

Community-based 3 Rs Practices in Myanmar

Presented by

Mr. U Mann

Ms. Ohnmar Myint

Myanmar participants



The Union of Myanmar



- The Largest Country in South East Asia
- 14 States & Divisions: 3 cities + 331 towns
- Total land area: 677,000 sq km
- Neighboring countries: China, Laos, Thailand, Bangladesh and India.
- Population: 58.4 million
- Population growth rate: 1.62 %
- 30% of the total population resides in urban area

Existing Situations in Waste Management

- Myanmar has no serious problem regarding of environmental pollution owing to a sparsely populated area and least industrial development.
- Despite, solid waste management is currently regarded as one of the most immediate environmental issues.

- Rapid urbanization
- Population growth
- Economic growth
- Change in consumption patterns
- public unawareness

Massive waste generation

Environ.
pollution

Responsible Agencies for Waste Management

1. Yangon City Development Committee in Yangon
2. Mandalay City Development Committee in Mandalay
3. Nay Pyi Taw Development Committee in Nay Pyi Taw
4. Township Development Committees in remaining towns
(285 towns).

Stakeholders

- | | |
|--------------------------|---------------------|
| (1) Communities | (4) Informal sector |
| (2) Local authorities | (5) Business group |
| (3) Social organizations | (6) Academic |

Waste Management Policy

- Provision of waste collection services, management activities and initiation of 3 Rs practices are extensively undertaken by responsible organizations independently. Therefore policy statement may differ from one organization to another.
- However, a common essence of the policies is “ **to develop systematic waste disposal and collection system in order for the city to be free of repulsive dumpsites**”. These policies also called for cooperation and involvement of local authorities and communities in the waste management.



Environmental Regulations

1. The Yangon Water-Work Act (1885)
2. The City of Yangon Municipal Act (1922)
3. The Water Power Act (1927)
4. The Underground Water Act (1930)
5. The City of Yangon Development Law (1990)
6. The Development Committees Law (1993)
7. The City of Mandalay Development Law (2002)
8. The Nay Pyi Taw Development Law (2009)



Beside these, the City and Township Development Committees promulgated the solid waste disposal and collection bye-law as its measure for legal basis at local level.

Waste Generation Rate

| City | WGR per capita | Waste composition | | | | | | | |
|--------|----------------|-------------------|-------|---------|-------|-----|---------|------|-------|
| | | organic waste | Paper | Plastic | Glass | Can | Textile | Dust | Other |
| Yangon | 0.53 | 76.93 | 2.24 | 17.75 | 0.45 | 0.2 | 1.14 | - | 1.29 |
| Bagan | 0.45 | 63 | 3 | 15 | 1.65 | 4 | 1.6 | 6 | 5.75 |

Average waste collection service coverage: about 60 %

Waste Collection System

- The feature of solid waste collection in Myanmar is basically labor intensive work and mainly relies on manual labor and non-specialized vehicles.
- Waste collection Systems:
 - (1) Block collection,
 - (2) Communal depot collection,
 - (3) House-to-house collection,
 - (4) Limited collection, and
 - (5) Street sweeping.



3 Rs activities in Myanmar



Reject

- Polythene plastic carrier bags with its non-degradable nature is a major problem.
- Therefore, “**Polythene Plastic Carrier Bags Free Zones**” are established in many Towns of Myanmar.
- Public awareness raising campaigns and environmental education programs are conducted by active participation of stakeholders and local residents.
- Use of plastic bag alternative like cloth or string bags, leaves boxes and baskets are introduced.



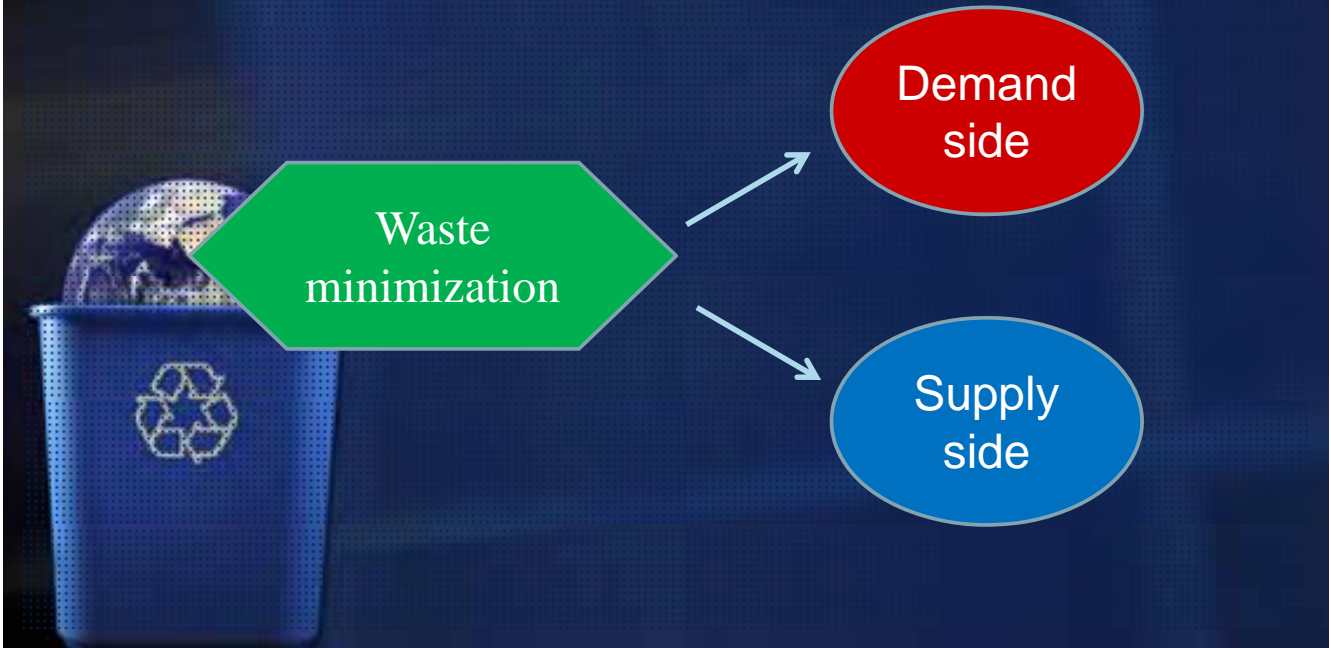
Environmental awareness and education



Alternative bags to polythene plastic carrier bags

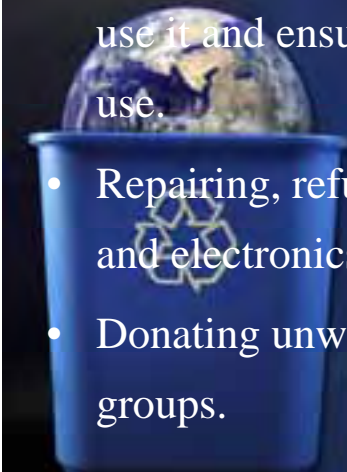
Reduce

- Waste reduction is the way forward to reduce the amount of generated waste by waste generators.



Demand Side

- Buying economy size products or choosing appropriate amounts and sizes.
- Buying durable products or buying reusable items that can be used repeatedly.
- Reusing a plastic bag as much as possible in case of they have to use it and ensured it is disposed of correctly when it is no longer of use.
- Repairing, refurbishing or recovering home furnishing, appliances and electronics utensils instead of throwing away, and
- Donating unwanted items in good condition to poor or charity groups.



Supply Side

- Offering reusable alternatives such as paper, leaves for packaging or shipping,
- Asking consumers whether they need a bag for small purchases,
- Guiding staffs or shop-helpers to pack items in a way that minimizes the number of bags used, and
- Providing drop-off dust bins in front of their shops.



Reuse



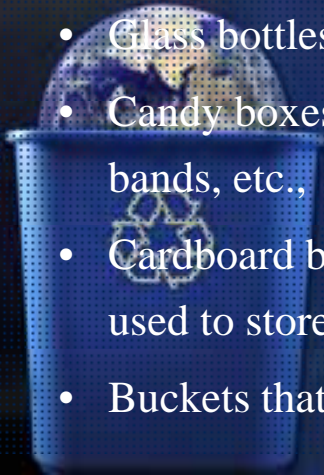
Reuse is the use of a product more than once. This includes conventional reuse where the item is used again for the same function and new-life reuse where it is used for a new function.

- The deposit refund system for glass bottles or polyethylene terephthalate (PET) water bottles is introduced,
- Old tires that are used in fences or as boat fenders,
- Steel drums that are reused as compost bins or were used for water storage,
- Plastic bags that are reused as liners for household waste bins,



Reuse Cont.

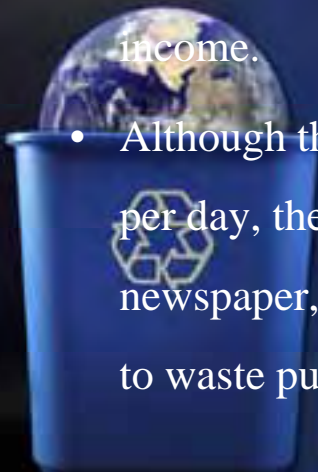
- Food jars that are washed out and used to store things like buttons and screws,
- Paper bags that are used to cover school text books or are used for garbage bags around the house,
- Belts that are used to tie back tree branches or are used for tying young trees to supports,
- Glass bottles that are used as vases or candle holders,
- Candy boxes that are used for storing paper clips, rubber bands, etc.,
- Cardboard boxes that are used as household waste bins or are used to store children's toys, and
- Buckets that are used as dust bins or outdoor flower pots.



Recycling

Recycling is the practice of sorting, collecting and reprocessing of used materials into new products. It is a good way of reusing valuable resources and avoiding them ending up as waste.

- Recycling activity is widely practiced in low- and middle-income households linking to the households' subsidiary income.
- Although these households generate the least quantity of waste per day, they selling reusable and recyclable materials such as newspaper, metal, plastic bags, bottles, clothes, tins, and glass to waste purchasers at the doorstep are a common scene.



Recycling Cont.

- Private sectors' recycling business is also widespread.
- The informal sector including scavengers, waste collectors, waste dealers, waste merchants, and recycling industries are instrumental in the waste recycling scheme.
- The scavengers and waste collectors collect all the waste from households, communal depots, streets, commercial areas and final disposal sites, and separate out recyclable materials at their house or possibly a depot they occupied.



Recycling Cont.

- In alternative, some scavengers collect certain categories of recyclables if it is sorted through the waste once it had been tipped. Then, they sell it to waste dealers, who have the space to further clean, sort, and store the waste.
- Beside these groups, waste purchasers also regularly visits each household and buy recyclable materials such as bottles, small pieces of iron, tins and paper. The waste dealers sell the material to merchants with sufficient means of transport, who then resell the material in bulk to the appropriate recycling industry.



Manufacturing Process of Reclaimed Molded Product



Challenges

- Adults and working groups are rooted to the disposable consumer culture and are interested to purchase new luxury products that leads to minimal achievement of waste reduction.
- Consequences of economic growth and growing consumer demand for the disposable products have challenged the full potential of reuse.
- Due to the low quality of scrap, the recycling rate is low.
- It is a paradox that whilst the low-income groups pontificated on the desirability of waste recycling, there is little scope in high-income households.

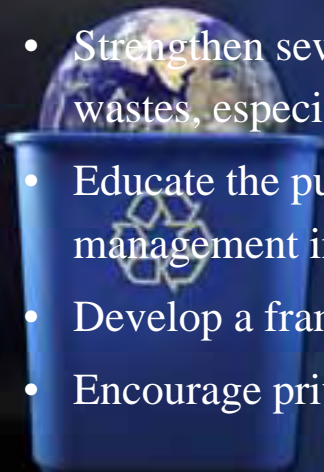


Future Plan

Objective: To promote solid waste management and environmentally sound management of toxic chemicals and hazardous wastes.

Activities to be completed **within 5 years** including on-going ones:

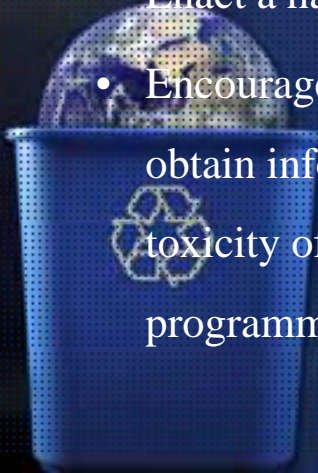
- Enact the drafted Myanmar Environmental Protection Law.
- Apply polluter pays principle.
- Develop public awareness to promote community participation.
- Strengthen sewage system management and treatment for domestic wastes, especially in cities.
- Educate the public to promote environmentally sound waste management including waste reduction, recycling and composting.
- Develop a framework for hazardous waste management.
- Encourage private investments in solid waste management services.



Future Plan Cont.

Activities to be completed **within 10 years** including on-going ones:

- Formulate a solid waste management master plan and guidelines and priority on big cities.
- Enact a hazardous waste law.
- Encourage more interaction with international bodies to obtain information and knowledge about environmental toxicity of chemicals, their assessment and risk reduction programmes.



Thank You For Your Attention



Save Our Environment