Management of transboundary movement and Recycling of wastes (e-wastes) in Thailand

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Presentation Outlines

- Statistics of wastes import/export
- Illegal Traffic of E-wastes and Others
- Activities on HZW and E-waste management
  - Household hazardous waste collection project
  - Mobile phone batteries and fluorescent lamps take back program
  - E-waste inventory
  - Recycling facilities
- Major challenges
Waste Statistics
Export Amount

Metric Tonnes

- Crude zinc oxide
- Copper fines and residues
- Zinc residues containing Pb & Cd
- Galvanic sludges
- Unsorted waste batteries
- Phenols
- Waste Catalysts
- Waste containing Pb
- E-wastes
- Mercury Sludges
- CRTs
- PCB
- Sn/Pb Ashes & Residues/Tin Alloy/Solder Dross
- Ag/Cu Residues (Non-Ferrous Metal Hydroxide Filter Cake)
- Waste containing Sb, Be, Cd, Pb, Se, Te

Year

Exporting Country/Origin

- Singapore
- Japan
Import Amount

Metric Tonnes

- Metal wastes and waste consisting of alloys
- Used printer cartridges
- E-wastes
- CRTs

Year

Import Amount for Various Types of Waste

- Metal wastes and waste consisting of alloys
- Used printer cartridges
- E-wastes
- CRTs

Import Data Over Years

Year 2006 shows a significant increase in import amount compared to previous years.
Importing Country/Destination

- Netherland
- Germany
- France
- Canada
- Belgium
- UK
- Japan
- Philippines
- Singapore
- Korea
Thailand’s Experience on Illegal Traffic of E-wastes and Other Wastes
Illegal export of used tires, used car bodies/ parts and used lead acid batteries (23.45 tons) from UK to Thailand (Dec. 2001 - Feb. 2003)
Illegal export of plastic wastes and others (17.7 tons) from Netherlands to Thailand (Sep. 2003 - Apr. 2004)
Illegal import of used boards of pinball game (46.2 tons) from Japan to Thailand (Jan. 2004 - 2005)
Illegal export of used monitors (19, 15.6, 16.75 tons) from Thailand to China (Feb., Apr., May 2004 - present)
Illegal export of E-wastes (18.18 tons) from Thailand to Hong Kong (Dec. 2005 - present)
Procedures for the Investigation and Cooperation on Illegal Traffic of Wastes

- Discrepancy in documents (false declaration) or unclaimed goods (> 2 months) were found by Customs

- Customs inform shipping agent / consignee within 15 days

- If no one claimed the goods, Customs will set up the investigation team incl. Customs & environment investigators, port officers & other agencies

- Team will investigate the shipment & other relevant evidences

- Submit all evidences to the authorized agencies for further legal actions
Training Course on Identification and Prevention of Illegal Traffic of Wastes

- HW definition
- Legislation for controlling the HW import
- Roles of Customs, Port Authorities, shipping agents
- Environmental and waste sampling
- Site visit at the port and waste facilities
- Illegal shipment inspection
Current Activities on Hazardous Waste and E-waste Management in Thailand
Household HW collection scheme

- **Awareness raising**
- **Incentive**
- **HHW Collection to transfer station**
- **Drop off or Special Collection day**
- **Recycling**
- **Transportation**
- **Disposal: secure landfill, incineration**
Waste containers

Container for dry-cell batteries, aerosol cans, cleaning liquid bottles. (Separate container for different type of waste)

Drop-off Bin Installed in community centers

Container for 100 straight FL
Awareness raising program
Collected hazardous waste
Mobile Phone Battery Tack Back Project
Pilot Project on Fluorescent Lamp Recycling
E-Waste Inventory Development

- **Scope of inventory covers PC, Notebook, TV, air conditioner, mobile phone, refrigerator.**
- **Tool: Questionnaires**
- **Samples**
  - Households: 400 samples
  - Offices: 400 samples (companies, institutions, hotels, apartments)
  - Recyclers: 400 samples (collectors, second-hand shops, repair shops, dismantlers, and recyclers)
- **Sampling Method**
  - Stratify household income by province and number of population
  - Select number of samples by population size
Data are being analyzed and verified.

- Purchase / use pattern
- Amount of used e-product discarded at present and in future
- Amount of used e-product exported, repaired/reassembled and dismantled
- Generation and management of residues generated from repair/reassembling, dismantling, processing
Recycling of Hazardous Waste in Thailand
Pb acid batteries
On-site service

Courtesy of Wongpanit Group
Destruction of Hard Disk

Courtesy of Wongpanit Group
Dismantling of Printers
Destruction of other secret parts

Courtesy of Wongpanit Group

FL Recycling (Toshiba)
Major Challenges
Major Challenges

- Different definitions of e-waste among countries
- Some concerns about Free Trade Agreement
- Lack of domestic facilities to manage internally without exporting to other countries (in terms of number and types of products)
For more information

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