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50 YEARS

PROJECT FACT SHEET

Promoting Sustainable Bio-energy Production from Biomass (SBEPB) in Timor-Leste



CONTEXT

The lasted forest survey conducted by JICA reported that the annual deforestation rate between 2003 and 2010 is estimated at 1.73% that is much higher than the prediction of FAO which was 1.16%. Assuming this alarming trend persisted in the following decades, 17.3% of the forest in the country would have disappeared in 2021 and all forests would have disappeared by 2071. Natural resources play a pivotal role in the lives of people in Timor-Leste with 75% of population living in rural areas and over 70% of employed by the agriculture and forestry sector. Main causes of forest and land degradation in the country are deforestation, inappropriate agricultural practices, forest fires, over-grazing and demographic pressures.

Energy poverty is a major driver of Timor-Leste's overall poverty cycle. Impacting a number of cross-cutting issues, energy poverty generates ill-health and environmental degradation, and limits economic growth where it is needed most. It also contributes to poor education and gender inequality. According to 2010 Census, 90% of people use inefficient, open, wood-fueled fires for cooking and heating. Fuel wood is mainly used in the residential sector for cooking and to some degree, in cottage industry such as bakeries, salt and tofu making. A Mercy Corps' study in 2011 found that household use 9.3kg of firewood per day. It means that as much as 561,528 tons of firewood was consumed for household cooking in 2010. The amount is roughly equal to 179,792 tons of oil equivalent (TOE).

ACTION

To contribute to addressing this issue, the Sustainable Bioenergy Production from Biomass (SBEPB) Project with the support of the Global Environment Facility (GEF), the Government of Timor-Leste (GoTL), the United Nations Development Programme (UNDP) and other funding partners will focus on the promotion and use of biomass energy resources for the provision of energy access and services in rural areas.

The biomass project is a four-year program contributing to the reduction of greenhouse emissions through removal of barriers to sustainable production and utilization of biomass resources in Timor-Leste and application of biomass energy technologies to support local economic, environmental and social development.

The objective of the project will be achieved through enhancing the capacity of all relevant public and private stakeholders, developing policy and legal bioenergy frameworks for the promotion of energy efficient and low carbon end-use appliances and scaling up of 20,000 improved cook stoves (ICS) in the country.

The project will assist the Government of Timor-Leste in mainstreaming sustainable biomass energy in policy formulation and consequently help in mitigating the national emission of greenhouse gases resulting from deforestation and the use of non-renewable biomass. The project will help to increase Timor-Leste's access to clean bioenergy and also create employment through inclusive businesses.

PROJECT SNAPSHOT

Title Promoting Sustainable Bio-energy Production from Biomass (SBEPB) in Timor-Leste

Objective Removal of barriers to sustainable utilization of biomass resources in Timor-Leste and application of biomass energy technologies to support local economic, environment and social development that leads to GHG mitigation

Period May 2014 – May 2018

Executing Entity GoTL, Ministry of Public Works (State Secretary of Electricity)

Implementing Entity UNDP

Overall Budget:	\$8,393,000
UNDP	\$770,000
GEF	\$1,743,000
GoTL	\$5,510,000
Mercy Corps	\$210,000
Startec	\$100,000
Haburas	\$60,000



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Component 1

Policy and institutional support for development and commercialization of advanced bio-energy

Component 2

Bio-energy investments promotion – sustainable bio-energy technology demonstration & market development

Component 3

Capacity development and market transportation

OUTCOMES

1. Implementation of strengthened enabling policies, legal and institutional framework for development of biomass energy technologies as well as the growth of biomass energy business in Timor-Leste.
2. Increased investments in bioenergy, leading to the development of a local supply chain and market for bio-energy technologies that will contribute to GHG emissions avoided from technology applications and investments
3. Enhanced capacities of policy makers, financial institutions, entrepreneurs, project developers, communities and end-users on the development of the local bio-energy technology market

IMPACT

The project will introduce efficient stoves in three categories: cook stoves, institutional stoves and industrial stoves. These stoves will replace traditional less efficient stoves currently being used by many households in Timor-Leste.

The dissemination of 20,000 improved cook stoves will result in the reduction of GHG emissions amounting to approximately 206,633tCO₂e at the end of the project. The project also addresses crosscutting issues such as gender equality. In addition women's participation, representation and access to resources and benefits will be a key focus of this project.

It aims at establishing wood plantation that will also directly enhance access of women to fuel wood in community forest and therefore reduce the time that woman spend collecting fuel wood from forests that are far from village. Thus, the project will affect the time of women in wood collection, ease of operation of stoves and will contribute to improving the health of women who spend significant time in the kitchen.

The delivery of stoves will also create employment at village level. Villagers like skilled masons, including women, will be targeted as trainees for constructing improved stoves. Within the project, communities with community forests could earn additional revenues by producing fuel wood for sale to communities that are facing fuel wood shortages, while at the same time providing a more sustainable alternative of fuel supply for these communities.



CONTACT

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