Asian Network Workshop 2017

Updates on National Regulations and Implementation Status

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Scope of Presentation

Overview of Singapore's National Regulations

E-wastes, ULABs, and Mercury Wastes

Plans for E-waste Management in Singapore

1 Overview of Singapore's National Regulations

Hazardous Waste (Control of Export, Import and Transit) Act

- 16 Mar 1998 - Enacted the Hazardous Waste (Control of Export, Import and Transit) Act and its Regulation
- Issuance of Basel permits for export, import and transit of hazardous waste
- Enforcement powers and penalties covered under the Act

Definition of 'Hazardous Waste'

- Waste having any of the characteristics mentioned in Annex III to the Basel Convention; or
- Waste that belongs to any category contained in Annex I to the Basel Convention, unless it does not possess any of the characteristics contained in Annex III to that Convention; or
- Waste deemed as hazardous by Parties through Notification to the Basel Secretariat
- Include household wastes and residues from incineration of household wastes, but exclude radioactive and ship-borne wastes

Maximum Penalty under the Act

- For body corporate, S$300,000
- For individual, S$100,000 or 2 years imprisonment or both

1 Overview of Guidelines for Distinguishing UEEE from E-wastes Prior to Transboundary Movement

Electrical and Electronic Equipment prior to disposal

Re-use

- Surveyor report indicating all UEEE are in good working condition
- Importer ensure UEEE are meant for re-use (i.e. ready market)

Repair and Refurbishment

- Contractual agreement between manufacturers and repair facilities
- Warranty
- Repair facility

Recycle and Recovery

- Approval from importing country CA
- Importer has recycling facilities
- Exporter shall apply Basel permit should it be a hazardous waste

UEEE

E-waste

1 Guiding Principles on Import/Export of UEEE

Faulty equipment for repair under Return Merchandise Authorisation (RMA) warranty (e.g. Hard disks)

Faulty equipment for repair under contractual agreement with manufacturers

Faulty or off-spec equipment for repair followed by re-branding and subsequently sold as brand new product with warranty

Faulty equipment for asset recovery (i.e. reuse, repair or recycle) by approved recycling facilities only

1 Guiding Principles on Import/Export of E-waste

No import of e-wastes for the purpose of re-export.

No import/export of e-wastes for final disposal.

Import of e-waste permitted for recycling on case-by-case basis, and some of the considerations taken include: percentage of recovery/recycling, availability of appropriate recycling facilities, etc.

Export to importing countries which classify e-waste as hazardous waste under the Basel Convention framework only with Prior Informed Consent (PIC) from those countries

2 E-wastes, Mercury Wastes and Used Lead Acid Batteries (ULABs)

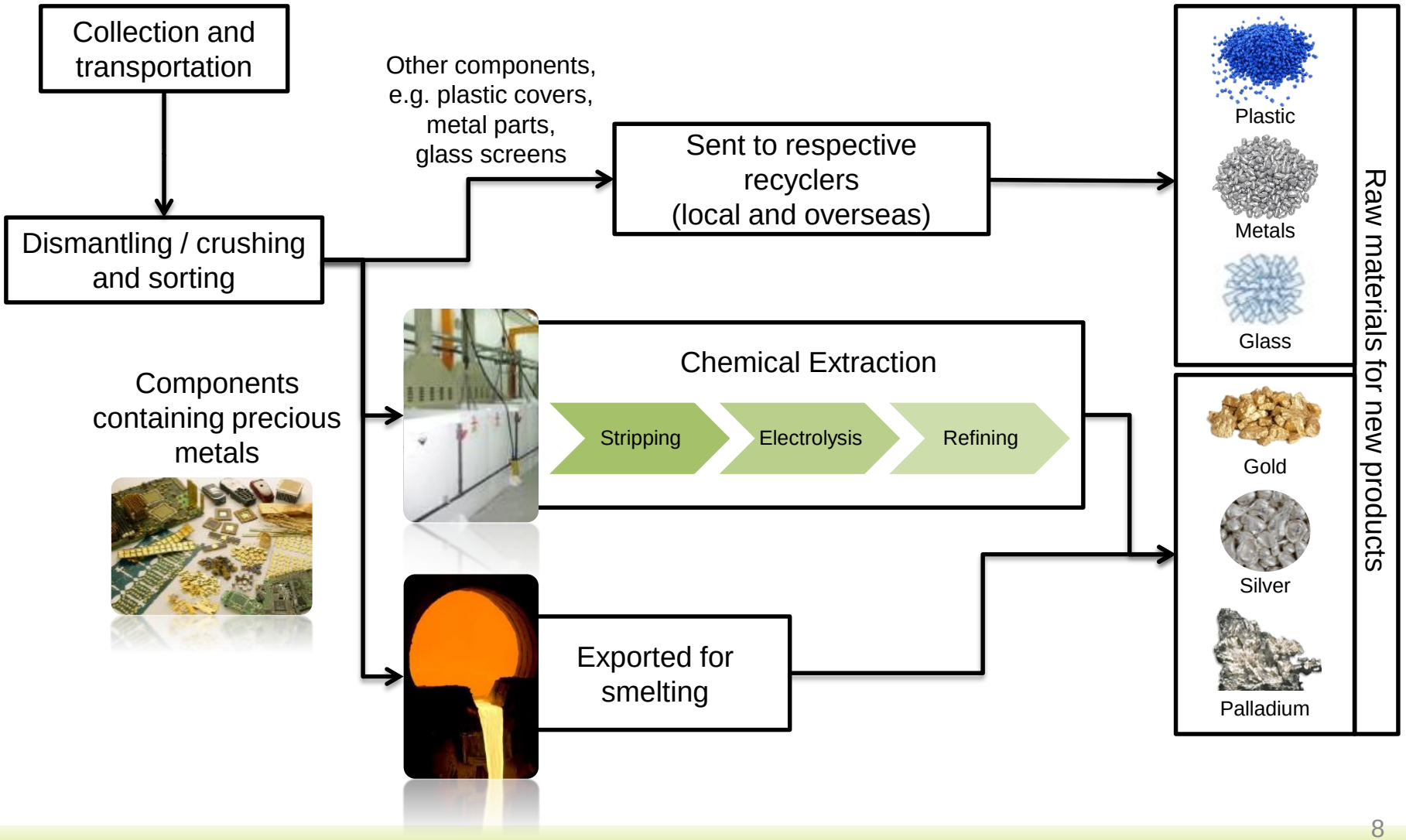
- E-waste

Examples of E-waste Recycling Facilities	
	TES (Singapore) Pte Ltd
	Cimelia Resource Recovery Pte Ltd
	Metech International Ltd
	Elms Industrial Pte Ltd
	ESUN International Pte Ltd

- Mercury Waste

Examples of Mercury Waste Treatment Facilities	
	ECO Special Waste Management Pte Ltd
	Aroma Chemical Pte Ltd
	Chem-Solv Technologies Pte Ltd
	Technochem Environmental Complex Pte Ltd

Typical E-waste Recycling Processes



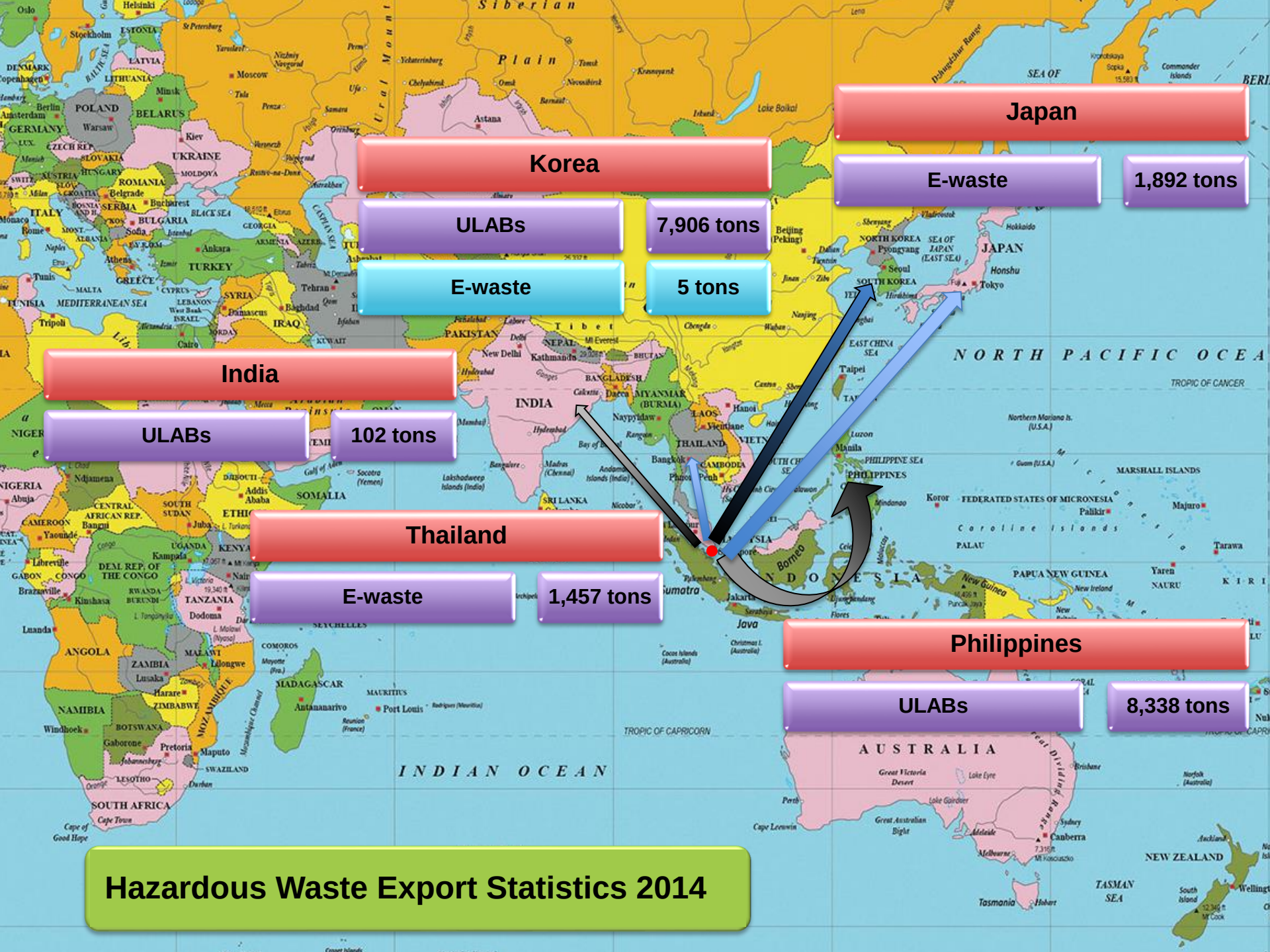
2 E-wastes, Mercury Wastes and Used Lead Acid Batteries (ULABs)

- Used Lead Acid Batteries (ULABs)

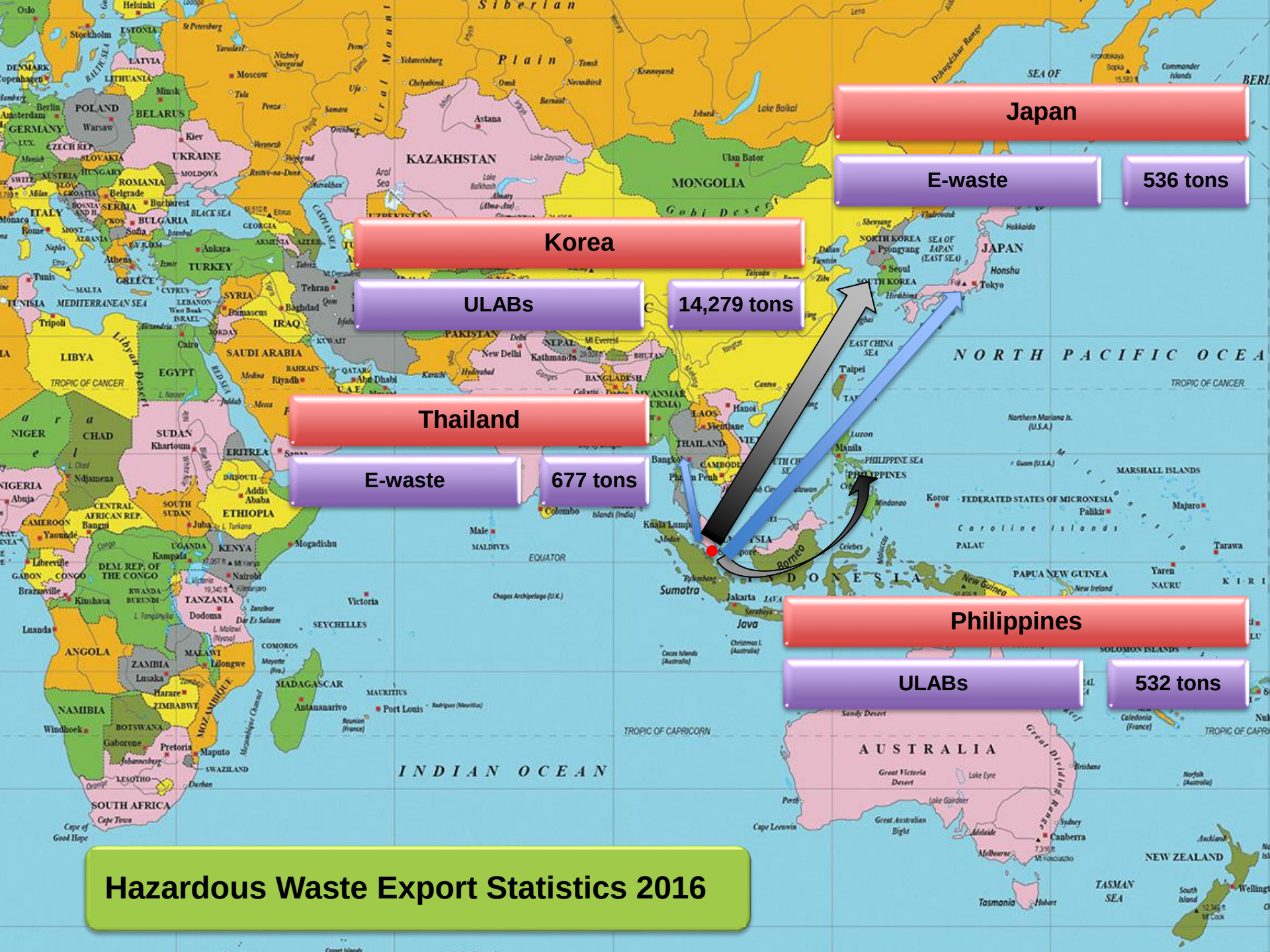
Currently, there are no local treatment facilities for ULABs.

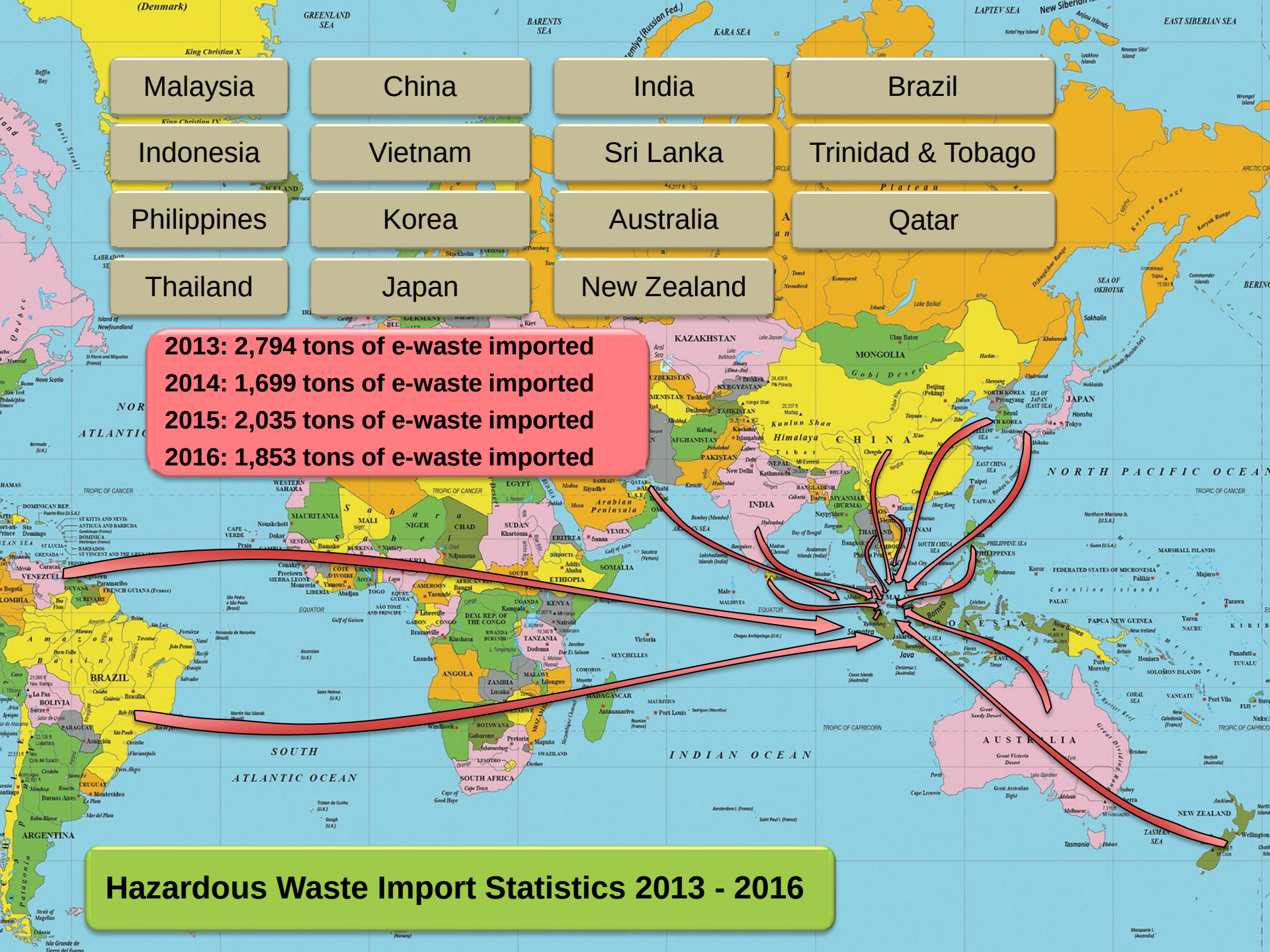
The ULABs are collected by licensed Toxic Industrial Waste Collectors and they are exported to overseas recovery facilities (such as Philippines, Korea, etc).


Japan
E-waste
1,988 tons
Korea
ULABs
8,831 tons
Thailand
E-waste
621 tons
Philippines
ULABs
22,726 tons
Hazardous Waste Export Statistics 2013


Japan
E-waste
1,892 tons
Korea
ULABs
7,906 tons
E-waste
5 tons
India
ULABs
102 tons
Thailand
E-waste
1,457 tons
Philippines
ULABs
8,338 tons
Hazardous Waste Export Statistics 2014


Japan
E-waste
2,337 tons
Korea
ULABs
13,945 tons
E-waste
172 tons
Philippines
ULABs
221 tons
Hazardous Waste Export Statistics 2015


Japan
E-waste
536 tons
Korea
ULABs
14,279 tons
Thailand
E-waste
677 tons
Philippines
ULABs
532 tons
Hazardous Waste Export Statistics 2016


Malaysia
China
India
Brazil
Indonesia
Vietnam
Sri Lanka
Trinidad & Tobago
Philippines
Korea
Australia
Qatar
Thailand
Japan
New Zealand
2013: 2,794 tons of e-waste imported
2014: 1,699 tons of e-waste imported
2015: 2,035 tons of e-waste imported
2016: 1,853 tons of e-waste imported
Hazardous Waste Import Statistics 2013 - 2016

3 Plans for E-waste Management in Singapore

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National Voluntary Partnership for E-waste Recycling

- In 2015, NEA launched a national voluntary partnership to gather all existing programmes under one umbrella to achieve the following objectives :-
    - Build awareness of e-waste recycling
    - Provide more convenient recycling services
    - Raise standards of recycling service providers

- A voluntary registration scheme for recycling service providers will be established to raise industry standards
- Support with funding to enhance the existing programmes and help launch new ones
- Platform for consulting stakeholders in the formulation of an e-waste management system for Singapore

Features of Partnership

Certificate

Serial No.: XXX

National Environment Agency

CERTIFICATE OF PARTNERSHIP

XXXX

is certified as a

Recycling Service Provider

under the

NATIONAL VOLUNTARY PARTNERSHIP FOR E-WASTE RECYCLING

Ananda Ram Bhaskar
Director-General
Environmental Protection Division
National Environment Agency

DATE

Recognition on NEA Website

List of Partners

We are pleased to work with the following partners under the national voluntary partnership.

Companies/Organisations	1. Toshiba Group
Producers/Retailers	1. HP PPS Asia Pacific Pte Ltd 2. Panasonic Asia Pacific Pte Ltd 3. Singapore Telecommunications Ltd 4. StarHub Ltd
Venue Partners	1. City Developments Limited 2. Singapore Post Ltd
E-Waste Recycling Service Providers Our partner recycling service providers operate to high standards [pdf 42 kB].	1. Cimelia Resource Recovery Pte Ltd 2. DOWA Eco-System Singapore Pte Ltd 3. ELMS Industrial Pte Ltd 4. Esun International Pte Ltd 5. HLS Electronics Pte Ltd 6. Metech Recycling Singapore Pte Ltd 7. TES (Singapore) Pte Ltd 8. Virogreen Singapore Pte Ltd

Plans for E-waste Management in Singapore

Moving Forward

- NEA currently studying options for viable national system for e-waste management
- Consulting stakeholders in formulation of a comprehensive system

Impetus for the study :

Prevent the Release of Hazardous Substances	E-waste contains small amounts of hazardous substances, such as mercury and cadmium, that may harm the environment and our health when improperly disposed of.
Conserve Resources	Reducing and recycling e-waste helps to conserve resources. Many precious metals and parts can be recovered from e-waste.
Reduce Waste Disposal	There is limited land and resources to handle rising e-waste volumes.

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