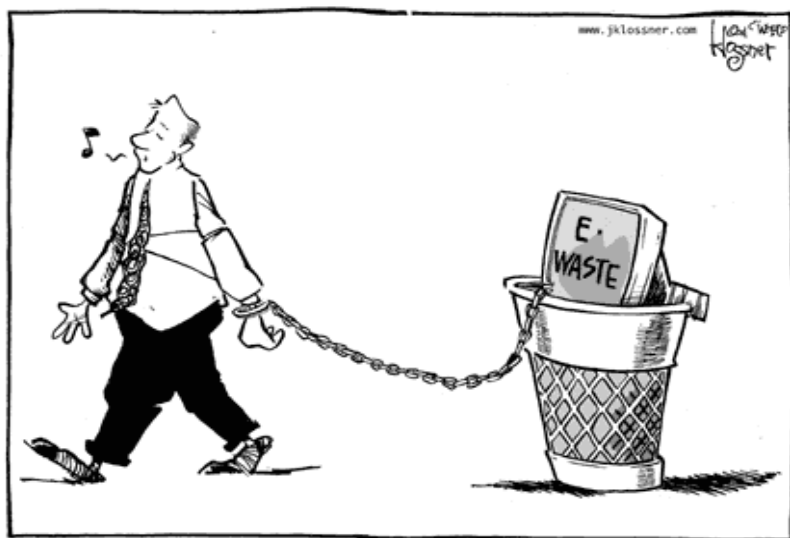


Update on National Regulations and Border Control Activities for Enforcement of the Basel Convention



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PHILIPPINES



OUTLINE

- **GENERAL INFORMATION ON E-WASTES**
- **POLICIES, RULES AND REGULATIONS**
 - Law and Policies on Hazardous Waste Management
- **DATA AND INFORMATION**
 - Hazardous Waste Generators & Generation Data
 - Import and export data
- **PROGRAMS/PROJECTS/STUDIES**
 - Philippine studies
 - Basel Convention and Stockholm convention
- **CONCERNS AND CHALLENGES**

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GENERAL INFORMATION ON E-WASTES

Current Situation and Practice

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“E-waste: Poisons, Metals and Ethics Adrift

**Workshop on Hazardous substances within the life-cycle of
electrical and electronic products
Vienna, 29-31 March 2011**

Source: Basel Action Network

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OMG: What have we Done?



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Hyper-Obsolescence in IT Consumption

- Today's computer industry brings new technology and 'upgrades' to market every 18 months.
- **Reasons:**
 - Rapid Innovation.
 - No \$\$ incentive for “longevity”. Much \$\$ incentive for rapid, planned obsolescence – churning product.
- Average life span of use of a personal computer for the original consumer is now **2 years**.



E-Waste is Hazardous Waste



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Hazardous e-Waste Constituents

- ***Toxic Metals***
Lead, Cadmium, Mercury, Beryllium, Selenium, Lithium, Antimony, Arsenic
- ***Brominated Flame Retardants***
TBBA (tetrabromo-bisphenol-A)
PBDE (polybrominated diphenyl) etc.
- ***Other Halogenated Hydrocarbons***
PVC (polyvinyl chloride)
CFCs (chlorofluorocarbons)
- ***Rare Earth Elements***
Yttrium, Europium, Americium



Divert from landfill to...recycling?



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Out of Sight...

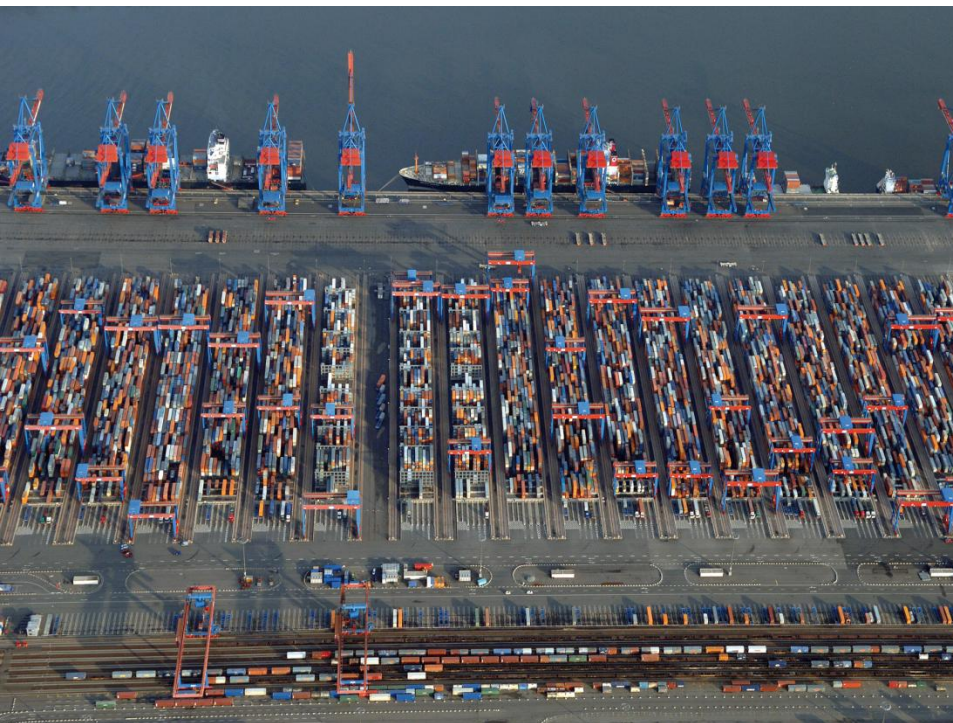


Out of Mind?

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In Europe, 54% of WEEE is thought to go to substandard treatment...



Exporting Harm: The Dirty Little Secret of the High-Tech Industry



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Guiyu, China 2001



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Lagos, Nigeria 2005



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Accra, Ghana 2009/10



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***"I don't know
where they
go," she said.***

***"They go
away."***

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Away is a Place.....



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POLICIES, RULES AND REGULATIONS

The Law and its Implementing Rules and Regulations

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RA6969: Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990

Declaration of Policy

"to ensure that importation, manufacture, distribution, use, transport, and disposal of toxic substances and hazardous waste will not present unreasonable risk to public health and the environment"

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Policy Statement of RA 6969

"Regulates the importation, manufacture, processing, handling, storage, transportation, sale, distribution, use and disposal of chemical substances and mixtures in the Philippines including the entry, even in transit, as well as the storage and disposal of hazardous and nuclear wastes into the country for whatever purpose"

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DAO 92-29: The Implementing Rules and Regulations

- provides for the regulation of all chemical substances that may pose threat to public health and the environment whether through import, manufacture, sale, use, distribution, and disposal
- provides for the regulation of all hazardous wastes from generation, transport, storage, **re-use and recycling**, treatment and disposal



RA 6969: Toxic Substances and Hazardous and Nuclear Waste Control Act of 1990

- **DAO 92-29: The Implementing Rules and Regulations**
 - Title II- Toxic Substances (Chemicals) Management [PICCS, PMPIN, PCL, CCO-Hg, CN, Asbestos, ODSs, PCB]
 - Title III- Hazardous Waste Management
- **DAO 2004-36: Procedural Manual for Hazardous Waste Management**
 - Classification of Hazardous Wastes
 - Registration of Hazardous Waste Generator
 - Registration of Hazardous Waste Transporters
 - Categories of Treatment, Storage and Disposal (TSD) Facilities



PRESCRIBED HAZARDOUS WASTES

Table 1-1 Classification of Hazardous Wastes

CLASS	WASTE NUMBER
■ Plating wastes (Waste with cyanide)	A101
■ Acid wastes	B201 to B299
■ Alkali wastes	C101 to C399
■ Wastes with Inorganic Chemical	D401 to D499
■ Reactive Chemical Wastes	E501 to E599
■ Paints/Resins/Latices/Inks/Dyes...	F601 to F699
■ Waste Organic Solvents	G703 to G704
■ Putrescible/Organic Wastes	H801 to H802
■ Oil	I101
■ Containers	J201
■ Immobilized Wastes	K301 to K303
■ Organic Chemicals	L401 to L499



PREScribed HAZARDOUS WASTES

Table 1-1 Classification of Hazardous Wastes (Proposed)

CLASS

WASTE NUMBER

- Miscellaneous Wastes

- | | |
|---|-------------|
| ■ Pathological or Infectious Wastes | M501 |
| ■ Asbestos Wastes | M502 |
| ■ Pharmaceuticals and Drugs | M503 |
| ■ Pesticides | M504 |
| ■ POPs (Persistent Organic Pollutants) | |
| ■ Pesticides | M505 |
| ■ Waste Electrical and Electronic Equipment (WEEE) | M506 |

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DENR Administrative Order No. 28, Series of 1994: THE INTERIM GUIDELINES ON THE IMPORTATION OF RECYCLABLE MATERIALS CONTAINING HAZARDOUS SUBSTANCES

- Allows the importation of the following recyclable materials:
 - scrap metals (lead-acid batteries & metal bearing sludge)
 - solid plastic materials
 - **electronic assemblies and scraps**
- All importation must follow the requirements and procedures of the **Basel Convention**:
 - Notification and Consent between Parties
 - Wastes to be Imported must have a definite receiving facility with the essential environmental permits and clearance



IMPORT/EXPORT REQUIREMENTS

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Environmental Quality Division
ENVIRONMENTAL MANAGEMENT BUREAU
PHILIPPINES





Department of Environment and Natural Resources
Environmental Management Bureau
DENR Compound, Visayas Avenue, Diliman, Quezon City

IMPORTATION CLEARANCE

GENERAL INFORMATION

Name of Importer: _____
Address: _____

Tel. No./Fax No.: _____
DENR Importer Registry
Number: _____

Checklist of Information Requirements

- ☐ Official Letter of Request
- ☐ Duly notarized Affidavit attesting to the truth, accuracy and genuineness of all information, documents and records contained and attached in the application
- ☐ Accomplished Application Form
- ☐ Environmental Compliance Certificate (ECC)
- ☐ Permits to Operate
 - o Air Emission Source Installation
 - o Wastewater Treatment Facilities
 - o Treatment, Storage, Disposal Facility
- ☐ Notification/Consent of Exporting Country
- ☐ Registered/Accredited Recycler
 - o DENR ID No.
- ☐ Insurance (shipment)
- ☐ Purchase Order
- ☐ Last Bill of Lading
- ☐ Affidavit of Joint Undertaking of Exporter/Importer

IMPORT CLEARANCE CHECKLIST OF REQUIREMENTS

SERIO GERONIMO R. SAÑEZ
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Environmental Quality Division
ENVIRONMENTAL MANAGEMENT BUREAU
PHILIPPINES





IMPORTER REGISTRY SHEET

Please read instructions before filling up this application.

A. IMPORTER INFORMATION

Name of Importer: _____
Address: _____
Contact Person: _____
Telephone No.: _____ Fax No.: _____
Reason for Import: _____

B. WASTE GENERATOR/SHIPPER INFORMATION

Generator/Shipper Name: _____
Facility Address (site of recyclable material generation): _____
Generator Company Name: CITY, STATE/PROVINCE, COUNTRY _____
Technical Contact: _____
Phone No.: _____ Fax No.: _____

C. RECYCLING FACILITY INFORMATION

Name of Company: _____
Address: _____
Telephone No.: _____ Fax No.: _____
Contact Person: _____
Method of Processing: _____
Description Process: _____

- Methods for handling, including collection, packaging, labeling, transportation, and route which must conform with internationally accepted standards;

- Listing of personnel who will be responsible for supervising the collection, transport and unpacking of the recyclable materials and their respective qualifications; and

- Emergency response plan describing steps to be taken by parties concerned in case of spill/accident which may occur during transport from the premises of the recyclable material generator to the importer.

(Please use separate sheet if necessary)

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IMPORTER REGISTRY SHEET

D. RECYCLABLE MATERIAL INFORMATION (See Instructions)

Recyclable Material's Name: _____
 Original Form of the Recyclable Material: _____
 Amount/Units to be imported for the whole year: _____
 Frequency of the importation: ☐ Weekly ☐ Quarterly ☐ Others, specify _____
☐ Monthly ☐ Semi-Annually

E. TRANSPORTATION INFORMATION

Types of Packaging ☐ Bulk Liquid ☐ Bulk Sludge ☐ Bulk Solid
☐ Drum/Box ☐ Tanked ☐ Others, specify _____

Mode of Shipment ☐ Air ☐ Sea

This form is to be completed per recyclable material to be registered. Instruction for completing this form are attached.

F. PHYSICAL CHARACTERISTICS OF RECYCLABLE MATERIAL (See Instructions)

Color _____	2. Does the recyclable material have a strong incidental odor? <input type="checkbox"/> No <input type="checkbox"/> Yes, if so, Describe: _____	3. Physical State @ 70°F(21°C): <input type="checkbox"/> Solid <input type="checkbox"/> Semi-Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Powder Other: _____	4. Layers: <input type="checkbox"/> Multi-layered <input type="checkbox"/> Bi-Layered <input type="checkbox"/> Single Phase	5. Density Range: _____	6. Free Liquids <input type="checkbox"/> Yes <input type="checkbox"/> No Volume: _____ %
pH <input type="checkbox"/> < 2 <input type="checkbox"/> < 2.4 <input type="checkbox"/> 4.7 <input type="checkbox"/> 7 <input type="checkbox"/> 7.10 <input type="checkbox"/> 10 < 12.5 <input type="checkbox"/> 12.5 <input type="checkbox"/> Range <input type="checkbox"/> NA					
Flash Point: <input type="checkbox"/> None <input type="checkbox"/> < 140°F / 60°C <input type="checkbox"/> 140-199°F / 60-93°C <input type="checkbox"/> > 200°F / 93°C <input type="checkbox"/> Closed Cup <input type="checkbox"/> Open Cup					

CHEMICAL COMPOSITION

RANGE
(MIN-MAX)

_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %

2. Does the waste contain any of the following?

(Provide concentration if known):
NO or LESS THAN or

ACTUAL

PCBs	<input type="checkbox"/>	<input type="checkbox"/> 50 ppm	_____ ppm
Cyanides	<input type="checkbox"/>	<input type="checkbox"/> 50 ppm	_____ ppm
Sulfides	<input type="checkbox"/>	<input type="checkbox"/> 50 ppm	_____ ppm
Phenols	<input type="checkbox"/>	<input type="checkbox"/> 50 ppm	_____ ppm

* If applicable, a certified laboratory analysis from the country of origin should be attached.

IMPORTER CERTIFICATION

By signing this profile sheet, the Importer verifies:

1. This recyclable material is not "Hazardous Waste" as defined by GOPs RA 6969 and/or international regulations.
2. This recyclable material does not contain regulated radioactive materials or PCBs (Polychlorinated Biphenyls).
3. The recyclable material does not contain regulated concentration of banned and controlled pesticides.
4. This recyclable material does not contain Halogenated compounds such as: tetrachloroethylene, trichloroethylene, methylethylene chloride, 1, 2-dichloroethylene at greater than 0.1% (1000 ppm) total solvent concentration.
5. This sheet and the attachments contain true and accurate descriptions of the recyclable materials. All relevant information regarding known or suspected hazards in the possession of the Generator have been disclosed.
6. The Importer has read and understand the form. All types and amounts of Hazardous substances provided in incidental amounts have been identified in Section G of this form.
7. The analytical data presented herein or attached were derived from testing a representative sample taken in accordance with RA6969, if required, or equivalent rules.

GERI GERONIMO R. SAÑEZ

Chief, Hazardous Waste Management Section
 Environmental Quality Division
 ENVIRONMENTAL MANAGEMENT BUREAU
 PHILIPPINES



10. Name (Type or Print) _____ 12. Date: _____

IMPORTER REGISTRY SHEET

<p>ENVIRONMENTAL MANAGEMENT BUREAU</p> <p>Date:</p>	<p>REGISTRY REFERENCE CODE</p>
<p><input type="checkbox"/> Accept</p> <p><input type="checkbox"/> Reject</p>	
<p>AUTHORIZED NAME : (Print or type)</p>	
<p>AUTHORIZED SIGNATURE:</p>	
<p>Title</p>	<p>Place EMB seal here</p>

Chief, Hazardous Waste Management Section
Environmental Quality Division
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PHILIPPINES





APPLICATION FOR IMPORTATION CLEARANCE FOR RECYCLABLE MATERIALS

A. IMPORTER INFORMATION:

1. Name of Importer _____
2. Registry Reference Code _____
3. Address _____
4. Contact Person _____
5. Telephone No. _____ Fax no. _____

B. WASTE GENERATOR/SHIPPER INFORMATION:

1. Generator (Shipper Name) _____
2. Facility Address _____

C. RECYCLING FACILITY INFORMATION:

1. Name _____
2. Address _____

D. RECYCLABLE MATERIAL INFORMATION:

1. Type of Material _____
2. Volume of Material Imported _____
3. Types of Packaging _____
4. Intended Carriers _____
5. Mode of Shipment ☐ AIR ☐ SEA
6. Port of Entry _____
7. Expected Date of Arrival _____

E. ATTACHMENTS:

To be attached to this IC are the following affidavits of undertaking specifying the following:

1. Liabilities for clean up operations in case of oil spill and emergencies;
2. Responsibility of the exporter to retrieve/return the waste when denied entry by the Government of the Philippines.
3. Copy of insurance coverage for the shipment; and
4. Liabilities of parties to compensate for damage to properties and life in case of emergencies and accidents.

F. Signature _____ Title _____
Name (Type or Print) _____ Date _____

----- Do not write below this line -----

(To be filled up by EMB)

☐ DISAPPROVED:

☐ APPROVED: Pursuant to DAO _____ which hereby grants you clearance to imports only the above cited material subject to the conditions stated hereunder:

Date

Director, Environmental Management Bureau

(Place EMB Seal here)

GERI GERONIMO R. SAÑEZ

Chief, Hazardous Waste Management Section
Environmental Quality Division
ENVIRONMENTAL MANAGEMENT BUREAU
PHILIPPINES



IMPORTATION CLEARANCE FOR RECYCLABLE MATERIALS

APPLICATION SHEET INSTRUCTIONS :

Information on this form, is used to determine if the recyclable material is permitted under the Republic Act No. 6969. This information shall be validated with the Registry information previously submitted and shall be held in strict confidence. Any information disclosed that are found grossly inconsistent with the Registry can be ground for non- issuance of this clearance or suspension/ cancellation of the registry.

PART A IMPORTER INFORMATION

1. NAME OF IMPORTATION : Enter the business name of the importer.
2. REGISTRYREFERENCE CODE : Enter the Registry Reference Code as designated by the Environmental Management Bureau for the Company.
3. ADDRESS : Enter the business address of the importer.
4. CONTACT PERSON : Enter the name of the representative of the company who can respond to queries and questions on the imported materials.
5. TELEPHONE NO. : Enter the business phone number.
FAX NO. : Enter the business fax number.

PART B RECYCLABLE MATERIAL GENERATOR INFORMATION

1. GENERATOR (SHIPPER NAME) : Enter the name of the generator of the recyclable material and the shipping firm that was contacted to transport the material.
2. FACILITY ADDRESS : Enter the address of the facility where the imported recyclable materials have been generated.

PART C RECYCLING FACILITY INFORMATION

1. NAME : Enter the business name of the firm that will recycle the imported material.
2. ADDRESS : Enter the business of the recycling facility.

PART D RECYCLABLE MATERIAL INFORMATION

1. TYPE OF MATERIAL : Indicate the type of recyclable material that is intended to be imported.
2. VOLUME OF MATERIAL IMPORTED : Indicate the estimated volume of the recyclable material covered material covered by this particular shipment.
3. TYPE OF PACKAGING : Indicate in what type of packaging will the material be shipped by checking the appropriate box.
4. INTENDED CARRIERS : Indicate the shipping firm that will carry the shipment.
5. MODE OF SHIPMENT : Check the appropriate box in what mode the shipment shall be made.
6. PORT OF ENTRY: Enter the port of entry of shipment in the Philippines.
7. EXPECTED DATE OF ARRIVAL : Enter the expected date of arrival of the shipments.

PART E ATTACHMENTS

Other informational requirements requested by EMB that is to be attached to the application.

APPLICATION FOR IMPORTATION CLEARANCE FOR RECYCLABLE MATERIALS

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Environmental Quality Division
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PHILIPPINES





Department of Environment and Natural Resources
Environmental Management Bureau
DENR Compound, Visayas Avenue, Diliman, Quezon City

EXPORT CLEARANCE & PERMIT TO TRANSPORT HAZARDOUS WASTE/RECYCLABLE MATERIALS

EXPORT CLEARANCE CHECKLIST OF REQUIREMENTS

GENERAL INFORMATION

Name of Exporter: _____
Address: _____
Tel. No./Fax No.: _____
Name of Waste Generator: _____
Address: _____
Tel. No./Fax No.: _____

Checklist of Information Requirements

- ☐ Official Letter of Request
- ☐ Duly notarized Affidavit attesting to the truth, accuracy and genuineness of all information, documents and records contained and attached in the application
- ☐ Accomplished Notification Form
- ☐ Notification / Consent of Importing Country
- ☐ Hazardous Waste Registration of the Generator(s)
 - o DENR I.D. Number
 - o Latest Quarterly Report
- ☐ Insurance (Shipment)
- ☐ Purchase Order
- ☐ Last Bill of Lading
- ☐ Movement Document / Manifest of previous export (if applicable)
- ☐ Affidavit of Joint Undertaking of Exporter/Importer

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TRANSBOUNDARY MOVEMENT OF WASTE – Notification

BASEL CONVENTION

1. Exporter (name, address)		3. Notification Concerning(1) Notification Number		PH
Contact Person Tel: Fax / Telex:		A. <input type="checkbox"/> (i) Single <input type="checkbox"/> (ii) General Notification (multiple movements) C. Pre authorized for a recovery Facility (1) B. <input type="checkbox"/> (i) Disposal (no recovery) <input type="checkbox"/> (ii) Recovery operation <input type="checkbox"/> Yes <input type="checkbox"/> No (To be completed for a recovery facility located in an OECD state)		
2. Importer (name, address)		4. Total intended No. of shipments.		
Contact person: Tel: Fax / Telex:		5. Estimated quantity (3) _____ kg _____ liters		
7. Intended carrier(s)(name, address) (2):		6. Intended date(s) or period of shipment(s)		
Contact person: Tel: Fax / Telex:		8. Disposer (name, address)		
10. Waste generator (name, address) (2):		Actual site of disposal		
Contact Person: Tel: Fax / Telex:		9. Method(s) of disposal D code / R code (4) Technology Employed (Attached details if necessary)		
Site of generation & process:		11. Means of transport(4)		
13. (i) Designation & chemical composition of the waste:		(ii) Special handling requirements		12. Packaging type(s) (4)
15. Waste identification code in country of export. in country of import. Customs code:		17. Y. number (4)		18. N. number (4)
16. OECD Classification Code (1): <input type="checkbox"/> amber <input type="checkbox"/> red acid no. <input type="checkbox"/> ether (attached details)		19. (i) UN identification No. UN Shipping name:		(ii) UN class (4)
20. Concerned states, code number of competent authorities, and specific points of entry and exit:				
State of export		States of transit		State of import
21. Customs offices of entry and/or departure (European Community) Entry:		23. Exporter's/Generator's declaration: I certify that the information is complete and correct to my best knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance of other financial guarantees are or shall be in force covering the transboundary movement.		
Departure:		Name: _____ Signature: _____		
22. No. of annexes attached:		Date: _____		
FOR USE BY COMPETENT AUTHORITIES				
24. To be completed by competent authority -import (ECC, OECD) -transit(Basel) Notification received on:		25. Consent to the movement provided by the competent authority of (country) Consent given on,		
Acknowledgement sent on:		Specific conditions(1) <input type="checkbox"/> Yes, see block 26 overleaf/ annex <input type="checkbox"/> No		
Name of competent authority, Stamp and/or signature:		Name of competent authority, Stamp and/or signature:		

(1) Enter X in appropriate box (2) Attach list if more than one (3) Attach detailed list if multiple shipment (4) See codes on the reverse

NOTIFICATION - Transboundary Movement of Waste

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Environmental Quality Division
ENVIRONMENTAL MANAGEMENT BUREAU
PHILIPPINES



DISPOSAL (NO RECOVERY) (Block 9)		RECOVERY OPERATIONS (Block 9)																																													
<p>D1 Deposit into or onto land (e.g. landfill, etc.)</p> <p>D2 Land treatment (e.g. biodegradation of liquid or sludgy discards in soils, etc)</p> <p>D3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring)</p> <p>D4 Surface impoundment (e.g. placement of liquid or sludge discards into pits, ponds, or lagoons etc.)</p> <p>D5 Specially engineered landfill (e.g. placement lined discrete cells which are capped and isolated from one another and the environment, etc.)</p> <p>D6 Release into a water body except seas / oceans</p> <p>D7 Release into seas / oceans including bad insertion</p> <p>D8 Biological treatment not specified elsewhere in this list which results in final compounds mixtures which are discarded by means of any of the operations numbered D1 to D12</p> <p>D9 Physicochemical treatment not specified elsewhere in this list which results in final compounds mixtures which are discarded by means of any of the operations numbered D1 to D12 (e.g. evaporation, drying, coloration, etc.</p> <p>D10 Incineration in land</p> <p>D11 Incineration at sea</p> <p>D12 Permanent storage (e.g. emplacement of containers in a mine, etc)</p> <p>D13 Blending or mixing prior to submission to any of the operations numbered D1 to D12</p> <p>D14 Repackaging prior to a submission to any of the operations numbered D1 to D12</p> <p>D15 Storage pending any of the operations numbered D1 to D12</p>		<p>R1 Use as a fuel (other than in direct incineration) or other means to generate energy</p> <p>R2 Solvent reclamation /regeneration</p> <p>R3 Recycling/reclamation of organic substances which are not used as solvents</p> <p>R4 Recycling/reclamation of metals and metal compound</p> <p>R5 Recycling/reclamation of other inorganic materials</p> <p>R6 Regeneration of acids or bases</p> <p>R7 Recovery of components used for pollution abatement</p> <p>R8 Recovery of components from catalysis</p> <p>R9 Used oil re-refining or other reuses of previously used oil</p> <p>R10 Land treatment resulting in benefit to agriculture or ecological improvement</p> <p>R11 Uses of residual materials obtained from any of the operations numbered R1 to R10</p> <p>R12 Exchange of wastes for submission to any of the operations numbered R1 to R11</p> <p>R13 Accumulation of material intended any operation numbered R1 to R12</p>																																													
<p>MEANS OF TRANSPORT (Block 11)</p> <p>R. Road</p> <p>T. Train / Rail</p> <p>S. Sea</p> <p>A. Air</p> <p>W. Inland Waterways</p>	<p>PACKAGING TYPE</p> <ol style="list-style-type: none"> 1. Drum 2. Wooden Barrel 3. Jerrycan 4. Box 5. Bag 6. Composite packaging 7. Pressure receptacle 8. Bulk 9. Other (specify) 	<p>II NUMBER (Block18) AND UNCLASS (Block19)</p> <table border="1"> <thead> <tr> <th>UN Class</th> <th>H Number</th> <th>Designation</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>H1</td> <td>Explosive</td> </tr> <tr> <td>3</td> <td>H3</td> <td>Inflammable liquids</td> </tr> <tr> <td>4.1</td> <td>H4.1</td> <td>Inflammable Solids</td> </tr> <tr> <td>4.2</td> <td>H4.2</td> <td>Substances or wastes liable to spontaneous combustion</td> </tr> <tr> <td>4.3</td> <td>H4.3</td> <td>Substances or waste which in contact with water emit inflammable gases</td> </tr> <tr> <td>5.1</td> <td>H5.1</td> <td>Oxidizing</td> </tr> <tr> <td>5.2</td> <td>H5.2</td> <td>Organic peroxides</td> </tr> <tr> <td>6.1</td> <td>H6.1</td> <td>Poisonous (acute)</td> </tr> <tr> <td>6.2</td> <td>H6.2</td> <td>Infectious substances</td> </tr> <tr> <td>8</td> <td>H8</td> <td>Corrosives</td> </tr> <tr> <td>9</td> <td>H10</td> <td>Liberation of toxic gases in contact with air or water</td> </tr> <tr> <td>9</td> <td>H11</td> <td>Toxic (delayed or chronic)</td> </tr> <tr> <td>9</td> <td>H12</td> <td>Ecotoxic</td> </tr> <tr> <td>9</td> <td>H13</td> <td>Capable by any means after disposal of yielding another material e.g. leachate which possesses any of the characteristics listed above</td> </tr> </tbody> </table>	UN Class	H Number	Designation	1	H1	Explosive	3	H3	Inflammable liquids	4.1	H4.1	Inflammable Solids	4.2	H4.2	Substances or wastes liable to spontaneous combustion	4.3	H4.3	Substances or waste which in contact with water emit inflammable gases	5.1	H5.1	Oxidizing	5.2	H5.2	Organic peroxides	6.1	H6.1	Poisonous (acute)	6.2	H6.2	Infectious substances	8	H8	Corrosives	9	H10	Liberation of toxic gases in contact with air or water	9	H11	Toxic (delayed or chronic)	9	H12	Ecotoxic	9	H13	Capable by any means after disposal of yielding another material e.g. leachate which possesses any of the characteristics listed above
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<p>PHYSICAL CHARACTERISTICS (Block 14)</p> <table border="1"> <tbody> <tr> <td>1. Powdery / powder</td> <td>5. Liquid</td> </tr> <tr> <td>2. Solid</td> <td>6. Gaseous</td> </tr> <tr> <td>3. Viscous / paste</td> <td>7. Other (specify)</td> </tr> <tr> <td>4. Sludgy</td> <td></td> </tr> </tbody> </table>		1. Powdery / powder	5. Liquid	2. Solid	6. Gaseous	3. Viscous / paste	7. Other (specify)	4. Sludgy																																							
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<p>Y Number (block 11) refer to categories of waste listed in Annex I and II of the Basel Convention. These codes, as well as more detailed information can be found in an instruction Manual available Secretariat of the Basel Convention.</p>																																															
<p>26. SPECIFIC CONDITIONS OF CONSENTING TO THE MOVEMENT</p>																																															

NOTIFICATION - Transboundary Movement of Waste

GERI GERONIMO R. SAÑEZ

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ENVIRONMENTAL MANAGEMENT BUREAU
PHILIPPINES





TRANSBOUNDARY MOVEMENT OF WASTE – Notification

BASEL CONVENTION

1. Exporter (name, address)		3. Notification Concerning(1) Notification Number		PH
Contact Person Tel: Fax / Telex:		A. <input type="checkbox"/> (i) Single <input type="checkbox"/> (ii) General Notification (multiple movements) C. Pre authorized for a recovery Facility (1) B. <input type="checkbox"/> (i) Disposal (no recovery) <input type="checkbox"/> (ii) Recovery operation <input type="checkbox"/> Yes <input type="checkbox"/> No (To be completed for a recovery facility located in an OECD state)		
2. Importer (name, address)		4. Total intended No. of shipments.		
Contact person: Tel: Fax / Telex:		5. Estimated quantity (3) _____ kg _____ liters		
7. Intended carrier(s)(name, address) (2):		6. Intended date(s) or period of shipment(s)		
Contact person: Tel: Fax / Telex:		8. Disposer (name, address)		
10. Waste generator (name, address) (2):		Actual site of disposal		
Contact Person: Tel: Fax / Telex:		9. Method(s) of disposal D code / R code (4) Technology Employed (Attached details if necessary)		
Site of generation & process:		11. Means of transport(4)		
13. (i) Designation & chemical composition of the waste:		(ii) Special handling requirements		12. Packaging type(s) (4)
15. Waste identification code in country of export. in country of import. Customs code:		17. Y. number (4)		18. N. number (4)
16. OECD Classification Code (1): <input type="checkbox"/> amber <input type="checkbox"/> red acid no. <input type="checkbox"/> ether (attached details)		19. (i) UN identification No. UN Shipping name:		(ii) UN class (4)
20. Concerned states, code number of competent authorities, and specific points of entry and exit:				
State of export		States of transit		State of import
21. Customs offices of entry and/or departure (European Community) Entry:		23. Exporter's/Generator's declaration: I certify that the information is complete and correct to my best knowledge. I also certify that legally enforceable written contractual obligations have been entered into and that any applicable insurance of other financial guarantees are or shall be in force covering the transboundary movement.		
Departure:		Name: _____ Signature: _____		
22. No. of annexes attached:		Date: _____		
FOR USE BY COMPETENT AUTHORITIES				
24. To be completed by competent authority -import (ECC, OECD) -transit(Basel) Notification received on:		25. Consent to the movement provided by the competent authority of (country) Consent given on,		
Acknowledgement sent on:		Specific conditions(1) <input type="checkbox"/> Yes, see block 26 overleaf/ annex <input type="checkbox"/> No		
Name of competent authority, Stamp and/or signature:		Name of competent authority, Stamp and/or signature:		

(1) Enter X in appropriate box (2) Attach list if more than one (3) Attach detailed list if multiple shipment (4) See codes on the reverse

NOTIFICATION - Transboundary Movement of Waste

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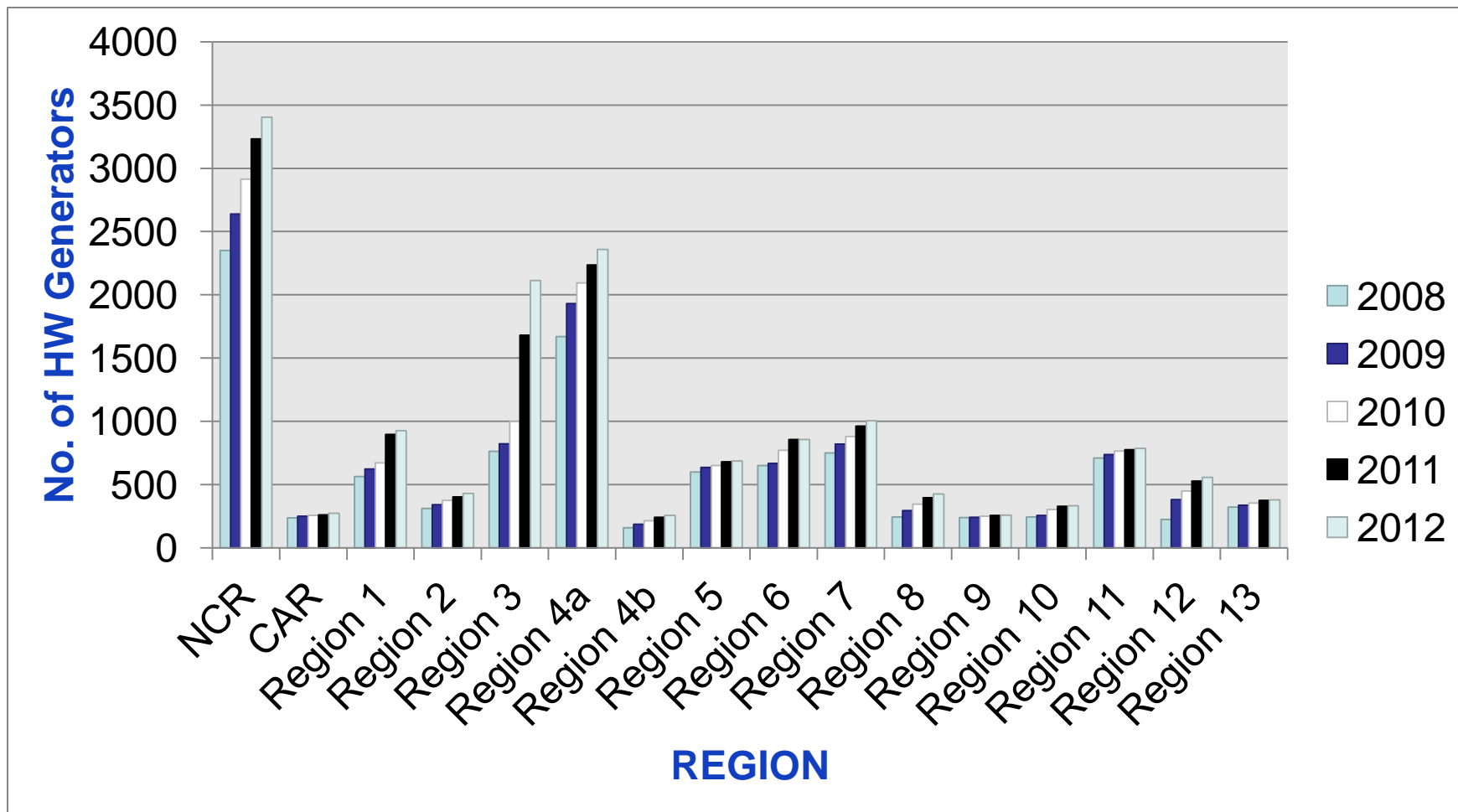
Hazardous Waste Data and Information

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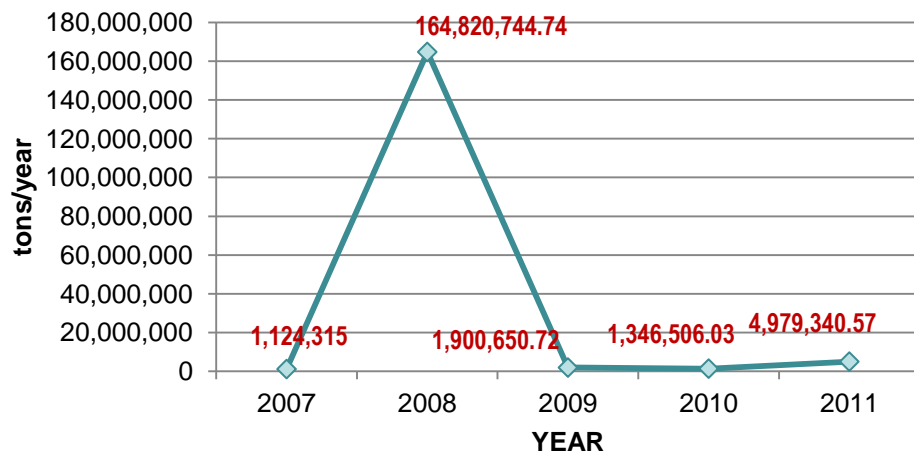
Regional Hazardous Waste Generators Registration (2006-2010)



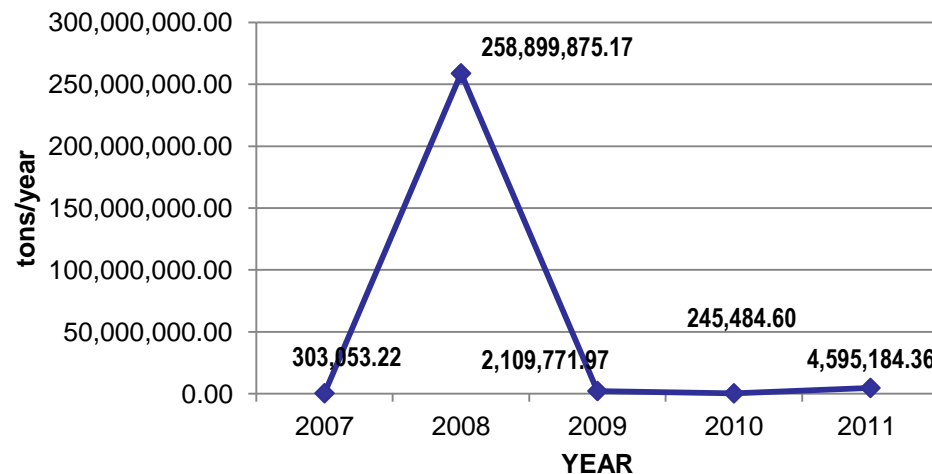
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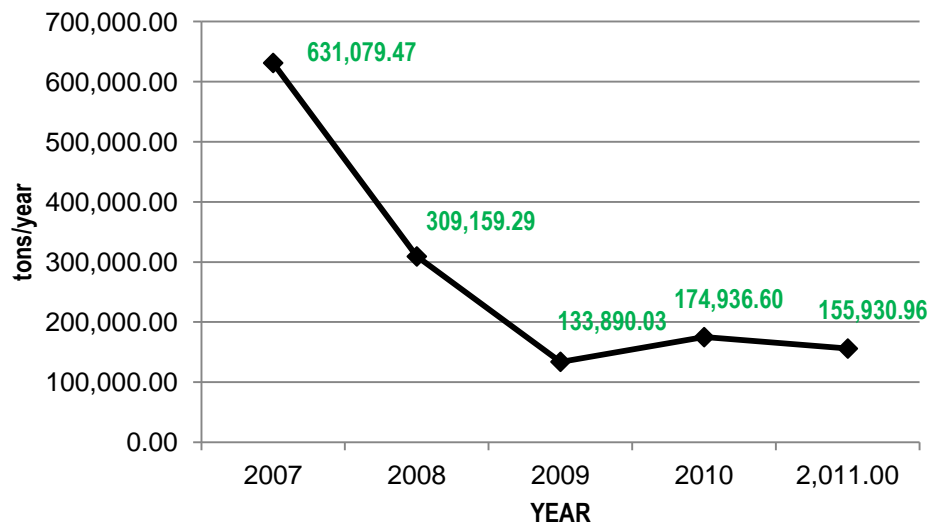
HW Generation



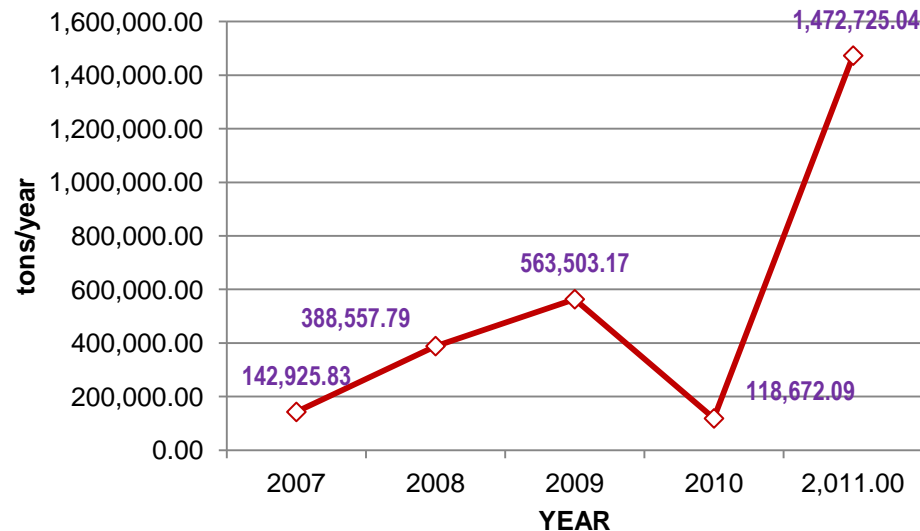
HW Treated



HW Disposed



HW Stored



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IMPORT DATA

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IMPORT CLEARANCE ISSUED - As of August 2012

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Electronic assemblies and scrap	Solder dross, solder paste and tuner	500	tons	Thailand
Electronic assemblies and scrap	Electronic assemblies (used television sets)	700	units	Japan
Used and surplus computer parts and accessories	LCD 15", 17", 19", CPUs P4 3.0, 3.2 ghz, HDD (80GB, 120GB, 160GB, 250GB IDE), (80GB, 120GB, 160GB, 250GB, 320GB, 500GB SATA), 478& 775 Motherboards, and 400 watt power supply	8500	kgs	Korea
Used and surplus computer parts and accessories	LCD 15", 17", 19", CPUs P4 3.0, 3.2 ghz, HDD (80GB, 120GB, 160GB, 250GB IDE), (80GB, 120GB, 160GB, 250GB, 320GB, 500GB SATA) 478&775 Motherboards, and 400 watt power supply	5840	kgs	Korea
Used and surplus computer parts and accessories	Used Laptops	2000	units	Korea
Used and surplus computer parts and accessories	Used Monitors	3000	units	Korea
Used and surplus computer parts and accessories	Used CPU's	4000	units	Korea
Used electrical and electronic equipment	Used Laptops	2000	units	Korea
Used electrical and electronic equipment	Used Monitors	3000	units	Korea
Used electrical and electronic equipment	Used CPUs	4000	units	Korea
Used electrical and electronic equipment	Used CPUs	4000	units	Korea
Used electrical and electronic equipment	Used Laptops	2000	units	Korea
Used electrical and electronic equipment	Used Monitors	3000	units	Korea
Used electrical and electronic equipment	Computer parts/accessories	20000	pcs	Korea
Used electrical and electronic equipment	LCD monitors	12000	pcs	Korea
Used electrical and electronic equipment	Used CPUs	10000	pcs	Korea
Used electrical and electronic equipment	Used speakers	5	units	Japan
Used electrical and electronic equipment	Used musical keyboards	10	units	Japan
Used electrical and electronic equipment	Used refrigerators	40	units	Japan
Used electrical and electronic equipment	Used TV sets	316	units	Japan

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IMPORT CLEARANCE ISSUED - 2011

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Electronic Scraps and Assemblies	Televisions	97	units	Japan
Electronic Scraps and Assemblies	Refrigerators	15	units	Japan
Electronic Scraps and Assemblies	Washing Machine	16	units	Japan
Electronic Scraps and Assemblies	Other Electric Equipment	34	units	Japan
Electronic Scraps and Assemblies	Electronic assemblies (Used Television sets)	935	units	Japan
Electronic Scraps and Assemblies	Electronic assemblies and electrical appliances	437	units	Japan
Electronic assemblies and scrap	Electronic assemblies and electrical appliances	1,460	tons	United Kingdom
Electronic Parts and Assemblies	Electronic parts and assemblies containing Lead and other metals	2,000	MT	New Zealand
Electronic Scrap	Assorted Scrap Electronic parts and materials	500	MT	Thailand

IMPORT CLEARANCE ISSUED - 2010

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Used Electrical and Electronic Equipment	Used CPU's	4,000	units	Seoul, Korea
Used Electrical and Electronic Equipment	Used Monitors	3,000	units	Seoul, Korea
Used Electrical and Electronic Equipment	Used Laptops	2,000	units	Seoul, Korea
Used Electrical and Electronic Equipment	Used Monitors	3,000	units	Seoul, Korea
Used Electrical and Electronic Equipment	Used CPU's	4,000	units	Seoul, Korea
Used Electrical and Electronic Equipment	Used Laptops	2,000	units	Seoul, Korea
Electronic Assemblies and Scrap	Electronic Assemblies (Used television sets)	765	units	Japan

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IMPORT CLEARANCE ISSUED - 2009

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Electrical and electronic assemblies	used mobile phones	9,000	pcs.	USA
Electrical and Electronic Assemblies	used mobile phone parts	50,000	pcs.	Korea
Electrical and Electronic Assemblies	used mobile phones	300,000	pcs.	Hongkong
Electrical and Electronic Assemblies	used mobile phones parts (LCD)	50,000	pcs.	Hongkong
Electrical and Electronic Assemblies and Scrap	assorted electrical and electronic components (A1180)	1,100	tons	Thailand
Electronic Scraps	used computer sets	10,000	sets	Seoul, Korea
Scrap Electronic and Electrical Appliances	Used monitors	12	pcs	Japan
Scrap Electronic and Electrical Appliances	Used television sets	10	pcs	Japan
Used electrical and electronic equipment	Used computer parts (motherboard, hard disk, memory)	40	boxes	Korea
Used electrical and electronic equipment	Used monitors (2-3 pcs/box)	500	boxes	Korea
Used electrical and electronic equipment	Used dektop computers (1pc/box)	560	boxes	Korea
Used Electrical and Electronic Equipment	used CPUs	290	boxes	Korea
Used Electrical and Electronic Equipment	used monitors	1,008	boxes	Korea
Used Electrical and Electronic Equipment	computer parts and accessories	58	boxes	Korea

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IMPORT CLEARANCE ISSUED - 2008

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
electrical and electronic assemblies or scraps (B1110)	assorted electrical and electronic components	200	MT	Thailand
electronic scraps	used computer sets	8,000	sets	Korea
used electrical and electronic equipment	used CPUs	3,000	units	Korea
used electrical and electronic equipment	used laptops	2,000	units	Korea
used electrical and electronic equipment	used monitors	2,500	units	Korea
used electronics and electrical appliances and equipment	used game machine	112	pcs	Japan
used electronics and electrical appliances and equipment	used LCD monitor	88	pcs	Japan
used electronics and electrical appliances and equipment	used PC	23	pcs	Japan
used electronics and electrical appliances and equipment	used PC parts	1	pc	Japan
used electronics and electrical appliances and equipment	used televisions	784	pcs	Japan
used electronics and electrical equipment and appliances	used television sets	409	pcs	Korea
used electronics and electrical equipment and appliances	used television sets and computers	3,000	pcs	Japan

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IMPORT CLEARANCE ISSUED - 2007

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Scrap Electronics	Used computers	8,000	units	South Korea

IMPORT CLEARANCE ISSUED - 2006

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Electronic Scraps	Assorted electronic components/plastics/solder paste	2,000	MT	Thailand

IMPORT CLEARANCE ISSUED - 2005

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Plastic/Electronic Scrap	Recyclable VHS tapes	21.3	MT	Korea
Scrap Electronics	Used Computers units with accessories	240	Sets	Korea
Scrap Electronics	Used refrigerators	20	pcs.	Japan
Scrap Electronics	Used TV	66	units	Japan
Scrap Electronics	Used TV sets	472	pcs.	Japan

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EXPORT DATA

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EXPORT CLEARANCE ISSUED - As of August 2012

TYPE OF MATERIALS	QUANTITY		DESTINATION
	Volume	Unit	
Crushed Printed Circuit Boards	840	tons	Korea
Electrical Parts Scrap	2,400	MT	Korea
Printed Wiring Boards	1,000	Tons	Japan
Scrap/obsolete electronic components	40	MT	Korea
Scrap/obsolete electronic components	40	MT	Korea
Used electrical and electronics parts and accessories (networking equipment, handphone parts and accessories)	800,000	kgs	Singapore
Used Metal Electronic Materials	20,000	kgs	Singapore
Used Office Equipment (copier, printers, facsimile)	90,000	kgs	Thailand
Used Supplies containing residual toner	80,000	kgs	Thailand

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EXPORT CLEARANCE ISSUED - 2011

TYPE OF MATERIALS	QUANTITY		DESTINATION
	Volume	Unit	
Electronic components	100	MT	Korea
Printed Wiring Board (PWB)	1,000	tons	Japan
Printed Wiring Board (PWB) with and without components	100	MT	Korea
Scrap computer monitors	50	MT	Korea
Scrap Printed Wiring Board (PWB) (Y22)	1,000	tons	Japan
Used electrical and electronic parts & accessories (networking equipment, hand phone parts and accessories)	300,000	kgs	Singapore
Used Xerox Office Equipment	90,000	kgs	Thailand
Used Xerox Supplies containing residual toner	80,000	kgs	Thailand

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EXPORT CLEARANCE ISSUED - 2010

TYPE OF MATERIALS	QUANTITY		DESTINATION
	Volume	Unit	
Computer monitors	30	MT	Korea
Electronic components	100	MT	Korea
Electronic scrap and wastes containing metals	1,000	MT	Japan
Printed Wiring Board (PWB) with and without components	100	MT	Korea
Used electrical and electronic parts and accessories (networking equipment, handphone parts and accessories)	300	tons	Singapore
Used electrical and electronics parts and accessories (networking equipment, handphone parts and accessories)	800,000	kgs	Singapore
Used toners and ink cartridges	150,000	kgs	Singapore
Used xerox office equipments	90,000	kgs	Thailand
Used Xerox Supplies (Toner/drum cartridge containing residual toner)	80,000	kgs	Thailand

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EXPORT CLEARANCE ISSUED - 2009

Type of Material	Quantity		DESTINATION
	Volume	Unit	
electric assembly and scrap	1,000	MT	Japan
Scrap Printed Wiring Board (PWB) (Y22)	1,000	tons	Japan
Scrap printed wiring boards (Y31)	1,000	tons	Japan
semiconductor scrap with solder/lead	10,500	kgs.	Belgium
Used electrical/electronic parts and accessories (A1180)	800	tons	Singapore
Used xerox equipment (printer, copier, facsimile)	50,000	kgs	Thailand
used xerox supplies (toner/drum cartridge containing residual toner)	84,000	kgs.	Thailand

EXPORT CLEARANCE ISSUED - 2008

Type of Material	Quantity		DESTINATION
	Volume	Unit	
printed wiring board (PWB) edges/trimmings	70,000	kgs	South Korea
printed wiring board (PWB) with and without components	100,000	kgs	South Korea
scrap computer	30,000	kgs	South Korea
scrap printed wiring board (PWB) (Y22)	1,000,000	kgs	Japan
scrap printed wiring board (PWB) (Y31)	10,000	kgs	Japan
used electrical/electronic parts and accessories (A1180)	150	tons	Singapore
used xerox supplies containing residual toner	84,000	kgs	Thailand

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EXPORT CLEARANCE ISSUED - 2007

Type of Material	Quantity		DESTINATION
	Volume	Unit	
Electronic Assembly and Ferrous Waste Scrap (D406/D499)	600	tons	Japan
Printed Circuit Board (PCB)	50,000	kgs	Japan
Printed wiring board (with or without components)	100,000	kgs	South Korea
PWB trimmings	70,000	kgs	South Korea
Scrap computer equipment	5,000	kgs	South Korea
Scrap Printing Wiring Board(PWB)(Y22)	1,000,000	kgs	Japan
Used Xerox Office Equipment	50,000	kgs	Thailand

EXPORT CLEARANCE ISSUED - 2006

MATERIALS	DESCRIPTION	QUANTITY		DESTINATION
		Volume	Unit	
Electronic Scraps	Assorted electronic components/plastics/solder paste	2,000	MT	Thailand

EXPORT CLEARANCE ISSUED - 2005

Type of Material	Quantity		DESTINATION
	Volume	Unit	
Printed Circuit Board edges/trimmings, Printed circuit board with components and liquid crystal display	86,500	KGS	Korea
Printed Wiring Boards	800,000	KGS	Japan
Used xerox supplies (toner/drum cartridge, reclaim bottle, CRU) containing residual toners	84,000	KGS	Thailand

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SUMMARY OF E-WASTE RECYCLERS AND IMPORTERS

	Y E A R												
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
TSD Facility	14	4	3	0	1	2	2	1	3	0	1	0	0

	Y E A R													Total
	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	
Importer	2	4	8	5	1	2	3	3	4	1	2	1	1	37

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PROGRAMS/PROJECTS/STUDIES

- Philippine Studies
- Regional Programs and Projects
- Basel Convention and Stockholm Convention

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Importation, Reuse and Disposal of Used Electronic Appliances in the Philippines

Melissa May F. Cardenas

Environmental and Sustainable Agri-Planners and Managers, Inc.
(SAGIP-Environment)

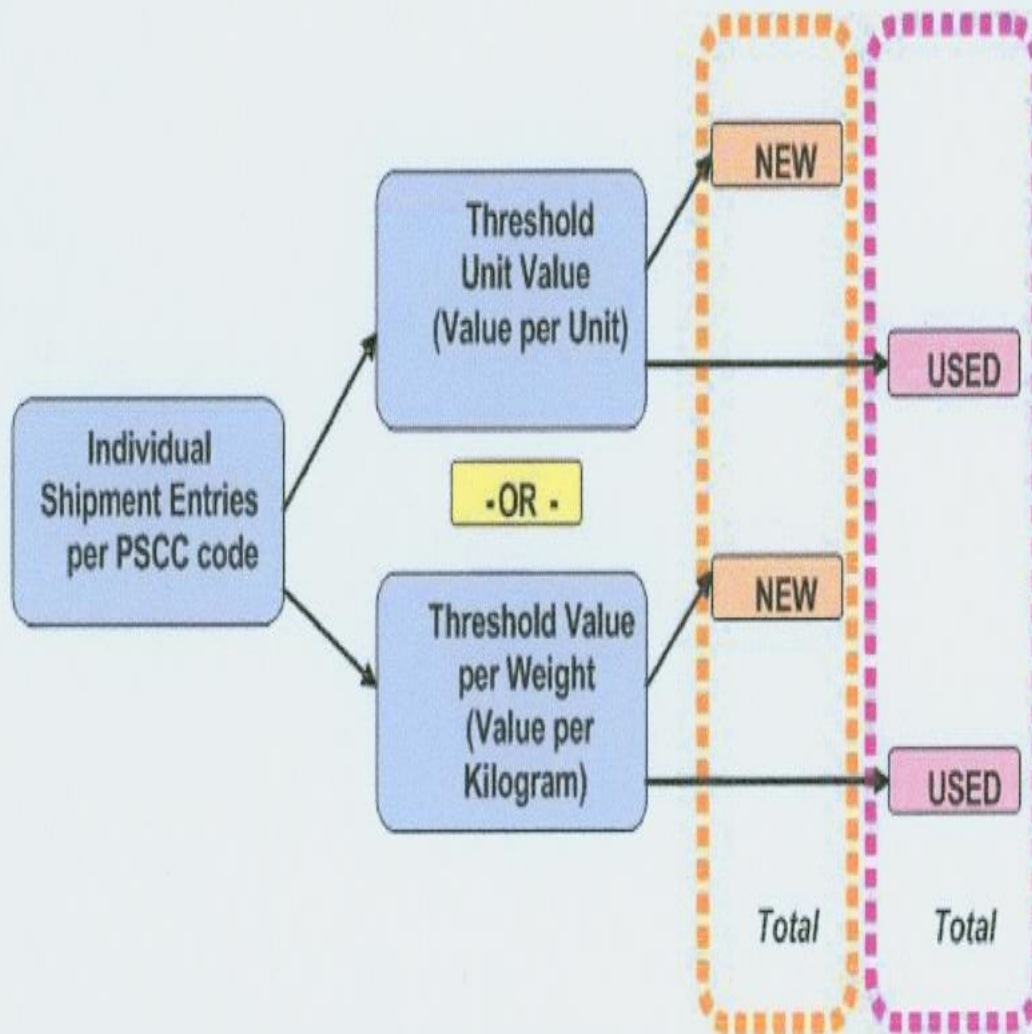
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Figure 1.

Importation data processing
using threshold values



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Table 2. Unit price for distinction of Brand New vs. Used EEE

EEE Type	Brand-new		Second-hand	
	Price/unit	Price/kg	Price/unit	Price/kg
Televisions (all types)	\$25-800+	\$3-11	\$2-7	\$0.11-2.9
Refrigerator	\$100 up	\$2 up	\$10-85	\$0.2-1.9
Personal Computer	\$300-7500	\$2-820	\$26-200	\$2 less
Washing Machines	\$ 61.9 - 144	\$ 8-10+	\$ 2-6	\$0.3 - 2+
Air conditioners	\$ 88-425	\$ 8-12	\$ 4-12	\$ 0.2 – 3+

Source: Foreign Trade Statistics Section, National Statistics Office. March & May 2007

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Table 3. Importation of Used EEE, 2001-2005

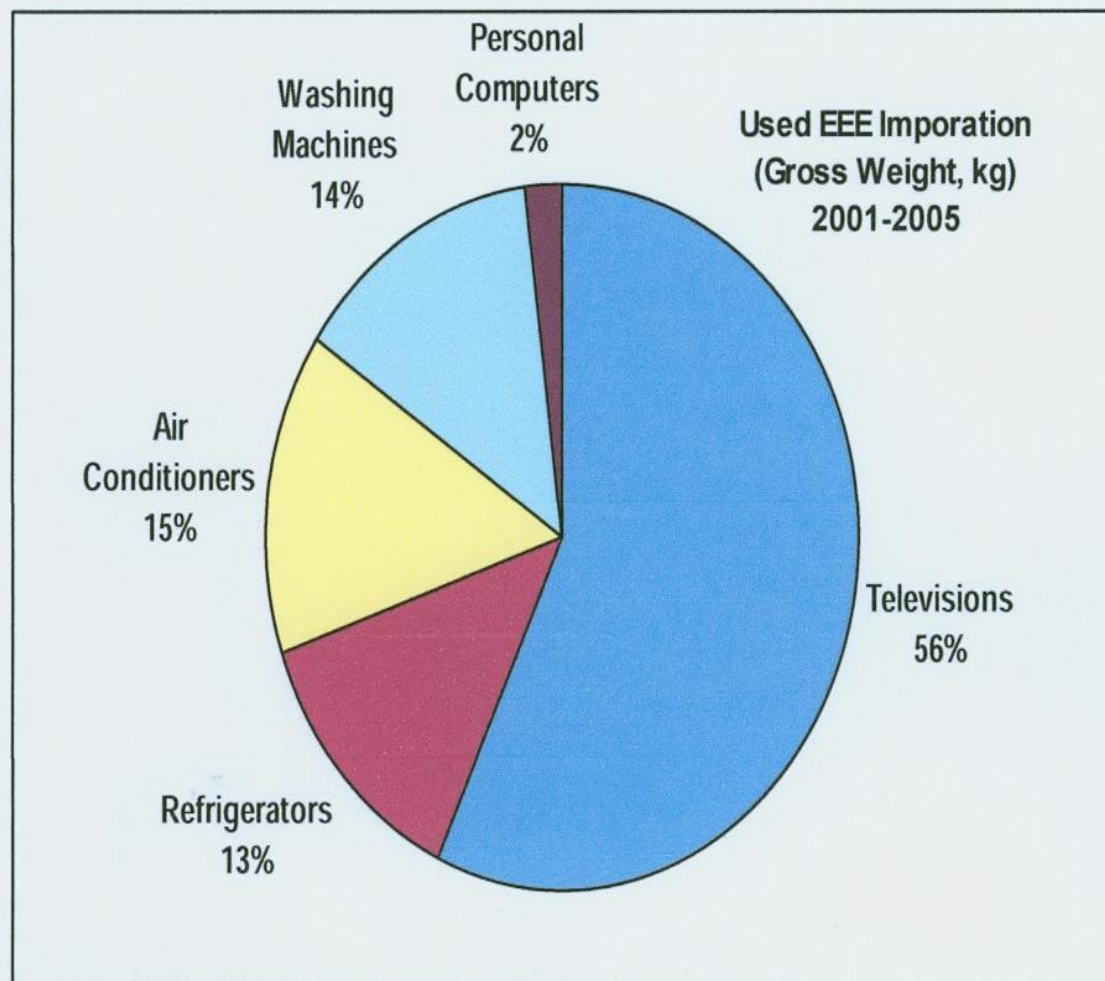
E-item	Gross Wt (kg)	% Gross WT	Quantity (units)	% Qty
Televisions	66,199,464	56.87	3,483,200	67.04
Refrigerators	14,928,630	12.83	419,848	8.08
Air Conditioners	17,104,068	14.69	463,894	8.93
Washing Machines	15,861,956	13.63	695,081	13.38
Personal Computers	2,308,028	1.98	133,707	2.57
Totals	116,402,146	100.00	5,195,730	100.00

Source: NSO data processed by SAGIP-Environment



Figure 2.

Distribution of Imported
Used EEE Types by Weight



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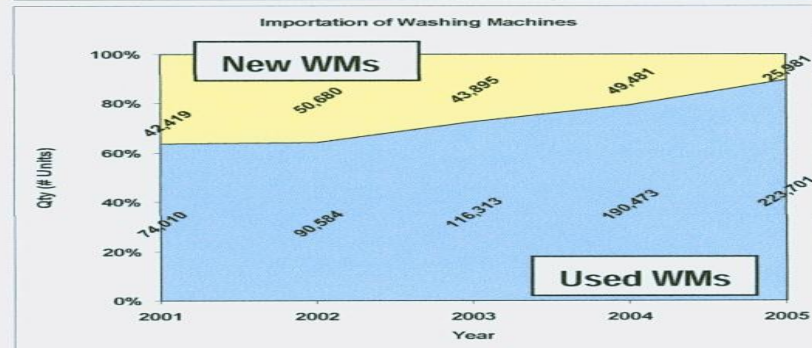
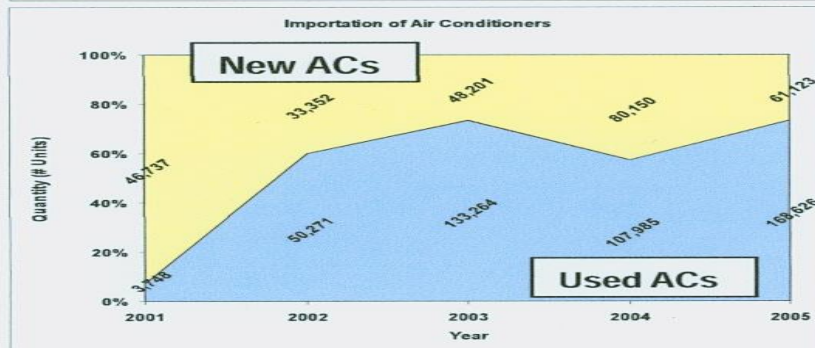
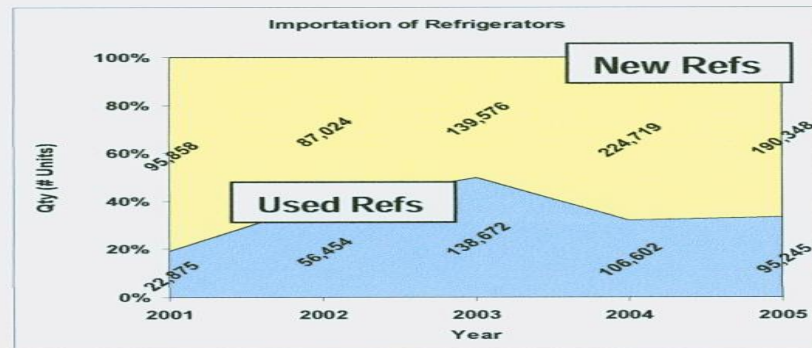
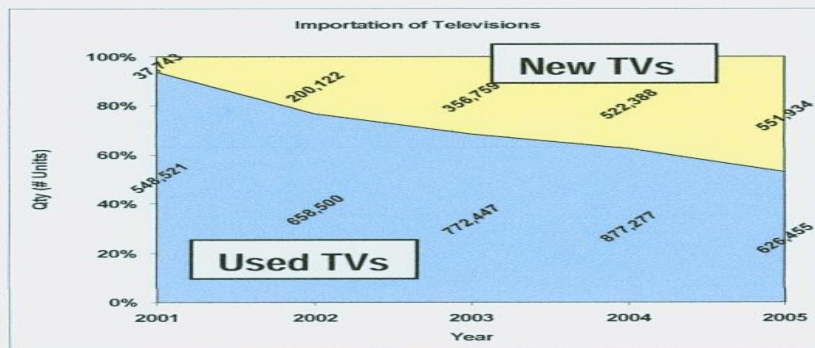
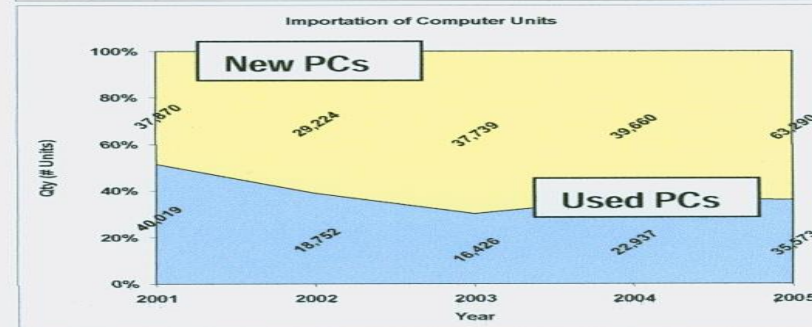


Figure 3. Importation of New vs. Used EEE

- Televisions
- Refrigerators
- Air conditioners
- Washing Machines
- Personal Computers



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Table 4. Top 10 Countries of Origin for Used EEE, 2001-2005

	2001		2002		2003		2004		2005	
Rank	country	Wt (kg)	country	Wt (kg)	country	Wt (kg)	country	Wt (kg)	country	Wt (kg)
1	Japan	4,332,780	Japan	13,178,302	China	6,867,732	China	7,951,645	China	9,581,248
2	South Korea	3,611,893	South Korea	4,409,806	Japan	5,334,834	South Korea	7,474,198	South Korea	5,399,974
3	China	1,642,552	Hong Kong	2,383,901	South Korea	4,867,770	Japan	4,872,806	Japan	4,968,719
4	Hong Kong	1,167,605	China	2,374,698	Hong Kong	4,278,358	Hong Kong	3,950,155	Singapore	2,958,081
5	Thailand	309,543	Thailand	1,208,322	Indonesia	1,384,506	Singapore	1,839,378	Hong Kong	1,779,025
6	Australia	159,556	Singapore	410,633	Singapore	612,558	Thailand	677,558	Taiwan	1,132,334
7	USA	148,086	Indonesia	399,782	Thailand	579,828	India	432,165	Thailand	510,785
8	Taiwan	104,425	Taiwan	377,481	Taiwan	504,390	Taiwan	389,249	India	255,708
9	Malaysia	49,374	USA	244,998	Australia	134,986	Australia	53,362	USA	192,926
10	Indonesia	45,546	Australia	176,778	USA	75,484	USA	47,596	Australia	49,174
	Others	131,709	Others	153,893	Others	95,565	Others	47,814	Others	80,572
	Total	11,703,069	Total	25,318,594	Total	24,736,011	Total	27,735,926	Total	26,908,546
	% Wt (Top 10)	98.87	% Wt (Top 10)	99.39	% Wt (Top 10)	99.61	% Wt (Top 10)	99.83	% Wt (Top 10)	99.70
	% Wt (Top 5)	94.54	% Wt (Top 5)	93.03	% Wt (Top 5)	91.90	% Wt (Top 5)	94.06	% Wt (Top 5)	91.74

Source: NSO data processed by SAGIP-Environment

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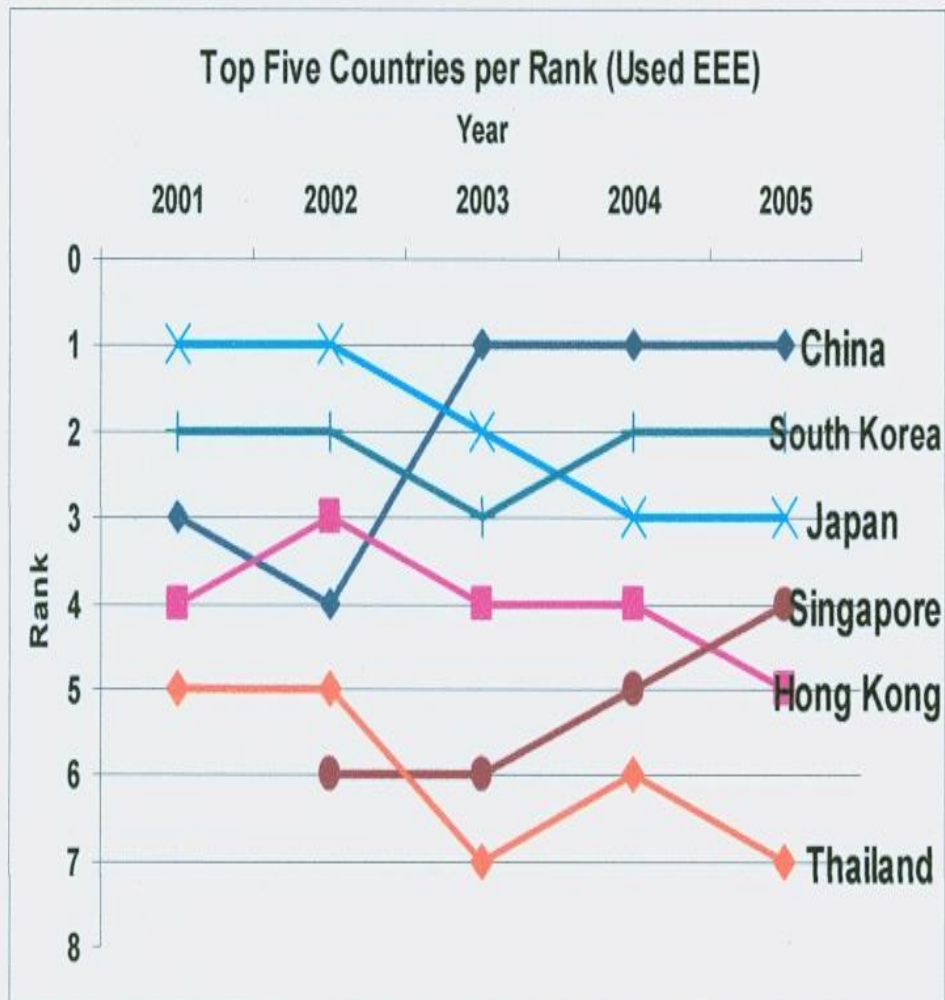


Figure 5.

Top Five Countries of Origin by Rank, 2001-2005.

Source:

NSO data processed by SAGIP-Environment

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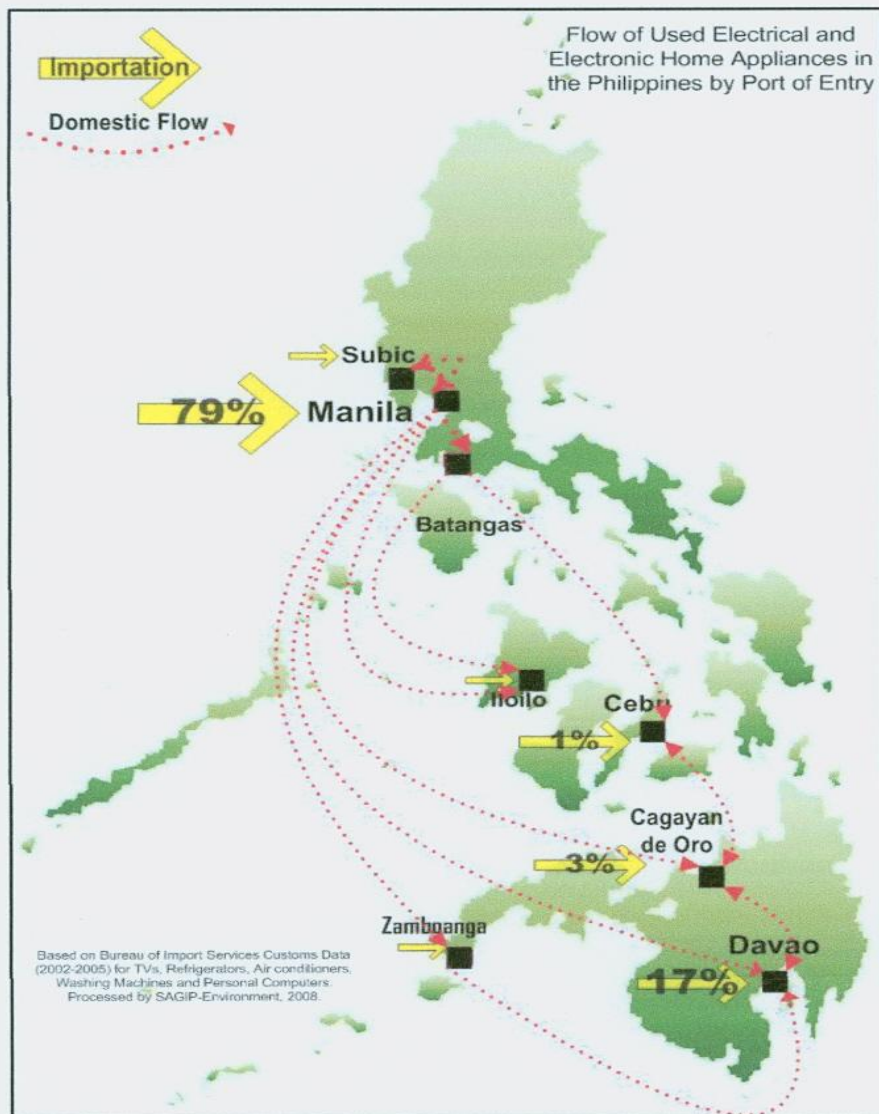


Figure 6.

Flow of Used EEHA by Port of Entry, 2002-2005

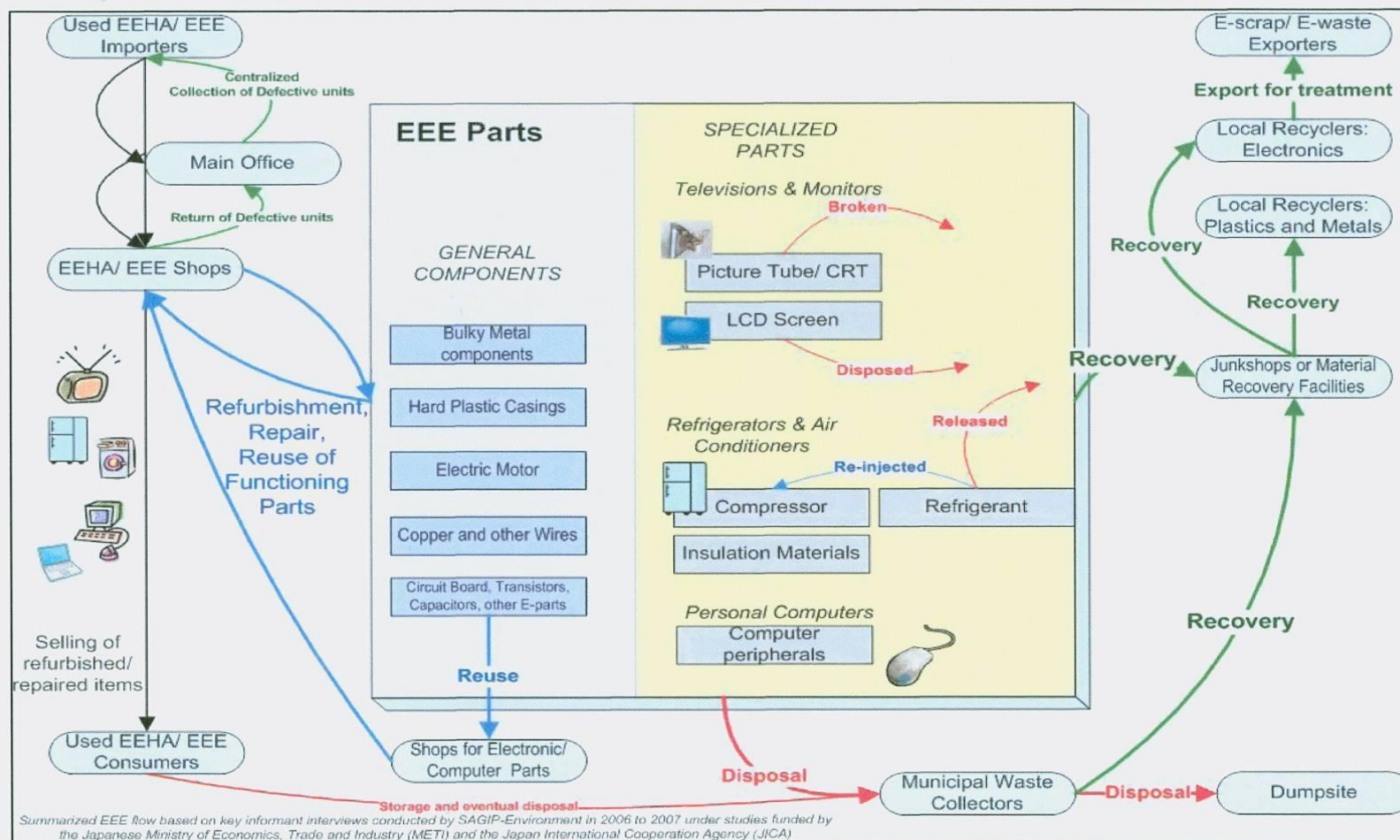
Source: BIS data processed by SAGIP-Environment

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Figure 7. General Flow of Used EEHA: Importation, Repair, Recovery & Disposal



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GTZ -AHT-Support Project
Solid Waste Management for Local Government Units
(SWM4LGUs)

Gathering Basic Data on Electronic Waste in Metro Cebu: A Case Study on the Philippine Setting

Presented by:

Engr. Consolacion I. Sumalinog
STE ,GTZ-AHT

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Metropolitan Cebu E-Waste Situation and Data Research

Metro-Cebu Household Generation per Year (Cebu, Mandaue, Lapu-Lapu, Talisay)

Commodity	Average Weight, kg	Medium Life Span, yr	Obsolete Rate, yr/HH	# of Household	# of Eqpt/ HH	Generation/yr. T/yr
Computers	27.00	10	8	317,855	1	6,866
Televisions	24.00	15	15	317,855	2	15,257
Refrigerators	30.00	10	10	317,855	1	9,536
Cellular Phones	0.10	5	3	317,855	3	57
FixedLines	0.20	10	8	317,855	1	51
Tube Lights	0.30	2	2	317,855	2	191
Bulbs	0.10	1	3	317,855	3	477
Total						32,434

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Market-based Inventory of E-Waste Collection as of 2009

Waste Class	Households Buyer A/B, Kg	Industry MEZ, SMR,Kg	Industry Treater, Kg	LGU, Kg	Total, T
ELECTRICAL & ELECTRONIC WASTE	60,692	22,476	21,374	3,213	108

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Electronic Waste Management in Metro-Cebu

Major Players/ Sector Category

Households/Commercial
Business/Institutions

Management and Practices

- still resort to dumping as a common mode of garbage disposal even electronic wastes
(Data from WACS Mandaue & Cebu)
- Households keep obsolete or defective appliances and gadgets
- Waste pickers collect, sell & dispose garbage e-wastes
- MRF of Lapu-Lapu City is now operational
- none to low protection in handling e-waste

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Electronic Waste Management in Metro-Cebu

Major Players/ Sector Category

Management and Practices

Industry Generators

- Data collection is reflected in PCO Self Monitoring Report (Mercury Bulbs) as disposed thru accredited TSD
- MEZ 1 reported 3.22T total generation of busted bulbs (*Data from MEZ 1 Annual Report 2009*),
- Households and other Commercial, Business Enterprises and Academe still considers Busted Bulbs as part of Garbage
- Most industries enters into lease contracts on IT & Telecommunication suppliers/service providers including upgrading & disposal at most every 2 years
- Industries in Cebu classify e-wastes under hazardous scraps and contracted with Buyers/Contractors

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Electronic Waste Management in Metro-Cebu

Major Players/ Sector Category

Scrap
Buyers/Contractors/
Repairers/ Refurbishers/
Recyclers

Management and Practices

- Data is based on mixed e-waste with IT & Telecommunication equipment topped the list followed by HH equipment and Consumer Goods
- Generally, scrap buyers conduct site dismantling but with minimum awareness on risk/hazard of specific waste
- Classifies dismantled wastes into plastics, metals, saleable to non-saleable
- Dismantled/recovered parts usable for same purpose goes to repairer for refurbishing registered or non-registered recyclers/repairers/refurbishers/recycler/ treater
- residues including busted bulbs with no commercial value ends up in illegal dumping or burying as means of disposal

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Electronic Waste Management in Metro-Cebu

Major Players/ Sector Category

Scrap Buyers/
Contractors/
Repairers/ Refurbishers/
Recyclers

Management and Practices

- some key informants data and monitoring responses are based on sales and purchases in bulk, memory recall or trending
- Informants are aware of hazards of e-wastes. Receiving are common activity of workers but handling & protection is not given priority
- This sector normally cannot/will not give data; Some are not listed in EMB Region 7

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Electronic Waste Management in Metro Cebu

Major Players/ Sector Category

Informal Sector/Waste
Pickers

Management and Practices

- Collects classifies e-wastes but according to commercial value.
- Sells scraps direct to scrap buyer, do not maintain data
- E-wastes residuals with no commercial value as in busted bulbs remain in the pile of wastes

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Electronic Waste Management in Metro Cebu

Major Players/ Sector Category

Treatment Facility

Management and Practices

- Repository or final disposal of electronic wastes containing hazardous substances
- Two facilities in the region that caters to hazardous substances and precious metals but only on residual parts with higher commercial value
- Data is hard to generate that will relate to electronic goods. Interview with key informants sector revealed e-waste collected goes to scrap buyers
- These treatment facilities are compliant with any environmental laws



Electronic Waste Recycling Challenges in Metro Cebu

Translating the Gaps into Project Management Tool

SWOT Analysis

Strengths

- low cost of service
- competent and professional membership and personnel
- **accessibility to clients/customers**
- **DENR-EMB/ Businessmen/Stockholder's Support**
- **Maintained Data and Recording System**

Weaknesses

- high cost of investment
- lack of access to e-waste recycling technologies
- limited area capacity
- limited operation personnel
- **Accessibility and Cost of Final disposal of residual wastes**

Opportunities

- Additional profit and growth
- foreign technical assistance on technologies
- **enforcement of new regulations**
- access to funding institutions

Threats

- emerging recycling and treatment facilities
- presence of scrap buyers of e-wastes and informal sectors
- **Social Acceptability**
- **Insufficient regulation on e-waste**
- **Political Ascendancy**
- **Vulnerability of location to risks and hazards**

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Environmentally sound management of electric and electronic waste in Asia- Pacific

- **Launched** in Tokyo, November 2005, Asia-Pacific Regional Inception Workshop on the ESM of E&E Wastes
- **Collaboration:** SBC, Government of Japan, National Institute for Environmental Studies
- **Goal:** enhanced capacity of Parties through public-private partnerships, illegal traffic prevention

Key actors

- **Parties**

- Cambodia
- China
- India
- Indonesia
- Malaysia
- **Philippines**
- Singapore
- Sri Lanka
- Thailand
- Viet Nam

- **Regional Centres**

- BCRC-SEA
- BCRC China
- SPREP

- **Donors**

- Canada
- Japan
- The Netherlands

Strategic Approach



- **Assessment of the situation**
 - national inventories
 - mechanisms for information exchange, national and regional levels,
 - monitoring of the impacts on human health and the environment
- **Prevention and minimization of e-waste**
 - goals, intermediate and long-term, to reduce the quantity of e-waste in landfills.
- **Introduction of cleaner production approaches**
 - minimize
 - eliminate hazardous substances in EEE ~ their wastes.
- **Environmentally Sound Management,**
 - best practices
 - sound recycling technologies national specificities, including the development of appropriate methods for evaluation, testing, characterizing and classifying e-waste.
- **Promotion of information and training**
 - regional information collection and dissemination clearing house,
 - training curricula for trainers.

National Action Plans

- Awareness-raising
- Detailed inventories
- Pilot schemes
 - Collection and segregation of e-waste, incl. take-back
 - Repair, refurbishment and recycling schemes
- Training of customs and enforcement officers
 - Control or verify export or import of e-waste
 - Identification of e-waste in the WCO's HS
- Evaluation of various projects
 - Effectiveness
 - Sustainability

Regional Action Plans

- Coordination of implementation through the Basel Convention Regional Centres (BCRCs) in the Asia-Pacific Region
- Regional approach to address illegal traffic of e-waste
- Exchange of information, strengthening of enforcement networks in the region
- Harmonization of national regulatory procedures to improve the control of those electrical and electronic wastes characterized as hazardous wastes
- Development of public-private partnerships for the implementation of the project



DanWHS, 2009



Recently completed projects

- **Cambodia**

- ✓ Training programme on e-wastes for key stakeholders
- ✓ Demonstration of environmentally sound management of e-waste
 - Collection scheme at a recyclable waste collection site

- **BCRC-SEA**

- ✓ Regional training workshop on environmentally sound management of e-waste
 - Part 1 – collection and separation

Ongoing projects

- **BCRC SEA (South-East Asia)**

- ✓ Development of regional database on e-waste
- ✓ Regional training workshop on environmentally sound management of e-waste

Part 2 – repair, reconditioning and refurbishment of used EEE,
and recycling and final disposal of e-waste

- **BCRC China**

- ✓ Development of public-private partnerships for e-waste collection in a pilot city

Ongoing DENR-EMB Projects

- **UNIDO-GEF-DENR: “Non-Com POPs Project”** - Global Program to Demonstrate the viability and removal of barriers that impede adoption of available non-combustion technologies for destroying Persistent Organic Pollutants (POPs) in the Philippines
- **WB-GEF-DENR: “Integrated Persistent Organic Pollutants (iPOPs) Management Project”**
- **ADB-DOE: “Philippine Energy Efficient Project” (PEEP)**

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Concerns and Challenges

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Policy Concern(s)

- At present, RA 6969 do not have provisions on the following:
 - **Direct provision classifying E-Wastes as Hazardous Waste**
 - Contaminated sites assessment inventory, and
 - Remediation and Clean-up Standards
- **Extended Producers' Responsibility (EPR)** on products and commodities containing hazardous substances not in place



Challenges

- Approval of House Bill [HB] (consolidated) 4812 substituting HB #7: "The Philippine Hazardous and Radioactive Waste Management Act of 2011"
- Successful implementation of DENR-EMB projects addressing health risk and contaminated sites assessment resulting to issuance of DENR Policy and Standards
- Strengthening regulation of Recycling (Collection) Events conducted by LGUs (Makati and Mandaluyong), Ecozones and Malls



Maraming Salamat Po!!!



THANK YOU VERY MUCH FOR YOUR ATTENTION

<http://www.emb.gov.ph>



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