoring Form to JICA

			<u>Month 10/2016:</u> None <u>Month 11/2016:</u> None <u>Month 12/2016:</u> None Location: T61/0, T62/0 locate inside the substation <u>Month 01/2016:</u> None <u>Month 02/2016:</u> None <u>Month 03/2016:</u> None <u>Month 04/2016:</u> None <u>Month 05/2016:</u> None <u>Month 06/2016:</u> None <u>Month 07/2016:</u> None <u>Month 08/2016:</u> None <u>Month 09/2016:</u> None <u>Month 10/2016:</u> None <u>Month 11/2016:</u> None <u>Month 12/2016:</u> None
	Construction site (substation)		

*Implement visual inspection by ESU

- **Noise:** Considering the scale of construction works as well as the distance from the nearest residential area (200m away from the site), it was concluded that it is not necessary to conduct noise measurement.

- **Vibration:** Considering the scale of construction works as well as the distance from the nearest residential area (300m away from the site), it was concluded that it is not necessary to conduct vibration monitoring.

3. Natural Environment

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Restoration of the site	Worker's Camp	Monthly*	On completion of construction activities	Location: : T11/0, T88/0 <u>Month 01/2016:</u> None <u>Month 02/2016:</u> None <u>Month 03/2016:</u> None <u>Month 04/2016:</u> None <u>Month 05/2016:</u> None <u>Month 06/2016:</u> None <u>Month 07/2016:</u> None <u>Month 08/2016:</u> None <u>Month 09/2016:</u> None <u>Month 10/2016:</u> None <u>Month 11/2016:</u> None <u>Month 12/2016:</u> None

				<u>Month 09/2016:</u> None <u>Month 10/2016:</u> None <u>Month 11/2016:</u> None <u>Month 12/2016:</u> None
--	--	--	--	--

*Implement visual inspection by ESU

4. Social Environment

Summary of Completed Land Acquisition and Impact Compensation

The procedures of land acquisition for Tao than Substation with total area of 5,800 m² have been completed. The land title on this has been issued.

(Please refer to main report of December 2016 for further details on summary of completed land acquisition and impact compensation) 100 %

which one? and others?

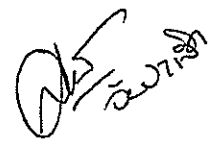
Date 30 December 2016

Recorded by:

Mr. Youthaxay SOMVIXAY



Mr. Vanpaseut Phommaxay.



Monitoring Form to JICA

MONITORING FORM

Date: 30 June 2017

Location: Transmission line and Substation

Period: from January to June 2017

 Monitored by: Mr. Youthaxay SOMVICHIT
 Mr. Vanpaseut PHOMMAXAY

1. Responses/Actions to Comments and Guidance from Government Authorities and the Public

Monitoring item	Monitoring results during report period
Responses/Actions to Comments and Guidance from Government Authorities	None for this period

2. Mitigation Measures

- Air Quality (Emission Gas / Ambient Air Quality)

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Sprinkle water to control dust	Access road near village (nearby national road 13 South)	Daily in dry weather*	On completion of construction activities	<u>Month 01/2017: None</u> <u>Month 02/2017: None</u> <u>Month 03/2017: None</u> <u>Month 04/2017: None</u> <u>Month 05/2017: None</u> <u>Month 06/2017: None</u>

*Monitored and recorded the result by constructor daily and the record inspected by Environmental and Social Unit (ESU) monthly

- Water Quality (Effluent/Wastewater/Ambient Water Quality)

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Contamination of water in watercourse near the Thaothan Substation	No river/stream at Confluent point where effluent from the construction site of Thaothan Substation reaches	Monthly*	On completion of construction activities	<u>Month 01/2017: None</u> <u>Month 02/2017: None</u> <u>Month 03/2017: None</u> <u>Month 04/2017: None</u> <u>Month 05/2017: None</u> <u>Month 06/2017: None</u>

*Implement visual inspection by ESU

- Waste

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Construct hygienic human waste disposal systems such as a dig hole	Worker's Camp	Monthly*	On completion of construction activities	Location: T 1/0, T 88/0 <u>Month 01/2017: None</u> <u>Month 02/2017: None</u>

Monitoring Form to JICA

				<p><u>Month 03/2017</u>: None</p> <p><u>Month 04/2017</u>: None</p> <p><u>Month 05/2017</u>: None</p> <p><u>Month 06/2017</u>: None</p>
	Construction site (transmission line)			<p>Location: T 1/0, T88/0 transmission line</p> <p><u>Month 01/2017</u>: None</p> <p><u>Month 02/2017</u>: None</p> <p><u>Month 03/2017</u>: None</p> <p><u>Month 04/2017</u>: None</p> <p><u>Month 05/2017</u>: None</p> <p><u>Month 06/2017</u>: None</p>
	Substation			<p>Location: locate inside Substation</p> <p><u>Month 01/2017</u>: None</p> <p><u>Month 02/2017</u>: None</p> <p><u>Month 03/2017</u>: None</p> <p><u>Month 04/2017</u>: None</p> <p><u>Month 05/2017</u>: None</p> <p><u>Month 06/2017</u>: None</p>
<p>-Install garbage bins at the site</p> <p>-Make arrangement to dispose of recyclable waste such as paper, cans, tins, bottles, and cardboard</p> <p>-Dispose of non-recyclable waste such as vegetable waste at a dig hole</p> <p>*as for polythene, either to be recycled or disposed of at a hole depends on the availability of local collector</p>	Worker's camp	Monthly*	On completion of construction activities	<p>Location: T 1/0, T 88/0</p> <p><u>Month 01/2017</u>: None</p> <p><u>Month 02/2017</u>: None</p> <p><u>Month 03/2017</u>: None</p> <p><u>Month 04/2017</u>: None</p> <p><u>Month 05/2017</u>: None</p> <p><u>Month 06/2017</u>: None</p>
	Construction site (transmission line)			<p>Location: T1/0, T88/0 transmission line</p> <p><u>Month 01/2017</u>: None</p> <p><u>Month 02/2017</u>: None</p> <p><u>Month 03/2017</u>: None</p> <p><u>Month 04/2017</u>: None</p> <p><u>Month 05/2017</u>: None</p> <p><u>Month 06/2017</u>: None</p>
	Construction site (substation)			<p>Location: T61/0, T62/0 locate inside the substation</p> <p><u>Month 01/2017</u>: None</p> <p><u>Month 02/2017</u>: None</p> <p><u>Month 03/2017</u>: None</p>

Monitoring Form to JICA

				<u>Month 04/2017:</u> None <u>Month 05/2017:</u> None <u>Month 06/2017:</u> None
--	--	--	--	--

*Implement visual inspection by ESU

- **Noise:** Considering the scale of construction works as well as the distance from the nearest residential area (200m away from the site), it was concluded that it is not necessary to conduct noise measurement.

- **Vibration:** Considering the scale of construction works as well as the distance from the nearest residential area (300m away from the site), it was concluded that it is not necessary to conduct vibration monitoring.

3. Natural Environment

Monitoring item	Measurement point	Frequency	Implementation phase	Monitoring result during report period
Restoration of the site	Worker's Camp	Monthly*	On completion of construction activities	Location: : T1/0, T88/0 <u>Month 01/2017:</u> None <u>Month 02/2017:</u> None <u>Month 03/2017:</u> None <u>Month 04/2017:</u> None <u>Month 05/2017:</u> None <u>Month 06/2017:</u> None
	Access Road (existing road to the ROW)			Location: : T1/0, T88/0 locate inside Access Road <u>Month 01/2017:</u> None <u>Month 02/2017:</u> None <u>Month 03/2017:</u> None <u>Month 04/2017:</u> None <u>Month 05/2017:</u> None <u>Month 06/2017:</u> None
	Construction site (transmission line)			Location: : T 1/0, T 88/0 transmission line <u>Month 01/2017:</u> None <u>Month 02/2017:</u> None <u>Month 03/2017:</u> None <u>Month 04/2017:</u> None <u>Month 05/2017:</u> None <u>Month 06/2017:</u> None
	Construction site (substation)			Location: locate inside Substation <u>Month 01/2017:</u> None <u>Month 02/2017:</u> None

				<u>Month 03/2017: None</u> <u>Month 04/2017: None</u> <u>Month 05/2017: None</u> <u>Month 06/2017: None</u>
--	--	--	--	--

*Implement visual inspection by ESU

4. Social Environment

Summary of Completed Land Acquisition and Impact Compensation

The procedures of land acquisition for Tao than Substation with total area of 5,800 m² have been completed. The land title on this has been issued.

(Please refer to main report of December 2016 for further details on summary of completed land acquisition and impact compensation) 100 %

Date 30 June 2017

Recorded by:

Mr. Youthaxay SOMVIXAY



Mr. Vanpaseut Phommaxay.

