

# “Current Status on Generation, Collection, Treatment and Facilities of E-Wastes in the Philippines”



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# 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**
- ▶ **MEASURES TO ENSURE THE STABLE SUPPLY OF WEEE TO E-WASTE TSD FACILITIES**



# 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**

Geri-Geronimo R. Sañez  
Chief, Hazardous Waste Management Section  
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Department of Environment and Natural Resources



# OMG: What have we Done?



**Source: Basel Action Network**

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**Source: Basel Action Network**

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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**.

**Source: Basel Action Network**



# E-Waste is Hazardous Waste



Source: Basel Action Network

Geri-Geronimo R. Sañez  
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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 (polybrominateddiphenyl) etc.
- ***Other Halogenated Hydrocarbons***  
PVC (polyvinyl chloride)  
CFCs (chloroflourocarbons)
- ***Rare Earth Elements***  
Yttrium, Europium, Americium

Source: Basel Action Network

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# Divert from landfill to...recycling?



Source: Basel Action Network

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**Out of Sight...**



**Out of Mind?**

**Source: Basel Action Network**

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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**



**Source: Basel Action Network**

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# Away is a Place.....



Source: Basel Action Network

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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”



# 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”





## 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
■ <b>Wastes with Inorganic Chemical</b>	<b>D401 to D499</b>
■ 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
■ <b>Waste Electrical and Electronic Equipment (WEEE)</b>	<b>M506</b>



# 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





## 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
  - Air Emission Source Installation
  - Wastewater Treatment Facilities
  - Treatment, Storage, Disposal Facility
- Notification/Consent of Exporting Country
- Registered/Accredited Recycler
  - DENR ID No.
- Insurance (shipment)
- Purchase Order
- Last Bill of Lading
- Affidavit of Joint Undertaking of Exporter/Importer



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)



# IMPORTER REGISTRY SHEET

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Environmental Quality Division  
Environmental Management Bureau  
Department of Environment and Natural Resources





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)

# IMPORTER REGISTRY SHEET

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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	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:

- This recyclable material is not "Hazardous Waste" as defined by GOPs RA 6969 and/or international regulations.
- This recyclable material does not contain regulated radioactive materials or PCBs (Polychlorinated Biphenyls).
- The recyclable material does not contain regulated concentration of banned and controlled pesticides.
- This recyclable material does not contain Halogenated compounds such as: tetrachloroethylene, trichloroethylene, methylene chloride, 1, 2-dichloroethylene at greater than 0.1% (1000 ppm) total solvent concentration.
- 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.
- 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.
- The analytical data presented herein or attached were derived from testing a representative sample taken in accordance with RA6969, if required, or equivalent rules.

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 Environmental Quality Division  
 Environmental Management Bureau  
 Department of Environment and Natural Resources



9. Signature: \_\_\_\_\_ 10. Title: \_\_\_\_\_

11. Name (Type or Print) \_\_\_\_\_ 12. Date: \_\_\_\_\_

Do not write below this line

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

# IMPORTER REGISTRY SHEET





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)

Gerì-Geronimo R. Sañez  
Chief, Hazardous Waste Management Section  
Environmental Quality Division  
Environmental Management Bureau  
Department of Environment and Natural Resources



## 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. REGISTRY REFERENCE 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.

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**ENVIRONMENTAL MANAGEMENT BUREAU**  
 Republic of the Philippines  
 Department of Environment and Natural Resources

**TRANSBOUNDARY MOVEMENT OF WASTE – Notification**

**BASEL CONVENTION**

1. Exporter (name, address)  Contact Person: Tel: _____ Fax / Telex: _____	3. Notification Concerning(1) Notification Number <b>PH</b> 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	
Reason for Export	(To be completed for a recovery facility located in an OECD state)	
2. Importer (name, address)  Contact person: Tel: _____ Fax / Telex: _____	4. Total intended No. of shipments. _____ S. Estimated quantity (3) _____ kg _____ liters  6. Intended date(s) or period of shipment(s)	
7. Intended carrier(s)(name, address) (2):  Contact person: Tel: _____ Fax / Telex: _____	8. Disposer (name, address)  Contact person: Tel: _____ Fax / Telex: _____	
10. Waste generator (name, address) (2):  Contact Person: Tel: _____ Fax / Telex: _____	Actual site of disposal 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) _____ 12. Packaging type(s) (4) _____	
13. (I) Designation & chemical composition of the waste:	(II) Special handling requirements _____ 14. Physical characteristics (4) _____	
15. Waste identification code in country of export. In country of import. Customs code: IWC: _____ EWC: _____ Other (specify): _____	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"/> Other (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:  Departure:	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.  Name: _____ Signature: _____ Date: _____	
22. No. of annexes attached:		
<b>FOR USE BY COMPETENT AUTHORITIES</b>		
24. To be completed by competent authority Notification received on:  Acknowledgement sent on:  Name of competent authority, Stamp and/or signature:	-import (ECC, OECD) -transit(Basel)	25. Consent to the movement provided by the competent authority of (country) Consent given 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:

(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

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List of abbreviations used in the notification

<b>DISPOSAL (NO RECOVERY) (Block 9)</b> D1 Deposit into or onto land (e.g. landfill, etc.) D2 Land treatment (e.g. biodegradation of liquid or sludge discards in soils, etc.) D3 Deep injection (e.g. injection of pumpable discards into wells, salt domes or naturally occurring) D4 Surface impoundment (e.g. placement of liquid or sludge discards into pits, ponds, or lagoons etc.) D6 Specially engineered landfill (e.g. placement lined discrete cells which are capped and isolated from one another and the environment, etc.) D6 Release into a water body except seas / oceans D7 Release into seas / oceans including bad insertion 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 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.) D10 Incineration in land D11 Incineration at sea D12 Permanent storage (e.g. emplacement of containers in a mine, etc) D13 Blending or mixing prior to submission to any of the operations numbered D1 to D12 D14 Repackaging prior to a submission to any of the operations numbered D1 to D12 D15 Storage pending any of the operations numbered D1 to D12		<b>RECOVERY OPERATIONS (Block 9)</b> R1 Use as a fuel (other than in direct incineration) or other means to generate energy R2 Solvent reclamation /regeneration R3 Recycling/reclamation of organic substances which are not used as solvents R4 Recycling/reclamation of metals and metal compound R5 Recycling/reclamation of other inorganic materials R6 Regeneration of acids or bases R7 Recovery of components used for pollution abatement R8 Recovery of components from catalysis R9 Used oil re-refining or other reuses of previously used oil R10 Land treatment resulting in benefit to agriculture or ecological improvement R11 Uses of residual materials obtained from any of the operations numbered R1 to R10 R12 Exchange of wastes for submission to any of the operations numbered R1 to R11 R13 Accumulation of material intended any operation numbered R1 to R12	
<b>MEANS OF TRANSPORT (Block 11)</b> R. Road T. Train / Rail S. Sea A. Air W. Inland Waterways	<b>PACKAGING TYPE</b> 1. Drum 2. Wooden Barrel 3. Jemcan 4. Box 5. Bag 6. Composite packaging 7. Pressure receptacle 8. Bulk 9. Other (specify)	<b>II NUMBER (Block18) AND UNCLASS (Block19)</b> 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	
<b>PHYSICAL CHARACTERISTICS (Block 14)</b> 1. Powdery / powder 2. Solid 3. Viscous / paste 4. Sludgy 5. Liquid 6. Gaseous 7. Other (specify)			
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.			
<b>26. SPECIFIC CONDITIONS OF CONSENTING TO THE MOVEMENT</b>			

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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**

### **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

Gerì-Geronimo R. Sañez  
Chief, Hazardous Waste Management Section  
Environmental Quality Division

Environmental Management Bureau  
Department of Environment and Natural Resources



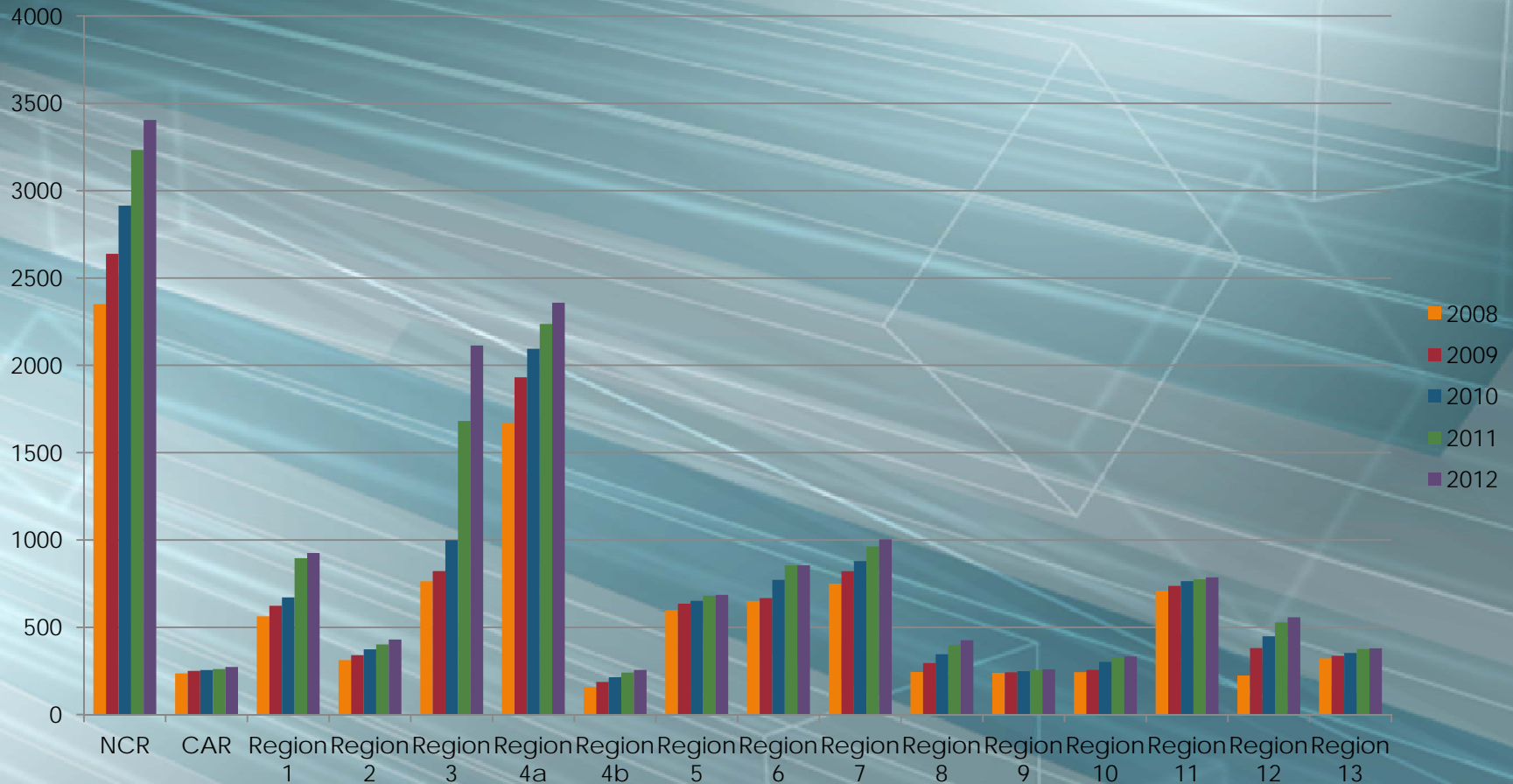
# Hazardous Waste Data and Information

Geri-Geronimo R. Sañez  
Chief, Hazardous Waste Management Section  
Environmental Quality Division  
Environmental Management Bureau  
Department of Environment and Natural Resources





# Regional Hazardous Waste Generators Registration (2008-2012)



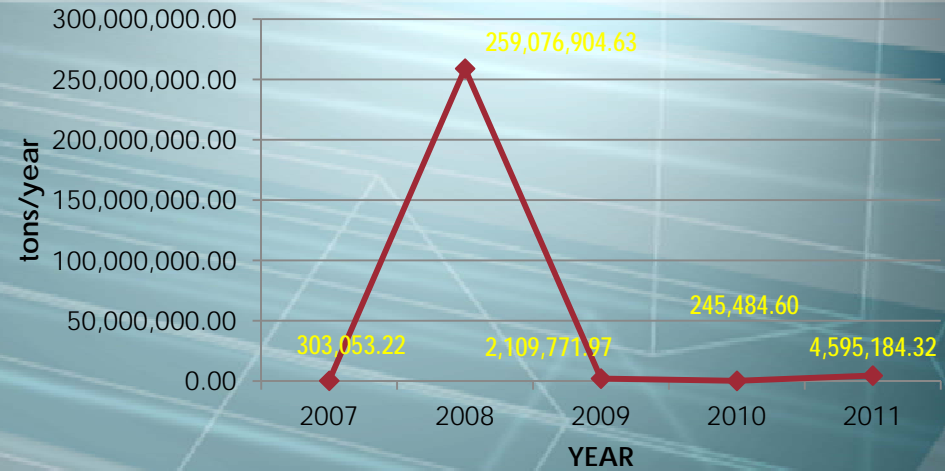
Gerí-Geronimo R. Sañez  
 Chief, Hazardous Waste Management Section  
 Environmental Quality Division  
 Environmental Management Bureau  
 Department of Environment and Natural Resources



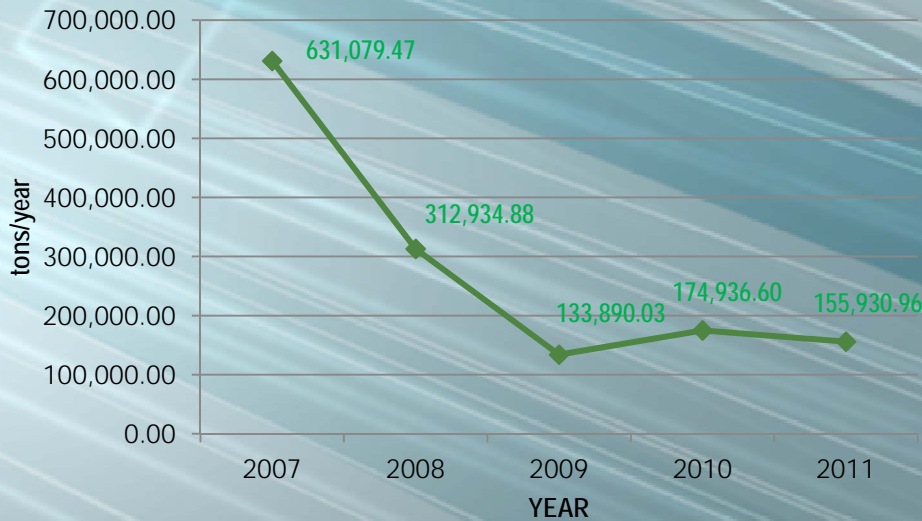
## HW Generation



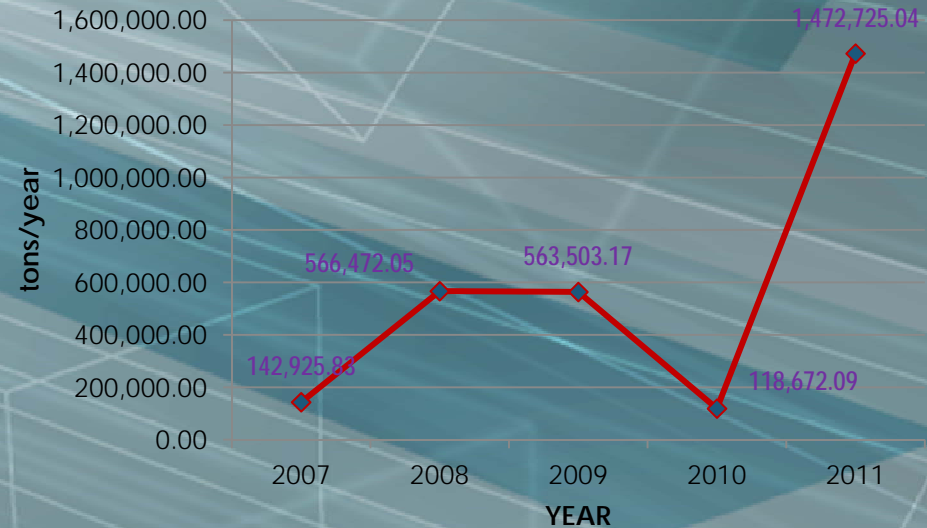
## HW Treated



## HW Disposed



## HW Stored



# IMPORTATION DATA

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Environmental Quality Division  
Environmental Management Bureau  
Department of Environment and Natural Resources



# IMPORT CLEARANCE ISSUED – January – June 2013

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Electronic assemblies and scrap	Used computer monitor, CPU & used computer accessories	2,080.00	kgs	Korea
Used electrical and electronic equipment	Used TV sets	15,000.00	units	Japan
Used electrical and electronic equipment	Used computer and used monitor	36,000.00	units	Japan
Used electrical and electronic equipment	Used TV setsa	26,000.00	units	South Korea
Used electrical and electronic equipment	Used TV sets	32,000.00	units	South Korea
Electronic assemblies and scrap	Used Televisions and othe household electrical appliances	670.00	units	Korea
Used electrical and electronic equipment	Used colored TV sets	650.00	units	Korea
Used electrical and electronic equipment	Used colored TV sets	650.00	units	Korea
Used electrical and electronic equipment	Used colored TV sets	3,250.00	units	South Korea
Used electrical and electronic equipment	Used colored TV sets	1,950.00	units	Korea
Used electronic equipment	Used TV sets	24,000.00	units	Korea
Electronic assemblies and scrap	Assorted electronics component, aluminum, computer; PCB and battery; printed circuit board (PCB); and solder materials	500.00	tons	Thailand
Used electrical and electronic equipment	Used TV sets	229.00	units	Japan
Used electrical and electronic equipment	Used airconditioner	37.00	units	Japan
Used electrical and electronic equipment	Used refrigerators	60.00	units	Japan
Used electrical and electronic equipment	Used CPUs	4,000.00	units	Korea
Used electrical and electronic equipment	Used monitors	3,000.00	units	Korea
Used electrical and electronic equipment	Used laptops	2,000.00	units	Korea
Used electrical and electronic equipment	Used laptops	2,000.00	units	Korea
Used electrical and electronic equipment	Used monitors	3,000.00	units	Korea
Used electrical and electronic equipment	Used CPUs	4,000.00	units	Korea
Electronic scraps	Electronic motor scrap	1,000.00	MT	Costa Rica
Used electrical and electronic equipment	Used TV sets	887.00	units	Japan
Used electrical and electronic equipment	Used mini refrigerator	31.00	units	Japan
Used electrical and electronic equipment	Used TV sets	796.00	units	Japan
Used electrical and electronic equipment	Used monitor	700.00	units	Japan
Used electrical and electronic equipment	Used CPU	600.00	units	Japan



# IMPORT CLEARANCE ISSUED – January – June 2013

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Used electronic equipment	Used computer parts	908.00	units	Japan
Used electronic equipment	Used monitor	2,000.00	units	Japan
Used electronic equipment	Used monitor	1,600.00	units	Korea
Used electronic equipment	Used computer parts	1,230.00	units	Korea
Used electrical and electronic equipment	Used TV sets	1,200.00	units	Japan
Used electrical and electronic equipment	Used mini refrigerators	79.00	units	Japan
Used electrical and electronic equipment	Used CRT monitors	302.00	units	Japan
Used electrical and electronic equipment	Used TV sets	601.00	units	Japan
Used electrical and electronic equipment	Used CRT monitor	399.00	units	Japan
Used electronic equipment	Used TV sets	501.00	units	Japan
Used electronic equipment	Used washing machine	12.00	units	Japan
Used electronic equipment	Used refrigerator	44.00	units	Japan
Used electronic equipment	Used refrigerator	62.00	units	Japan
Used electronic equipment	Used TV sets	969.00	units	Japan
Used electronic equipment	Used speaker	1.00	unit	Japan
Used electronic equipment	Used refrigerator	92.00	units	Japan
Used electronic equipment	Used TV sets	441.00	units	Japan
Used electrical and electronic equipment	Used colored TV sets	1,300.00	units	Korea
Used electronic equipment	Used air conditioner	550.00	units	Korea
Used electronic equipment	Used washing machine	300.00	units	Korea
Used electronic equipment	Used refrigerator	700.00	units	Korea
Used electronic equipment	Used computer	6,000.00	units	Korea
Used electronic equipment	Used monitor	12,000.00	units	Korea
Used electronic equipment	Used computer parts	300.00	units	Japan
Used electronic equipment	Used monitor	1,914.00	units	Japan
Used electronic equipment	Used TV sets	1,056.00	units	Korea
Used electronic equipment	Used TV sets	447.00	units	Japan



# IMPORT CLEARANCE ISSUED – January – June 2013

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Used electronic equipment	Used refrigerator	70.00	units	Japan
Used electronic equipment	Used refrigerators	41.00	units	Japan
Used electronic equipment	Used amplifier and speaker	66.00	units	Japan
Used electronic equipment	Used TV sets	458.00	units	Japan
Used electronic equipment	Used electric piano	2.00	units	Japan
Used electrical and electronic equipment	Used digital camera	38.00	units	Japan
Used electrical and electronic equipment	Used exhaust fan	1.00	unit	Japan
Used electrical and electronic equipment	Used airconditioner	4.00	units	Japan
Used electrical and electronic equipment	Used refrigerator	21.00	units	Japan
Used electrical and electronic equipment	Electric rice cooker/ pod	275.00	units	Japan
Used electrical and electronic equipment	LCD TV	1.00	unit	Japan
Used electrical and electronic equipment	Used computer	234.00	units	Japan
Used electrical and electronic equipment	CRT monitor	665.00	units	Japan
Used electronic equipment	Used washing machines	8.00	pcs	Japan
Used electronic equipment	Used laptop	114.00	pcs	Japan
Used electronic equipment	Used refrigerator	83.00	pcs	Japan
Used electronic equipment	Used TV sets	382.00	pcs	Japan
Electronic assemblies	Used computer	110.00	units	USA
Electronic assemblies	Used televisions	48.00	units	USA
Used electrical and electronic equipment	Used electric print machine motors and parts	4.00	units	USA
Used electronic equipment	Used refrigerator	64.00	units	Japan
Used electronic equipment	Used washing machine	24.00	units	Japan
Used electronic equipment	Used TV	480.00	units	Japan
Used electronic equipment	Used TV	356.00	units	Japan
Used electronic equipment	Used washing machine	12.00	units	Japan
Used electronic equipment	Used refrigerator	75.00	units	Japan



# IMPORT CLEARANCE ISSUED – January – June 2013

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Used electronic equipment	Used TV	638.00	units	Japan
Used electronic equipment	Used CRT monitor	242.00	units	Japan
Used electronic equipment	Used TV	2,703.00	units	Japan
Used electronic equipment	Used CRT monitor	834.00	units	Japan
Used electronic equipment	Used CRT monitor	2,989.00	units	Japan
Used electronic equipment	Used TV	138.00	units	Japan
Used electronic equipment	Used TV	922.00	units	Japan
Used electronic equipment	Used TV	353.00	units	Japan
Used electronic equipment	Used refrigerator	56.00	units	Japan
Used electronic equipments	Used TV sets	15,500.00	units	Japan
Used electronic equipments	Used refrigerator	7,000.00	units	Japan
Used electronic equipments	Used aircon	5,000.00	units	Japan
Used electric equipment	Used colored TV sets	15,600.00	pcs	Korea
Electronic assemblies and scrap	Used Televisions, refrigerators, household sewing machines and other used electrical appliance	511.00	pcs	Japan
Used electrical and electronic equipment	Used electric print machine motors and parts	1.00	unit	USA
Used electrical and electronic equipment	Used electric print machine motors and parts	2.00	units	USA
Used electrical and electronic equipment	Used tv sets	700.00	units	Korea
Used electronic equipment	Used monitor	1,200.00	units	Japan
Used electronic equipment	Used computer	1,200.00	units	Japan
Used electrical and electronic equipment	Used LCD monitor	704.00	units	Japan
Used electrical and electronic equipment	Used rice cooker	258.00	units	Japan
Used electrical and electronic equipment	Used CRT monitor	525.00	units	Japan
Used electrical and electronic equipment	Used electric pod	84.00	units	Japan
Used electrical and electronic equipment	Used computer	353.00	units	Japan
Used electrical and electronic equipment	Used laptop	530.00	units	Japan
Used electrical and electronic equipment	Used computer monitor	128.00	units	Japan



# IMPORT CLEARANCE ISSUED – January – June 2013

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Used electrical and electronic equipment	Used computer parts	214.00	units	Japan
Used electrical and electronic equipment	Used laser printer	100.00	units	Japan
Used electrical and electronic equipment	Used refrigerator	32.00	units	Japan
Used electrical and electronic equipment	Used TV	213.00	units	Japan
Used electronic equipment	Used colored TV sets	15,600.00	pbs	Korea
Used electronic equipment	Used colored TV sets	15,600.00	pcs	Korea
Used electronic and electrical products	Graphic card	600.00	units	Korea
Used electronic and electrical products	Motherboards	1,650.00	units	Korea
Used electronic and electrical products	Mouse	2,000.00	units	Korea
Used electronic and electrical products	Power supply	1,000.00	units	Korea
Used electronic and electrical products	Keyboard	2,000.00	units	Korea
Used electronic and electrical products	Used computer (LCD)	700.00	units	Korea
Used electronic and electrical products	Hard disk	2,000.00	units	Korea
Used electronic and electrical products	Notebooks	100.00	units	Korea
Used electronic and electrical products	CCTV (camera)	40.00	units	Korea
Used electronic and electrical products	DVD	250.00	units	Korea
Used electronic and electrical products	LAN card	1,500.00	units	Korea
Used electronic equipment	Used colored TV sets	19,500.00	pcs	Korea
Used electronic equipment	Used washing machine	5.00	units	Korea
Used electronic equipment	Used airconditioner	10.00	units	Korea
Used electronic equipment	Used refrigerator	8.00	units	Korea
Used electronic equipment	Used computer	2.00	units	Korea
Used electrical and electronic equipment	Used TV sets, mini refrigerators, household sewing machines and other used electrical appliances	342.00	units	Japan
Used electrical and electronic equipment	Used TV sets, mini refrigerator, household sewing machines and other used electrical appliances	3,040.00	units	Japan





# IMPORT CLEARANCE ISSUED – January – June 2013

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Used electrical and electronic equipment	Used TV sets	10,810.00	kgs	Japan
Used electronic equipment	Used copier machines	100.00	pcs	Singapore
	Used TV	650.00	pcs	Korea
Used electronic equipment	Used TV	411.00	units	Japan
Used electronic equipment	Used washing machine	24.00	units	Japan
Used electronic equipment	Used refrigerator	26.00	units	Japan
Used electronic equipment	Used CRT tube	578.00	units	Japan
Used electronic equipment	Used TV	3,318.00	units	Japan
Used electronic equipment	Used TV	470.00	units	Japan
Used electronic equipment	Used refrigerator	47.00	units	Japan
Used electronic equipment	Used colored TV sets	650.00	pcs	Japan
Used electrical and electronic equipment	Used computer sets and other used electrical appliances	6,429.00	units	Laos
Used electrical and electronic equipment	Used colored TV	1,300.00	pcs	Korea
Used electrical and electronic equipment	Used colored TV	2,600.00	pcs	South Korea
Used electrical and electronic equipment	Used colored TV	2,600.00	pcs	South Korea
Used electrical and electronic equipment	Used colored TV	1,950.00	pcs	South Korea
Used electronic equipment	Used TV sets, refrigerators, washing machines, air conditioners	557.00	units	Japan
Used electronic equipment	Used TV sets, used refrigerators, used washing machines and used air conditioners	470.00	units	Japan
Used electronic equipment	Used TV sets	1,805.00	units	Japan
Used electronic equipment	Used CRT monitor	998.00	units	Japan
Used electronic equipment	Used TV	2,884.00	units	Japan
Used electronic equipment	Used television	700.00	units	Japan
Used electronic equipment	Used TV	786.00	units	Japan
Used electric equipment	Used television	832.00	units	Japan



# IMPORT CLEARANCE ISSUED – January – June 2013

MATERIALS	DESCRIPTION	QUANTITY		SOURCE
		Volume	Unit	
Used electric equipment	Used CRT monitor	129.00	units	Japan
Used electronic equipment	Used television	757.00	units	Japan
Used electronic equipment	Used refrigerator	39.00	units	Japan
Used electronic equipment	Used television	346.00	units	Japan
Used electronic equipment	Used refrigerator	78.00	units	Japan
Used electronic equipment	Used television	660.00	units	Japan
Used electronic equipment	Used CRT monitor	306.00	units	Japan
Used electronic equipment	Used television	754.00	units	Japan
Electronic and electrical scraps	Electronic and electrical products	4,536.00	pcs	USA



# IMPORT CLEARANCE ISSUED – 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



# 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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 Environmental Management Bureau  
 Department of Environment and Natural Resources



# 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



# 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



# 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



# EXPORT DATA

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# EXPORT CLEARANCE ISSUED – January – June 2013

TYPE OF MATERIALS	QUANTITY		DESTINATION
	Volume	Unit	
solder dross, microsolder balls, lead frame scrap (partial solder plating), Ag paste syringe and bottles, electronic assemblies scrap and ferrous waste scrap	1,000.00	MT	Japan
Scrap/ obsolete electronic components	400,000.00	kgs	Japan



# EXPORT CLEARANCE ISSUED - 2012

TYPE OF MATERIALS	QUANTITY		DESTINATION
	Volume	Unit	
Crushed printed circuit boards	840.00	tonnes	Korea
Electrical Parts Scrap	2,400.00	MT	Korea
Printed Wiring Board (PWB)	2,000.00	tons	Japan
Scrap/obsolete electronic components	80.00	MT	Korea
Used electrical and electronics parts and accessories (computer and mobile phones, lithium-ion batteries)	300,000.00	kg	Singapore
Used electrical and electronics parts and accessories (networking equipment, handphone parts and accessories)	800,000.00	kgs	Singapore
Used Metal Electronic Materials	20,000.00	kgs	Singapore
Used Office Equipment (copier, printers, facsimile)	90,000.00	kgs	Thailand
Used Supplies containing residual toner	80,000.00	kgs	Thailand
Used toners and ink cartridges	200,000.00	kgs	Singapore



# 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



# 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



# EXPORT CLEARANCE ISSUED – 2009

TYPE OF MATERIALS	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 MATERIALS	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



# EXPORT CLEARANCE ISSUED - 2007

TYPE OF MATERIALS	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

TYPE OF MATERIALS	QUANTITY		DESTINATION
	Volume	Unit	
Assorted electronic components/plastics/solder paste	2,000	MT	Thailand

# EXPORT CLEARANCE ISSUED - 2005

TYPE OF MATERIALS	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



# SUMMARY OF E-WASTE RECYCLERS AND IMPORTERS

	Y E A R														Total
	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	
TSD Facility	19	14	4	3	0	1	2	2	1	3	0	1	0	0	
Importer	9	2	4	8	5	1	2	3	3	4	1	2	1	1	46



# Refurbishing Shops of Used EEE



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# Refurbishing Shops of Used EEE



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# Shops selling 2<sup>nd</sup> Hand or Used EEE



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# Shops selling 2<sup>nd</sup> Hand or Used EEE



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# PROGRAMS/PROJECTS/STUDIES

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



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

**Melissa May F. Cardenas**

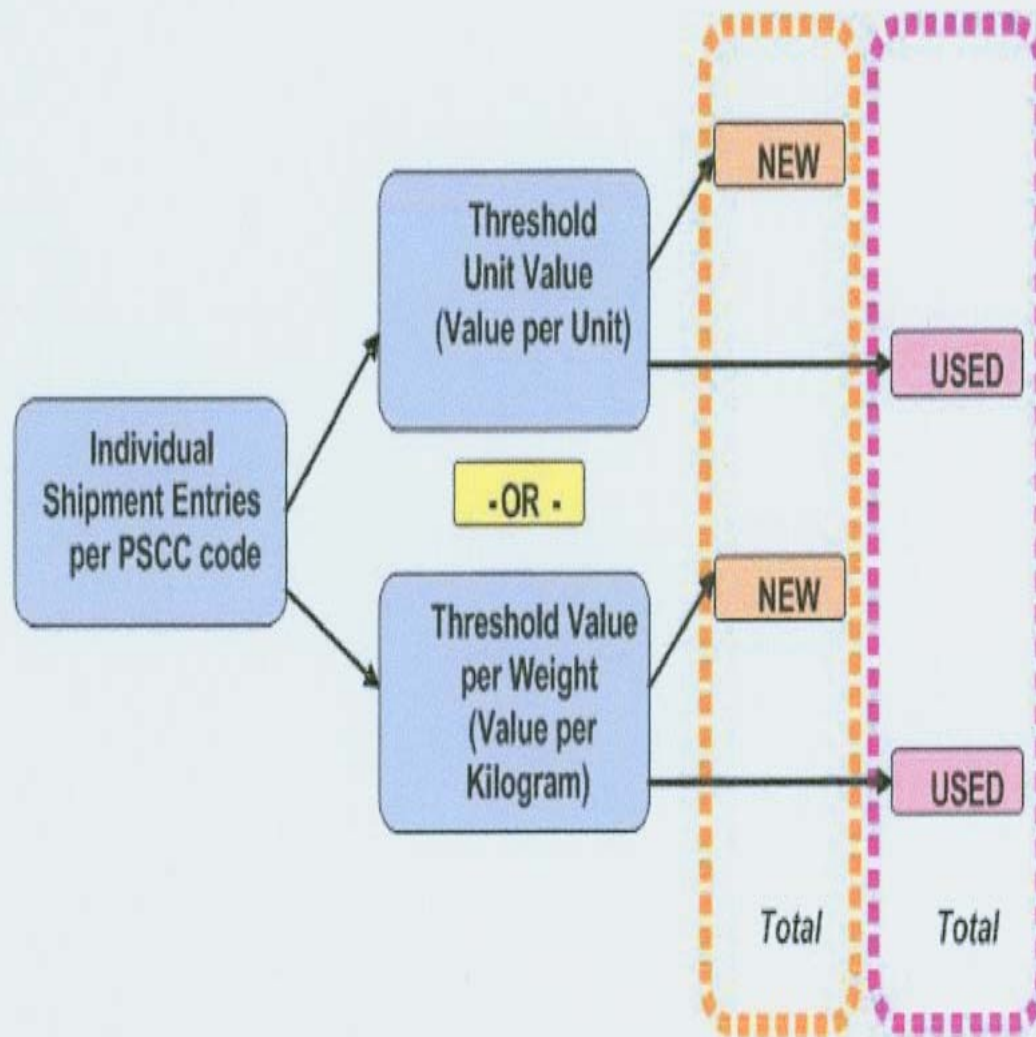
Environmental and Sustainable Agri-Planners and Managers, Inc.  
(SAGIP-Environment)

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Environmental Quality Division  
Environmental Management Bureau  
Department of Environment and Natural Resources



**Figure 1.**

Importation data processing  
using threshold values



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

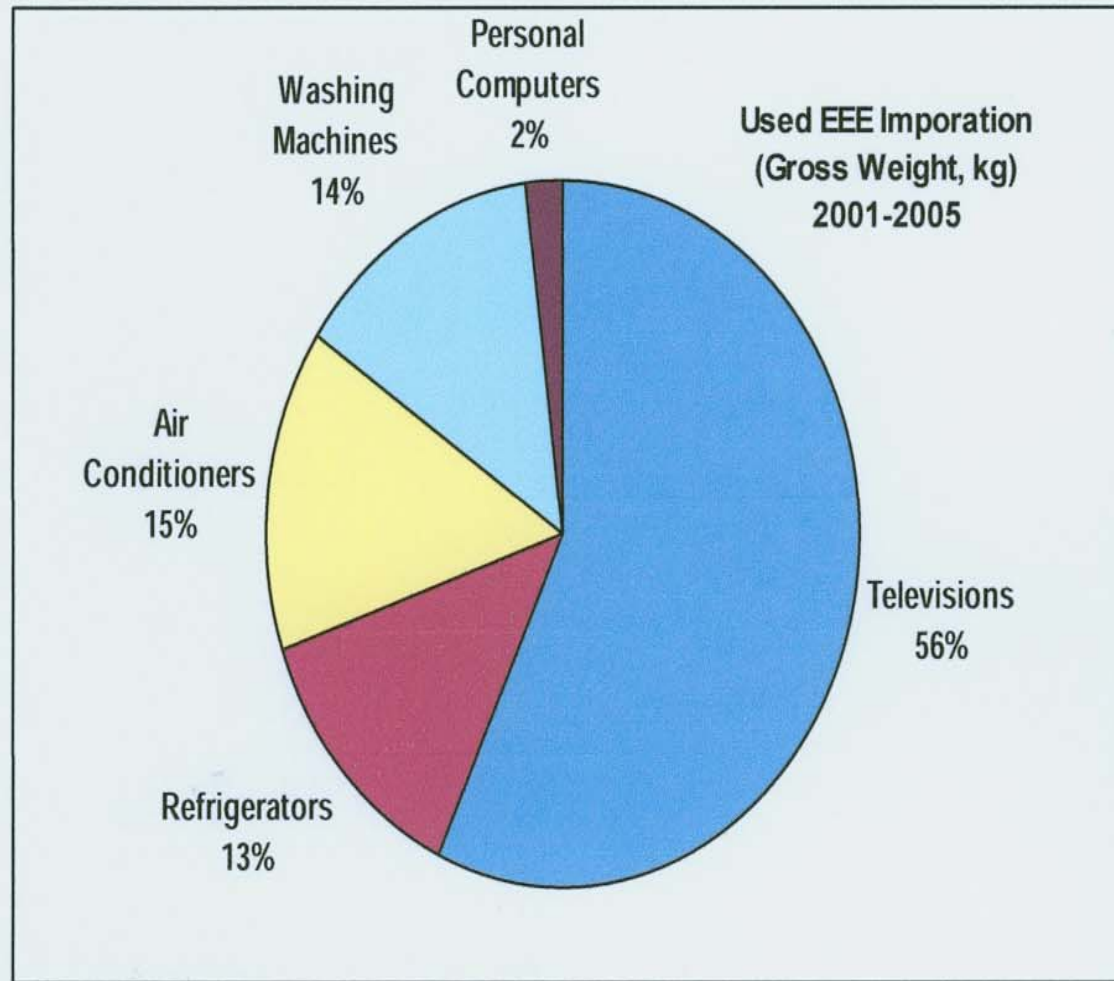
EEE Type	Brand-new		Second-hand	
	Price/unit	Price/kg	Price/unit	Price/kg
Televisions (all types)	\$25-800+	\$3-11	\$2-7	\$0.11-2.9
Refrigerator	\$100 up	\$2 up	\$10-85	\$0.2-1.9
Personal Computer	\$300-7500	\$2-820	\$26-200	\$2 less
Washing Machines	\$ 61.9 - 144	\$ 8-10+	\$ 2-6	\$0.3 - 2+
Air conditioners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

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

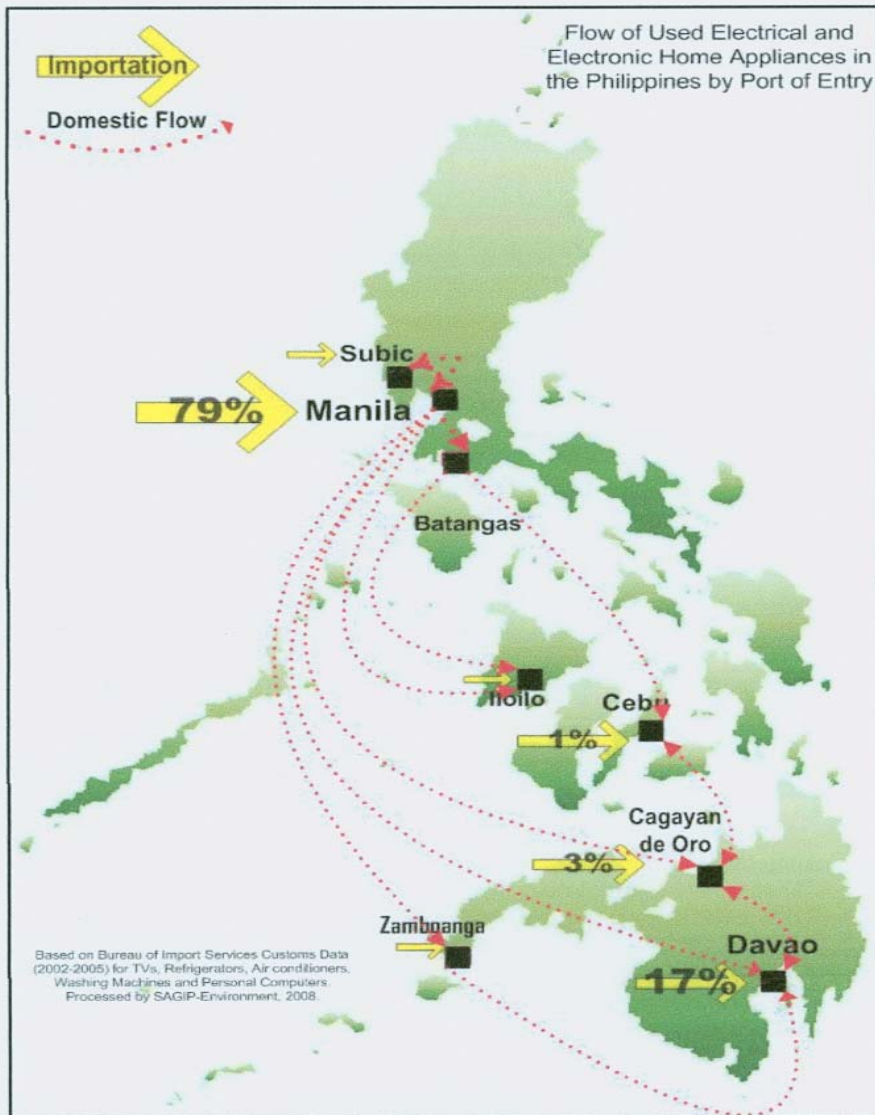


**Figure 2.**

Distribution of Imported  
Used EEE Types by Weight







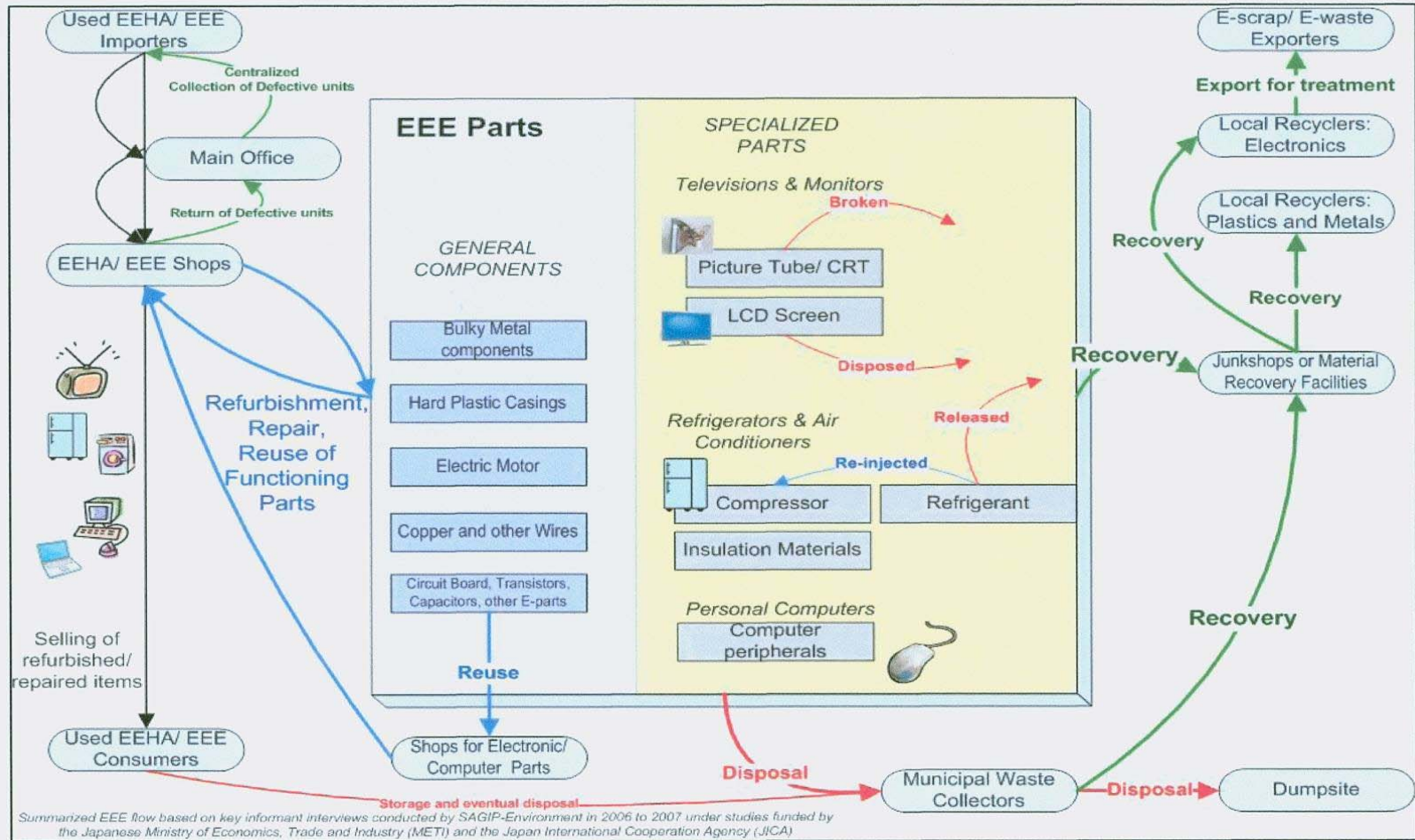
**Figure 6.**

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

*Source: BIS data processed by SAGIP-Environment*



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



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:*

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## 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
<b>Total</b>						<b>32,434</b>



# 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



# Electronic Waste Management in Metro-Cebu

## Major Players/ Sector Category

### Industry Generators

## Management and Practices

- 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



# 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



# 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





# 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



# NETWORKING AND AWARENESS

## National Perspectives

A PRESENTATION BY

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ENVIRONMENTAL PROTECTION UNIT  
ENFORCEMENT & SECURITY SERVICE

BUREAU OF CUSTOMS  
PHILIPPINES



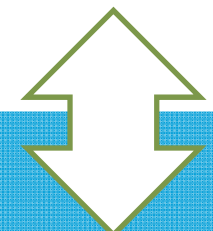
# NETWORKING

National

International

Customs  
Focal  
Point

Internal



# National

- NALECC-SCENR
- DENR
- Dept. of Agriculture
- DOJ
- DILG-PNP
- PCTC-OSETC
- OP-ES, NCWC
- ATC-PMC
- DTI-BOI
- PNRI-DOST
- DOH
- DoE
- NGOs
- PCIS
- RMG

# International

- UNEP-ROAP
- WCO-ROAP
- Interpol
- UNODC
- World Bank
- UNIDO
- UNDP
- USDOE
- USAID
- Basel Conv. Secretariat
- Stockholm Conv. Secretariat
- Montreal Conv. Secretariat
- NGOs

Customs  
Focal  
Point

# Internal

Dep.Com. IG

Dep.Com. EG

Dep.Com. AOCG

Director, ESS

Director, CIIS

Director, IAS

District Collectors,  
17 Collection  
Districts

XIP

Value Classification  
Division

# AWARENESS

Internal



Customs  
Focal  
Point



National

International

# Internal

17 Collection Districts

• 34 Sub-ports of Entry

ITDD-IAG

• Import Assessment Service

CIIS

Customs Focal Point

# National

# International

NALECC-SCENR

• DENR

DTI-BOI

• DOH

WCO-ROCB

• environet

UNEP-CAP

• and others

Dept. of Agriculture

and others

RILO-AP

• Interpol

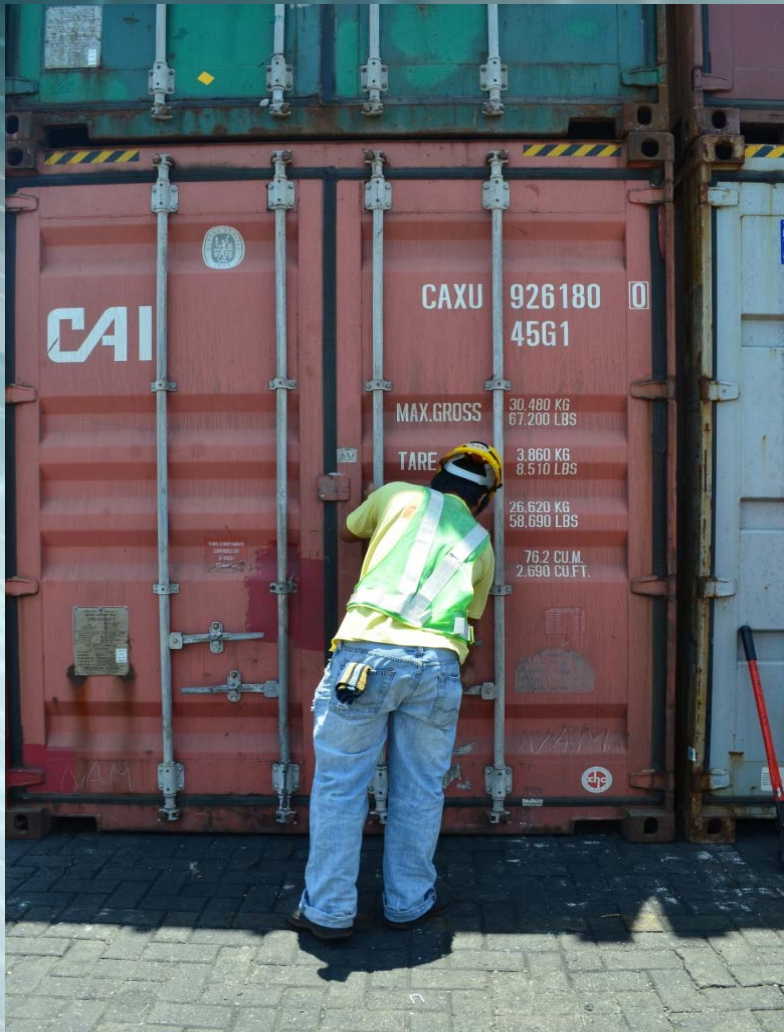
# Coordination between BOC and EMB



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# 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)**



# Concerns and Challenges

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Department of Environment and Natural Resources



# Policy Concerns

- ▶ At present, RA 6969 does 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



# How are these concerns being addressed?

- ▶ **Proposed policy revising the present Procedural Manual on Hazardous Waste Management to specifically include Waste Electrical and Electronic Equipment (WEEE) as one of the prescribed hazardous wastes. WEEE from households collected by Materials Recovery Facility will now be regulated to ensure that these do not end up in municipal sanitary landfills.**
- ▶ **A proposed Guidelines on the Environmentally Sound Management of Waste Electrical and Electronic Equipment (WEEE) will be drafted by next year.**
- ▶ **A Joint policy between DENR-DOE on the Lighting Industry Waste Management Guidelines has been issued in September 2013 implementing EPR for lighting products. This could be replicated for WEEE.**



# 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





# Challenges (cont.)

- ▶ **EMB and the Bureau of Customs continuously face the challenge of importers importing into the country second-hand electrical and electronic equipment without securing Import Clearance from EMB**



# Measures to ensure the stable supply of WEEE to the E-Waste TSD Facilities

- ▶ Implement EPR, not only for lighting products but other types of WEEE
- ▶ Strict enforcement of policies on hazardous wastes including WEEE
- ▶ Strengthen coordination with other government agencies such as the Bureau of Customs to prevent illegal shipments of second-hand EEE
- ▶ Enhance IEC activities on the hazards posed by WEEE on human health and the environment



# Measures to ensure the stable supply of WEEE to the E-Waste TSD Facilities

- ▶ The Philippines has not ratified the Basel Ban Amendment because it will affect local industries that recover/recycle HW , among others as, recovery of precious and non-precious metals (lead, gold, selenium, tellurium, etc.), production raw materials (plastics for construction or sanitation pipes and tarpaulins; scrap metals for foundries and sand blasting (slag); and for cement production (slag & fly-ash), alternative fuel (used oil); and **electronic assemblies and scraps for direct re-use and remanufacturing.**



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FOR YOUR ATTENTION**

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