

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)

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Newsletter No. 4

CAP-REDEO Final Workshop



Coordinator: IED



Partner: ETC Energy

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Mission almost accomplished !
The very last steps of the CAP-REDEO project demonstrated significant and relevant results as described on this fourth newsletter:
(1) The project, started two years ago is now reaching its end, one year before term thanks to the fruitful collaboration of all project partners and stakeholders. The capacity building phase is over and last results were finally presented at the **Final International Workshop** organized in Cambodia last December.
(2) Following the meeting, IED, in collaboration with project partners took the opportunity to promote CAP-REDEO achievements during the international workshop focusing on "**Clean Energy Development**" organized in Indonesia.
(3) GEOSIM, the rural electrification tool successfully implemented in the project won **recognition of ACE**.



Final International Workshop, *Phnom Penh, 4 December 2008*



Workshop participants:

EU Delegation	: 1 person
French Embassy	: 1 person
MEM	: 2 persons
EDL	: 1 person
DIME	: 1 person
IED France	: 2 persons
EDC	: 3 persons
MIME	: 3 persons
EAC	: 1 person
REF	: 2 persons
CDEC	: 1 person

Organised in Phnom Penh, Cambodia in December 4th, 2008 the meeting took place at the Sunway. Objective was for project partners to finalise and review all activities and consider expanding the approach

The workshop was opened by H.E. Tun Lean, Director of Energy, Ministry of Industry, Mines and Energy (MIME) of Cambodia, with high level participation : Mr Chareune Inthavy, Deputy Head of Cabinet (MEM) of Lao PDR, Mr. Morcos, French Embassy representative and Mrs Jonkhart EU representative. Project achievements were summarized focusing on national benefits and future perspectives. Key recommendation was for the CAP REDEO project to be extended at the country scale with its promising and new approach of rural electrification planning!

Activities summary was then given by Mr Cyril Perret, IED project manager, presenting the accomplished tasks for the past 2 years in terms of capacity building and pilot study.

The presentation that was given by Mrs. Anjali Shanker, team leader and IED director, focused on the results of the case studies. The main steps were described – from selection of Development Poles,



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analysis of existing status of electrification, load forecast, supply options, results and cost of investment needed, to conclude with a discussion of the scenarios developed as options for decision by policy makers.

- **Selection of development poles:** there are 90 DP selected for Kampong Cham province and 150 DP for Kammuane province. These DPs are selected based on high socio-economic development potential which come from scoring on 3 main domains – Health, Education and Local economy..

- **Analysis of existing status of electrification:** in Kampong Cham, <20% of population in the whole province have access to electricity supply while around 80% has access in Kammuane province.

- **Load forecast:** 3 main scenarios were presented – high scenario, medium scenario and low scenario. It consists of an electricity consumption (kWh) estimated per each category of household, based on which estimation of energy load in every district within the province were also provided. Assumptions were also made regarding productive and business applications as well as agro-industries..

- **Supply options:** it consists analysing different types of energy supply options to be considered based on the spirit of MDG set by Ministry (by 2020: 100% of population in rural areas should have electricity supply). Two main types of supply options were considered – Grid extension possible decentralised electricity supply options: micro and mini hydro and biomass gasification.

- **Results and cost of investment:** for all supply options considered, the results (capacity, energy produced) as well as cost of estimated investment were presented. In Cambodia, it is necessary to invest around 134 Million Dollars in

order to reach all the settlements in the Province and connect 80% households in Kampong Cham province.

Under the supervision of Mrs Anjali Shanker, the workshop was finally concluded by a general discussion on policy recommendations.

Dissemination workshop in Surabaya ITS, December 10-12th 2008



Figure 1: Biomass power plant

An international event was organised by the Department of Engineering Physics (Faculty of Industrial Technology) of ITS (Institut Teknologi Sepuluh Nopember) in Surabaya, Indonesia - commercialisation of renewable energy technologies for rural energy access.

Fortified with its successful CAP-REDEO experience, IED and some representatives from MEM (Lao PDR), MIME and REF (Cambodia) took this great opportunity to share experience and outcomes with a wider ASEAN audience.

Lectures were given on

- Policies and frameworks for rural electrification using renewables
- Clean energies such as pico hydro and solar technologies



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- Methodology and tool to develop small scale projects
- Policy recommendations
- Renewable energy project implementation

This workshop was concluded by a site visits to a micro hydro and biomass power plants.

Among participants were some representatives from ITS, GTZ, Entec, Schott, ZSW, GMN, Conergy, some ministries and utility...



Figure 2: Micro hydro generator



Figure 3: Micro hydro power plant

Further information and workshop recommendations can be downloaded on the following website:

<http://ep.its.ac.id/2008/10/30/workshop-exhibition-clean-energy-development/>

GEOSIM recognition



GEOSIM, the Rural Electrification Planning Decision Aid Tool developed by IED using Geographical Information Systems has now been successfully implemented within several projects across Asia and Africa, one of which is CAP-REDEO.

The 11th ACE Governing Council Meeting held in Thailand in January 15th 2009 decided to endorse the software and its innovative methodology based on Geographic Information System (GIS) for further wide scale implementation in ASEAN countries in partnership with New and Renewable Sources of Energy Sub Sector Network (NRSE SSN)



More information on GEOSIM website: www.geosim.fr



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Disclaimer

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