



Promoting and Implementing 3R UNEP's Contribution



2008/9/1

United Nations Environment Programme
Division of Technology, Industry and Economics
International Environmental Technology Centre



Background



- World Summit on Sustainable Development (WSSD) and one of its key outcome documents – the '**10 Year Framework Programme on Sustainable Consumption and Production**'. Para 22 of the WSSD Joint Plan of Implementation specifically endorses the 3R policy approach as a means to achieve sustainable consumption and production
- The 2002 UNEP Governing Council review of international environmental governance identified the need for an intergovernmental strategic plan for technology support and capacity building – **Bali Strategic Plan**
- Follow-up to WSSD and the 10-Year Framework Programme for Sustainable Consumption and Production (the 'Marrakech Process') - Sustainable Consumption, Cleaner Production, and the Life Cycle Initiative, Integrated Waste Management
- Medium Term Strategy of UNEP





Pre-requisites & Barriers Implementation of 3R



- Enabling policy framework; education and raising awareness of all concerned stakeholders; and capacity building and technology support, including human resources, technology, finance and other inputs
- Gaps in information and practical application of solutions - access to appropriate and useful information, and of translating problems faced by industry into research priorities (and vice versa – implementing innovative research outputs on the ground)
- Barriers are related to policy, information, capacity building, financial, and socio-cultural issues





Role of Different Stakeholders



Governance, Technology, Education & Finance

- Inter-governmental organizations have a critical cross-cutting and supportive role to play

Governments:

- To build capacity and commitment through knowledge management
- To develop an enabling policy framework to further the 3R concept including economic and market based instruments
- To satisfy MEA obligations and national/international commitments, as a part of their sustainability efforts
- To facilitate and provide accurate and timely access to information to all stakeholders

Private Sector:

- To facilitate economic development by creating markets around 3R policies
- To provide resources (technology, finance, and market) for facilitating the implementation of 3R policies
- To interact and network with other entities undertaking 3R activities, including end-users and consumers, and find new business opportunities
- To ensure proper implementation of available resource efficient technologies
- To develop leading edge technologies and products
- To support corporate 'green' trends and commit to a sustainable future

Civil Society:

- To influence market trends by making sustainable and green choices in their everyday lives
- To support development and implementation of policy frameworks by local and national governments
- To lead a sustainable lifestyle with minimum ecological footprints



UNEP Key Initiatives on 3R



- **The Marrakech Process:**
A global effort to promote progress on the implementation of Sustainable Consumption and Production (SCP) and the elaboration of a 10-Year Framework of Programmes on SCP (10YFP)
- **Life Cycle Initiative:**
In partnership with the Society of Environmental Toxicology and Chemistry (SETAC) that promotes dialogue among experts from academia and consultancy and governments, industry entities and consumer organizations to share information and exchange experiences in order to put lifecycle approaches into practice
- **Eco-Towns:**
Working with local governments and business in cities in the Asia-Pacific region to develop eco-towns in order to facilitate environmentally sound industrial development, focused on the 3R concept
- **International Resource Panel:**
Overall objective is to provide independent scientific assessment on the environmental impacts due to the use of resources (both renewable and non-renewable) over the full life cycle, and provide scientific advice on how to reduce these impacts by 'doing more with less'. The ultimate goal is to increase resource-efficient economic growth globally, and to catalyze resource efficient innovation



UNEP Projects on 3R



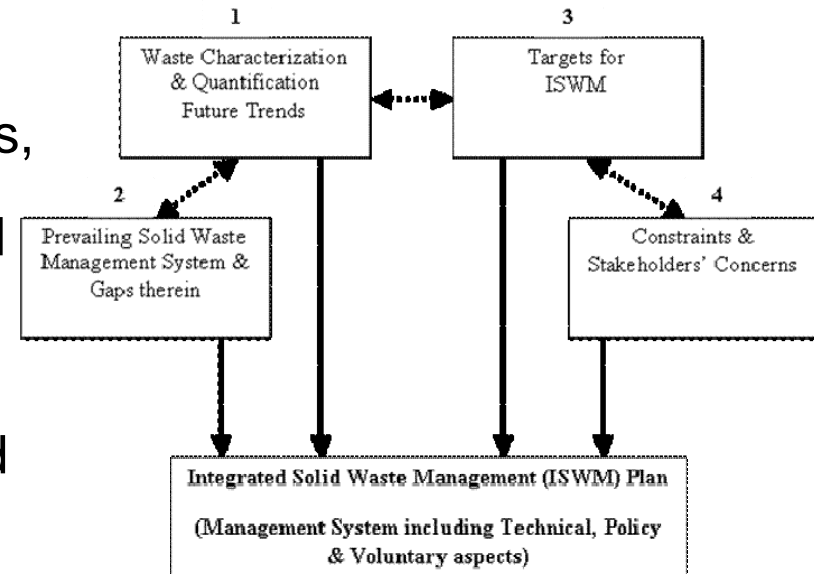
- **Integrated Solid Waste Management (ISWM) based on 3R approach: Wuxi (PRC), Pune (India), Maseru (Lesotho), and Matale (Sri Lanka)**
- **Waste biomass conversion into a resource in the Philippines**
- **Resource augmentation -waste and renewable - Vietnam**
- **Mercury inventory piloting in Asia-Pacific**
- **Forest waste management in Indonesia**
- **Recycling of tsunami debris in Indonesia**
- **Waste exchange in Penang, Malaysia**
- **Plastic waste reuse and recycling in Nairobi**
- **'Youthxchange' Project to promote sustainable consumption patterns among young consumers all over the globe**
- **Techniques and technologies for water conservation and reduction of pollution load in wastewater in Uganda**
- **Sustainable Management of Industrial Area in Tunisia**
- **Plastic waste conversion into resource in Asian cities**
- **Resource efficiency through waste recycling in SMEs in Asia**
- **AFD-UNEP Regional Initiative on solid waste in Asia-Pacific SIDS**
- **E-waste management in Asian cities**
- **South-South Cooperation for ISWM hosted by Indonesia**



Outcomes of Projects



- **Local capacity building on:** Baseline studies, assessment of gaps, target setting, stakeholders consultations, development of plans, identification of environmentally sound technologies and implementation & review
- **Enabling environment:** Policy recommendations (regulatory and financing) based on learning from international experiences
- **Tangible outcomes:** Resource augmentation and resource efficiency to support economic activities without putting pressure on environmental resources
- **Partnerships:** Multi-level government, private sector and civil society partnerships





Interactive Training on ISWM



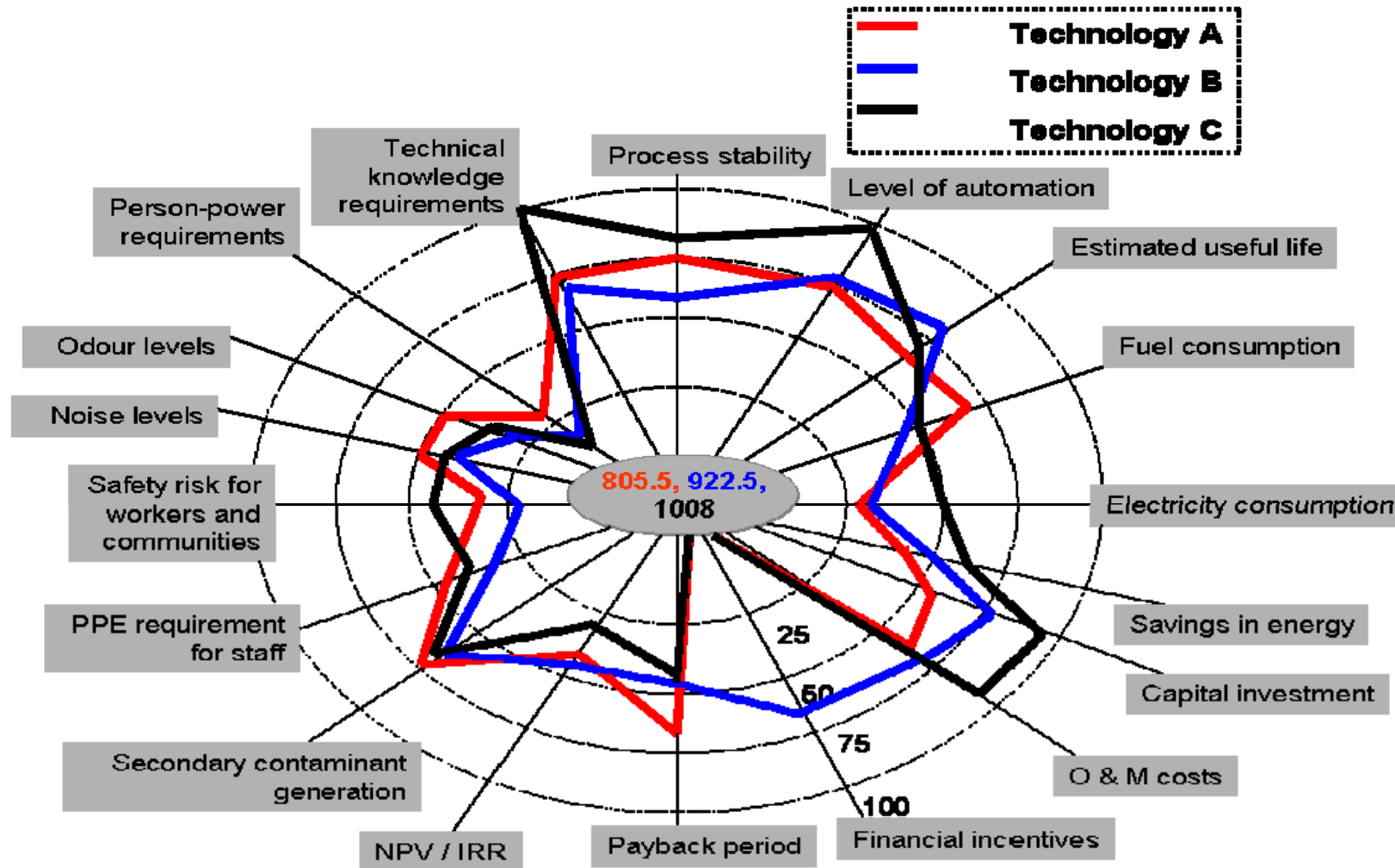
- For local practitioners to develop ISWM based on local data and information by using interactive spreadsheet and guidance manual

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Spreadsheet Tool for Planning MSW Management																	
2	Objective of this spread sheet																	
3	The objective of this spreadsheet is to assist in interactive discussions for developing decision support systems for MSW Management.																	
4	This Spreadsheet Tool also assists in the Strategic Planning Process by helping in data collection and analysis, assessment of gaps in MSW management, assisting in setting new goals, objectives and targets to improvise MSW Management. It also gives the user the option of understanding the impacts of the various schemes on MSW management. By this it enables the user to understand the current situation better and make more relevant and better decisions.																	
5	The Spreadsheet Tool is based upon a simple model which consists of MSW management from generation to disposal. The aim is to provide a simple, interactive system to analyze the environmental, economic (and eventually social) impacts of various management options. The Spreadsheet MSW Tool can help by visualizing a "first cut" rapid assessment of options with available data and determine critical areas for future work.																	
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The diagram illustrates the workflow of the MSW management toolkit. It starts with **INPUTS** (a spreadsheet showing various data points) and **SCHEMES** (a spreadsheet showing different management options). These feed into **WARDWISE CALCULATION** (a central processing stage). The results are then presented in **RESULTS** (a spreadsheet), which can be visualized as **WASTE FLOW** (a flowchart) and **CHARTS** (a bar chart).



Sustainability Assessment of Technologies (SAT) Framework





Guidance Manuals



<http://www.unep.or.jp>

United Nations Environment Programme
environment for development



Activities in Iraq

العربية

日本語

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Background

Objectives

Expected Outcomes

Benefits

Implementation

Phase I

Phase II-A

Phase II-B

Publications

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Training Manuals

As part of every training course delivered under UNEP project, Support for the Environmental Management of the Iraqi Marshlands, UNEP in collaboration with various partner institutions produced training manuals to accompany each course. All of the manuals deal with different aspects of sustainable environmental management of the Marshlands and cover subject matter under three categories: policy and institutional, technical, and data management and analysis. All manuals published within the framework of this project are available to download in both English and Arabic.

- [Phytotechnology for Wetland Management](#)
- [Water Quality Management](#)
- [Sustainable Sanitation](#)
- [Wetland Remote Sensing](#)
- [Marshlands Information Network \(MIN\)](#)
- [IWRM for Policy Integration](#)
- [ESTs for Drinking Water Provision](#)
- [Community Level Initiative](#)
- [Wetland Management](#)
- [EST Assessment and Methodology](#)

SOLID WASTE MANAGEMENT

E-WASTE
VOLUME II

E-WASTE
VOLUME I

WATER AND WASTEWATER REUSE

*An Environmentally Sound Approach
for Sustainable Urban Water Management*



In collaboration with:

Ministry of Land, Infrastructure and Transport of Japan (MLIT)
Public Works Research Institute of Japan (PWRI)
Osaka Municipal Government
Infrastructure Development Institute of Japan (IDI)



INTEGRATED WASTE MANAGEMENT SCOREBOARD

*A tool to measure performance in
municipal solid waste management*



Training Module

*Closing an Open Dumpsite and Shifting from
Open Dumping to Controlled Dumping and to
Sanitary Land Filling*

Resource Augmentation by Tapping Renewable Resource and by Utilizing Waste

Rainwater Harvesting, Wastewater Reuse
and Composting/biogas

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3R Programme



Prioritized implementation of the 3R policy and increase in resource productivity, and co-benefits with measures against global warming

- **Prioritized Implementation of the 3R Policy**
- **Improving Resource Productivity by Promoting the 3Rs and Setting Targets**
- **Pursuit of co-benefits with reduction of greenhouse gas emission**

Capacity Development to Support the 3Rs through Partnership with Various Actors

- **Development of 3R-related Science and Technology**
- **Promotion of activities by business, local governments and NGOs**
- **Promotion of information sharing and environmental education**

Collaboration towards Sustainable International Resource Circulation



Thank You...

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