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Assessment of global warming potentials in recycling of food waste to biogas by LCA

Yong-Chul Jang, Yashoda Padeyanda and Youngjae Ko
Chungnam National University, South Korea

Food waste from households, restaurants and commercials can become an energy resource. While recycling of food waste is commonly practiced in Korea, the proper and sustainable management offood waste is still an issue of concern especially after the recent ban of ocean dumping of food waste leachate since January, 2013. In this paper, the global warming potential (GWP) of food waste management bylife cycle stages in Daejeon Metropolitan City in Korea was evaluated by material flow analysis (MFA) and life cycle assessment (LCA). According to the LCA results, global warming potential (GWP) was found to be approximately 166 kg CO2-eq/ton of food waste. This study also found that the disposal stage showed higher impact of GWP on the environment than other life cycle stages due to the landfilling of solid sludge and screenedwaste materials. The results of LCA would provide policy-makers to identify and reduce potential environmental impacts associated with food waste to biogas conversion by life cycle.

gogator@cnu.ac.kr

Recycling in Egypt: Why it is important and how to manage it?

Tarek M Heikal
National Research Centre (NRC), Egypt

Recycling saves energy, reduces raw material extraction and combats climate change. The vast majority of studies have found that recycling our rubbish is better for the environment rather than incinerating or landfilling it. Friends of the Earth in Egypt have long campaigned for increased recycling and more recently for law requiring better doorstep recycling collections. Recycling helps us toward sustainable living that creates a cyclic way of living rather than the current linear model, and this change is essential for reducing our impact on the environment as a whole. However after an intensive waste recycling scheme, there will still be a limited amount of waste remaining that requires treating. The quantity of this waste will reduce over time, therefore ruling out large and inflexible technologies such as incineration. Many local studies and observations have clearly shown that incineration is not a climate-friendly treatment technology; however, it is still applied in rural area for agriculture wastes close to cities, so that recycling has health impact rather than saving raw materials. We have many leading immanent projects for the manufacture of paper from rice straw and others. In conclusions, the purpose of the strategy was to build an infrastructure to support a national integrated management system. The objectives of the strategy are to: eliminate the uncontrolled accumulations of solid waste; and provide safe and efficient storage, collection, transfer, and management.

tarekhl@yahoo.com