

# 3R Portfolio

- Good Practices to Promote the 3Rs -

Country: Republic of Korea

## Major Activities

### 1. Promotion of Waste Generation Reduction

#### 1) Volume-Based Waste Fee System

- ① Introduced in 1995 based on revision of *the Waste Management Act*
- ② The main objective is to impose waste treatment cost on waste discharger based on the amount of waste generated, thereby creating incentive to reduce waste generation. The system also promotes waste separation and recycling because municipalities provided free collection services for the designated items such as paper, metal and plastics.
- ③ The new fee system is estimated to create approximately 7.7 billion USD of economic benefit as a consequence of waste reduction (about  $6.1 \times 10^7$  ton) and increase of recyclables collection (about  $2.8 \times 10^7$  ton) between 1995 and 2003.

	<u>Before the system(1994)</u>	<u>After the system(1995)</u>	<u>2003</u>
Solid waste generation (kg/day/person)	1.33kg	1.07kg	1.04kg

#### 2) Reduction of Packaging waste

- ① Introduced in 1993 through *the Act on the Promotion of Saving and Recycling of Resources* and *the Ordinance on the Standards of Packaging Methods and Material*
- ② The main objective is reduce the generation of packaging waste, which comprises the largest proportion (37%) of the municipal solid waste, and to control certain types of packaging materials that are difficult to recycle.
- ③ The Ministry of Environment(MOE) has been taking the following measures; i) regulating packaging materials such as expanded polystyrene i.e. styrofoam since 1993, and various PVC packaging materials since 2001, ii) imposing regulations on packaging methods to restrict over-packaging, and iii) gradually reducing packaging material made from plastics each year.
- ④ Consequently, the total amount of packaging waste generated in 2002 (49,902 tons/day) decreased around 20% from that of 1993 (62,940 tons/day), despite the growth of economic scale and population.

#### 3) Restrictions of the use of disposable goods

- ① MOE carries out regulatory policies on the use of disposable goods since 1994 based on *the Act on the Promotion of Saving and Recycling of Resources*.
- ② It is restricted to use the disposable goods such as disposable cups, plates, disposable plastic bags and paper bags in restaurants, public baths, department stores, and other businesses. Providing such goods

to customers for free of charge is prohibited.

- ③ The generation of plastic waste gradually reduced as the use of plastic shopping bags decreased. In fast-food restaurants, plastic containers and cups were mostly replaced by paper products.
- ④ In 2002, the voluntary agreement was signed between MOE and 29 companies running fast-food and coffee businesses to facilitate the use of re-usable containers within their shops and to introduce deposit system on disposable take-out containers.

#### **4) Policies to Reduce Industrial Wastes Generation**

- ① Introduced in 1995 through the revision of *the Waste Management Act*, waste reduction duty was newly imposed on businesses that generate above a designate amount of industrial waste. Business owners are required to establish an annual plan to reduce industrial waste for each workplace.
- ② MOE developed *the Guidelines for Industrial Waste Reduction* in cooperation with the Ministry of Commerce, Industry, and Energy (MOCIE) and noticed publicly in 1996.
- ③ Currently, a total of 735 industrial sites under 14 categories which generate more than 200 tons of hazardous wastes annually are subject to the policy. After the revision of the act in 2003, any work places that generate more than 1,000 tons of industrial wastes became subject to the policy.

## **2. Promotion of Recycling**

### **1) EPR (Extended Producer Responsibility)**

- ① The EPR system was introduced in 2003. Before implementing the EPR system, the Waste Deposit Refund System had been implemented from 1992 to 2002.
- ② Products and packaging material subject to mandatory recycling are 18 items including five products (tire, lubricant, battery, electronic appliances, fluorescent lamp), and four packaging materials (paper box, metal can, glass bottle, synthetic resin packaging material).
- ③ Three electronic products (printers, copy machines, and fax machines) will be included in the list of mandatory recycling items under the EPR system starting from 2006.

### **2) Construction Waste Recycling**

- ① *“The Act on the Promotion of Construction Waste Recycling”* entered into effect in 2005.
- ② Any construction work contracted by a public agency must use more than a certain level of recycled aggregate.
- ③ The Minister of Construction and Transportation is required to set quality standards for recyclable aggregate by its use and has the authority to certify products.

### **3) Promotion of Green Product Purchase**

- ① *The Act on the Promotion of Green Product Purchase* was enacted in 2004 to further promote the purchase and use of the green products.
- ② The act makes it mandatory for public organizations to purchase eco-friendly products and to reflect the record of eco-friendly product purchase on their performance review. Each relevant public agency shall establish and implement annual purchasing plan for the green products.
- ③ “Green Product Promotion Association” will be established to support public agencies in purchasing

eco-friendly products by providing necessary information, education service and through promotional activities.

- ④ MOE shall publicly notify the list of green procurement products among the products certified as Good Recycled, Environmental Labeling, and Korean Standard.

#### **4) The resourcification of food-waste**

- ① To facilitate the resourcification of food-waste, it was prohibited to discharge food wastes mixed with other solid wastes and landfill food-wastes generated in urban areas without pre-treatment from 2005.
- ② As of January 2005, 96% of food waste is collected separately from other solid wastes, and food-waste collected is utilized as compost and stock feed after proper treatment processes.
- ③ In September 1998, the MOE prepared the “Comprehensive plan for the Resourcification of Food Waste” and proposed measures to reduce the total amount of food waste by 10% by 2002, and to utilize more than 60% of food waste as a resource.

#### **5) Financial Support to enforce Recycling infrastructure**

- ① To nurture the recycling industry, MOE has been providing a low-rate and long-term loan for recycling facility and technology development since 1994.
- ② By 2004, a total of 435 million USD was spent, and MOE is planning to provide an additional 67 million USD in 2005.

### **3. Promotion of product design for 3R : improving material and structure of products**

- ① Since 1996 based on *the Act on the Promotion of Saving and Recycling of Resources*
- ② In the designing process, any producers and importers of automobiles and electronic appliances such as TV, refrigerator, washing machine and air-conditioner in more than the amount designated by the act are required to consider ways to use less kinds of materials, opt for recyclable materials, curb the use of hazardous substances, reduce product weight, and make products easier to dismantle.
- ③ Manufacturers and importers of the products above should evaluate product recyclability based on the standards set by the MOE, and submit the result to the MOE and MOCIE.

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