



Empowering coco farmers for biodiesel production

A micro-enterprise project for coconut farmers in Romblon

As nations continue to seek alternatives to meet their energy requirements, PEF has not only found one for the Philippines but has done so with the end-goal of helping the poor coconut farming communities.

In the marble and coconut-rich island province of Romblon, PEF is partnering with a local-based St Vincent Ferrer Parish Multi-purpose Cooperative (SVFPMPC) in a trailblazing development project aimed at increasing the level of biodiesel production for the country, while enabling farmers to become its prime movers through unprecedented farming incentives.

“While there are a number of industry players toward this end, one angle we want to look at is how we can empower coconut farmers to become active players in the energy production process, and save them from the insensitivity of most commercial copra buyers in mainland Luzon,” said Jenebeth Conan, SVFPMPC General Manager.

Conan was referring to the absence of coconut processing plants based in the province, and the underdog treatment that coconut farmers get when selling off-island, as reasons the latter have been demoralized to continue farming. Romblon has 17 municipalities and 219 barangays whose major economic activities are farming and cottage industries. Although it produces 700,000 coconuts per day, the only major manufacturing facilities in the

province are for the marbles, and nothing for the coconut.

“There were days when we just saw coconuts along the roads, with almost no one minding them,” Coconan said, describing the hopelessness of local farmers in investing in coconuts.

In 2005, these problems had drawn the attention of various government agencies which made them come together to launch the Romtron Biodiesel (CME) Plant

in 2005. With this new facility, the coconut farmers had a ready market for their copra. With the prices of fuels always going up, the copra prices at the plant could also be expected to go up, which is a welcome news to the farmers.

ABOUT THE COCO METHYL ESTER (CME)

Coco Methyl Ester (CME) is an ester fuel derived from coconut. An ester is an organic, often fragrant compound formed in a reaction between an acid and an alcohol. CME is made by mixing coconut oil with methanol under heat and in the presence of a catalyst in a process known as transesterification. It has comparable properties with diesel fuel and may be used as a substitute or an additive to diesel. Aside from increasing the performance efficiencies of engines, CME has a desirable property that reduces the emission



Plant Supervisor Engr. Arnold Ortega shows how Coco Methyl Ester is produced from neutralization to esterification at the Romtron Biodiesel Plant

particulates of diesel engines if mixed with diesel fuel even at one-percent ratio.

Romblon gets its fuel needs from the mainland. Based on DOST estimates, Odiongan, the biggest town where SVFPMPC is based, needs about 3,000 liters of diesel daily. The National Power Corporation's diesel power plant in Odiongan consumes about 12,000 liters of industrial grade diesel daily. With CME production and utilization, fossil fuel coming into the province could be reduced.

A MULTI-SECTORAL FEAT

DOST's Industrial Technology Development Institute developed the technology for CME production. Key players from the local government, private sector, and DOST were also identified through the Philippine Council for Industry and Energy Research and Development (PCIERD).

The then congressman Perpetuo B. Ylagan put in P1 million from his PDAF. SVFPMPC, then led by chairman Nelson Fedelin, facilitated the business side of the production, even before its partnership with PEF. The DOST Regional Office IV guided the project until it was ready for commercial production.

Other than its environmental value, the CME plant is expected to stabilize the price of Romblon's copra, the main CME raw material. The plant, however, can also produce crude coconut oil, soap, glycerin, copra cake, and coconut stocks and Romtron is presently looking for potential markets for them.

The SVFPMPC main office in downtown Odiongan which also hosts the admin headquarters of the Romtron project



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PEF- SVFPMPC PARTNERSHIP

Premised on the very low farmers' income level in the province (average of P30,153.34 per year based on a SVFPMPC report), the livelihood/micro-enterprise project for CME production is the PEF's and SVFPMPCs share in the over-all CME production objective of the province. In January 2006, PEF approved a total amount of P2,070,000 in total financial assistance for the SVFPMPC, P1,750,000 of which was a loan grant payable in 36 months at 12-percent interest. The remaining P320,000 was released as institutional support grant for the construction of copra warehouses (buying stations), and for the purchase of weighing scales for the two stations. The project is set to end in 2009.

The PEF assistance primarily aims to train coconut farmers on proper copra production techniques, and buy from them a total of 633.6 metric tons of quality copra with a price a peso higher than the market price.

In addition, the project seeks to sustain the production of CME in Romtron Plant by providing employment to plant workers. Its buying stations are

targeted to stabilize copra price in the province. On an 8-hour workday schedule for milling and a 16-hour workday schedule for esterification, the plant could produce one ton of CME daily.

The plant has intermittently stopped operating including presently, either due to machine failures or lack of potential clients with reasonably high buying price. It is currently negotiating with the National Power Corporation (NAPOCOR) in Romblon, which has been their major client in 2007, to adjust their original buying price agreement of P14 per kilo considering the fact that copra rice has more than doubled now. Temporarily, soap making has been the alternative activity.

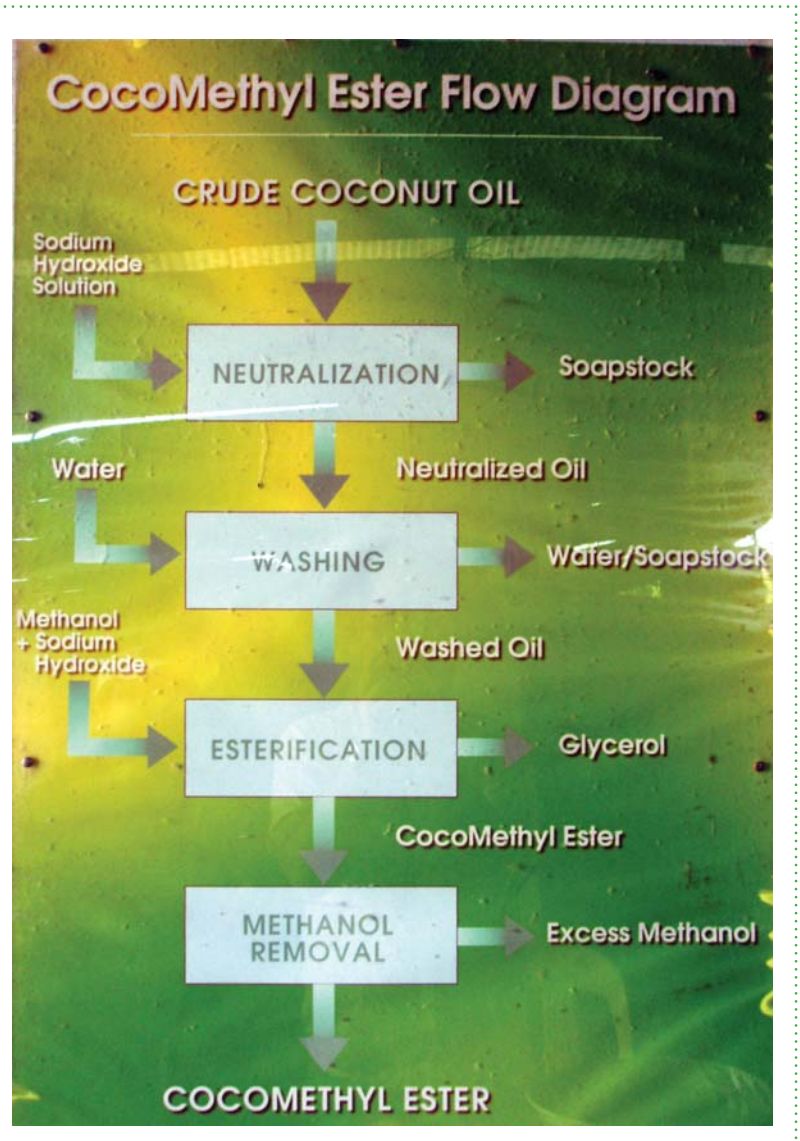
From the loan amount released, SVFPMPC/Romtron made a net income worth P149,000 as of December 2007. Project Bookkeeper Jacqueline Bendoy said that although the plant operations have not continued and they have the highest buying price in the market, their financial analysis still assures them that the project would be able to make financial returns enough to maintain its operations.

THE 'HIGHER-BY-P1' STRATEGY

In order to attract coconut farmers to sell their copra to the Plant, Romtron has tried buying them at a price that is at least a peso higher than the competing buyers. This way, Conan said, farmers could feel motivated to continue attending to their coconut farms.

“So far, the strategy has been successful because competing copra buyers feel obliged to raise their buying prices to compete with us, although we make sure we’re P1 higher,” Conan said.

Romtron has also targeted tricycle drivers in their marketing strategy. “We give incentives to them such as P5 to P15 per sack of coconut that they could transport to the plant’s buying stations, so that they could also serve as our walking advertiser, convincing copra farmers to sell to us,” said Bendoy. “I believe we made an impact in the increasing prices of copra today.”



“It’s always a challenge to balance business interests with community interests. But we want the farmers to be the first to benefit from this industry, and no longer be seen as underdogs,” Conan said.

A P6.8 million worth of expansion project for Romtron is now in the pipeline with commitment of funds from the Romblon governor, the local congressman and the DOST. ()