Discussion points for the internationally-harmonized EPR systems

United Nations Economic and Social Commission for Asia and the Pacific

Institute of Global Environmental Strategies, Japan
Concept of Extended Producer Responsibility (EPR)

- **OECD defines EPR as**
  - An environmental policy approach where the producers’ responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product’s life cycle.

- **EPR is intended to**
  - reduce the amount of materials going to landfills, by promoting 3Rs
  - transfer responsibility (especially cost) for waste management from local government which is downstream in the product life cycle and instead to producers in the upstream of the product life cycle.
  - provide producers incentives to environmental consideration at product design and raw material selection

- **Producer = -Brand owner -Importer**
  - Other actors’ involvement; - distributor, retailer, and consumer in the supply chain has role and responsibility
Concept of EPR

- Raw Material
- Production Process
- Final Product
- Distribution
- Consumption
- Waste
- Reuse/Recycle
- Final Dispose

Producer’s Responsibility (conventional)

Extended

Other actors’ involvement
- distributor, retailer, and consumer in the supply chain has role and responsibility
Model of the 3R system based on EPR and its instruments

- Minimum recycled content requirement
- Take-back requirement
  - Deposit/refund schemes
  - Advanced disposal fees
- Promote recycling
- Producer Responsibility Organization

Materials

Producers

Change of production concept
- Change of materials
  - Material Taxes

Producers

Design for Environment
  - Tax Reduction
  - Subsidies

Green Market
  - Eco-labeling
  - Awareness Raising

Business model change:
  - Leasing
  - Servisizing

Distributors

Reduce

Consumers

Waste

Reduce in Upstream

Appropriate treatment

Reduce in Downstream

Tax/Surcharge according to the quantity

Final dispose

Recycle

Illegal dumping

Strict Penalty

Minimum recycled content requirement

Take-back requirement

- Deposit/refund schemes
- Advanced disposal fees

Promote recycling

Producer Responsibility Organization
Introduction of EPR in OECD Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
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<tr>
<td>Korea</td>
<td></td>
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<tr>
<td>Mexico</td>
<td></td>
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<tr>
<td>New Zealand</td>
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<tr>
<td>Norway</td>
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<tr>
<td>Switzerland</td>
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<td>Turkey</td>
<td></td>
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<tr>
<td>United Kingdom</td>
<td></td>
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</tbody>
</table>

Source: OECD
## Introduction of EPR in other Asian Countries (examples)

<table>
<thead>
<tr>
<th>Country</th>
<th>Example of EPR Implementation Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>· Mandatory take-back regulations for certain products</td>
</tr>
<tr>
<td>Korea</td>
<td>· Extended producer responsibility for waste management policies</td>
</tr>
<tr>
<td>Singapore</td>
<td>· Implementation of EPR for electronic waste</td>
</tr>
<tr>
<td>Malaysia</td>
<td>· Voluntary take-back schemes for large corporations</td>
</tr>
</tbody>
</table>

Source: OECD
Germany: Packaging Ordinance of 1991

(Target materials: glass, plastic, paper, steel can, aluminum can)

- One of the first EPR-based recycling schemes in the world.
- Producers have a responsibility of recycling and disposal instead of municipalities.
- DSD was established to implement EPR acting for producers. By participating in the program, manufacturers may use eco-label called Green Dot for their products.

Types of waste

<table>
<thead>
<tr>
<th>Types of waste</th>
<th>Recycling target achieved in 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass</td>
<td>99%</td>
</tr>
<tr>
<td>Paper/cardboard</td>
<td>161%</td>
</tr>
<tr>
<td>Plastic</td>
<td>97%</td>
</tr>
<tr>
<td>Tinplate</td>
<td>74%</td>
</tr>
<tr>
<td>Aluminum</td>
<td>121%</td>
</tr>
<tr>
<td>Compounds</td>
<td>128%</td>
</tr>
</tbody>
</table>

Source: IGES RISPO Good Practices Inventory
Used Car Recycling System of 2002 (effective in 2005) in Japan

- Obligating car manufacturers and importers to collect and appropriate recycle Automobile Shredder Residue (ASR), Freon and air bags
- Deposit of disposal fees in advance to the fund corporation
- Concern of increasing export of second hand cars

Recycling rate of materials by major car companies in Japan

<table>
<thead>
<tr>
<th>Car Company</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toyota</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASR</td>
<td>50%</td>
<td>57%</td>
</tr>
<tr>
<td>Airbags</td>
<td>95%</td>
<td>93%</td>
</tr>
<tr>
<td>Nissan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASR</td>
<td>64%</td>
<td>67.9%</td>
</tr>
<tr>
<td>Airbags</td>
<td>94.5%</td>
<td>93.5%</td>
</tr>
<tr>
<td>Honda</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASR</td>
<td>52.6%</td>
<td>59.6%</td>
</tr>
<tr>
<td>Airbags</td>
<td>94.5%</td>
<td>93.5%</td>
</tr>
</tbody>
</table>
EPR is effective as a policy tool to promote the 3Rs within a country.

However, considering the international flow of goods and products, EPR should be examined from a different viewpoint.

In the context of economic integration of Asian region, potential risk and issues should be examined.

E-waste can represent such rising issues.
For the introduction of EPR systems and needs for internationally-harmonized mechanism

- The expansion of global market for products as well as gaps in national capacity for recycling and environmentally sound management of waste would lead to increase in higher environmental risk.

- Also, there is a concern of environmental pollution risk due to international gap in recycling mechanism among countries (a concern of pollution export)
It may be necessary to construct a mechanism to adjust and harmonize the gap in recycling-related institutional setting and recycling and management capacity.
Internationally-harmonized mechanism

To establish internationally-harmonized mechanism, the following two measures are necessary

1. Harmonization of institutional setting
2. International scheme for information sharing

Also, international cooperation for capacity development is an important starting point for this process.
1. Example of Points to be Considered for Harmonization of Institutional Setting

**Objectives**

- Environmentally sound recycling for products in any country
- To prevent loop-hole in domestic institutional setting via trade by reducing institutional gap and harmonization
- Prevention of illegal activities

**Institutional settings to be harmonized**

- Standardization of design for recycling
- Coordination of coverage of producer’s responsibility
- Coordination of domestic deposit scheme and financial cooperation
- Network of port authority to prevent illegal trade
2. Example of Points to be Considered for Information Sharing

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Information to be shared</th>
</tr>
</thead>
<tbody>
<tr>
<td>To encourage countries to ensure proper recycling</td>
<td>▪ Standardized information on products for their recyclability</td>
</tr>
<tr>
<td>To follow the rules of recipient countries for export of products</td>
<td>▪ Information on regulated and controlled substances and materials</td>
</tr>
<tr>
<td>Development of management capacity of recyclers</td>
<td>▪ Information of recycling-related institutional setting of countries</td>
</tr>
<tr>
<td>Prevention of illegal activities</td>
<td>▪ Certification and award for good practices by reliable recyclers</td>
</tr>
<tr>
<td></td>
<td>▪ Information on dishonest traders</td>
</tr>
<tr>
<td></td>
<td>▪ Network of monitoring for prevention of illegal trade</td>
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Towards internationally harmonized EPR

A suggestion for research and examination of internationally harmonized EPR in Asian region

- Identification of issues for international harmonization of EPR systems
- Examination of strategic mapping
- Examination of individual themes
  - Information sharing, harmonization of institutional setting and international cooperation

< Examples of strategic issues and policy-relevant issues >
- Examination of possibilities to introduce collaborative mechanisms for domestic deposit scheme and international financial cooperation
- International networking of recycling hub to prevent illegal trade and to develop management capacity
IGES and UNESCAP would like to suggest to start examination of the possibilities and issues involved in EPR systems taking into consideration of economic integration in Asian region

1) Establishment of discussion group

2) Call for volunteers, especially experts from government, industrial sector, researchers and NGOs
Thank you for your attention