

US\$10 million investment in plastic recycling factory in Bali

A foreign company plans to invest a total of US\$10 million to open a factory that will recycle plastic waste into shipping pallets in Tabanan regency by the end of December. When opened, PT Enviro Pallets will process around 30 tons of plastic waste every day to produce the shipping pallets, which will be sold locally, as well as being exported to several overseas countries.

J Roger Harkin, president director of the company, said that the planned factory would process plastic bags, food wrapping, noodle sachets and other plastic waste. "We know some companies already process plastic bottles, so we will process other plastic waste that has badly polluted Balinese rivers, beaches and soil alike," Harkin told The Jakarta Post recently.

It will require at least 30 tons of plastic waste a day to produce shipping pallets. "I hope we can make a huge difference to the island's environment as we will process around 30 percent of its total daily plastic waste produced by individuals, households and industry. The beaches, rivers and the ground are expected to be free from the mountains of plastic waste," said Harkin.

Harkin went on to say that the factory's activity would be part of the Bali Clean and Green programs to free the island from piles of unprocessed plastic waste. Bali Governor Made Mangku Pastika warmly welcomed the investment, saying that it would be a significant way for Bali to deal with its plastic waste problem.

"The company will process 30 tons of plastic waste into plastic pallets. This may solve our burgeoning problem of dealing with plastic waste. I look forward to seeing the progress," said Pastika.

Data from the provincial environmental agency shows that there are about 10,000 cubic meters of garbage produced by residents on the island every day, about 15 percent of this is plastic waste. However, only 5,000 cubic meters of all the garbage is processed by the government because of the limited budget and lack of human resources.

PT Enviro Pallets will also encourage producers and factories in Indonesia to replace their wooden pallets with plastic ones. The company will market the plastic pallets in Surabaya and Jakarta, as well as overseas. "So we are saving the wood and we are recycling the plastic as well," Harkin emphasized.

The factory will implement a new plastic processing technology from New Zealand. "It is a very sophisticated technology. It has been implemented in New Zealand. But this will be the first time in the world that it will be used in commercial production. Bali will be the first in the world," he said.

Harkin said that he decided to invest in Bali based on a suggestion from Indonesia's Trade Minister Gita Wirjawan. "I used to work with him and he asked me to come here. And there is a lot of plastic waste here, I want to clean it all up," he said. To run the factory and to produce consistently, Harkin invited people and companies to send their plastic waste to the factory. The factory, he said, would pay Rp 500 (5 US cents) per kilogram of plastic waste.

"There is heaps of plastic waste all over Bali. Just collect it and deliver it to us," he said.

In thermal treatments such as incineration, avoiding the formation of lethal toxins such as dioxin, furan and hexa-chlorobenzene is critical. These gases might be created when people use insufficient technology to burn waste that contains chemicals such as chlorines and heavy metals.

Incineration is the most effective way to treat waste. While the problem of toxins is reducible, how investment is required to develop the technology to reduced toxins remains. Technologically, the heat from the thermal process can be transformed into energy as well. The residue can also have other uses.

Incinerators designed for commingled waste require only a small community contribution. The separation of organic waste and fireproof material may also help to increase the efficiency of incineration, leaving a role for the community.

However incinerators burn off many recyclable materials, and for this reason separation is recommended. It saves virgin material and may also be able to reduce transportation costs and electricity consumption. Through recycling treatments, the community can contribute directly, as in a recycling bank scheme.

For organic treatment, more options are available. The main concept then is to return materials to nature as fertilizer. Composting and anaerobic digestion are the most common technologies used to process organic waste. The critical issue related for organic treatment is whether the product can safely be included in the consumption chain. Therefore goods such as medicine and heavy metals must be excluded from the treatment, thus also creating a role for the community.

Home composting, the smallest scale organic treatment available to a community, uses fresh organic waste from households. However, organic materials should be selected with care to ensure the quality of the compost. Home composting allows the community to take direct action.

On a large scale, composting and anaerobic digestion may also generate energy. As safety is the critical issue, the organic compounds should be separated from the beginning at the source. This is where the community shall contribute as well.

Over the years, waste has remained a problem. To manage the waste is no easy task. To manage waste production is even harder. Changes must first be made at the community level, as helping the government also means helping ourselves.

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