



Primary Tools



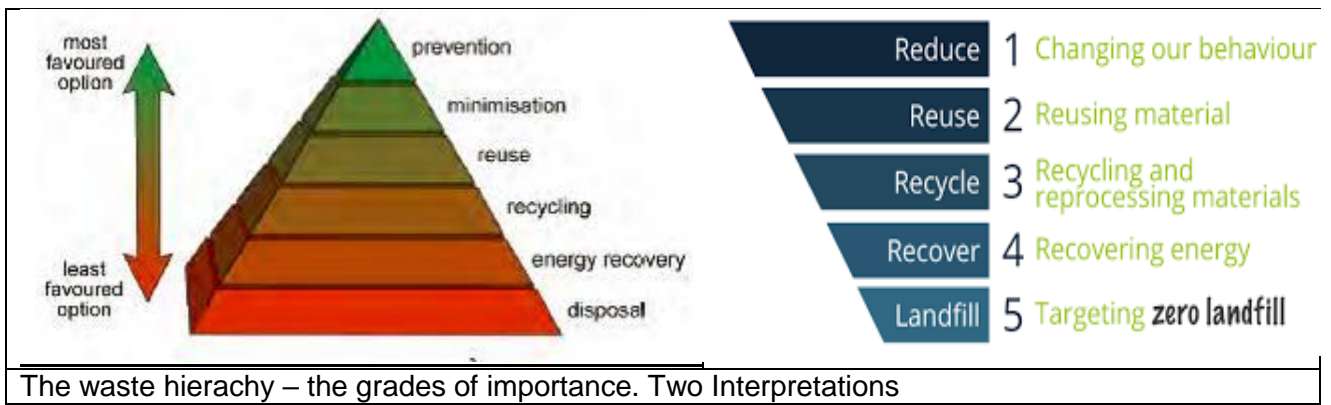
SWM – ‘3-R Tool’

What this tool does:

This tool introduces the necessary steps to deal with waste in a non-conventional manner. It treats waste as potential resource. The waste hierarchy refers to the “3-Rs” – Reduce → Reuse → Recycle which classifies waste management approaches according to their desirability.

“Benefits. Waste is not something that should be discarded or disposed of with no regard for future use. It can be a valuable resource if addressed correctly, through policy and practice. With rational and consistent waste management practices there is an opportunity to reap a range of benefits. Those benefits include:

1. **Economic** - Improving economic efficiency through the means of resource use, treatment and disposal and creating markets for recycles can lead to efficient practices in the production and consumption of products and materials resulting in valuable materials being recovered for re-use and the potential for new jobs and new business opportunities.
2. **Social** - By reducing adverse impacts on health by proper waste management practices, the resulting consequences are more appealing settlements. Better social advantages can lead to new sources of employment and potentially lifting communities out of poverty especially in some of the developing poorer countries and cities.
3. **Environmental** - Reducing or eliminating adverse impacts on the environment through reducing, reusing and recycling, and minimizing resource extraction can provide improved air and water quality and help in the reduction of greenhouse emissions.
4. **Inter-generational Equity** - Following effective waste management practices can provide subsequent generations a more robust economy, a fairer and more inclusive society and a cleaner environment. (https://en.wikipedia.org/wiki/Waste_management).



The 3-Rs are meant to be a hierarchy, in order of importance.

How does it work?

- S1: Establishment of Standardized Guidelines for Operating Decentralised Treatment Plants
- S2: Establishment of a Cadre of Certified Operators for Decentralized Treatment
- S3: Introducing Industry - University Partnerships
- S4: Establishment of a Waste Exchange Centre
- S5: Establishment of an ISWM Cell
- S6: Develop and Introduce Policy for C&D Waste Management
- S7: Improving Health and Safety of PMC Workers, Rag pickers and citizens in proximity of the landfill
- S8: Strengthening of PMC Rag picker Co-operatives

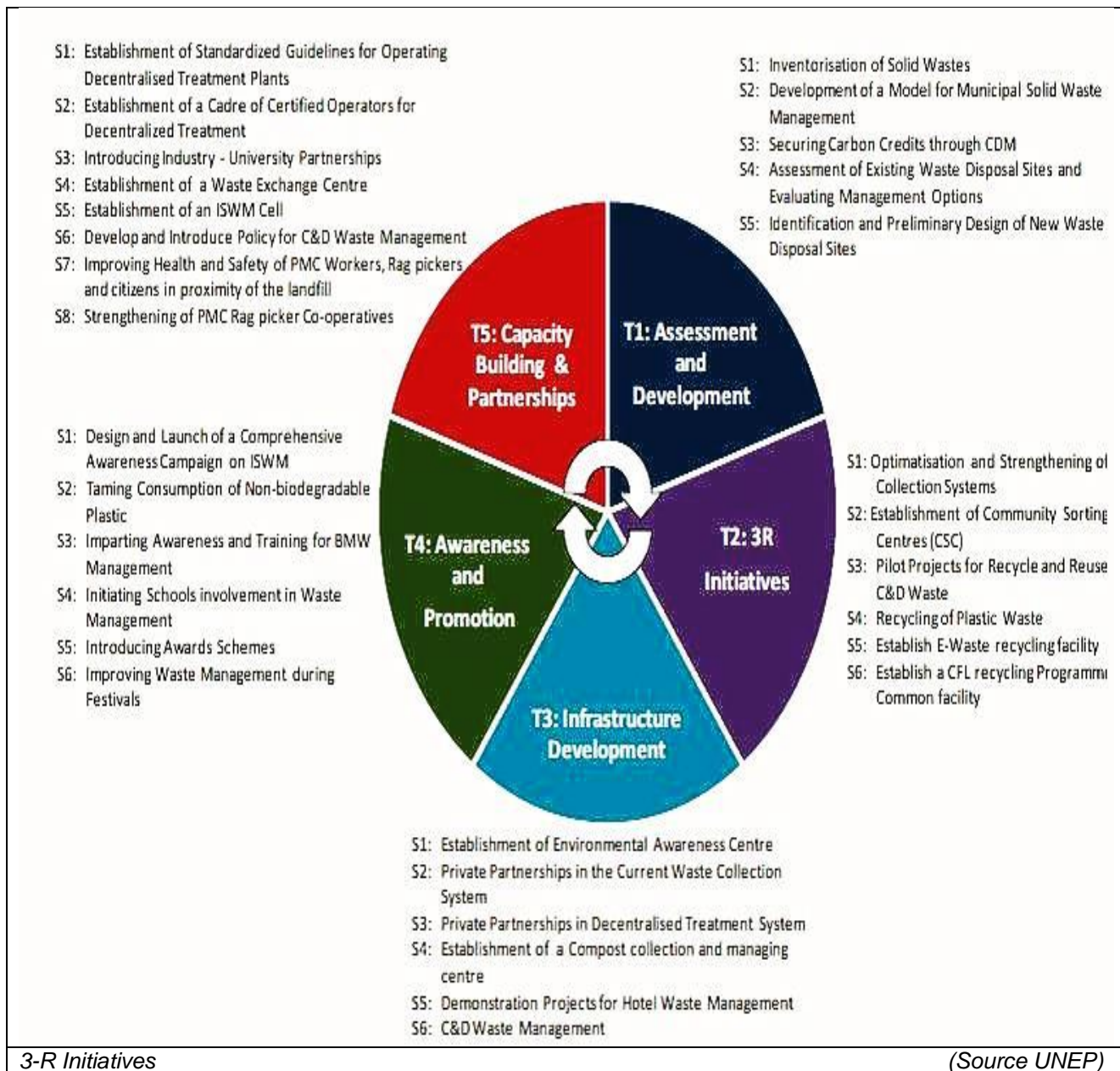
- S1: Inventorisation of Solid Wastes
- S2: Development of a Model for Municipal Solid Waste Management
- S3: Securing Carbon Credits through CDM
- S4: Assessment of Existing Waste Disposal Sites and Evaluating Management Options
- S5: Identification and Preliminary Design of New Waste Disposal Sites



- S1: Design and Launch of a Comprehensive Awareness Campaign on ISWM
- S2: Taming Consumption of Non-biodegradable Plastic
- S3: Imparting Awareness and Training for BMW Management
- S4: Initiating Schools involvement in Waste Management
- S5: Introducing Awards Schemes
- S6: Improving Waste Management during Festivals

- S1: Optimisation and Strengthening of Collection Systems
- S2: Establishment of Community Sorting Centres (CSC)
- S3: Pilot Projects for Recycle and Reuse C&D Waste
- S4: Recycling of Plastic Waste
- S5: Establish E-Waste recycling facility
- S6: Establish a CFL recycling Programme Common facility

- S1: Establishment of Environmental Awareness Centre
- S2: Private Partnerships in the Current Waste Collection System
- S3: Private Partnerships in Decentralised Treatment System
- S4: Establishment of a Compost collection and managing centre
- S5: Demonstration Projects for Hotel Waste Management
- S6: C&D Waste Management



Process:

A. Generation, Collection and Transportation.

1. Establishment of a waste inventory.
2. Development of local policies on segregation and collection.
3. Development of awareness raising tools for 3-R waste management.
4. Supply of waste bags for segregation of food waste.
5. Construction / provision of collection points.
6. Development of primary collection systems.
7. Procurement of collection vehicles – secondary collection.
8. Development of operational plan for collection and transportation.

B. Sorting, Treatment and Disposal

1. Upgrading of transfer stations for material recovery.
2. Development of biogas plant.
3. (Upgrading of) Incineration plant with resource recovery.
4. (Upgrading of) sanitary landfill with landfill gas utilization.
5. Establishment of waste exchange platform.
6. Establishment of industrial waste treatment facility.
7. Development of monitoring system for ISWMP. (Source: UNEP)

Credentials

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Literature / further information:

UNEP. 2009. *Developing Integrated Solid Waste Management Plan – Training Manual*. Nairobi.
http://www.unep.or.jp/ietc/Publications/spc/ISWMPlan_Vol4.pdf