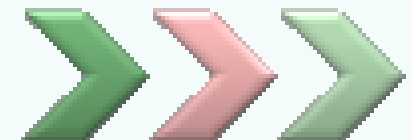


The Second Meeting of the Regional 3R Forum in Asia



Review of management system to deal with
transboundary movement of wastes from
regional perspective



JINHUI LI

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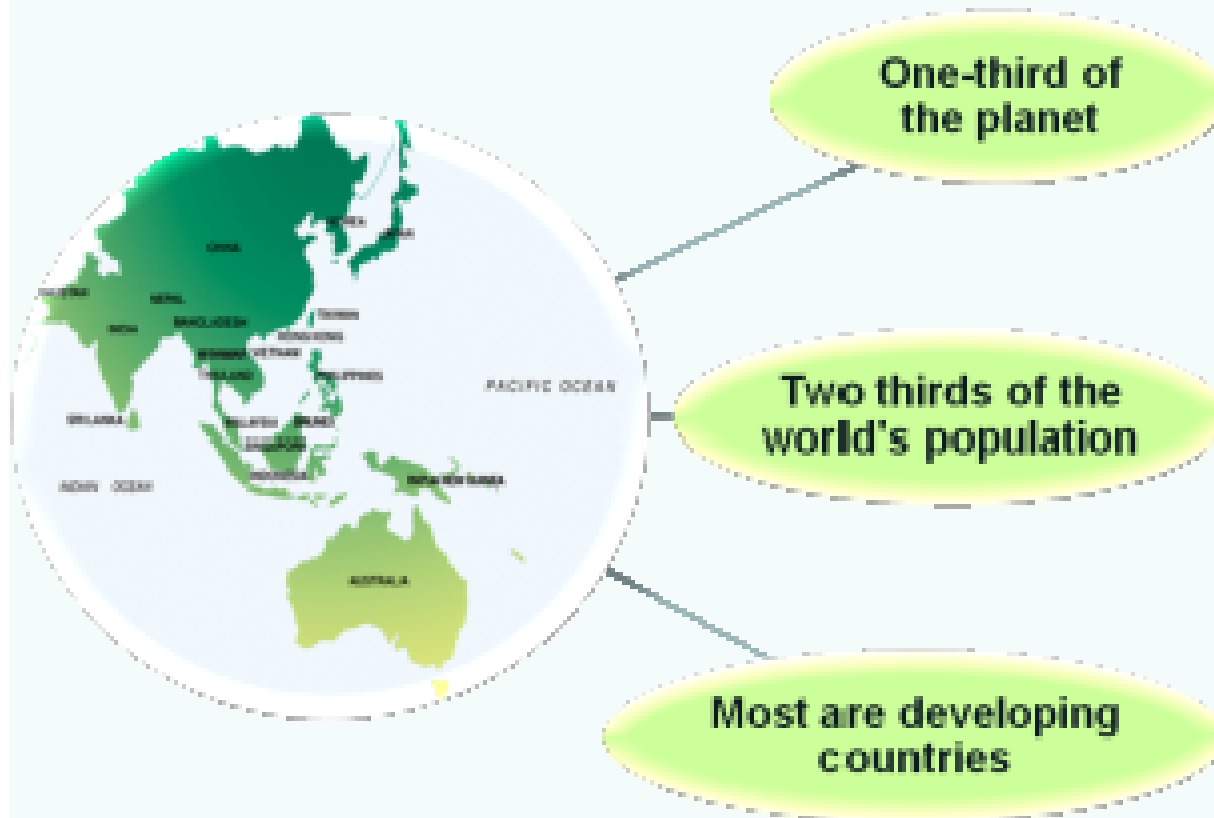
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Regional overview of parties to the Basel Convention



- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
- The Convention has 174 Parties
- The Basel Convention came into force in 1992.

■ There are nearly 60 countries (or districts) in the Asia-Pacific region, which population is about 4.2 billion, accounts for 62% of the world population.

- Management of transboundary movement of wastes in this region is extremely important
- Basel Convention supplies a international legal framework in dealing with transboundary movement of wastes

Regional overview of parties to the Basel Convention

Parties of Basel Convention in Asia and the Pacific region



■ Until Sept 2010, there are 43 countries in Asia and the Pacific region ratified Basel Convention.

Afghanistan signed Basel Convention in 1989, but not ratified yet

Parties of Basel Convention in Asia and the Pacific region

Source : Basel Convention, <http://www.basel.int/>



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Regional overview of parties to the Basel Convention

43 Parties in Asia and the Pacific to the Basel Convention

Participant	Signature	Date *	Participant	Signature	Date *
Afghanistan	22.03.89	Not ratified	Marshall Islands		27.01.03 (a)
Azerbaijan		01.06.01 (a)	Micronesia (Federated States of)		06.09.95 (a)
Bahrain		15.10.92	Mongolia		15.04.97 (a)
Bangladesh		01.04.93 (a)	Nauru		12.11.01 (a)
Bhutan		26.08.02 (a)	Nepal		15.10.96 (a)
Brunei Darussalam		16.12.02 (a)	Oman		08.02.95 (a)
Cambodia		02.03.01 (a)	Papua New Guinea		01.09.95 (a)
China	22.03.90	17.12.91	Pakistan		26.07.94 (a)
Democratic People's Republic of Korea		10.07.08 (a)	Philippines	22.03.89	21.10.93
India	15.03.90	24.06.92	Qatar		09.08.95 (a)
Indonesia		20.09.93 (a)	Republic of Korea		28.02.94 (a)
Iran (Islamic Republic of)		05.01.93 (a)	Samoa		22.03.02 (a)
Israel	22.03.89	04.12.94	Saudi Arabia	22.03.89	07.03.90
Japan		17.09.93 (a)	Singapore		02.01.96 (a)
Jordan		22.06.89 (AA)	Sri Lanka		28.08.92 (a)
Kiribati		07.09.2000 (a)	Syrian Arab Republic		22.01.92 (r)
Kuwait		11.10.93 (r)	Thailand	22.03.90	24.11.97
Kazakhstan		03.06.03 (a)	Turkmenistan		25.09.96 (a)
Kyrgyzstan		13.08.96 (a)	United Arab Emirates		17.11.92 (r)
Lebanon	22.03.89	21.12.94	Uzbekistan		07.02.96 (a)
Malaysia		08.10.93 (a)	Viet Nam		13.03.95 (a)
Maldives		28.04.92 (a)	Yemen		21.02.96 (a)

Source Parties to the Basel Convention, <http://www.basel.int/ratif/convention.htm>



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Regional overview of parties to the Basel Convention

Countries who have not ratified Basel convention in Asia and Pacific region

countries	Countries
Laos	Guam
Myanmar	New Caledonia
Niue	Northern Mariana Islands
Palau	Tokelau
Vanuatu	Wallis and Futuna
Solomon Islands	American Samoa
Tuvalu	French Polynesia
Fiji	

It has to be pointed out that there are at least 15 countries in Asia and Pacific region haven't ratified the Basel Convention, most of them are vulnerable on the environmental pollution aspects ,especially on hazardous waste



Regional overview of parties to the Basel Convention

10 countries in Asia and the Pacific region ratified Basel BAN

The decision was adopted by a consensus of the 66 Parties at the Second Conference of Parties of the Basel Convention on 25 March 1994.



The Third Conference of the Parties (COP III) to the *Basel Convention* held in September 1995 adopted an amendment banning the export of hazardous waste destined for disposal or recycling from OECD countries to non-OECD, usually called Basel Ban.



the ban would take effect on 31 December 1997?

Participant	Date *
Bahrain	25.07.05
Brunei Darussalam	16.12.02 A
China	01.05.01
Cook Islands	29.06.04
Indonesia	24.10.05
Kuwait	12.05.06
Malaysia	26.10.01
Oman	17.05.04
Sri Lanka	29.01.99
Syrian Arab Republic	05.10.04

Note: * (a) Accession; (A) Acceptance; (AA) Approval; (c) Formal confirmation; Ratification; (d) Succession

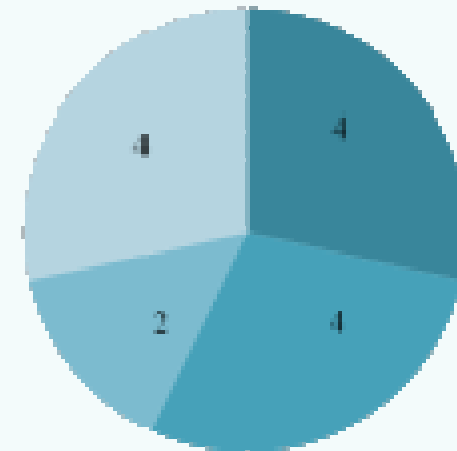


Regional overview of parties to the Basel Convention

Regional centres of the Basel Convention in Asia and the Pacific region



Regional centres of Basel Convention



- Europe and the Mediterranean
- Latin America and the Caribbean
- Regional Centre for Asia and the Pacific
- Other Regions

■ Totally 14 Basel Convention regional /coordinating centres in the world

■ 4 regional /coordinating centres in Asia and the Pacific Region

Basel Convention Coordinating Centre for the Asia and Pacific Region

Basel Convention Regional Centre for Southeast Asia

Basel Convention Regional Centre in Tehran

Pacific Regional Centre for Training and Technology Transfer for the Joint Implementation of the Basel and Waigani Conventions in the South Pacific Region

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Generation and transboundary movement of waste in Asia and the Pacific

Generation of waste in Asia and the Pacific countries(2006)

The national statistical work on waste generation should be strengthened

Country	Generation(tons)			
	Amount of hazardous wastes generated under Art. 1(1)a (Annex I: Y1-Y45) of BC	Amount of hazardous wastes generated under Art. 1(1)b of BC	Total amount of hazardous wastes generated	Amount of other wastes generated (Annex II: Y46-Y47)
Brunei Darussalam	30	Not reported	30	Not reported
China	10,840,000	Not reported	10,840,000	352,092
Indonesia	No data	No data	No data	No data
Iran	Not reported	Not reported	Not reported	Not reported
Israel	328400	Not reported	328400	Not reported
Japan	Not reported	Not reported	Not reported	Not reported
Kazakhstan	Not reported	Not reported	Not reported	Not reported
Korea	2,621,547	1,038,099	3,659,646	17,828,060
Malaysia	680,907	422,549	1,103,456	Not reported
Pakistan	Not reported	Not reported	Not reported	Not reported
Philippines	Not reported	Not reported	Not reported	Not reported
Singapore	413,000	Not reported	413,000	2,563,600
Sri lanka	57,889	Not reported	57,889	Not reported

Note: countries were chosen according to the available country fact sheets submitted to SBC



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Generation and transboundary movement of waste in Asia and the Pacific

Import and export status of waste(2006)

Country	Export(tons)		Import(tons)	
	Amount of hazardous wastes exported	Amount of other wastes exported	Amount of hazardous wastes imported	Amount of other wastes imported
Brunei Darussalam	30	Not reported	0	0
China	1,074	0	0	0
Indonesia	2,883	0	0	0
Iran	Not reported	Not reported	Not reported	Not reported
Israel	4910	No data	10389	No data
Japan	48788	0	6123	0
Kazakhstan	Not reported	Not reported	Not reported	Not reported
Korea	3050	0	295480	138
Malaysia	5806	0	172151	0
Pakistan	Not reported	Not reported	Not reported	Not reported
Philippines	10961	Not reported	108,682	Not reported
Singapore	57071	0	205	0
Sri lanka	6001	0	0	0

Source: country fact sheets submitted to SBC



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Generation and transboundary movement of waste in Asia and the Pacific

Import and export status of waste(2006)



In 2006, Korea, Malaysia and Philippines are the main importer
Singapore and Japan was considered to be the biggest exporter in the region



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Generation and transboundary movement of waste in Asia and the Pacific

General management laws and regulations of transboundary movement of waste in Asia and the Pacific countries

Country	CA of Convention	Related laws and regulations
Brunei Darussalam	Department of Environment, Parks and Recreation	<ul style="list-style-type: none"> Draft Environmental Order of Negara Brunei Darussalam.
China	Ministry of Environmental Protection	<ul style="list-style-type: none"> Law of the People's Republic of on the Prevention and Control of Environmental Pollution by Solid Wastes Management Regulation on the Prevention and Control of Environmental Pollution by Electric and Electronic Wastes Management Regulation on Environmental Pollution of Imported Wastes Catalogue of Prohibited Imported Goods
Indonesia	Environmental Impact Management Agency Ministry of the Environment	<ul style="list-style-type: none"> Act Number 23 Year 1997 Presidential Decree Number 61 Year 1993 The Government Regulation Number 18 and 85 Year 1999 jo Decree of Ministerial Trade and Industry Number 229 Year 1997 Decree of Ministerial Trade and Industry Number 39 Year 2005 Decree of Ministerial Trade and Industry Number 520 Year 2003
Iran	Department of the Environment	<ul style="list-style-type: none"> Waste management law Waste Management Strategy
Israel	Hazardous Substances Division Ministry of Environment	<ul style="list-style-type: none"> Hazardous Substances Law 1993 Hazardous Substances Regulations (Import and Export of Hazardous Substances Waste)1994

Source: country fact sheets submitted to SBC and questionnaires conducted by BCRC- China



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Generation and transboundary movement of waste in Asia and the Pacific

General management laws and regulations of transboundary movement of waste in Asia and the Pacific countries

Country	CA of Convention	Related laws and regulations
Japan	Office of Waste Disposal Management Ministry of the Environment	<ul style="list-style-type: none"> • Law for the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes • Waste Management and Public Cleansing Law • OECD Council Decision C(2001)107 • OECD Decision C(92)39/FINAL on the Control of Transfrontier Movements of Wastes Destined for Recovery Operations
Kazakhstan	Ministry of Environment Protection of the Republic of Kazakhstan	<ul style="list-style-type: none"> • Law of the Republic Kazakhstan "About protection of environment" • Transboundary transportation wastes of Ecological Code, residing on stage of consideration in Parliament RK • Kazakhstan and Poland: 24.04.1997 :Transboundary transportation of dangerous wastes and their removing • Regional; CIS countries, except Ukraine, Azerbaijan, Armenia on item 12); ; Transboundary transportation of dangerous wastes and their removing
Korea	Resource Recirculation Policy Division, Ministry of Environment	<ul style="list-style-type: none"> • Waste Control Act • Toxic Chemicals Control Act • Act on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal (Convention) • Act for Resource Recycling of Electrical and Electronic Equipment and Vehicles
Malaysia	Department of Environment, Ministry of Natural Resources and Environment	<ul style="list-style-type: none"> • Environmental Quality(Scheduled Wastes) Regulation 2005 • Guidelines for the Application of Special Management of Scheduled Waste • Export Guidelines on Minimum Percentage of Recoverable Components for Recovery • Custom Act, 1967, Prohibition of exports as amended in 1998

Source: country fact sheets submitted to SBC and questionnaires conducted by BCRC- China



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Generation and transboundary movement of waste in Asia and the Pacific

General management laws and regulations of transboundary movement of waste in Asia and the Pacific countries

Country	CA of Convention	Related laws and regulations
Pakistan	Pakistan Environmental Protection Agency Ministry of Environment	<ul style="list-style-type: none"> • Pakistan Environmental Protection Act – 1997 • Import Policy Order, 2006 • Import Trade and Procedure Order 2000 • National Conservation Strategy and National Environmental Action Plan.
Philippine	Environmental Management Bureau, Department of Environment and Natural Resources	<ul style="list-style-type: none"> • Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (Republic Act No. 6969) • DENR Administrative Order 2004-36 (Implementing Rules and Regulations for RA 6969) • DENR Administrative Order 1994-28 (Interim Guidelines for the Importation of Recyclable Materials Containing Hazardous Substances) • DENR Administrative Order 1997-28 (Amending Annex A of DAO 1994-28) • DENR Administrative Order 2004-27 (Amending Annex A of DAO 1994-28) • DENR Administrative Order 2004-66 (Amending Annex A of DAO 1994-28)
Singapore	Pollution Control Department, National Environment Agency	<ul style="list-style-type: none"> • Environmental Public Health (Toxic Industrial Waste) Regulations 1988 • Hazardous Waste (Control of Export, Import, and Transit) Act and Hazardous Waste (Control of Export, Import and Transit) Regulation
Sri Lanka	Central Environmental authority	<ul style="list-style-type: none"> • National Strategy for Solid Waste Management

Most countries in Asia have their own national laws/regulations to manage transboundary movement of hazardous waste and other waste, but specific laws and regulations are still needed



Generation and transboundary movement of waste in Asia and the Pacific

National policies and regulations in reducing transboundary movement of waste in Asia and the Pacific countries(2006)

<i>Country</i>	<i>National strategies/policies</i>	<i>Legislation, regulations and guidelines</i>
Brunei Darussalam	This subject matter will be covered in the Draft Environmental Order of Negara Brunei Darussalam.	This subject matter will be covered in the Draft Environmental Order of Negara Brunei Darussalam.
Indonesia	<p><u>Promoting domestic hazardous waste exchange;</u> Encourage establishment of domestic hazardous waste recycling facilities; Implementation of notification system for controlling export and import of hazardous waste under the Basel Convention; Do not issuing permit or notification for any hazardous waste that its recycling facilities are already established locally.</p>	<p><u>Prohibiting import of hazardous waste for any purposes as stated in various national regulations;</u> Prohibiting to issue permits for any investment that required imported hazardous waste for its production.</p>
Iran	<p>-Production and consumption of the materials with lower amount of hazardous waste generation. on based of article 4 of Waste management law. -Facilitate the incoming productions within simple disposal and recycling and restriction the incoming productions within difficult disposal and recycling (article 4 waste management by law) -Planning for consumption of the recycled or recovered materials in production process.(article 4 waste management bylaw)</p>	<p>-Waste management law has been approved in 2004. <u>- Transboundary movements of hazardous wastes and their disposal shall be under Basel Convention regulations. (Article 14 of Waste management bylaw).</u> -Penalty for industrial sectors or other pollutant centers which don't observe environmental principals and norms regarding to collection, reserve, and movement and disposing of hazardous wastes. (article 16 of Waste management bylaws) - Guidance for hazardous waste export and import under Basel Convention contexts has been prepared by Department of Environment.</p>

Source: country fact sheets submitted to SBC



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Generation and transboundary movement of waste in Asia and the Pacific

National policies and regulations in reducing transboundary movement of waste in Asia and the Pacific countries

Country	National strategies/policies	Legislation, regulations and guidelines
Japan	The Government of Japan shall restrict the generation of hazardous wastes to a minimum, promote the effective use and appropriate disposal within the country and <u>implement other measures in an effort to minimize the export and import of specified hazardous wastes.</u>	"Law for the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes (Basel Law)" and "Waste Management and Public Cleansing Law."
Kazakhstan	In Kazakhstan, what has shown the analysis for 2006 amount exported toxic wastes has formed 98,1 thous. tons or 0,042% from the gross amount formed for this year. In plan of the measures, directed on reduction translimit transportation wastes report that export in such amount is connected with scientific prospecting in research centre adjacent state, in Russian Federation more often. <u>At export like wastes gets through permissive system accredited state organ, including Environment Protection Ministry.</u>	Not specified.
Korea	<u>Transboundary movement of hazardous wastes without prior written consent from the competent authority is strictly prohibited.</u> No permission for export is issued without consent from the country of import.	The Act on the Control of Transboundary Movement of Hazardous Wastes and Their Disposal.
Malaysia	Encourage industries to use locally produced wastes as raw materials.	
Pakistan	Formulation and implementation of National Conservation Strategy and National Environmental Action Plan.	Pakistan Environmental Protection Act, 1997; and Import Policy Order, 2006 issued by Ministry of Commerce.

Source: country fact sheets submitted to SBC



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Generation and transboundary movement of waste in Asia and the Pacific

National policies and regulations in reducing transboundary movement of waste in Asia and the Pacific countries

Country	National strategies/policies	Legislation, regulations and guidelines
Philippines	<p>1. Public awareness through the involvement of non-government organizations and SMEs are very active as far environmental issues are concerned; and</p> <p>2. Implementation of projects/programs on industrial waste management:</p>	<p>Presidential Republic Act 9003: Solid Waste Management Act of 2000; and</p> <p>Republic Act 9275: Philippine Clean Water Act of 2004.</p>
Singapore	<p>In addition to the strategies/policies stated in question 5 of this questionnaire:</p> <p>PCD screens new industries to allow setting up of only those industries which can treat hazardous wastes locally;</p> <p><u>Export of hazardous wastes will be allowed for recovery if there are no waste treatment facilities available locally; and</u></p> <p><u>Export of hazardous wastes will not be allowed for disposal if there are disposal facilities available locally.</u></p>	<p>Environmental Pollution Control Act; Environmental Public Health Act; and the Code of Practice on Pollution Control.</p>
Srilanka	<p>National Strategy for Solid Waste Management advocates reduction of waste generation over reuse, reuse over recycling and recycling over environmentally friendly final disposal.</p> <p>National Cleaner Production Policy, Strategy and Action Plan stress the adoption of methodologies to promote waste prevention, minimization strategies.</p> <p>Minimization of Hazardous Waste covered under Stockholm Convention (National Implementation Plan for Stockholm Convention)</p>	<p>Regulations for hazardous waste management have been prepared and will be gazetted shortly.</p>

Most countries have been taking measures for reducing the transboundary movement of hazardous waste;
 some countries banned the import/export of hazardous waste

Source: country fact sheets submitted to UNEP



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Generation and transboundary movement of waste in Asia and the Pacific

Economic and private measures taken in reducing transboundary movement of waste in Asia and the Pacific countries(2006)

<i>Country</i>	<i>Economic instruments/ initiatives</i>	<i>Measures taken by industries/waste generators</i>
Brunei Darussalam	None.	
Indonesia	Treatment of hazardous waste not always a cost when some utilizers of hazardous waste should compete each other to get value of hazardous waste.	Instead of exporting of hazardous waste, some generators prefer to treat their hazardous waste domestically since its may reduce their liability cost.
Iran	<u>-Environmental penalty for the industries and other pollutant centers that violate of Iran's hazardous waste laws</u> on collection, transportation and disposal. Hazardous waste penalty money pays for a cleaner environment and environmental training (article 16 of Waste management bylaws)	-Notification of hazardous waste transportation to Department of Environment by industries under Basel Convention -Consideration and Implementing of Basel Convention contexts for importation and exportation of hazardous wastes. - Improvement and optimization of the process to minimize their hazardous waste.
Israel	Fund was given for the pilot development of waste treatment for solid peroxides and oxidants.	<u>A technology was developed for the recycling of Lithium Batteries in Israel.</u>
Japan	None.	Not known.
Kazakhstan	Not designed.	Not designed.
Korea	None.	None.
Malaysia	Not known.	Not known.
Pakistan	Not known.	Not known.

Source: country fact sheets submitted to SBC



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Generation and transboundary movement of waste in Asia and the Pacific

Economic and private measures taken in reducing transboundary movement of waste in Asia and the Pacific countries

<i>Country</i>	<i>Economic instruments/ initiatives</i>	<i>Measures taken by industries/waste generators</i>
Philippines	a. <u>Implementation of waste minimization program and operation of an Environmental Management System</u> ; and b. Compliance to Republic Act 6969 and its implementing rules and regulations.	
Singapore	<u>Waste reduction/recycling/recovery programs.</u>	Cleaner production; and waste minimization/reduction/recycling/recovery programs. The Waste Management and Recycling Association of Singapore (WMRAS) was established on 8 August 2001. Members of the association include companies in the waste management and recycling industry. WMRAS serves as a platform for the waste recycling companies to pool their resources, to collaborate and to work together to upgrade and raise the professionalism of the waste management and recycling industry.
Srilanka	Stress the importance of ISO 14000 certification and arrangements are being made to introduce load based licensing schemes to industrialists. Companies seeking financial assistance on preferential terms from commercial banks are required to meet environmental conditions and to obtain Environmental Protection License. Several pilot projects are being implemented by the Ministry of Environment and by the National Cleaner Production Center.	Take part in cleaner production walk through audits conducted by the National Cleaner Production Center in collaboration with the Ministry of Environment and Ministry of Industries. Electronic Waste preliminary inventories have been prepared. POPs preliminary inventories have been prepared. These cover hazardous waste stream such as PCB.

Source: country fact sheets submitted to SBC



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Generation and transboundary movement of waste in Asia and the Pacific

Disposal/Recovery technologies in countries in Asia and the Pacific region(2006)

Country	Disposal facilities	Recovery/recycling/re-use facilities
Brunei Darussalam	Sg Akar Landfill; Landfill; D1	No facilities available
China	The State institutes a system under which hazardous waste operation permit are examined, approved and issued at different levels. Up to the end of 2006, 8 hazardous waste disposal facilities with permit In addition, there are 182 hazardous waste disposal facilities with permit issued by provincial and city level environmental protection bureaus. Macao Special Administrative Region, China: One fly ash landfill site. Hong Kong Special Administrative Region, China: Information is available from the Competent Authority of HKSAR.	The State institutes a system under which hazardous waste operation permit are examined, approved and issued at different levels. Up to the end of 2006, 6 hazardous waste recovery facilities with permit issued In addition, there are 741 hazardous waste recovery facilities with permit issued by provincial environmental protection bureaus. Macao Special Administrative Region, China: Waste oil and sludge will be treated in the incinerator of the Macao wastewater treatment plant. Hong Kong Special Administrative Region, China: Information is available from the Competent Authority of HKSAR.
Indonesia	* 5 facilities	6 facilities
Iran	4 facilities aimed at disposing obsolete pesticides; Used tire and so on A National project on "Site Selection for hazardous waste disposal" have been studied recently for all 30 provinces of the country.	Recycling of used tires. Recycling of wastes containing lead. Recovery of lead from used lead-acid waste batteries; R4 Recycling of waste containing zinc, copper, Recovery of zinc and copper from waste containing these metals.; R4
Israel	7 companies	4 companies
Japan	At April 1, 2006 (the beginning of the fiscal year of 2006), the number of final disposal facilities (landfill sites) authorized by governors is 2,335. Individual list is not available.	At April 1, 2006 (the beginning of the fiscal year of 2006), the number of treatment facilities authorized by governors is 19,164. Individual list is not available.
Kazakhstan	Different, more 10 000 tons/year.	Determined by project of the enterprise of the place of the storage wastes mining of the functioning, slime depository, mud store, ash dumps. Classical technology development.

Source: country fact sheets submitted to SBC



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Generation and transboundary movement of waste in Asia and the Pacific

Disposal/Recovery technologies in countries in Asia and the Pacific region

Country	Disposal facilities	Recovery/recycling/re-use facilities
Korea	325 landfills and 2,028 incinerators for household and non-hazardous industrial wastes were in operation by local governments or private companies in 2006. Private companies operated 219 incinerators and 20 landfills for specified wastes, which are considered as hazardous waste pursuant to the Waste Management Act.	ENVICO operates 14 recovery facilities (agricultural waste vinyl).
Malaysia	The complete list is available upon request from the Competent authority or www.doe.gov.my	There are 114 licensed recovery facilities and the list is available upon request from the Competent Authority (www.doe.gov.my).
Pakistan	Kasur Tannery Pollution Control Project, Delapur Road, Kasur.; Commonh effluent waste water treatment plant. Solid waste disposal facility.; 12700m ³ .	Chrome Recovery Plant, KTWMA, Kasur; Chrome Recovery Plant, 10000 litres. An inventory of such facilities is not available.
Philippines	4 facilities	4 facilities
Singapore	Facilities including landfill and incineration Toxic waste treatment companies are privately operated and licensed by PCD.	Several facilities Toxic waste treatment companies are privately operated and licensed by PCD. A number of privately operated toxic waste treatment companies are licensed by PCD for treatment, recovery, reprocessing, recycling and disposal of hazardous industrial wastes (D9, D10 and R2, R4, R6, R9 operations).
Sri lanka	No facilities available	Many scrap melting plants are in operation. Some are running at industrial scale. These are equipped with air pollution control devices. There are some cottage scale scrap melting industries as well. At present there is no central company authorized in the country for the recovery of Hazardous waste.

The devleoping countries are in lack of treatment technologies and facilities
The developed countries have much more facilities compared with the

Source: country fact sheets submitted to SBC developing countries



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Illegal traffic of waste in Asia and the Pacific Region

E-waste: most popular problems in the region



Why E-waste becoming a popular problem?

■ **USEFUL** E-wastes always have high value such as precious metals and useful plastics

■ **SIMPLE** The treatment of E-waste is relatively simple than other industrial waste



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Illegal traffic of waste in Asia and the Pacific Region

Adverse health and environmental effects caused by illegal transboundary movement of waste



Elderly former farmer now making a living plucking chips and components from circuit boards. Behind him is a pile of hard drives from imported computers. April 2004. (Image: 0158)©2006 Basel Action Network (BAN)



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Illegal traffic of hazardous waste in Asia and the Pacific Region

Adverse health and environmental effects caused by illegal transboundary movement of waste



Source: Empa survey. Draft final report 2004 on the assessment phase (phase 1) of the Empa/seco programme in knowledge partnerships with developing and transition countries in e-waste recycling. Empa, Federal Institute of Material Testing and Research; 2004. <http://www.ewaste.ch>.

The extraction of copper from printed wiring boards (PWB): (1) manually removing varnish, (2) recovering copper-sulphate after submerging PWBs for 12 h in sulphuric acid followed by boiling off H₂O using PWB residues as a fuel, (3) manually segregating the copper layer and glass fibres after burning multi layer PWBs which are resistant to acid, (4) scrap iron is added to the remaining liquid to react with the dissolved copper, (5) fallen out copper slime is a third product bringing the total to 1 to 2 t of copper per month, (6) such an SME creates about 12 jobs, however at high external costs.



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Illegal traffic of waste in Asia and the Pacific Region

Adverse health and environmental effects caused by illegal transboundary movement of waste

workers in e-waste recycling operations in developing countries face dangerous working conditions, as they may be without protection (no masks or gloves, for example). Released gases, acid solutions, toxic smoke and contaminated ashes are some of the most dangerous threats for such people, and the local environment.



Illegal traffic of hazardous waste in the Asia-Pacific region

Regional concern

- **Illegal traffic of waste is still one of the most important environmental concerns in the Asia-Pacific region**

Project-Sky-Hole -Patching

- **20 countries in the Asia- Pacific region participated in the project which aimed at combating illegal trade in ODS and hazardous waste**

260 Seizures on Hazardous Waste(1 March 2007 – 30 September 2009) in the Sky Hole Patching project

Regions of loading of Hazardous Waste reported	2007 (no. of seizure)	2008 (no. of seizure)	2009(Jan-Sept) (no. of seizure)
North America	41	64	20
Asia/Pacific	30	19	4
Latin America	20	10	4
Europe	11	2	2
Middle East	9	9	6
Africa	5	3	/
Total	116	108	36

Nature of Seizure:

- Used batteries – 4,206,575 Kg
- Used computer monitors/parts – 1,774,051 Kg
- Used TV monitors/parts – 116,456 Kg
- Used plastic wastes – 4,446,080 Kg
- Others – 9,239,705 Kg



Illegal traffic of hazardous waste in Asia and the Pacific Region

Illegal transboundary movement of waste

With regarding to most laws and regulations of the Basel Convention's parties in Asia and the Pacific region, hazardous waste is banned to import.

however, there are so many illegal transboundary movement cases have been investigated in recent years, which means there are some loophole in the monitor and control system of transboundary movement in this region.

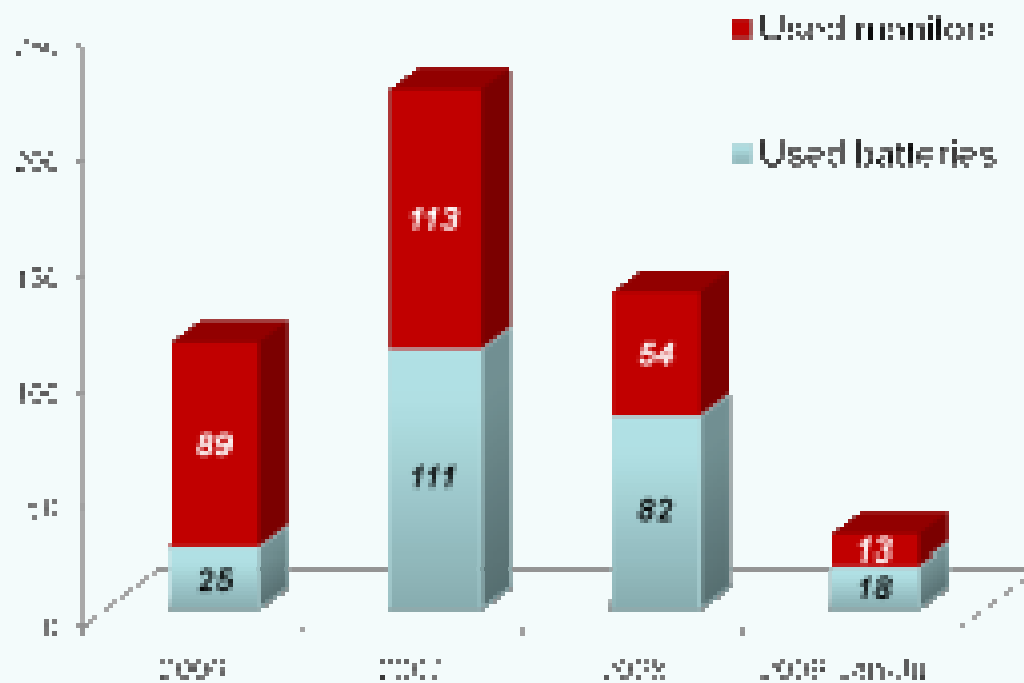


Figure Number of waste container intercepted by Hong Kong customs from 2006 to 2009



Illegal traffic of hazardous waste in Asia and the Pacific Region

Reasons for the illegal trade of waste

Legal and systemic loopholes

The lack of environmental protection
Sense in developing countries

profit



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Conclusions and suggestions

Majority of countries in Asia and the Pacific region have not complete data of generation, export or import, only a few of them have their own data in this field, including China, Malaysia, Korea, Japan and Singapore.

Small amount of the countries contribute to most of waste import/export amount in the region

Most countries in Asia have their own national laws/regulations to manage transboundary movement of hazardous waste and other waste, but specific laws and regulations are still needed



Conclusions and suggestions

Most countries have been taking measures for reducing the tranboundary movement of hazardous waste;
some countries banned the import/export of hazardous waste

The developing countries are in lack of treatment technologies and facilitates
The developed countries have much more facilities compared with the developing countries

Illegal traffic of waste is still one of the most important environmental concerns in the Asia-Pacific region



Conclusions and suggestions

■ The national laws and regulations should be strengthened especially on specific measures to regulate the illegal transboundary movement of waste

■ It is suggested that waste disposal technology should be transferred to developing countries to improve their capability in dealing with waste;

■ It is suggested that further regional study on management system to deal with transboundary movement of wastes be conducted.



Thank you!

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