

RECYCLING & WASTE MANAGEMENT

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Current state and trend of waste and recycling in Japan

Takashi Amemiya

Nippon Institute of Technology, Japan

This report statistically introduces current state and recent trend regarding resource circulation, industrial and municipal wastes and recycling of Japan. In Japan, the ratio of the total amount of recirculated resources to the national resource input is 15.8% in FY 2014. This ratio has been increasing continuously over the past 20 years mainly due to steady progress in the industrial waste recycling and to gradual shrunk of the domestic natural resource input. Of the total 255Mt of domestic recirculated resources, 55% is the amount of resources recycled from industrial and municipal wastes. The remaining 45% covers used paper, ferrous/non-ferrous scrap, steel making slag, black liquor etc. which are not classified as waste. Japanese total waste volume in FY 2014 is 437 Mt, accounting for 90.4% for industrial waste and 9.6% for municipal waste. The amount of resources regenerated from these wastes is equivalent to 50% of the total waste volume. The final landfill amount to all waste is only 3.4%. The Japanese Home Appliances Recycling Act imposes recycling obligation on manufacturers and distributors of four types of used household appliances (air-conditioners, TVs, refrigerators, washing-machines). In FY 2015, totally 11,000,000 units were recycled by the

manufacturers. However, this number is considered to be only half of the actual used appliances, and the other half may go to some illegal pass route. The recycling rates by legal procedure of manufacturers were all very high, 93% of air-conditioners, 89% of LCD TVs, 82% of refrigerators, and 90% of washing-machines. In order to expand recycling to all other small household appliances, the Small Home Appliances Recycling Act was enforced in 2013. The main focus is to promote recovery of precious/rare metals. These small appliances are collected by municipalities and handed to recyclers certified by the government. In FY 2015, the recyclers gathered 67kt nationwide, which was only about 1/10 of the final expected amount.

Speaker Biography

Takashi Amemiya received M.S. degree and Ph.D. degree from the University of Tokyo. In 1978, he joined Toshiba Corporation where he engaged in for 30 years in research and development work such as fuel cell systems, material and/or energy recycling systems for industrial wastes and E-wastes. In 2013, He was appointed as a professor at Nippon Institute of Technology, Japan, and is doing research achievements in the field of material and resource circulation engineering for the application in environmental area.

e: amemiya@nit.ac.jp

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