



E-waste management in the Philippines

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Abstract:

Electrical and electronic equipment are omnipresent (EEE). The demand for newer, more efficient and effective technology has led to the increase of EEE usage. When these gadgets become obsolete, they are reused, recycled, landfilled or stored. Importation of waste electrical and electronic equipment (WEEE) or e-waste from countries such as China, South Korea, Japan, Singapore, and Hong Kong adds to the overall e-waste management.

E-waste is described as old, end-of-life, or discarded electrical appliances. These can include a variety of goods such as large household appliances, information and communication technology equipment, and small consumer electronic items. These pieces of equipment contain heavy metals such as lead (Pb), mercury (Hg), lithium (Li), arsenic (As), cadmium (Cd), selenium (Se) and hexavalent chromium (Cr6+), and organic chemicals such as polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) which are hazardous to human health and the environment. While there are a few DENR-accredited e-waste management facilities, most e-waste are being handled by the informal sector which includes scavengers, waste pickers, and junkshop operators.

In the Philippines, Department of Environment and Natural Resources (DENR) Administrative Order No. 2013-22 classified e-waste as a new class of miscellaneous waste with waste numbers M506 and M507; however, a formal and comprehensive e-waste management system is still lacking in the country. There are pending legislations aimed at managing the e-waste in the country. The Environment Management Bureau (EMB) of DENR has issued a draft document of the "Guidelines on the Environmentally Sound Management (ESM) of Waste Electrical and Electronic Equipment (WEEE)" which is yet to be approved. In the 17th Congress, there are two bills filed to



address e-waste management. The first bill is Senate Bill No. 568 (E-waste and Cellular Phone Recycling Act) authored by Sen. Antonio Trillanes and House Bill No. 5901 (E-waste Management Act) authored by Gabriela Women's Party Rep. Emmi de Jesus and Rep. Arlene Brosas, BAYAN Muna Rep. Carlos Isagani Zarate, ACT Teachers' Partylist Rep. Antonio Tinio and Rep. France Castro, Anakpawis Partylist Rep. Ariel Casilao and Kabataan Partylist Rep. Sarah Jane Elago; however, both bills are pending on their respective committees. This paper discusses the e-waste management system in the Philippines

Biography:

Ronald Gem Alarte Celestial is a graduating BS Chemical Engineering student at the Department of Chemical Engineering, College of Engineering and Agro-Industrial Technology, University of the Philippines Los Baños. He is a student leader and served in the University Student Council for 2 years as Chairperson and Councilor. He was also a finalist in the 8th Philippine National Chemistry Olympiad.

Recent Publications:

1. Ronald Gem Celestial, E-waste management in the Philippines, 2017