Biomass Monitoring and Harvest Planning System for Sustainable Supply of Renewable Energy

Project Objective

The objective of this project is to produce renewable energy (charcoal) using a clean and efficient method supported by a sustainable supply of biomass and improved monitoring system.

Description

The current annual demand for charcoal in urban areas of Cambodia is about 100,000 tonnes with 40% of households in Phnom Penh using charcoal as the main source of cooking fuel. This encourages deforestation as extraction is not managed. Marginalized farmers depend on charcoal production for subsistence during the dry season, using traditional and inefficient production and extraction methods.

This project involves the development of a participatory biomass monitoring system towards guiding and optimizing biomass extraction in Community Forest (CF) for sustainable production of renewable energy. An efficient kiln is used to produce charcoal.

The project combines several innovative but not intrusive practices for Cambodia:

- Kiln technology (with 30% efficiency over traditional kilns)
- Finnish Forest Sector technology which offers an affordable and easy to use system
- A model of sustainable supply and production of renewable energy fuel.

Relevance to Country's Energy and Environment Policies

This project fits within the Cambodian national strategy as it is aimed to meet the objectives set at the national level in the National Forest programme (60% of forest covered by 2015). The project is relevant to the Rural Energy Strategy and Implementation plan set to support efficient and less expensive energy supplies and services to rural households and industries. It will assist industries in a more efficient utilization of their energy supplies, including technical efficiency.

Other benefits of the project are: improved technologies for producing wood-sourced energy, biomass residue supply and demand chains; and improved lives and incomes of the marginalized poor currently engaging in these supply and demand chains.

Project Highlights

Project ID	: 3-C-081
Country	: Cambodia
Lead Partner	: GERES - Groupe Energies Renouvelables, Environnement et Solidarités
Partners	: VITRI - Viikki Tropical Resources Institute, Oy Arbonaut Ltd, World Bank
Total Project Cost	: € 303,772
EEP Financing (% to total project cost)	: € 199,930 (65.8%)
Technical Focus	: Biomass
Activity	: Pilot
Duration	: 15 months

Yoshimura Kiln- Loading Wood

Biomass Monitoring and Harvest Planning System for Sustainable Supply of Renewable Energy

Innovation and Knowledge Transfer

The project will provide learning opportunities by involving stakeholders (in Forestry Administration, Communities, Distributors) at all stages of the project. Participatory approaches will be used in developing and understanding of each stage. In addition, formal trainings will be employed to clarify and consolidate technical knowledge. This will result in the formalization of the sustainable biomass supply and efficient charcoal production model. The model will be disseminated at the national level and proposed as a practical approach towards achieving the national and rural energy strategy.

Yoshimura Kiln- Unloading Charcoal

Tree seedlings generated in a Community Tree Nursery

Workshop on Wood Energy Planting

For more information:

Name of contact person:	***Mr. Mathieu Van Rijn***
E-mail:	m.vanrijn@geres.eu
Webpage:	www.geres-cambodia.org