Capacity & institutional strengthening for rural electrification and development - Decentralised Energy Option (CAP-REDEO)

Supported by the European Commission through the Intelligent Energy Europe Agency (IEEA) and French Ministry of Foreign Affairs (MAE)

Newsletter No. 2

The National Stakeholder meetings in Laos and Cambodia

The National Stakeholder meeting in Laos

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This is the second newsletter of the CAP-REDEO project. This newsletter focuses on the national and provincial stakeholder meetings in Laos and Cambodia, and presents some of the first results of the fieldwork carried out.

The national stakeholder meetings were hosted by the MIME in Cambodia and by MoEM in Laos PDR. The meetings were prepared by CDEC in Cambodia and Sengsavang Company in Laos PDR.

The main issues that have been discussed were:

a) Introduction to the GEOSIM tool for the national stakeholders (IED)
b) Introduction to rural energy stakeholder views (ETC Energy)
c) Update of rural electrification planning (Ministries and electricity utilities)

The provincial stakeholder meetings were hosted by the Kampong Cham Provincial Department of Industry, Mines and Energy and the Provincial Department of Energy and Mines. The discussions focused mainly on the collection of selected key data for the GEOSIM database and on planning of the field work by the ETC Energy team.

A summary of both national and provincial stakeholder meetings in Cambodia and Laos PDR is presented in the next paragraphs.

After the stakeholders meetings a period of field visits was carried out in September and October, by various representatives of ETC Energy, IED, the provincial departments of ministries and local partners. This newsletter will conclude with a few stakeholder profiles from this fieldwork.

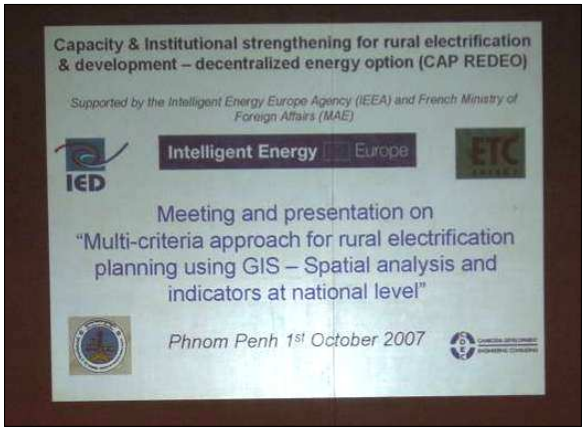
1. National Stakeholder meetings

On 1 October and 11 October meetings were held with stakeholders in rural electrification planning.

Around 20 participants representing amongst others several ministries, the national electricity utilities and in Cambodia the regulator were present.

At these meetings, IED has introduced GIS-based multi-criteria planning tool called GEOSIM and ETC has introduced its complementary approach based on stakeholder visions.

Currently the main national stakeholders in Cambodia and Laos are already using and implementing an elaborated rural electrification plan.



Phnom Penh, Cambodia

In addition to this existing plan and its current planning methodology, CAP-REDEO has focused on a multi stake-holder and multi criteria methodology to rural electrification planning. The project partners and stakeholders indicated to be

interested in testing the CAP-REDEO approach. They intend to review and if positive integrate the outcomes of the GEOSIM tool and the stakeholders visions in the current planning activities of the provinces of Kampong Cham and Khammouan in respectively Cambodia and Laos PDR. If the outcome is convincing the planners will consider to implement the tools in other provinces.

Vientiane, Laos PDR

Finally the national stakeholders and the provincial representatives have contributed to select and validate criteria that are used to calculate "Indicators for Potential Development" (IPDs) for each locality. They have discussed a list of preliminary selected localities - called "Development Poles" (DPs), which would have a maximum impact on rural development if electrified (i.e. with highest IPDs).

2. Provincial stakeholder meetings

The provincial departments of energy (DIME for Kampong Cham province in Cambodia and PDEM for Khammouan province in Laos) hosted the provincial stakeholders meetings on 28 September and 5 October 2007 respectively. The participants represented various provincial governmental departments (e.g. Health, Planning, Energy, Agriculture) that are relevant to provide input to the electricity planning process. All actors provided useful information for the GEOSIM planning tool.

Kampong Cham, Cambodia

IED introduced the objectives, activities and outputs of the project. In both provinces in Cambodia and Laos the provincial multi-stakeholder group was established. Its main role is to support the project in providing necessary data, and discuss the multisectoral approach to rural electrification.

ETC Energy has presented a qualitative approach and tools that can be used in multi-stakeholder information collection. This approach will complement the more statistical input and technical outputs of the GEOSIM model.

Kampong Cham, Cambodia

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Khammouan, Lao PDR

All stakeholders present at the provincial meetings were invited to present their view on rural electrification. They were invited to describe the current situation and expectations for the future from the perspective of their own department or institution.

Further the multi-stakeholder group validated and updated the initial inputs already integrated in the Manifold GEOSIM by the IED project team.
Finally it should be noted that all stakeholders were efficient and supportive to further complete the data collection and contribute to the planning of the field trips organised by ETC.

Khammouan, Lao PDR

3 Profiles

ETC and the local project partners (CDEC in Cambodia and Sengsavang in Laos) have made profiles based on interviews with electricity suppliers and users in Kampong Cham province and Khammouan province. These profiles contribute to understanding stakeholders activities and needs in the rural areas. Moreover some of these stakeholders are interested to invest in the sector. They are potential partners for future implementation of the outcome of the planning process.

In this newsletter we will present four typical stakeholders; two suppliers and two users of electricity. In future newsletters we will present more profiles of stakeholders, including policy makers.

Mr. Oung Kimsien, Cambodia

3.1 Cambodia – Electricity Supplyer

Mr. Oung Kimsien is a teacher. Because his salary as a teacher is modest Mr Oung Kimsien has decided to invest in a

banana plantation and in 1996, to start a small village grid.
The little knowledge he had on electricity was from school. The remaining he learned on the job. His brother-in-law from Phnom Penh, was a great help to him.

His first generator consisted of an engine from a two-wheel tractor or "iron-buffalo' with a small dynamo. It produced 5 kW which he distributed to 70 households. It was a tough start, because the generator was often broken and at the end of the line there was too little voltage left. In 2004 he replaced the main wiring and improved the grid.

In May 2002 he bought a second hand 40kVA Perkins generator for $4,300 which works perfectly.

Diesel generator, Cambodia

It has broken down only 2 times since he bought it. He now distributes 220V 3-phase electricity to 206 customers, mainly farming households. They consume on average 6 kWh per 2 weeks for 3,200 Riel/kWh (€ 0.55). His wife collects the money by going around on her bicycle.

Together they do the administration and accounting.

Mr. Oung Kimsien provides only 5 hours of power at night, from 6pm-11pm. "The only time during the day that customers need electricity is in the weekends to watch Thai Boxing, so in the weekends I run from midday to 11pm."

Mr. Oung Kimsien tells that his main worry is the fuel consumption. He has big losses and especially with the rising diesel prices it is getting quite expensive. He would like to have technical assistance to see how he can reduce the consumption of the engine.
He also heard about biomass gasification, but with his technical knowledge it is useless to buy a gasifier. He thinks it would cost about $ 10,000.

When Mr Kiemsien is asked to give his view on government planning, he suggests that the government provides more technical assistance and help entrepreneurs with accessing long term loans against acceptable interest rates. For example five year loans with 7.5% interest per year. He explains that his business does not allow him to pay interest rate of 15% and higher.

3.2 Cambodia Electricity user

When the interview team entered the house of Mrs. Thon Chim, she was very busy preparing rice cakes with chicken and black pepper to sell on the market. She sells different kind of dishes at the market and it earns some extra income on top of the farming activities of her husband.

Mrs Thon Chim and her husband have three children and one already left the house. The two youngest children help in

the food retail business and the third one is truck driver.

Her husband has a 2ha banana farm, where they can harvest fresh bananas every two weeks. At this moment business is not so good due to an insect plague in the bananas.

Mrs. Thon Chim, Cambodia

Ten years ago the family was one of the first with a connection to the electricity grid. They use electricity for 2 lights, a colour TV and a fan. They consume 2-3 kWh / 2 weeks and pay between 7,000-9,000 Riel (€ 1.20 - € 1.55). Electricity from the grid is supplied for only 5 hours per day and is really expensive.

Energy Costs/ 2weeks
Grid: 2-3 kWh = 7,000 – 9,000R
Battery: 100Ah = 1,500 R
Kerosene: 0.5 l = 1,500 R
2 AA dry cell batteries= 1,000 R

For these electricity costs Mrs. Thon Chim is not interested to extend the time to be connected to the grid. She prefers to use dry cell batteries for her flashlight and kerosene instead.

Fan on battery, Cambodia

3.3 Laos - Electricity Supplier

In 2005 Mr. Bounlong and his cousin Mr. Bounmi heard of the opportunity to become a franchisee from a solar energy company from Vientiane. They responded enthusiastically to the invitation. After they agreed on the conditions, the solar company gave them a training for 24 days and a follow-up training of 7 days.

Mr. Bounlong and Mr. Bounmi, Lao PDR

The business of the cousins is focusing on 20Wp solar rental systems. They operate the only energy shop in the wide

area around Thana Neua Village and serve 245 clients in a radius of 15 km.

The rental costs of a system are 35,000 Kip/month (€ 2.55). 2% of the monthly fee is kept by Mr. Bounlong and Mr. Bounmi for their work. The difference is transferred to the solar company. They spend a lot of time going around collecting money from their customers. Sometimes they save their time and only visit their customers once every two months.

Stock of batteries, Lao PDR

Mr. Bounmi's house serves as a storeroom for systems and spare parts. In general the spare parts are recovered from systems removed from former customers.

At this moment the house is stocked with panels, wires, batteries and charge controllers. Moreover, their shop is the only outlet for DC-lights in the area. DC lights are expensive and cost around 80,000 Kip (€ 5.80).

Besides renting, it is also possible to buy a solar system from the cousins. So far only one system was sold to the monks of the temple. For many villagers a solar system is a big investment. It is expensive and there are no credit facilities available in the villages. On top of that people are also not very interested in buying solar systems. They expect the grid to come in soon.

When the interviewers talked about the future Mr. Bounmi indicated that large scale expansion of the business would be difficult. They will soon enter with their business in four other villages. However it would be impossible to go much further than these villages, because the roads are really bad.

3.4 Laos – Electricity user

Mr. That and Mrs. Tao have 5 children. They rent 1 ha of rice paddy every dry season which has to be paid to the owner with 60kg of rice. This is a reasonable price according to Mr That, because he harvests about 200 bags of 12 kg.

According to Mr That, the rice season starts somewhere between the end of December and February, depending on the weather. Sometimes the harvest is enough to feed the whole family the whole year. Sometimes it is not.

Mr. That and Mrs Tao, Lao PDR

In the wet season the paddy is flooded. In that period Mr That works in his

vegetable gardens on the slopes of the river bank of Hinboun river. He has three fields of 20 m2 where he grows cabbage, corn, beans, cucumber, onions and several local vegetables.

Traditional candle, Lao PDR

Mr. That has no money for a solar system and he finds that kerosene lamps give too little value for the money it costs in expenses for kerosene.

Therefore he often goes into the forests to tap oil from trees. With the oil and a kind of leafs he makes torches of about 40 cm long.

He has constructed a wooden holder for the torches and a big bright light comes from it. "However a lot of smoke comes from the torches, which sometimes turns my nose black", he tells laughing. He also sells the torches for 1,000 Kip/piece (7.25 eurocents). Other people often cut the torches in smaller blocks to easily start a fire for cooking. Depending on the season he can make upto 40,000 Kip/month (€ 2.90).

The only electricity he has in his house is his 6V battery, which he uses to catch frogs. He charges it at his neighbours' house with a solar system for 2,000 Kip (€ 0.15). A new battery would cost him 200 Thai Baht (€ 4.40).

4 Next issue

In our next newsletter IED and ETC will give more information on the contents of the training courses that where conducted just before and after the stakeholders meetings. Further information is given on the view of policy makers and other stakeholders in the energy scene of Cambodia and Laos.

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