

# Why we should consider ESM?

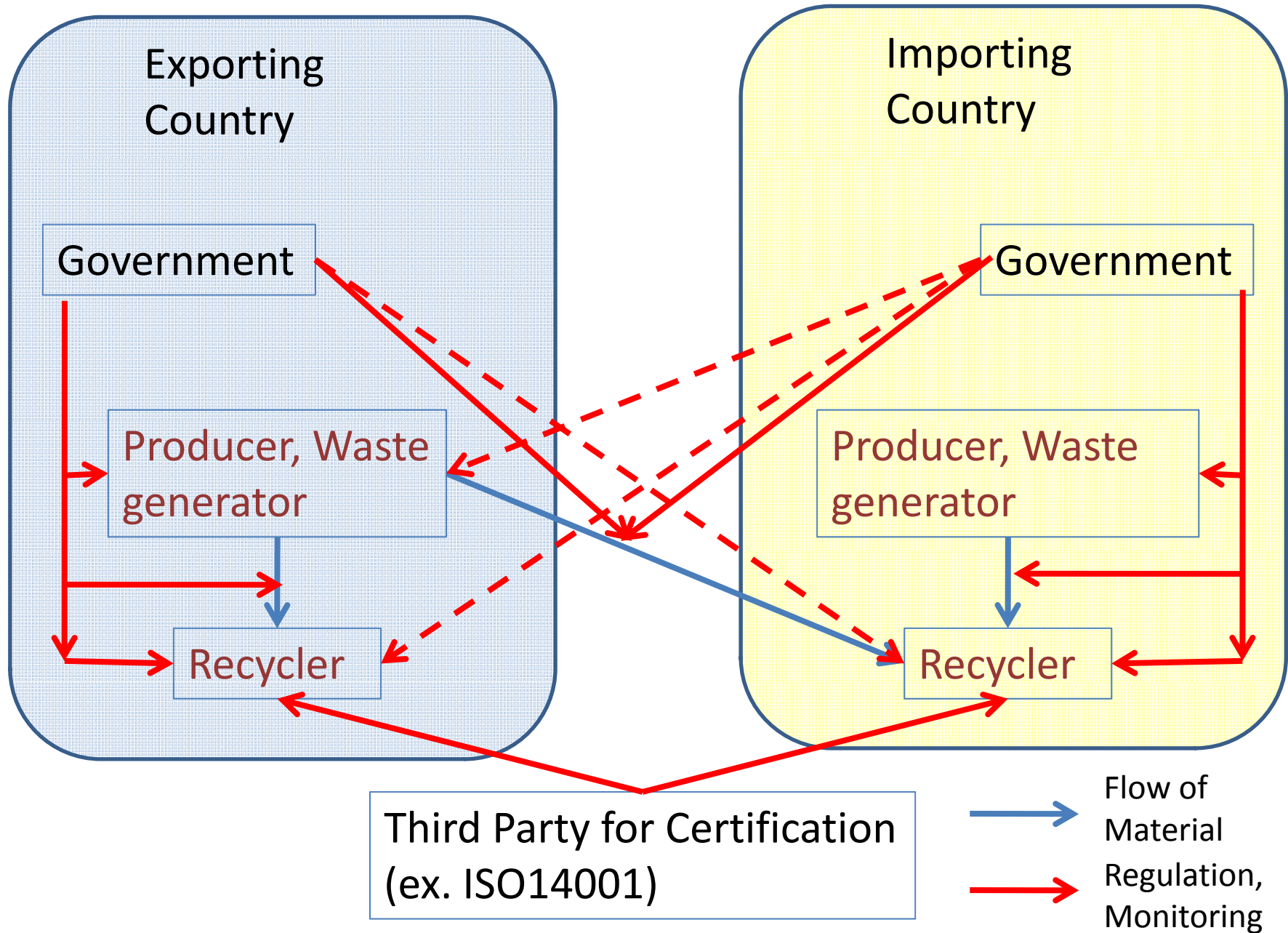
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# Different approaches

- Government regulation vs. voluntary certification system
- General requirement vs. specific waste stream or technology
- Common level in the region/world vs. right of each country to set the level
- Focusing requirement for transboundary movement or requirement for operation of individual company
- minimum requirement or recyclers with best/advanced technologies



# Domestic Regulation

- Producer: restriction of use of hazardous substances
- Waste generator: management of hazardous waste
- Movement of hazardous waste: manifest or consignment note
- Recycler: pollution control regulation, hazard management, labor protection measures (Major contribution of capacity development for ESM in developing countries?)

# Regulation on transboundary movement

- Inspection on shipment
- Handling of illegal shipment, including ship-back
- Restricted importer (Major contribution of ESM in the Basel Convention?)
  - List of credited recycler which allow import
  - PIC Procedure

# First step to start the discussion on ESM

- We should make clear what is purpose of developing ESM.
  - guidance document for developing HW recycler and treating company in developing countries
  - ESM requirement for allowing transboundary movement

# Apply different level of criteria?

- Importing country may request different management level between recycler processing domestically generated HW and imported HW
  - Recycler should export non-recyclable hazardous material generated from processing imported hazardous waste
- Exporting country may request recycler in other country to provide additional information before issuing export permit such as
  - reporting back to the government in exporting country by internet
  - destination of residuals
- Different level of economic development exists in a big country. Should government apply different level of criteria to different region?
  - Facility serving various region should have higher standard than facility serving specific region.

# A proposal: Combination of Minimum Standard and Higher Standard

- In the effort of promoting energy efficient home appliances, some countries apply minimum energy efficiency standard and higher energy standard with labeling program.
- Minimum standard on ESM for recycler will be applied in less developing countries or poor region in developing countries, which can deal with waste generated in specific area. Transboundary movement across country or provincial border is not allowed.
- Higher standard on ESM will be applied to developed countries and rich region in developing countries. Incentive to achieve higher standard on ESM are
  - Allowing import of waste from other country
  - Allowing collection of waste from other provinces
  - Eligible to handle waste generated in the government (a part of green procurement program)
  - Credited recycler in Specific recycling system, based on Extended Producer Responsibility



**FUTURE DIRECTION**

# Background

- Improper recycling of recyclable waste in developing countries => control of transboundary movement
- Economic integration in Asia has been accelerated.
  - Fragmentation of production process, concentration of specific production process in a certain region (economy of scale) => Gap between demand and supply of recyclable waste including hazardous waste will be widened
- Resource scarcity, Necessity of Mitigation of climate change
  - ⇒ The demand of effective use of recyclable waste increase

# Observation from Day 1

- Each countries struggle to minimize environmental burden from transboundary movement of hazardous waste and other waste, and to maximize benefit from using waste as raw materials,
  - by regulating import of waste, taking into account
    - hazardous characteristics
    - if the material is used directly in the production process or not (ex: Malaysia on coal fly ash and Gypsum)
    - level of environmental management, especially on pollution control, by recycler importing recyclable waste (ex: PIC procedure, China on compressed PET bottle)
    - limited generation of specific waste in own country

# Long term vision (my interpretation)

- Taking into account current level of enforcement of border control and pollution control, high trade barrier for hazardous waste may be necessary. Preventing illegal trade of hazardous waste should be strengthened.
  - In the long run, Asian countries will have enough capacity to manage and utilize hazardous waste. So negative aspect of import of hazardous waste will be reduced.
  - Right now, only Japan and South Korea are Annex VII country. But in the long run, the number of Annex VII country will increase.
- => In the long run, proper utilization of hazardous waste with transboundary movement will be increased.

# Annex VII and **Non Annex VII** Countries

	Per capita income(US,\$ PPP, 2009)	Effectiveness of Government (2009)	Control of Corruption (2009)	Environmental Performance Index(2010)
<b>Singapore</b>	49,780	2.194	2.174	69.6
<b>Hong Kong</b>	44,340	1.757	1.845	
Japan	33,470	1.256	1.35	72.5
South Korea	27,310	1.112	0.522	57.0
Poland	18,440	0.645	0.483	63.1
Rumania	14,460	-0.13	-0.13	67.0
Mexico	14,100	0.168	-0.27	67.3
Turkey	13,710	0.352	0.093	60.4
<b>Malaysia</b>	13,710	0.989	0.021	65.0
Chile	13,440	1.209	1.371	73.3
<b>Thailand</b>	7,640	0.152	-0.23	62.2
<b>China</b>	6,890	0.116	-0.53	49.0

Source: World bank . Columbia University

# Hazardous Waste Trade by EU Countries (2005, ton)

Import Export	Belgium	Germany	France	Italy	Netherland
Austria	1053	281807	18511	73292	
Belgium		207995	201397	70018	137743
Switzerland	5232	140923	300315	288105	26303
Germany	236396		111359	383315	102940
France	186173	114818	29210	215569	42410
G Britain	5306	56595	14340	123	5136
Ireland	10778	214419	810	30	3463
Italy	2923	646707	17115		248
Luxembourg	14493	84114	192995		1245
Netherland	320637	621532	33296	300005	
Total	805643	2569800	928649	1334860	331133

# Hazardous Waste Trade by Asian Countries (2005, ton)

Import Export	Japan	South Korea	Philippine	Malaysia	Singapore
Japan		64000		*241872	
S. Korea					
China	1191	100			
Hong Kong	242				
Taiwan		900			
Philippine	1248	4450			
Thailand	460	480	870		135
Malaysia	1683				26
Singapore	477	7000	10000	64774	
Indonesia	91				
Others	23	91500	18720		

Note: \*: Blast Furnace Slag, which is not regarded as Hazardous Waste in Japan, and which is excluded from Hazardous Waste in Malaysia since 2006.

# Asian Network and BCRC

- BCRCs can contribute the capacity development of each member country in HW management, by providing information on regulation and technology.
- Asian Network with support of BCRCs should
  - continue to put effort in preventing illegal trade by cooperation among members
  - reduce extra burden of transboundary movement destined for proper treatment facility
    - Some EU countries started common electrical notification system
    - NAFTA countries are also developing to introduce electrical notification system



**SUPPLEMENTARY**

# How to differentiate?

- Unilateral Action
  - excluding specific waste from list of items for import ban
  - allowing import by credited recycler
- Multilateral Action
  - PIC procedure, based on facility of importer
  - PIC procedure, based on stage of processing

# What are major problems in Asia, regarding hazardous waste?

Problems	Counter measures
(No definition of hazardous waste)	Define Hazardous waste
(No PIC Procedure)	Define PIC procedure
(HW with PIC procedure destined for dirty recycler in developing countries)	Assessment on recycler importing HW Ban Amendment
Illegal trade of HW	Inspection on shipment Ship-back procedure
Unintentional trade of HW	Clear definition and common understanding of definition Dissemination of information
No or a few good recycler/treating company	To promote investment by enforcement of pollution control regulation to informal recycler, support upgrade of informal recycler and giving incentives to investor
Time consuming of PIC procedure for transboundary	Electric notification system, Simplify approval process, Make clear the procedure, when the definition is different between importing and exporting country

# Policies to Develop Recycling Industry Treating and Recycling HW

Status	Domestic Measures	Transboundary movement
No regulation, recycler without any approval	Create HW regulation (permit system of recycler, responsibility of HW generator, manifest or consignment note etc.)	Ban on import of HW. Define PIC procedure to export HW.
Regulation implemented. Coexistence of formal recycler and informal recycler	Stricter enforcement of pollution control to informal recycler. Support upgrade of informal recycler, give incentives to investor in ESM recycling, Alternative recycling system based on EPR	One of possible incentive to formal recycler is to allow them to import HW, in order to avoid bankrupt.
Competition between formal recycler and informal exporter	Strengthen responsibility of waste generator, Alternative recycling system based on EPR	Enforcement of controlling export of HW