JBEDC
Japan Bio-Energy Development Corporation

Topic 6: CDM Feasibility Study for Jatropha Straight Vegetable Oil-based Power Generation

Host Country: Phnom Penh, Cambodia
Project Site: Phnom Penh Special Economic Zone (PPSEZ)

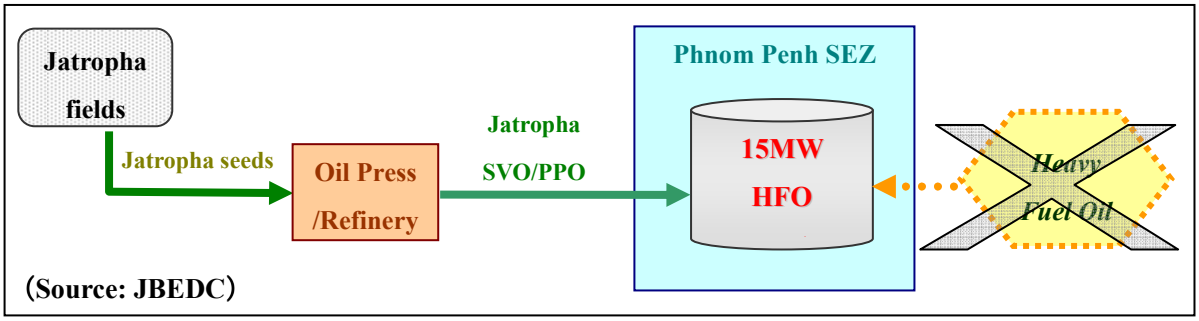
Overview

This study aims to evaluate the feasibility and profitability of the Clean Development Mechanism (CDM) project, which intends to replace heavy fuel oil (HFO) with Jatropha straight vegetable oil (SVO) to be used for 15MW captive generators in the Phnom Penh Special Economic Zone (PPSEZ). Jatropha seeds will be cultivated by JBEDC's local company called Cambodia Bio-Energy Development Corporation (CBEDC) at unused/non-productive land in neighboring provinces. In this way, this project will not intensify the conflict between arable and non-arable vegetable oil.

Jatropha Plantation Site

Mechanism

The Jatropha SVO will be extracted and simply refined at a seed collection site, and the SVO will be transported to PPSEZ. The project does NOT apply typical transesterification process for biodiesel, however it applies simple refine process known as SVO/pure plant oil (PPO). The SVO will replace the HFO use for the 15MW generators in PPSEZ.



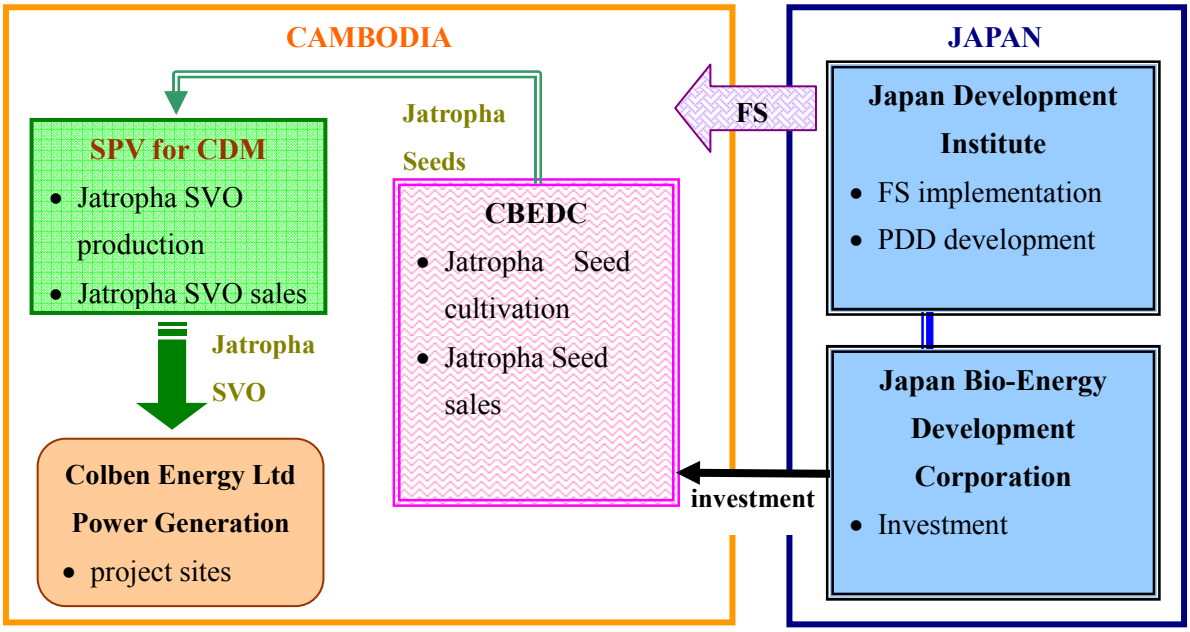
(Source: JBEDC)

Expectations

Since the project avoids using the costly transesterification process, the project is expected to sustainably produce the economically competitive biofuel for the Cambodian market.

The project will not only contribute to the green house gas (GHG) reduction, but also to clearer and sustainable energy options for a host country. In addition, some air pollutants from fossil fuels will be abated by using biofuel emitting fewer pollutants.

Project Implementation Regime



(Source: JBEDC)