BIOMASS INDUSTRIES READY FOR TAKE-OFF

POIC assures investors of raw material supply

An unregulated supply chain has been the main stumbling block to developing the potential of the oil palm biomass downstream industry.

Oil palm trees produce five types of biomass useful for a myriad of downstream uses. They include mesocarp fibre, palm kernel shells, empty fruit bunches (EFBs), oil palm trunks and fronds. Malaysia, which has more than 4.5 million hectares of oil palm, produces an estimated 19 million metric tonnes of biomass. The biggest volume is EFBs which make up 22% of the fresh fruit bunches (FFBs). With about 1.4 million hectares of oil palm plantations, Sabah makes up under 30% of the national total hectarage, but accounts for about 34% of the national crude palm oil output on account of higher FFB yield and better oil extraction rate (OER).

That there are voluminous quantify of biomass, especially EFB is common knowledge. Also widely known is the frustrating fact that industrialists seem unable to get their hands on the raw materials. This was ironic because, except for some composting activities and largely inefficient power-generation using EFBs, oil palm biomass in Sabah is mostly under-utilised or not utilized at all. Public-listed Kwantas Berhad recently launched a sizable composting plant near Lahad Datu using EFB.

EFBs are produced after FFBs are stripped of the oil palm fruits. Mills (there are about 120 in Sabah) owned by or linked to plantations use a fraction of the EFBs for mulching in the plantations. Logistics cost inhibits wider use. Although millers are reluctant to admit it, most EFBs are simply discarded in the wide expanse of plantations and forests. Yet, when industrialists went down on the field to try to secure long-term supplies, they were quoted exorbitant prices and denied long-term contracts.

The phenomenon was the same in Peninsular Malaysia where most of Malaysia's oil palm is grown. Malaysian Palm Oil Board (MPOB) the governing authority of the oil palm industry, had set up its task force and engaged foreign consultants to try to address investors' concern for supply security, or rather the lack of it. Progress has been slow.

Following years of exploring, persuading and intensive negotiation, state-owned POIC Sabah Sdn Bhd thinks it has bridged the chasm that keeps the

massive volume of biomass out of reach of eventual users, and is confident that the biomass industry will soon take off in Sabah.

“We have managed to secure a long-term annual supply of 300,000 metric tonnes of wet EFB and we expect this to be taken up by investors very soon,” said Datuk Dr Pang Teck Wai, the chief executive officer of the company which is developing the Lahad Datu palm oil industrial cluster (POIC Lahad Datu).

He said POIC Sabah had ‘gone out on a limb’ to secure the supply to bring about some semblance of framework and price mechanism.

“We felt that there had been enough talk about the problems and decided that we needed to take the lead in order for the biomass industry to have a shot at success,” he said, adding that Sabah should rightfully take the lead as it is the largest palm oil producing state in the country.

While declining to disclose prices and details of its procurement mechanism, Dr Pang said POIC Sabah’s main aim in being the procurer of EFB is to inject confidence among the investor community.

“The investors are out there waiting to get their hands on EFB, but they have not been able to do so because of the unregulated environment.

“What we have done is to fulfill role as a promoter of oil palm-related downstream processing industries not only at POIC Lahad Datu, but the rest of the state, so that our resources can be maximized for the expansion of our economy.”

Oil palm contributes to over 40% of Sabah’s GDP income and is set to grow in significance with mechanization, higher FFB yield and better OER.

“With our ready EFB supply, we would like to tell investors to come talk with us and let us partner to launch the biomass industry,” said Dr Pang, a fervent promoter of industrial clustering and proponent for optimizing biomass use.

Meanwhile, works on the combined heat and power plant owed by a Korean company at POIC Lahad Datu is on schedule for the 23-megawatt plant to be operational by 2012. Owned by Eco Biomass Energy Sdn Bhd, the company

aims to use oil palm mass such as EFB to generate steam and electricity. The company purchased land at POIC Lahad in 2007 but had not been able to begin construction until recently because of earlier difficulties in securing long-term supply of feedstock.

POIC Lahad Datu began in 2005 with 1,150 acres of land at the edge of Lahad Datu town. It is adding about 500 acres of land to the development to accommodate biomass-related industries and small-and-medium enterprises. So far about 30 companies have purchased land and combined investments thus far is estimated to be about RM2.2 billion.

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Photo: Empty fruit bunches at an oil palm mill … from waste to wealth.