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E-waste analysis and characterization study and management in the Philippines

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In the world where technological evolution, advancement and competition to create great number of new products, problems on Electronic Waste (E-Waste) are now becoming a global concern. According to International Telecommunication Union, United Nations University and the International Solid Waste Association, 44.7 million metric tons of E-waste were generated in 2016 or about 6.1 kilos per inhabitant on earth. Another issue regarding E-wastes aside from its volume are the raw materials used in crafting which are non-biodegradable and contains hazardous elements such as lead, mercury, cadmium and etc. which are toxic to man's health, causes air pollution, ground water contamination, elevated acidity in the soil and negative impact to wildlife. The main objective of the study is to obtain baseline data in terms of the E-waste generation in all waste source groups in Philippines. E-wastes are also categorized into eight different types for a more comprehensive classification and management. The baseline data generated helped the local government institutions to perform the appropriate undertakings in the E-waste management and disposal. Additionally, the data is beneficial in the construction of a 10-year projection of E-waste in the country. The management part of the study focused on the top five E-waste categories in the solid waste stream.

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