

Inaugural Meeting
of
the Regional 3R Forum in Asia
11 & 12 November 2009
in Tokyo

UNEP Activities on 3R

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Mandate



UNEP Government Council decision on Waste Management (GC 25/8 Annex 1)

- GC25/8 acknowledges the role of UNEP IETC and requests the UNEP Executive Director to provide further assistance to developing countries in their efforts to strengthen national implementation of an Integrated Waste Management (IWM) approach.
- Furthermore, the Bali Declaration on Waste Management for Human Health and Livelihood (Annex 2) re-confirms this decision. Moreover, UN Commission on Sustainable Development (CSD) has also agreed to undertake waste as one of the focus areas for CSD 18.

Programme of Work 2010–11



3R related activities:

- Climate change – **waste minimization & waste to energy**
- Ecosystems management
- Environmental governance – **3R related policy**
- Harmful substances and hazardous waste – **minimization and recycling of hazardous waste** (E-waste)
- Resource efficiency – **waste management based on 3R approach, wastewater reuse and eco-town in Asia**

Current 3R Activities

1. International Panel for Sustainable Resource Management
2. Integrated Solid Waste Management (ISWM) based on 3R
3. Converting waste biomass into resource
4. Converting waste plastics into resource
5. E-waste management
6. Waste management in the context of climate change
7. Training
8. Global Platform for Waste Management (GPWM)
9. Activities in collaboration with RRC-AP
10. Eco-towns in Asia – Penang, Bandung, and Shenyang





Activities on ISWM

- ISWM Plan for Wuxi New District, China – Mar. 08
- ISWM Plan for Pune City, India – Aug. 08
- ISWM Plan for Maseru City, Lesotho – June 09
- ISWM Plan for Matale City, Sri Lanka – Oct. 08
- ISWM Plan for Novo Hamburgo, Brazil – Aug. 09
- ISWM Plan for Nairobi, Kenya – in progress
- ISWM Training Package on ISWM – online
- Regional Training for Africa in Mauritius – Mar. 09
- Regional Training for Asia–Pacific in Osaka – Oct. 09
- South–South Cooperation on ISWM – Bali 2008

Activities on Waste



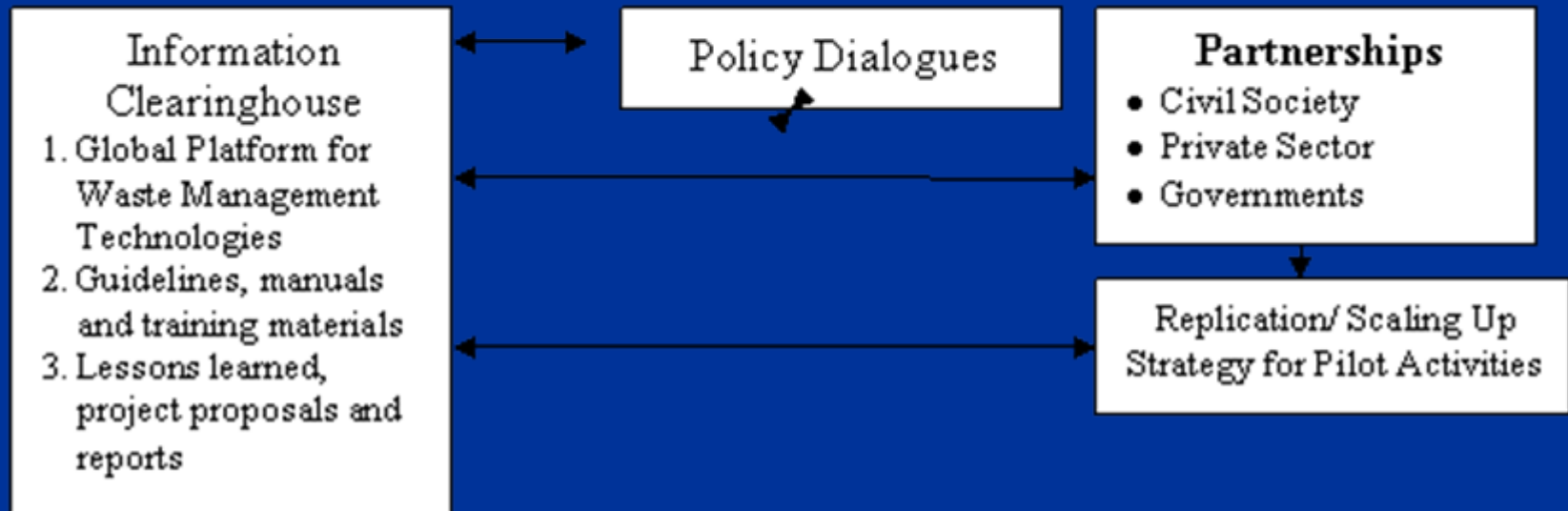
- E-waste management:
Manuals on E-waste Inventory – **online**
Manual on E-waste Management – **online**
E-waste management Plan for Pnom Penh City,
Cambodia – **in progress**
- Converting agricultural waste biomass into a resource:
Compendium of Technologies – **online**
Piloting in Nepal, Pakistan, Philippines and Sri Lanka – **in progress**
- Converting waste plastic into a resource:
Compendium of technologies – **Dec 2009**
Piloting in India, the Philippines and Thailand
- Waste management in the context of climate change

GPWM



Global Platform on Waste Management (GPWM)

Supported by: International Agencies, Governments, Forums,
MEAs, GC, COPs, CSD



Publications



- Resource Augmentation in Viet Nam
- E-waste Inventory Manual
- E-waste Management Manual
- Waste Characterization & Quantification
- Assessment of Waste Management System
- Target Setting and Issues of Concern for ISWM
- How to develop ISWM Plan
- Compendium of Technologies for Converting Waste Agricultural Biomass into Resource
- Compendium of Technologies for Converting Waste Plastics into Resource
- Sustainability Assessment of Technologies (SAT) Framework
- Assessment Methodology for Waste Plastics

ISWM Training Package



- Guidelines to undertake all the activities to formulate ISWM Plan based on local data & information
- Excel based model to simulate local data for developing ISWM Plan with specific actions/schemes
- Learning from experiences in Pune, Wuxi New District and Maseru



Web-based Compendium

http://cshd.dap.edu.ph/unep_biomass/

Compendium of Waste Biomass Conversion Technologies

Compendium Report on Technologies Utilizing Agricultural Waste Biomass

[Waste Biomass Conversion to Energy](#)

[Waste Biomass Conversion to Materials](#)

[Crop/Type](#) > [Coconut](#) > [Husks](#)

Process

[Combustion](#)

[Gasification](#)

[Crop/Type](#) > [Coconut](#) > [Husks](#) > [Gasification](#)

Equipment

Prototype modular downdraft biomass gasifier coupled with an internal combustion engine

Technology Details

[ModularDowndraft_USA](#)

Assessment Details

To be updated

Product

Electricity

Compendium of Waste Biomass Conversion Technologies and Assessment Waste Biomass Conversion to Energy

| Crop / Type | Waste |
|---|--|
| Agricultural Crops - This refers to a variety of agricultural crops, specific samples of which were not indicated in the source materials. | Crop Residue |
| Barley | Waste |
| Coconut | Fronds Husks Shell |
| Coffee | Bean Husks Grounds Husks Shells |
| Corn | Biomass-Derived Carbohydrates Cobs Shelled Corn Leaves Stalks Stover Syrup |



Capacity Building on E-waste



E-WASTE VOLUME I

http://www.unep.or.jp/Ietc/Publications/spc/EWasteManual_Vol1.pdf
http://www.unep.or.jp/Ietc/Publications/spc/EWasteManual_Vol2.pdf

Inventory Assessment Manual

E-WASTE VOLUME II

E-waste Management Manual

**Capacity building of local partners on
E-waste Inventory and Management:**

Secretariat of the Basel Convention (SBC)
PACE, MPPI, Regional E-waste Projects

Pilot Activities



What do you need to do?

Ask your parents to help you collect recyclable material instead of throwing it away

No lids 


Flatten cardboard 

Rinse containers 

Bring your bag of recyclables to school on this day:

Integrated Solid Waste Management Plan (ISWMP)

Maseru LEC Primary School Recycling Project



Recycling saves money and the environment, because resources are getting scarce

Recyclables should not be mixed with waste. Waste makes us sick.



Next Steps on 3R



1. Establishment of a self-propelled mechanism of developing and implementing ISWM Plans based on 3R in cities and urban areas.
2. Establishment of a network of institutions with capacity to assist national/local governments in developing and implementing ISWM Plans and management of specific waste streams based on 3R.
3. Formulation of a national policy framework to support integrated waste management as per GC 25/8.
4. Engagement of a large number of institutions and agencies
5. Increased availability and wide dissemination of best practices, manuals, guidelines, training materials, case studies through the “3R Community of Practices”.
6. Establishment of an active Global Platform on Waste Management (GPWM).

Activities in Collaboration with RRC-AP

Regional Level

- **3R Knowledge Hub (3RKH)**
- *Asia and the Pacific*

Sub Regional Level

- **Thematic Working Group on Solid and Hazardous Waste (Waste TWG)**
- *14 countries in Southeast and East Asian*

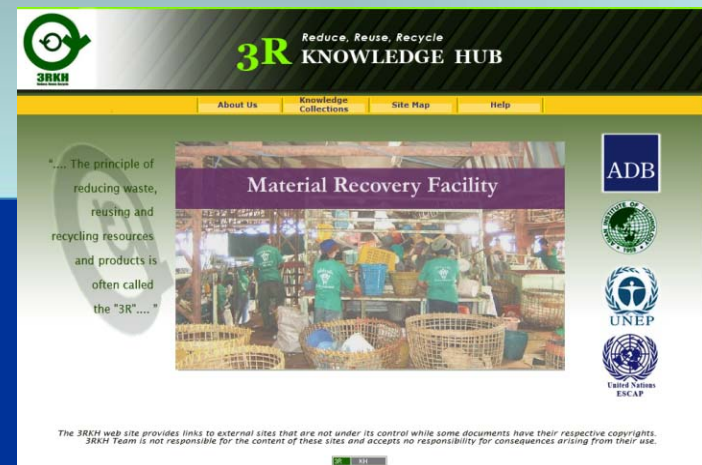
National Level

- **Advanced Waste Management in Asia and the Pacific (AWMAP) or “National 3R Strategy”**
- *Cambodia, Malaysia, Thailand and the Philippines*

3R Knowledge Hub (3RKH)



- 3RKH aims to **network** and **gather 3R resources and expertise** from all the sectors in Asia and Pacific region
- Partnership: **ADB, AIT, UNEP, UNESCAP**
- Web site: www.3rkh.net



Thematic Working Group (TWG) on Waste



- Established under the Regional Forum on Environment and Health in Southeast and East Asian countries

- 14 country members

Brunei Darussalam, Cambodia, Peoples Republic of China, Indonesia, Japan, South Korea, Lao PDR, Malaysia, Mongolia, Myanmar, The Philippines, Singapore, Thailand, and Vietnam

Objective and Goal are:

- to ensure **environmentally sound management of solid and hazardous waste**, in particular municipal waste and medical waste, and **promote the 3Rs**
- to **prioritize issues by analyzing status-quo** of municipal waste and medical management in the member countries
- to provide **useful information to raise policymakers' awareness**

Advanced Waste Management in Asia and the Pacific (AWMAP) Project



- Started from 2005
- Based on 3R Initiative

**IGES & UNEP
ROAP/RRC.AP**

MoEJ

Cambodia

Malaysia

Philippines

Thailand

- Baseline studies & capacity building through workshop
- Consultation Workshop & Formulation of draft National Strategy

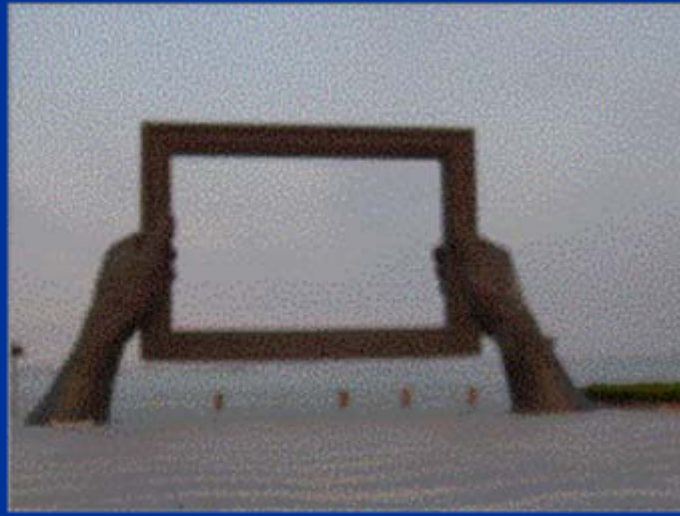
- Consultation Workshop on the implementation of National 3R Strategy

- Baseline studies & Workshop
- Consultation Workshop for the development of the National Framework for the Informal Waste Sector and waste management

- Baseline studies & capacity building through workshop
- Capacity building thru Consultation Workshop for the development of National 3R Strategy and Waste Management



Thank You



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