

Energy Self Sufficiency Village

Project Objective

The main objective of this project is to promote the use of biomass as a raw material to generate electricity in Xayaboury a rural village in Lao PDR.

Description

This project will develop energy need assessment toolkits. The necessary information will be collected to identify energy need of the community as well as the potential of utilizing renewable energy. The amount of agricultural waste residues will be assessed to determine the capacity and technology of the power plant that will be installed to serve the village. A workshop will be organized to train the villagers about gasification technology. Social engagement will be drawn. A business model will be developed to run the project sustainably towards replicating the project in other regions of the country.

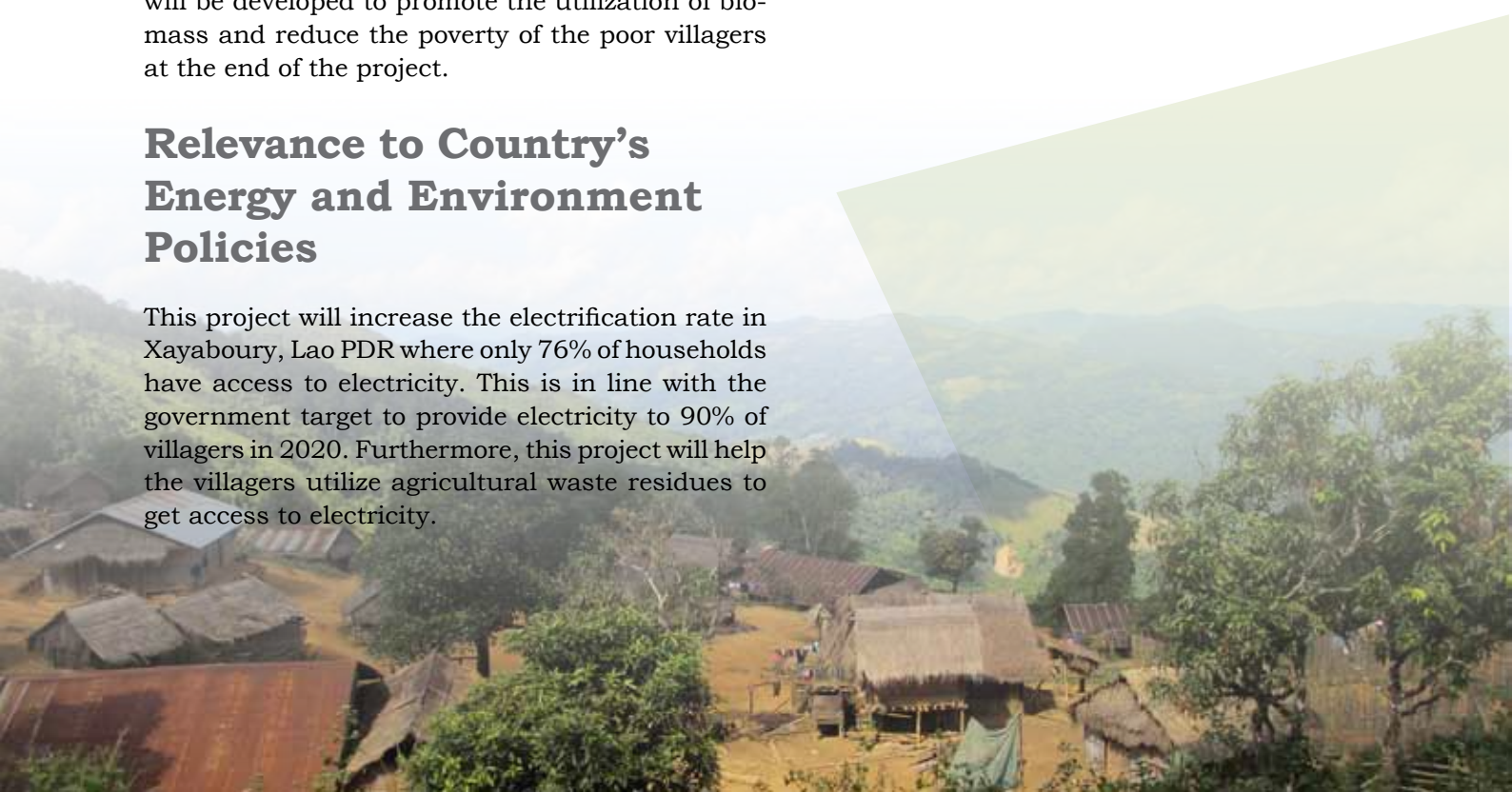
In addition, a private company will be set up and its staff will be trained to run the power plant after the project is completed. A guideline for the government will be developed to promote the utilization of biomass and reduce the poverty of the poor villagers at the end of the project.

Relevance to Country's Energy and Environment Policies

This project will increase the electrification rate in Xayaboury, Lao PDR where only 76% of households have access to electricity. This is in line with the government target to provide electricity to 90% of villagers in 2020. Furthermore, this project will help the villagers utilize agricultural waste residues to get access to electricity.

Project Highlights

Project ID	: 3-L-031
Country	: Lao PDR
Lead Partner	: Energy Management and Conservation Office, Khon Kaen University (EMCO)
Partners	: Food and Agriculture Organization Regional Office for Asia and the Pacific, Suranaree University of Technology, Suranaree Bio-Energy Co. Ltd., Sengsavang Rural Electrification and Renewable Energy Company, Department of Energy and Mines, Xayaboury Province
Total Project Cost	: € 286,000
EEP Financing (% to total project cost)	: € 200,000 (69.93%)
Technical Focus	: Gasification, Bio-mass
Activity	: Pilot Project
Duration	: 15 months



Innovation and Knowledge Transfer

This project is innovative as it incorporates the development of business models of biomass power generation using gasification technology with the consideration of raw material management, production management, marketing plan, community engagement and environmental management. A business plan manual will be developed and can be used for all other areas not covered by this project. Policy makers on renewable energy can use this project as a guideline.



Biomass gasification plants

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Xayaboury village