

Korea Report for
Korea & Japan Society of Waste Management

Key Factors & Future Tasks of the Extended Producer Responsibility System in Korea

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I . Direction for Resource-Recycling Waste Management Policy

1. Basic scheme

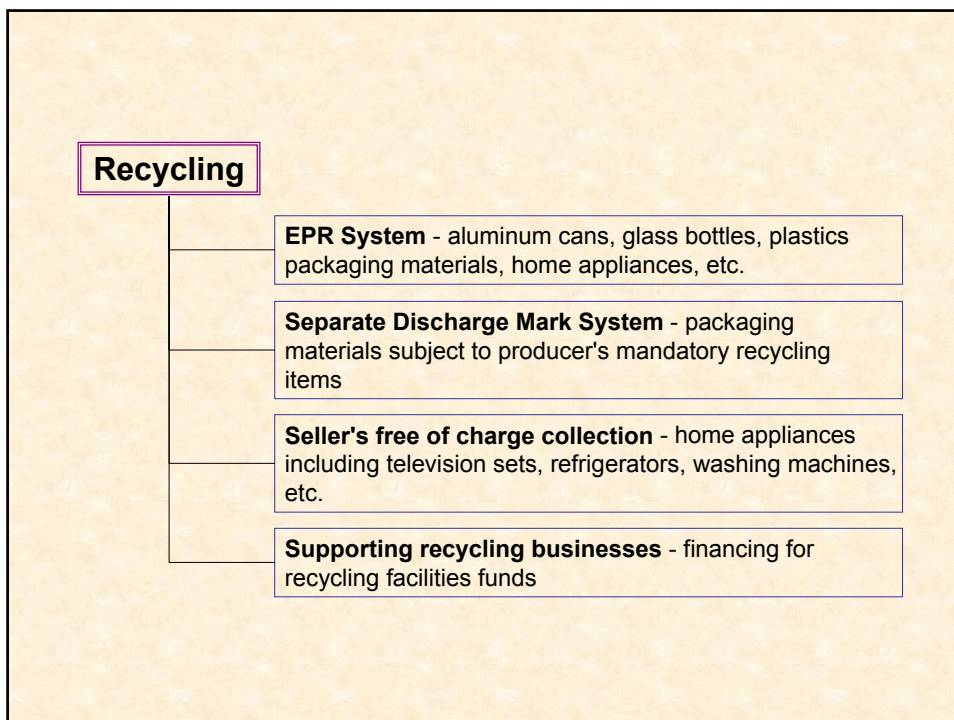
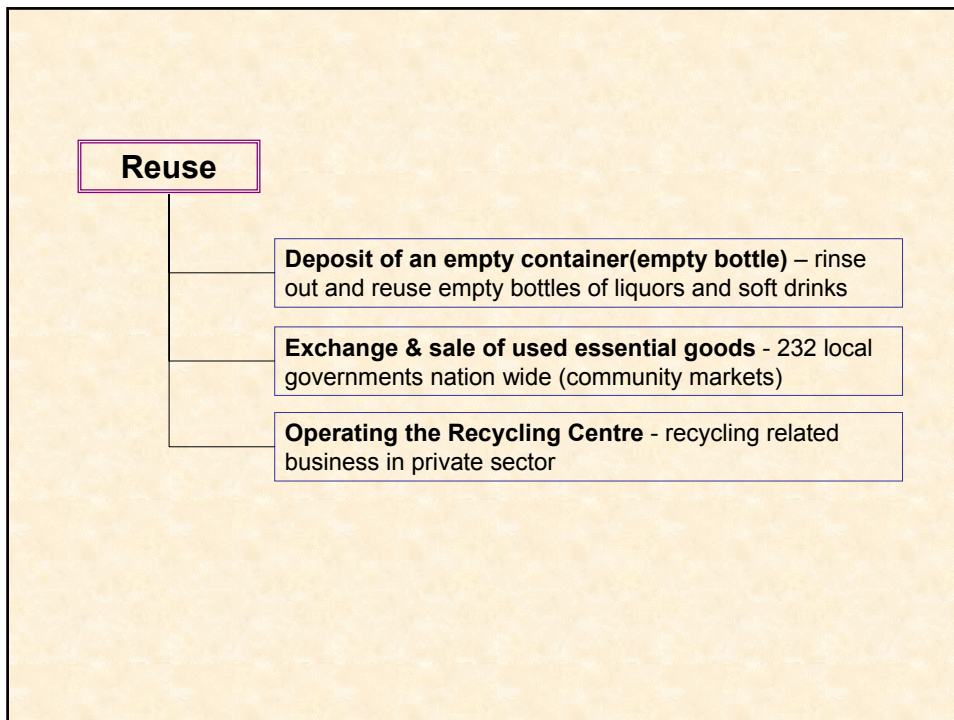
- In order to establish the Resource-Recycling Society substantial reduction in waste generation is required, during the process of manufacture, distribution and consumption as much as possible, however,
 - inevitably generated waste should be reused by repairing and partially replacing components, and,
 - for un reusable waste the adoption of recycling system is encouraged to save resources and protect from environmental pollution.

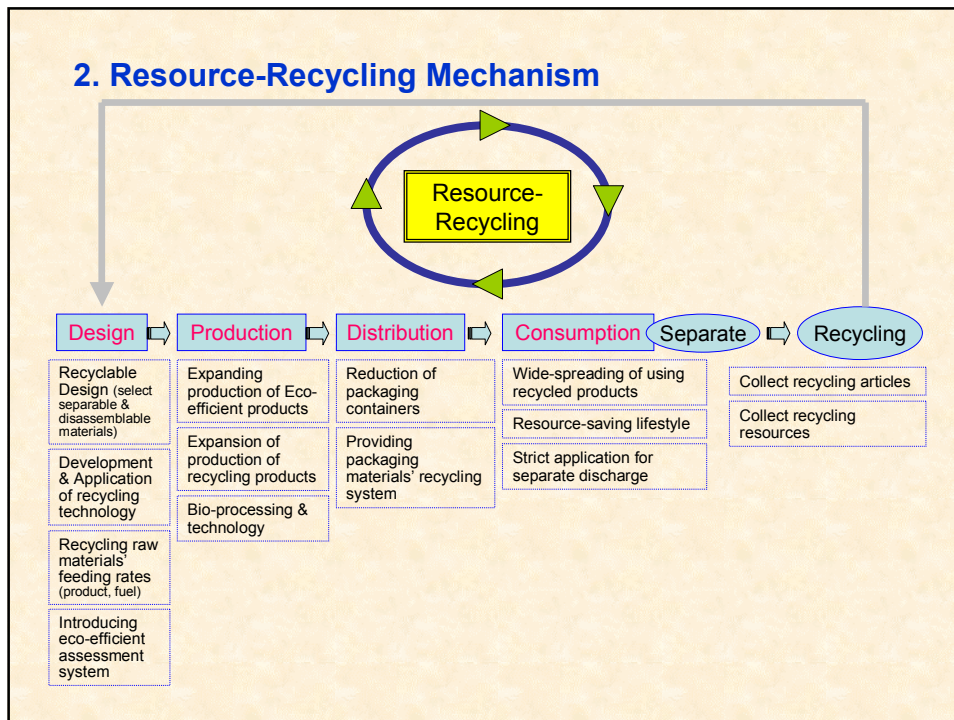
Reduction

Minimizing the use of disposable products -
Disposable Products-containers-plastic spoons, plastic bags, shopping bags, etc.

Restriction on over-packaging - food/beverage, cosmetics, quasi drug, clothing, etc.

Waste Disposal Charges System - plastic goods, insecticide, chewing gum, tobacco, antifreeze, etc.





II . Key Factors of Extended Producer Responsibility System

1. EPR System

a. Background

- Under the current mass production and consumption system, the government and consumers alone cannot identify the full responsibility for **realizing the Resource-Recycling Society** by reducing and recycling waste, thereby:
 - The **Extended Producer Responsibility (EPR)** has been introduced to expand the producer's responsibility, based on the guidelines for waste reduction. The system aims to improve recyclability by adopting a new structure to use reusable & recyclable materials all throughout the production process, from design to manufacture.
 - EPR System, with its ultimate goal to implement "Socio-Economic Structure based on Resource-Recycling System" motivated by the promotion of the waste reduction and recycling structure, had already been introduced by most of the OECD Member countries as specified below:
 - ❖ 15 countries from Europe including Germany (DSD), U.K, France, Hungary; 4 countries from Asia including Japan, Taiwan, Australia; other countries from South America including Mexico and Brazil.

b. Preliminary Process

Enforcement of Deposit-Refund System

- This system has been enforced **since 1992**, for the purpose of boosting the waste recycling, subject to **20 target items** including aluminium cans, glass bottles, paper packs, and home appliances. This system mandates producers **to deposit their recycling costs** in advance, based on their **total production quantity**. Then, the deposit will be **reimbursed when producers present a fact sheet on their recycling rate**

Initiating the pilot program for EPR System before its enforcement in 2003

- Pilot program for EPR System subject to 7 target items including home appliances, aluminium cans, glass bottles, and tires has been initiated since the year 2000, under the voluntary agreement signed between government and business providers.

Fostering the preliminary condition to enforce plastic EPR System efficiently

- **Established the co-operation system to foster appropriate condition for recycling system** between government and concerned industries, **acquired financial resources to build infrastructure** for plastic recycling, and arranged a private sector's organization initiated by the relevant pilot program.
- **Reflecting diverse opinion of relevant industries and promoting amendment of related laws and regulations**
- Reflected various comments to the system with the collected opinion **from the expertise of relevant industries and private sector' corporations over 30 times** in respect of producer's recycling target items and detailed enforcement regulations, etc.
- Carried out the **amendment of recycling regulations** based on the **result of these collected comments**.

2. Key Factors

Items subjects to the producer's mandatory recycling

| | | |
|-------------------------------|---------------------|--|
| Existing deposit-refund Items | Products | home appliances including TV sets, refrigerators, air-conditioner, washing machines, computers, tires, lubricants, fluorescent lamp, batteries, etc. |
| | Packaging materials | paper packs, aluminium cans, glass bottles, and PET bottles (foodstuffs, liquors, cosmetics, detergents, some portion of pharmaceutical products) |
| Newly introduced Items | Products | mobile phone devices, mobile phones, and audio sets |
| | Packaging materials | plastic packaging materials (foodstuffs, liquors, cosmetics, detergents, pharmaceutical products) EPS buffer (home appliances) |

For the **film type of packaging materials and fluorescent lamp** among the plastic packaging materials included in newly introduced items, will subjected to recycling liability from 2004, and for **mobile phone devices and audio sets** , from 2005.

Recycling Charges

- Recycling cost is calculated based on the expected sum of waste collecting and recycling, as set forth in the relevant regulations.
- In the event a recycling-required producer failes to reach the mandatory quantity of recycling, the producer will be subjected to the recycling charges for a **reminding-portion** by **adding up additional dues of certain rate with recycling charges**.

Estimation of Mandatory Recycling Quantity

- Calculated by assessing the recycling-required producer's given overall recycling conditions such as production quantity, recycling achievement, recycling technology applicable in targeting items, and capacity of recycling facilities.

Performance system for producer's Mandatory Recycling Quantity

- Establishing the recycling plant by producer's own cost
- Outsourcing to recycling business provider
- Affiliating producer himself with the mutual aid association and paying a certain dues, and then outsourcing the recycling

Acknowledgement of outperformed achievement for Mandatory Recycling Quantity(Banking)

- In case a producer outperforms his recycling quota, he can **reserve and use the credit for the excess performance during the next two years**. Hence, this system minimizes the producer's risk arising from economic fluctuations.

Obligation of Seller's free of charge collection for newly sold home appliances

- In regards to selling home appliances including television sets, refrigerators, washing machines, computers, and mobile phones, as a new products, when a consumer requests the used products to be collected, the seller is obliged to collect them free of charge.

Enforcement of Separate Discharge Mark System for packaging materials

- **Separate Discharge Mark System** subject to the mandatory target items of recycling-required producer has been introduced by unifying the conventional material classification mark system with recyclable mark system.

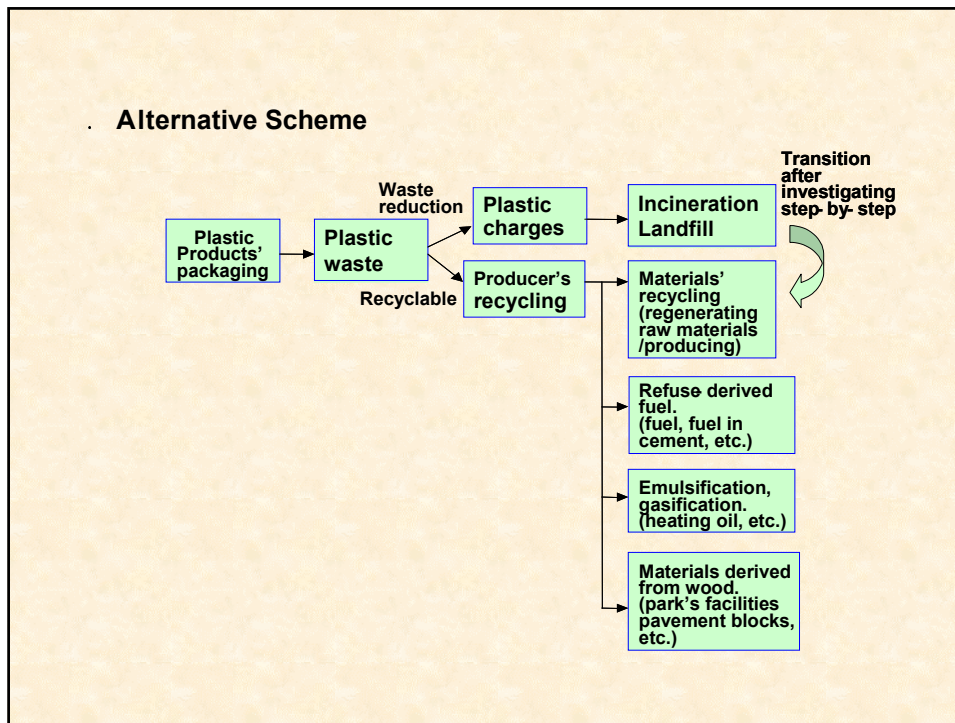
3. Reinforcing the plastic waste recycling system

Background

- While the annual plastics consumption tends to be increasing drastically, the current recycling rates (14.9%) are considerably low comparing to other materials, hence,
 - a comprehensive framework should be promoted for plastic recycling, in order to implement **Socio-Economic Structure based on Resource-Recycling System**.

<Current status of recycling rates by principal materials, in 2000>

| Items | Papers | Aluminium cans | Glass bottles | Plastics |
|-----------------|--------|----------------|---------------|----------|
| Recycling Rates | 59.8% | 63.1% | 67.4% | 15% |



4. Roles of Principal Parties

| | |
|---|--|
| Consumer | <ul style="list-style-type: none"> o Strict compliance with Separate Discharge System for recyclable articles. - package materials with the Separate Discharge Mark, must be discharged separately. - Separate Discharge should be performed according to the each municipal, county, and district's Collection System. |
| Producer | <ul style="list-style-type: none"> o Assume the recycling liability strictly. o In case of a-fulfillment failure, the producer should pay the Recycling Charges. o Performs the Separate Discharge Mark. o Free of charge collection for the newly sold home appliances |
| Local Government (municipal, county, district) | <ul style="list-style-type: none"> o Manages Separate Discharge system strictly for EPR subjected packaging materials o Implements an appropriate system under each local governments in conformance with the Separate Collection guidelines. |
| Korea Resources Recovery & Reutilization Corporation | <ul style="list-style-type: none"> o Manages overall duties on institutional execution including accept and control, the production quantity record per producer, compliance action plan and fact sheet reports, as well as monitoring the recycling liability performance, and imposing charges. |
| Ministry of Environment | <ul style="list-style-type: none"> o Supports and manages overall institutional conduction such as enacting and amending the laws and ordinances, imposing Mandatory Recycling Quantity, inspection of mutual aid associations and public corporations. |

III. Future Tasks

- Endeavor to establish the autonomous and reasonable **cost-sharing system** (selection, transportation cost, etc.) among the **producer ↔ local government ↔ recycling business providers** subject to the new items including plastics.
 - support to implement the efficient hand-over system of recycling articles among the concerned parties.
- On-sight inspection and complement on the overall process from Separate Discharge by item, collection to recycling.
- **Furnish infra-structure facilities for plastic, fluorescent lamp, home appliances, etc.**
 - Motivate the private sector industries to follow the quality standard of plastic refuse-derived fuel and to expand recycling facilities.

- **Initiate the promotion campaign for plastic recycling products** (refuse-derived fuel, emulsified)
 - promote the plastic recycling products' purchasing campaign targeting the public institutions and private sector.
- **Monitoring the performance process of EPR System** and creating **system improvement plan** (research outsourcing)
 - provide alternative plan to solve the problem throughout the on-sight investigation from Separate Collection, selection, recycling, to sales process.