



QUARTERLY UPDATE

Name of the Asia-wide Programme : Asia Pro Eco	
Contract reference no.: TH/Asia Pro Eco/05 (101302)	
Project Title: Diagnostic Study on Renewable Energy Potential and Feasibility in Southeast Asia	
Name of Beneficiary: Deutsche Gesellschaft für Sonnenenergie e.V., International Solar Energy Society, German Section	
Period covered by this Quarterly Update: 01.06.2006 to 31.08.2006	
Due date of this Final Report: 14.09.2006	
<i>Project Budget</i>	<i>EUR 416.595,90</i>
<i>Funds Disbursed by Commission to date</i>	<i>EUR 199.957,54</i>
<i>Expenditure Incurred by Project to date</i>	<i>EUR 362.209,51</i>

I Introduction

The work within the 4th project quarter focused on the development of a first interim study paper of the "Study on Solar and Biomass Energy Potential and Feasibility", the preparation and performance of the second stakeholder workshop and the continued performance of Task E, the Laboratory-Scale Analysis of Energy Yield of Selected Energy Plants in Laos and Thailand.

The Asian partners completed most of the base line studies on the single tasks and prepared the respective reports on the single tasks as listed in chapter II. REEC and NUOL continued the lab-scale analysis of the 5 selected energy crops. The European partners gave backstopping for their work, reviewed the reports and prepared a first draft of the "Study on Solar and Biomass Energy Potential and Feasibility". The final project meeting in July 2006 gave the partnership the chance to jointly discuss the first draft of the final study and to develop discussion papers for the workshops of the second stakeholder workshop.

The second Lao Stakeholder Dialogue on Biomass and Solar Energy Potential and Feasibility in Lao P.D.R was held at the Science Technology and Environment Agency (STEA) in Vientiane capital from the 19th to 20th of July, 2006. The workshop was attended by 44 participants from public and private sectors that share interests in renewable energies. The project team presented the results of its project work. The stakeholders attending then discussed the preliminary results in four small discussion workshops such as the use of PV solar and biomass in off-grid areas, use of solar and biomass energy in urban areas and policy requirements for the sustainable implementation of renewable energies. In following presentations the discussion groups agreed that Laos has high potential and feasibility of RE, especially for EnergyFarming. However, for that to happen there are still many short comings to be addressed. For details please see the workshop documentation: <http://www.dgs.de/1395.0.html>.

The REEC organised the 2nd Stakeholder dialogue on Biomass and Solar Energy Potential and Feasibility in Bangkok during July 24th to 25th at Rama Garden Hotel Bangkok. The aims of the meeting were to present research results and having group discussion in promoting research results in Thailand. The workshop was attended by 60 participants from 43 organizations, companies, institutions. Group discussions were performed in two groups: PV solar and biomass

group. At the end of discussion each participant submitted written suggestions. Both, the Thai and Lao workshop gave substantial input for the preparation of the final study.

As ongoing dissemination measurements the DGS published all new reports on the project homepage (see [Results Laos](#), [Results Thailand](#)), sent the 3rd project newsletter to the stakeholder pool and prepared a project paper to be presented in the frame of the international conference ORBIT 2006 **O**rganic **R**ecovery **B**iological **T**reatment in September 2006 in Weimar, Germany.

The task D General Data collection is almost completed. During the reporting period most of the open sub-tasks in within this task could be completed. Due to different reasons as difficult data access and/or reliance on third parties there are still a minor amount of rest-tasks to be completed in the last quarter as showed in the chapter II. We do want to highlight the preparation of a very comprehensive report on the Thai solar home system programme in co-operation with the Thai NGO Palangthai.

The task E laboratory analysis could be continued according the schedule in the 4th quarter. The five selected crops in Thailand and Laos were analysed separately put also in combination. For each test, retention time of thirty days was used. Combination test of water hyacinth and maize were performed in Thailand as recommended by DGS experts. The raw data on gas production and material classification of the single trails were recorded by REEC and NUOL and discussed with the DGS in the frame of the July meeting. Both Asian partners will send further results in September and October 2006. Those results have to be evaluated in detail by DGS and WU and will be an important basis for the study development.

II Implementation of Activities

Within the 4th project quarter the following tasks were implemented:

ID	Task Name
A	Project management
A4	Final meeting (20.-21.07.06) (A4.1 Programme preparation, A4.2 Local meeting preparation and A4.3 Performance in Laos completed)
A7.04	Study presentation leaflet (prepared, uploaded and distribution started)
A7.5	Quarterly newsletter (A7.5.3 Newsletter 3 prepared and sent)
B	Stakeholder Workshops
B2	Second Stakeholder workshops in Laos and Thailand (development, organisation, documentation)
D1	General Data Collection
D1.1	Relevant contacts (ongoing inscription of stakeholders in the stakeholder and technology pool)
D1.5	Financing and Funding (D1.5.4 Final report financing and funding completed)
D1.6	Biogas and PV plants in Thailand (D1.6.4 Final report biogas and D1.6.5 Final report PV Solar still in revision phase)
D1.7	R&D (D1.7.4 Final report R&D completed)
D1.8	Social situation and mentality report in preparation
D2	Solar Energy Data Collection
D2.1	Meteorological Analysis of Solar Irradiation Data (Uncertainties of simulation programmes in preparation)
D2.2	Potential and Demand (D2.2.6 PV Solar potential-demand analysis for Thailand in preparation and for Laos completed)
D3	Biomass to Energy Data Collection
D3.4	Cultivation of Energy Crops(D.3.4.2.2 Crop cultivation on-going, D3.4.4 Crop rotation for Thailand in last revision, D3.3.5 Report cultivation of Energy crops in preparation)
D3.6	Potential and Demand of RE in urban areas (D3.6.2 Thailand Questionnaire evaluation completed, D3.6.5 Report for Laos completed and for Thailand in final revision phase)
D3.7	Organic fertiliser market (D3.7.3 Report on the organic fertiliser market in Thailand in final preparation phase)
E	Laboratory Analysis

ID	Task Name
E5	Digestion tests in Thailand and Laos ongoing
E6	Evaluation ongoing
F	Technology Survey
F2	Demand analysis (F2.1 Interim report completed, F2.2 Discussion during the April meeting completed, F2.3Final report ongoing)
F3	Identification of appropriate European technologies ongoing
F4	Identification of appropriate local technologies ongoing
G	PV&Biomass Study development
G1	Present Situation Chapter ongoing
G2.01	Distribution of the Present Situation part of the study completed
G3	Strategy development
G3.01	G3.1 to G3.8 in preparation(G3.01 Suitable Technologies, G3.02 Energy Plants - cultivation and harvesting, G3.03 Calculation of Profitability, G3.04 Location Requirements, G3.05 Urban Energy Supply, G3.06 Energy supply in Lao off-grid Areas, G3.07 Suitable Financing Procedures, G3.08 Necessary Policy Adjustments), G3.9 interim paper presented

III Partnership

The main roles of the different partners are described in chapter I. Additionally DGS further performed the overall project management. The successful collaboration of the project partners as described in the 3rd quarterly update could be continued.

IV Methodology

The DGS project management continued to apply the project management tools as described in the previous report and is thus informed in detail about the single activities of the project partners. The Steering committee already performed its third project evaluation and positively judged the performance of the project.

There are no changes to the logical framework, no divergences between planned and actual activities. The internal part of the project home page www.dgs.de/asiaproeco provides permanent and actual information for the project partners, as the project manual, the current version of the task list, templates, etc. To see those documents, please go on the **internal page** with username **ape** and password **ape**.

V Other Issues

In the frame of the stakeholder workshop in July 2006 the DGS could agree with the new founded Lao Ministry of Energy and Mining to organise an official ceremony to handover the final study for Laos to the Ministry in November 2006. Additionally the DGS could convince the German ambassador to participate in this event and to promote the distribution of the project results.

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