

Country: BANGLADESH

Presented by:

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**Preparatory Meeting
for the Inaugural Meeting of the Regional 3R
Forum in Asia**

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Presentation Outline

1. Present Waste Management Scenario
2. Present Policies/Rules/Acts on 3 R
3. Current Progress on National 3R Strategy Formulation
4. Suggested Focus on National 3R Strategy
5. What are the Barriers?
6. Challenges and Way Forward



Unsanitary Crude Dumping Practice

Year	Urban Population	Total Urban Waste Generation (Ton/day)	Per Capita Waste Generation Rate in urban areas Kg/cap/day	Per Capita GDP
1991	20.8 million	6493	0.31*	US \$ 220
2005	32.76 million	13,330	0.41**	US \$ 482****
2025	78.44 million	47,000	0.60***	>US \$ 1000

* World Bank, 1998, *** Waste Concern, 2005, ** UMP, 1999, **** GOB, 2006



Baseline Situation of Solid Waste

While there is no consolidated data on industrial wastes in Bangladesh, recent study by the Department of Environment-Bangladesh, Waste Concern and ADB in 2008 estimates that annual production of waste from

Textile Sector is 113,720 ton/year (sludge),

Tannery Sector is 22,500 ton/year (solid waste),

Pesticide is 53.58 ton/year (solid waste),

Fertilizer is 277 ton/year (solid waste), and

Oil refinery is 4,000 litre/year.

E-Waste (2006)

Mobile phones: 22,000,000

Personal computers: 600,000

Televisions: 1,252,000

Informal Sector

120,000 urban poor from the informal sector are involved in the recycling trade chain of Dhaka City.

15% of the total generated waste in Dhaka (mainly inorganic) amounting to **475 tons/day** are recycled daily.



Baseline Situation of Municipal Solid Waste

- ❑ Mainly focused on end-of-pipe solution. Un-controlled land filling (Dhaka has partial controlled landfill system) is existing in the country.
- ❑ Composting of organic waste using carbon financing existing
- ❑ Biogas from rural waste (mainly animal manure) existing
- ❑ In-organic waste recycling by informal sector using low-tech technology without health and safety issue is existing.



Existing Systems and Regulatory Framework for Waste Management and The 3rs

Date	Title
Policy	
2009	Draft Policy on Hazardous Waste Management
2006	Draft National Urban Policy <ul style="list-style-type: none"> ▪ CDM and Recycling has been emphasized in this policy.
1998	National Policy for Water Supply and Sanitation <ul style="list-style-type: none"> ▪ According to this policy the government shall take measures for recycling of waste as much as possible and use organic waste materials for compost and bio-gas production.
1998	Urban Management Policy Statement <ul style="list-style-type: none"> ▪ Recommend the municipalities for privatisation of services as well as giving priority to facilities for slum dwellers including provisions of water supply, sanitation and solid waste disposal.
Act	
2006	Fertilizer Act <ul style="list-style-type: none"> ▪ Under this act compost has been promoted and standard of compost has been set by the government on 2008.
1995	The Bangladesh Environmental Conservation Act (ECA)
Rules	
2009	Draft Rules on Hazardous Waste Management Rules
2006	Lead Acid Battery Recycling and Management Rules <ul style="list-style-type: none"> ▪ Under this rules collection and recycling has been improved.
2005	Draft National Solid Waste Management Handling Rule <ul style="list-style-type: none"> ▪ 3R principal has been used.
1997	Bangladesh Environmental Conservation Rules

Existing Systems and Regulatory Framework for Waste Management and The 3rs

Date	Title
Strategy	
2005	<p>Poverty Reduction Strategy Paper (PRSP)</p> <ul style="list-style-type: none"> Here EMS has been promoted. To improve the solid waste management situation, special focus is given to segregation of waste at source along with the promotion of recycle, reduce and reuse of industrial and other solid waste etc.
2005	<p>National Sanitation Strategy</p> <ul style="list-style-type: none"> Its goal is to achieve 100% sanitation coverage by 2010. Here emphasis on resource recovery and recycling has been given as top priority to improve urban sanitation situation instead of disposal.
Action Plan	
2005	<p>Dhaka Environment Management Plan</p> <ul style="list-style-type: none"> Waste recycling has been promoted, less land filling encouraged, EMS promoted among industries.
2005	<p>Solid Waste Management Action Plan for Eight Secondary Towns in Bangladesh</p> <ul style="list-style-type: none"> Under the Secondary Towns Integrated Flood Protection (Phase-2) Project of Local Government Engineering Department, GoB. This action plan is based on 4 R principle i.e. reduce, reuse, recycle and recover of the waste.
1995	<p>National Environmental Management Action Plan (NEMAP)</p> <ul style="list-style-type: none"> This is a plan of the Government of Bangladesh (GoB), prepared by the Ministry of Environment and Forest (MoEF) in consultation with people from all walks of life. 3R is being promoted under the Sustainable Environment Management Programme (SEMP) of NEMAP.

Existing Systems and Regulatory Framework for Waste Management and The 3rs

Date	Title
Others	
2008	Circular to Promote Compost by the Ministry of Agriculture (MoA), on 23 April 2008
2004	Dhaka Declaration on Waste Management by SAARC countries during 10–12 October 2004 <ul style="list-style-type: none">SAARC countries agree to encourage NGOs and private companies to establish community based composting, segregation of waste at source, separate collection and resource recovery from wastes with particular focus on composting.

A number of projects and initiatives has started which promotes 3R in Bangladesh

- Green Jobs Initiative by ILO
- Green Building Initiative by DoE-MoEF
- Solar energy is being promoted
- Promotion of Clean Development Mechanism (CDM) which is promoting 3R
- Small scale composting initiative by different ministries, private sectors and NGOs



Current Progress of **National 3R Strategy**

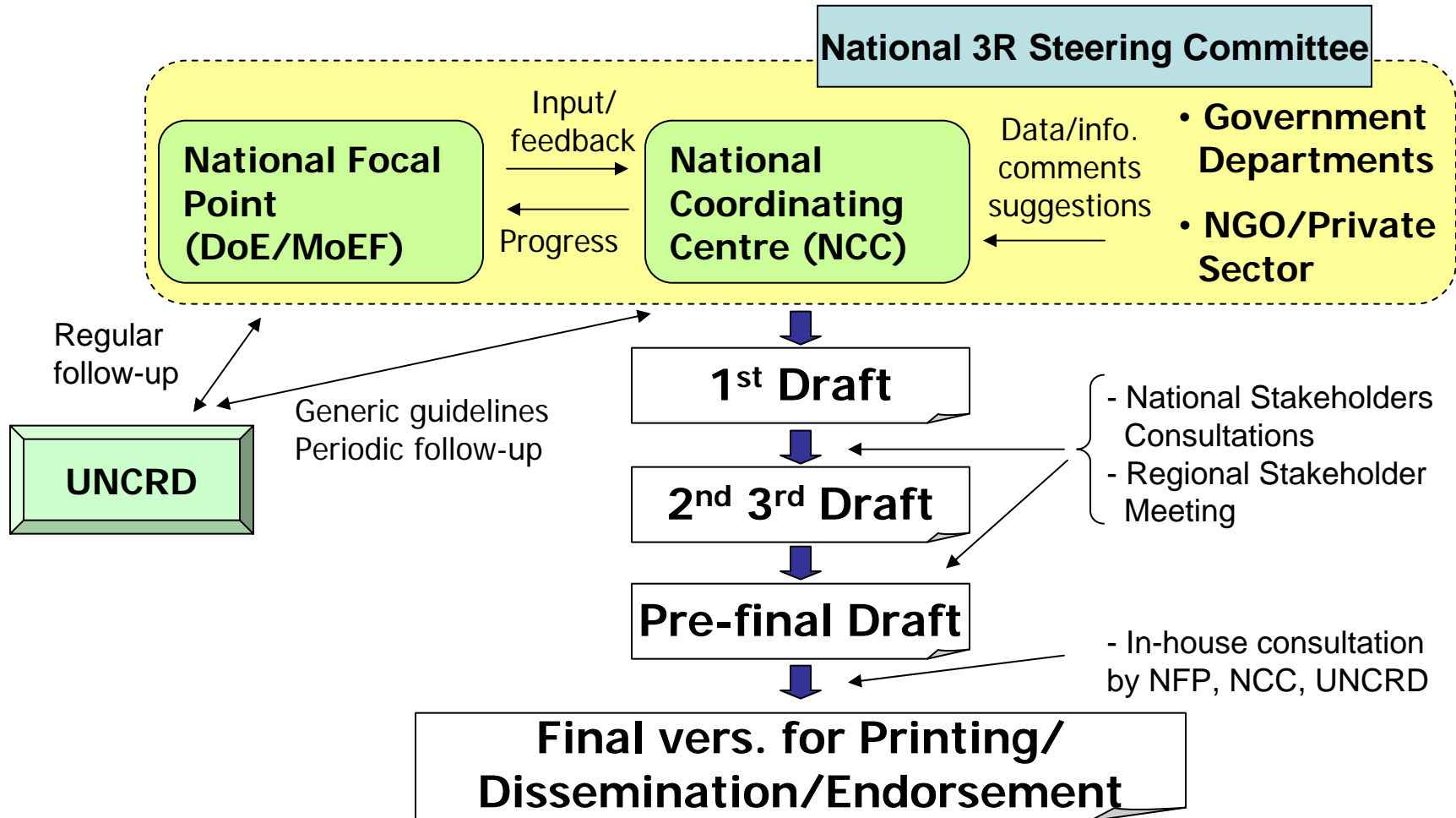
- **In 2005** when UNCRD visited Dhaka, the Department of Environment (DoE-Bangladesh) expressed strong interest in initiating 3R promotion activities, and as a first step in their efforts,
- **February 2007**, MoEF organized a two-day national workshop with the participation of relevant government ministries/agencies, NGOs, private sector, international organisations, and resource institutions from Japan. Major objective was to raise nation wide awareness on 3R and to share best practices.
- **Pilot Composting Plant in Kushtia Municipality:** With support from UNCRD, MoEF in partnership with DoE-Bangladesh and Waste Concern is establishing a pilot composting plant in Kushtia Municipality
- **April 2008**, Pre-inception Meeting of the formulation process of the National 3R Strategy held in Dhaka
- **December 2008**, the **3R-strategy** formulation process was formally launched by holding the Inception Workshop in December 2008.
- **March 15, 2009** Establishment **National 3R Steering Committee** by MoEF
- **National Coordinating Centre:** Waste Concern has been nominated to act as this center to assist DoE-Bangladesh and take the lead role in drafting the Strategy.
- **3R Modules**, are being prepared for the selected 5 sector to raise awareness
- **Draft 3R Strategy** is being prepared and will be discussed in Stakeholders Meeting in July/August 2009.

Pilot 3R Project in Kushita, Bangladesh



Successfully established a pilot composting plant in Kushtia Municipality. in partnership with UNCRD, DoE-Bangladesh and Waste Concern

Bangladesh National 3R Strategy Formulation: Participatory & Consultative Process



National 3R Strategy Formulation Process in Bangladesh - Timeframe

Items	2008	2009				2010			
	10-12	1-3	4-6	7-9	10-12	1-3	4-6	7-9	10-12
Inception Meeting	24 Dec ○								
Preparation of the 1st draft		Jan – May							
Submission of 1st Draft, National Consultation (1)			June ○						
Revision → 2nd Draft				Jul – Sept					
Regional Consultation (2)					○ Oct				
Revision → 3rd Draft					Nov-Jan				
Experts Consultation (3)						Feb ○			
Revision → Final Draft						Mar-May			
In-house consultation							Jun/Jul		
Endorsement by Government								Aug/se	
Printing and Distribution									○ Oct

Brackets indicate the opportunities of consultation workshops



Vision of National 3 R Strategy

Diversion from end-of-pipe solution to more of a pro-active solution based on 3R



Content of National 3R Strategy

1. **Baseline Information of Waste Management**
2. **Guiding Principles of the Strategy**
 - Waste is a Resource
 - Source separation of waste
 - Selection of Appropriate and Affordable Technology
 - Private Sector Investment
 - Technology should be reducing emission
 - Gender Sensitive Approach
 - Supporting Informal Sector
 - Public-Private Partnership/ Polluters Pay Principle/Cleaner Production/EMS
 - Standard for Recyclable materials
3. **Major Issues Related to Waste Sector**
 - Municipal Solid Waste
 - Industrial Waste (Textile and Dying, Tannery, Pesticide, Oil Refinery , Fertilizer and E-Waste)
 - Bio-medical Waste
 - Commercial Waste & Institutional Waste
 - Hotel and Tourism Industry
3. **Relevant Policies on Waste Sector**
4. **Existing Case of Best Practices in Waste Sector**
5. **Strategies for Promotion of 3R in Different Sectors**
 - Technologies to be used for management of waste
 - Institutional Arrangement for Implementation of 3R
 - Media Campaign
 - Economic/ Policy Incentives
 - Strategies for Monitoring and Evaluation of 3R Strategy
 - Monitoring Protocol.
7. **Targets for Implementation of the Strategy**

Challenges and **Way Forward**

- Local governing bodies mostly dealing with waste, often have weak institutional capacity and limited financial resources. To overcome this, their capacity must be strengthened in order to make practical changes on the ground.
- There is a lack of awareness and capacity on 3R in the country, to overcome this challenge, with the support from UNCRD, MoEF have already taken the initiative of developing a 3R module for capacity building and hands-on training and pilot demonstration project of composing municipal waste in the country.
- Most of the time, External Support Agency (ESA) supported waste management related initiatives are found to be isolated and disjointed. To overcome this challenge, a **National 3R Steering Committee** has been established by MoEF.
- Research and baseline survey on 3R on different types of waste, required for better understanding of the issue both by public and private sector.

Challenges and **Way Forward**

- There is a lack of easy finance and technology to promote 3R initiatives. To harness investment in the country MoEF is promoting Clean Development Mechanism (CDM) of the Kyoto Protocol. For example, Waste Concern, a national research organization has recently initiated a CDM Project entitled “Composting of Organic Waste in Dhaka”.
- Challenge lies on how to expand and/or replicate similar successful pilot cases and best practices into a larger scale to extend the benefits to a larger population.
- Developed country should assist Bangladesh with efficient and proven technology and innovative finance to promote 3R initiatives in Bangladesh.
- The way forward for the government to take more of a facilitating role and promote public-private and community partnerships.
- Finally, GoB has taken a major policy shift from end-of pipe solution to proactive solution of 3R approach.

THANK YOU