

Management of Transboundary movement and recycling of waste including E waste as one of emphases

By

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Introduction

- Total area – 65,610 km²
- The climate - tropical
- The population - 19 million (1.4 % growth rate)
- Literacy rate -- 90%
- GDP (Per capita Gross Domestic Product) - about \$ 1025
- The Economic structure -composed of two major sectors
 1. agricultural sector (mostly in rural area)
 2. Industrial sector (mostly in Colombo and its vicinity and industrial areas).
- Agriculture accounts for 19.4% of GDP and industry 25%.

Management of Transboundary Movement of HW in Sri Lanka

- Sri Lanka has ratified the Basel Convention (BC) on Transboundary movement of Hazardous Waste on 28.08.1992.
- Focal Point- Ministry of Environment & Natural Resources (MENR)
- Competent Authority- Central Environmental Authority (CEA)

Management of Transboundary Movement of HW in Sri Lanka

- A National Coordinating Committee (NCC) for the implementation of BC established to support Focal Point for decision making.
- Under the direction of the NCCBC, a Technical Expert Committee (TEC) set-up by the CEA for providing advice to CEA on technical matters

Management of Transboundary Movement of HW in Sri Lanka

Members of the NCCBC

1. Ministry of Environment & Natural Resources.
2. Central Environmental Authority
3. Board of Investment
4. Sri Lanka Customs Department
5. Import & Export Control Department
6. Sri Lanka Ports Authority
7. Sri Lanka Civil Aviation Authority
8. Marine Pollution Prevention Authority
9. Ministry of Health
10. Industrial Technology Institute
11. Ministry of Industries
12. Government Analyst Department
13. Registrar of Pesticides
14. Federation of Chambers of commerce and Industries
15. Ministry of Science & Technology
16. Ministry of Labour
17. University of Colombo
18. North Western Provincial Authority

Management of Transboundary Movement of HW in Sri Lanka

Members of the TEC

- Central Environmental Authority – Chair
- Ministry of Environment & Natural Resources.
- Board of Investment
- Sri Lanka Customs
- University of Moratuwa
- Ministry of Health
- Industrial Technology Institute
- Ministry of Industries
- Government Analyst Department
- Registrar of Pesticides – as and where necessary

National Policy on HW Management

- **Importations:**
- A cabinet decision was taken on 2000.01.13 to Ban the importation of waste specified in the List A of the BC (means importation of HW prohibited)
- Importation of waste in List B of BC is considered on Case by Case basis by the CEA.
- This is done by a Technical Expert Committee (TEC) chaired by the CEA under the guidelines adopted by the NCC

- **Exportations** – Since environmentally sound HW disposal /recycling facilities are not available for most HW in Sri Lanka , Exportation of HW is encouraged subject to BC procedures
- **Transit/Transshipment-** CEA follows the procedures according to the BC . But, does not grant approval to transit / transshipment for any PCBs via Sri Lanka as a safety precautionary measure.

Statistics of Waste TBM- Exportations

Year 2002							
Category of waste		UN Class	H code	Amount exported	Country of transit	Country of import	Final Operation
Y Code	Waste						
31	Lead acid battery scraps	9	13	12000MT	-	Indonesia	R4
31	Lead acid battery scraps	9	13	24000MT	-	Philippines	R4

Statistics of Waste TBM- Exportations

Year 2003							
Category of waste		UN Class	H code	Amount exported	Country of transit	Country of import	Final Operation
Y Code	Waste						
31	Lead acid battery scrap	9	13	12000MT	-	Philippines	R4
	Fry Ash	6.1	6.1	2000kg	-	Japan	R4

Statistics of Waste TBM- Exportations

Year 2004							
Category of waste		UN Class	H code	Amount exported	Country of transit	Country of import	Final Operation
Y Code	Waste						
31	Lead acid battery scraps	9	13	12000MT	-	Philippines	R4
31	Lead acid battery scraps	9	13	6000MT	-	Republic of Korea	R4

Statistics of Waste TBM- Exportations

Year 2005							
Category of waste		UN Class	H code	Amount exported	Country of transit	Country of import	Final Operation
Y Code	Waste						
31	Lead acid battery scraps	9	13	16500MT	-	Republic of Korea	R4
31	Lead acid battery scraps	9	13	10000MT	-	Israel	R4
31	Lead acid battery scraps	9	13	18000MT	-	Philippines	R4

Statistics of Waste TBM- Exportations

Year 2006							
Category of waste		UN Class	H code	Amount exported	Country of transit	Country of import	Final Operation
Y Code	Waste						
31	Lead acid battery scraps	9	13	10000MT	-	Republic of Korea	R4
31	Fry Ash	6.1	6.1	1350kg	-	Japan	R4

Statistics of Waste TBM- Transits

Year 2005

Exporter	Importer	Waste Type	Quantity	Remarks
UK	France	Domestic Mixed Paper	5,000 kg	
Taiwan-China	Germany	PCB containing liquids & solids	45,000 kg	Consent not granted
Japan	UK	Tantalum containing residues	60,000 kg	
Pakistan	Holland	Waste motor anti knocking mixture	15,000 kg	
Korea	Holland	PCB containing solids	50,000 kg	Consent not granted
Korea	Holland	PCB containing solids	30,000 kg	Consent not granted
Korea	Holland	PCB containing solids	50,000 kg	Consent not granted

Statistics of Waste TBM- Transits

Year 2005

Exporter	Importer	Waste Type	Quantity	Remarks
Korea	Holland	PCB containing solids	50,000 kg	Consent not granted
Korea	Holland	PCB containing transformers	300,000 kg	Consent not granted

Statistics of Waste TBM- Transits

Year 2006

Exporter	Importer	Waste Type	Quantity	Remarks
Australia	Germany	Cu Sludge	500 tons	
India	Germany	Spent Rhodium Catalyst	3,000 kg	
Australia	Holland	CRT Glass	2,000,000 kg	
Australia	Belgium	Zinc fine	2,000,000 kg	

■ Illegal Shipments of HW- Historical incidents

■ No any violations against the BC procedures has been reported

■ However In the absence of domestic Import & Export control regulation on HW , no regulatory provisions of detecting such incidents

Environmental / Human Health Damage caused by HW

- No Statistics readily available

Following ad hoc disposal methods are being practised

- Dispose together with other municipal wastes
- Open dumps
- Sell for reuse(or for the value of container)
- Clinical wastes burnt in open grounds
- Burning and /or burial of clinical and medical wastes
- Around 50% of hazardous waste generators sell their waste to be reused. Many of these are waste oils and solvents, which are reused for different purposes. These secondary uses can have adverse environmental impacts as the primary motive for seeking these waste products are to lower the costs.

Initiatives taken to address the issues on HW

- Promote recycling
- Encourage CP interventions (through EPL procedure)-to reduce quantity of waste
- Development of guidelines on proper handling of hazardous wastes
- Direction of certain hazardous waste to dispose / Co-process in a Cement Kiln
- Promote exportation of (certain) HW
- Temporary storage at the site of generation
- APELL A project is now being implemented at 02 industrial zones in pilot scale.

Initiatives taken to address the issues on HW, contd....,

- Walk through audits conducted by the National Cleaner Production Centre based on Occupational health aspects
- Sri Lanka is in the process of preparing the National Implementation Plan on Persistent Organic Pollutants (POPs) under the Stockholm Convention
- Preparation of initial inventories on POPs (pesticides, PCBs, dioxin & Furans) completed

Initiatives taken to address the issues on HW contd....,

- CEA issued a directive to all Local Authorities on environmentally safe handling & disposal of used tyres
- Pilot scale projects are being implemented by the Ministry of Health for the hazardous medical waste collection, treatment and disposal and their effects on human health and on environment.

HW disposed in the Cement kiln

- Formaldehyde- (20' container)
- Waste Oils
- Textile sludge
- Outdated / expired Pharmaceuticals (2 MT and continuing)
- Spent / outdated Chemicals from school laboratories
- Tsunami affected cloths (40' containers – 125)
- PCB (a test burn carried out as part of EIA study)(1000 L of PCB oil & 3500 L of PCB washings – diesel)
- Certain types of Biomass
- Oil waste / contaminated debris of oil spillage from a sunken cargo ship (treated timber & cereals) (200MT)

Prevention of illegal transboundary movements

Existing Regulatory Framework

07 legislations have provisions for controlling of importing & exporting HW

1. Import & Export Control Act No 1 of 1969
2. National Environmental Act No 47 of 1980 as amended by Act No 56 of 1988 & Act No 53 of 2000
3. Customs Ordinance

Existing Regulatory Frame work

4. Sri Lanka Ports Authority (dangerous Goods) Regulations No 1 of 1987
5. Air Navigation Regulations of 1955 constituted under the Air Navigation Act No 15 of 1950 and regulation No 129
6. Sri Lanka Police Ordinance
7. Acts & regulations of the Sri Lanka BOI-1978

Guidance Manual

- The Ministry of Environment – Sri Lanka in collaboration with the other stakeholders has developed a guidance manual for;

“ Safe & effective detection & investigation of illegal traffic & transboundary movement of HW & other Waste in Sri Lanka” in 2005

Contents – Guidance Manual

- Checklists and Procedures of operation to be followed when Importing / Exporting of HW were developed in this manual
- Procedures to be followed in Transshipment & Transit of HW developed
- Roles and responsibilities of the stakeholder institutions defined and identified.
- This manual was finalized and ready for implementation.

E -Waste

- During the 6th meeting of the Conference of the Parties to the Basel Convention, E-Waste was considered as one of the main streams of wastes to be managed properly due to the fact that there are increasing quantities of E-wastes being exported from developed countries to where there is less capacity to manage them in an environmentally sound manner.
- The Ministry of Environment & natural Resources in Sri Lanka and SBC has signed a MOU to implement project on E-waste in Sri Lanka.

E Waste

- As per the MOU, the MENR has agreed to implement a project on Development of National Implementation Plan for Electrical & Electronic waste in Sri Lanka, which forms one component of the Pilot Project for the Environmentally Sound Management of E-Waste in Asia and the Pacific.
- The project consists of 06 phases

Phase I

1. Establishment of Coordination mechanism for implementation of the project and development of roles of various stakeholders
2. Establishment of a project control unit with a National Project Coordinator, Project assistants, IT assistant

Phase II

3. Implementation of an awareness mechanism for public and other stakeholders
4. Detailed inventory for personal computers, televisions, printers, mobile phones, refrigerators, air conditioners, photocopy machines, washing machines and used batteries
5. Priority setting
6. Training of Government officers on ESM and best practices on e-waste management

■ Phase III-

7. Development of a National Implementation Plan for E waste Management in line with the National Strategy for Solid Waste Management
8. Development of an information system to disseminate information and awareness creation at National, provincial & Local Authority level.

■ Phase IV –

9. Development of a mechanism to register the informal e-waste repairer shops & its implementation
10. Development of an E -waste tracking system

■ Phase V

11. Development of Guidance manuals for environmentally sound collection, reuse, repair, recovery and recycling systems
12. Development of Legislative framework for implementation

■ Phase VI

13. Development of 3 pilot projects for collection of selected types of e-waste for implementation in 3 Provinces in collaboration with the local authority level incorporating EPR systems in collaboration with the stakeholders.
14. Experiences of the pilot project documented for replication the best and feasible practices.
15. A recycling system developed in an Industrial Estate where it can be converted to a dedicated Eco-Industrial Estate based on Cleaner Production principles.
16. Development of an effective monitoring system for implementation

Objective of the Project

- To create sustainable capacity for the Government of Sri Lanka to fulfill the objectives of the BC in E Waste Management.
- The project will enable Sri Lanka to;
 1. Prepare NIP for E waste
 2. Strengthen national capacity to manage E Waste
 3. Satisfy the obligations under BC
 4. Develop multi stakeholder partnerships (local & regional)
 5. Promote sustainable production & consumption patterns & greening the supply chain
 6. Use the experience to improve the country capacity of managing other similar waste streams

- Upon an intimation made by the MENR, the CEA has initiated implementation of the phase I & II of the Project with funding from the SBC.

- **Key Tasks of the Project**

- Establishment of Co-ordination Mechanism to implement the project
- Establishment of the Project Management Unit [PMU] at CEA to implement the project
- Preparation of a Detailed Inventory of E-waste [Review & Compilation of Existing Information [Desk Study]

- Field Survey on Electronic and Electrical Waste Generators, Collectors, Storages and Recyclers.
- Conduction of Final National Awareness Raising Workshop
- Delivery of Project Reports and Reporting [Data Analysis, Preparation and Submission of the final report.
- Project Conclusion

Approach & Methodology

Field Survey Study

- 07 Provinces
- 17 Administrative Districts
- 217 Divisional Secretaries
- 317 DEOs attached to GAs, DSs, MCs, UCs and (PSs) are conducting the Survey
- 57 Subject Ministries, 511 Govt. Institutions
- 04 Sub Sectors:
 - **Household (Urban: Rural: Plantation) [CEA & Min. of E & NR]**
 - **Industrial Sector**
 - **Services & Commercial**
 - **Repairs & Maintenance**
- Structured Survey Questionnaires (SSQ)
- Inception Workshop and District Level: Training & Awareness Workshops
- PMUs Industrial, Commercial and Services Sector – Selected Visits

■ **Compilation of a National Inventory** **(What, Where, Who, How Much / Many)**

Key Players:

- Regulated and Unregulated Importers
- Dealers & Agents
- Wholesale & Retail Sales Centres
- Regulated and Unregulated Repairs & Maintenance – Service Providers
- Collectors, Re-users (Recycling)
- Exporters

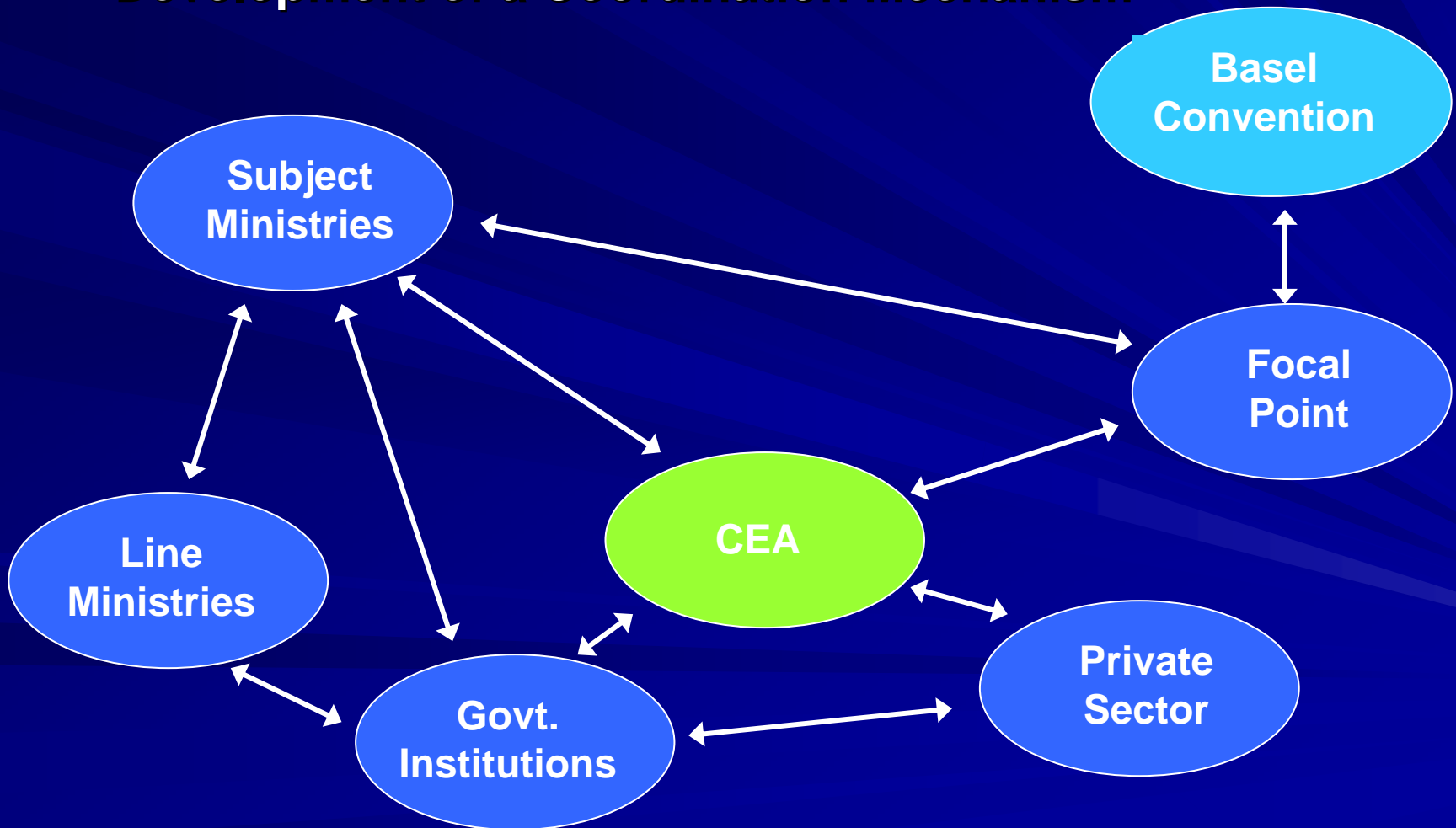
Data & Information Collection - Levels:

- National
- Provincial
- District
- Divisional Secretary
- Municipal Council
- Urban Council
- Pradeshiya Sabha
- Grama Niladhari

Expected Key Outputs

Phases I & II

■ Development of a Coordination Mechanism



Current Situation

- **Receipt of Data & Information**
- **Info & Data Entry**
- **Identifying Gaps, Gap Analysis, & Recommendations**
- **Identifying Key E-Waste Life-Cycle Issues**
- **Modeling E-Waste Scenarios**

Next Steps

- **Press Conference**
- **Electronic & Print Media Coverage - Awareness**
- **PMUs Selected visits to Industrial, Commercial and Services Sectors**
- **Selected Key Stakeholder Consultations**
- **Data / Info Analysis**
- **Data / Info Interpretation**
- **Addressing Key Issues and Concerns**
- **Studying Best Practices (Global)**
- **Making Recommendations**

Final Steps

- **Draft Final Report (DFR) Production**
- **DFR Submittal/Presentation to NCC**
- **Incorporation of NCCs Comments, Suggestions and Modifications to DFR**
- **Priority setting and recommendations for Phases III - VI**
- **Submittal of Final Report**
- **Conclusion of Phases I & II**

Thank You