

Palu teams up with Swedish city to tackle waste problem

With waste one of the most concerning problems plaguing Palu, Central Sulawesi, and other cities in Indonesia, Palu municipality has established a partnership with Borås municipality in Sweden to build waste management facilities to process waste into methane.

The partnership has reached the realization stage and it is intended that machinery to process waste into methane will arrive in Palu early next year and be placed at the landfill in Kawatuna subdistrict in Mantikulore district, where as many as 40 gas wells, used to retain gas derived from the waste, will be built.

“The 15-meter deep wells will accommodate as much as 394,706 cubic meters of methane annually,” Palu Deputy Mayor Andi Mulhanan Tombolotutu told The Jakarta Post at his office.

Based on preliminary calculations, he continued, if the daily volume of waste in Palu amounted to 631 cubic meters, the machinery could produce as much as 228 tons of methane daily, or 394,765 tons annually.

“Estimated earnings from the carbon trade alone could reach US\$1.2 billion annually. This is what I call changing misfortune into fortune for Palu,” Mulhanan said.

Major cities in Indonesia produce up to 10 million tons of waste annually. The total amount of methane gas emissions from these major cities reaches up to 404 million tons annually and the total amount of power produced by methane-based landfills could amount to 79 megawatts.

Mulhanan said the total earnings from the carbon trade through a number of landfills in Indonesia could amount to \$118 billion annually.

He added that Palu could later earn Rp 162 billion from electricity produced by the 631 tons of waste generated daily and Rp 163 billion from the carbon trade annually.

Mulhanan explained that if methane produced from waste at the Kawatuna landfill could generate 0.038 kilowatts of electricity daily, then the estimated power output could reach 2,780,000 kilowatts annually.

If each household uses 450 watts, with the assumption of power usage around the clock, or 10,800 kilowatts daily, each household would use 3,942 kilowatts each year.

“We will be able to meet the power demand of households in Palu up to 2,780 kilowatts annually for 705 homes. Palu could earn around Rp 96.8 billion annually from electricity derived from waste. Through this plan, we will be able to earn money from waste,” added Mulhanan.