

Fifth Regional 3R Forum in Asia and the Pacific

“Multilayer Partnerships and Coalition as the Basis for 3Rs Promotion in Asia and the Pacific”
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Report on 3R Policy Initiatives and Achievements

(Draft)

< Kathmandu City >

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3 R(Reduce, Recycle and Reuse) Activities in Kathmandu City

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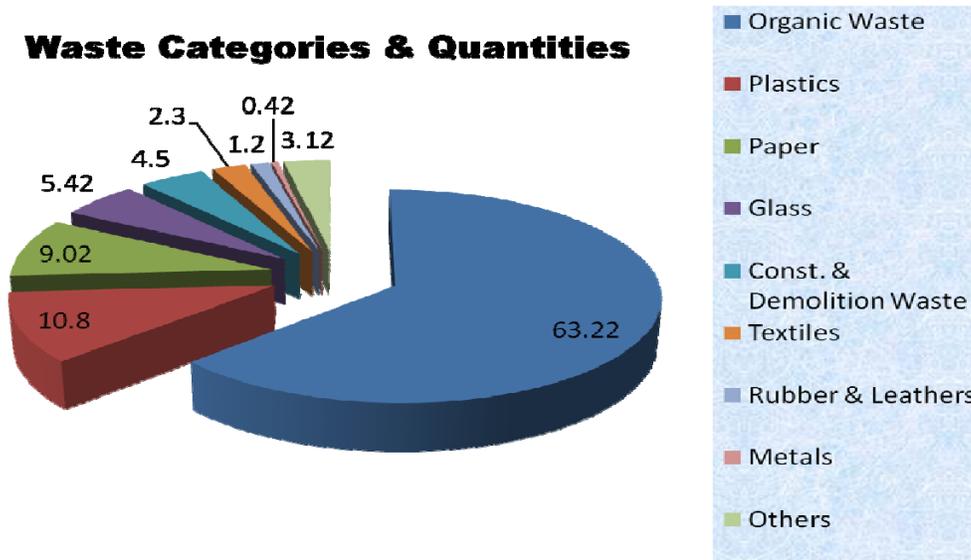
Background

Kathmandu city is the capital city and the biggest urban center of Nepal with rich historical, archeological and cultural significance. Kathmandu City has a population of about 1,150,000 (census 2011). Presently Kathmandu city is experiencing tremendous pressure in terms of management and operation of waste management systems because of weak institutional base,unimaginable scale of the and low level of resource mobilization. The growing and multidimensional problems related to waste management have led to difficulties in proper management of waste in Kathmandu. Productions of non-degradable and degradable waste from households, resturants, business houses, educational institutions, hospitals etc made increase in the amount of solid waste generated daily. Tradional ways of waste management in the city also play greater role to manage the city's waste. KMC has been working to emphasis on 3R principle and given a high priority on the recommendation made by different seminars, workshops and international declarations. KMC is committed to implement an efficient solid waste management system in Kathmandu which is enironmentally sound, cost effective and suitable to local condition. KMC is also promoting waste mnimization activities like maximizes recycling and reusing.

Current Situation:

KMC faces a great challenges to maintain Kathmandu city clean to the best of its capacity. Since many years, KMC has been working to promote public and community participation in 3R activities. KMC has established Community Mobilization Unit under Environment Management Department to help promote 3R activities like demo of compost productions (selling Compost Bins), providing training for communities, local residents, school/campus students, journalist on composting, rooftop gardens, vermi-composting, cardboard composting. CMU is also promoting 3 R activities by establishing community recycling centers and encourage people, school childrens in reducing waste at source and recycling, reusing of materials. Generally, most of the solid waste generated in Kathmandu city are directly transported to the lan dfill site. Waste seperation activities are rarely done. Current Solid Waste Management Act. 2068 prolonged as to introduce waste seperation at source and each household, resturants, institutions etc must comply the law. Sucecessful implementation of 3R activities in Kathmandu is to proper management of 475 tons of daily waste generated. About 63% of organic waste / biodegradable waste and 17% of inorganic waste/nondegradable waste produced in Kathmandu's waste. It depends upon the location, time and seasons, Following are the state of waste composition.

Waste Categories & Quantities



Due to weak technical and financial capability of EMD in KMC, EMD therefore is unable to respond to the new and emerging challenges related to waste management. Basically the waste handling activities in KMC are getting older and are therefore not in a position to be manage current generated waste. Basically the management and operation of landfill site (Final disposal site) in Okharpauwa and Sisdoile area are frequently obstructed due to this reason which leads to difficulty in smooth operation of landfill site. Once the smooth operation of landfill site in obstructed, it has multiplies effects from collection, transportation, operation of transfer station etc. KMC, therefore planning to introduce new types of technology as a pilot project from small amount of waste. With the technical and finacial support from different organizations, KMC is implementing waste to engery (Gas) from organic waste, autoclaving for hospital waste.

With the financial support from European Union, KMC, Practical Action Nepal, CIUD has initiated 3R activities through PRISM project like plastic Handicrafts making, Plastic Bottle Cursing Enterprises, Paper Recycling Enterprises, Sack making business, waste collection and selling enterprise, Paper collection and selling business, small scap collection centere at tekun and Shor making Enterprises.

With the development and propagation of the 3Rs principle, KMC has substantially increased its response to the growing solid waste problem in the basis of the principle of 3R. A study done in 2009 concluded that Kathmandu residents produce 300 gm of garbage per person per day

Collection Data:

KMC (Population : 1,150,000 (2011))	
Waste generation	345 ton/day
Waste Generation	300 grams/person
Waste from V.D.C.	40 ton/day
Waste from floating population	35 ton/day
Recycling/composting/Reuse	50 ton/day
Uncollected waste	5 ton/day
Average waste collected per day	420 ton/day
Efficiency	88 %
Total waste generation	475 ton/day

KMC Environment Management Department (EMD) initiated massive campaign with an aim of making its inhabitants aware of the danger of increasing waste production and its dumping and disposing instead of recycling. KMC, EMD came forward as the main proponent and active implementer of the 3Rs initiatives. KMC has played and is playing a pioneering role in conveying messages such as

1. Waste is a raw material usable for economic development.
2. Reuse and recycling of waste is environmentally the most sound way of managing waste
3. It saves precious landfill space and reduces pollution.
4. The collection and use of local scrap materials spurs economic development and job creation.

Recycling is especially relevant for Kathmandu because most Kathmandu generated waste is recyclable and recycling technologies appropriate to the waste generated are readily available in Nepal. About 63% of Kathmandu's waste is organic, which can easily be converted to compost. Similarly metal, paper and plastic can also be recycled locally. However, many people are still not practicing these simple measures either because they are unaware of them or they are not motivated enough. For example, waste minimization through 3R principle is well known to many people in Kathmandu. But when the time of applying this principle comes people usually try to forget them making many excuses like there is no time or it is inconvenient.

We have several NGOs/CBOs that are actively working on 3R activities round the clock in Kathmandu. They often fail to fit in the bigger picture due to lack of communication, networking and other factors. In the context of Kathmandu city, collecting, sorting, trading and recycling of disposal materials provide income to many people and are usually conducted by scavengers. They usually work parallel to the formal solid waste management system but only in an informal way. NGOs/CBOs have been involved in various SWM activities including collection services, awareness, and 3R activities. Most of the NGOs/CBOs have carried out small-scale 3R activities at the community- or town- levels, which can contribute to community mobilization to some extent. However, the majority of them faces financial problems and cannot expand

their activities nor ensure sustainability. Some of them have collaborated with CMU at the program or 3R activity levels.

KMC Strategy for 3Rs Activities

Presently, most of our waste are dumped at landfill site in other hand recycling industries suffer from the lack of raw materials. KMC is committed to change this situation and maximize 3R of Kathmandu's waste. The following table gives the basic strategies of 3R activities for Kathmandu City:

3R	Reduce	Reuse	Recycle
<i>Basic Concept</i>	<i>To minimize generated or discharged waste</i>	<i>To use goods or materials which still can be used a number of times</i>	<i>To recover waste as raw materials and use it for productions</i>
Local people (Generation source)	- to use own bag for shopping in order to avoid taking another bag from the shop	- To think of an alternate utilization of goods before disposal - repair of broken goods - to hand unnecessary goods over to somebody who needs them	-home/community composting of organic materials - separation of waste (paper, metal, can, glass, bottles, used paper) to provide them to individual recycles
NGOs/CBOs	- promotion of 'reduce' activities in cooperation with municipalities e.g. plastic bags	- promotion of 'reuse' activities e.g. holding of flea markets, implementation of public awareness campaigns.	- conducting home composting training - Implementation of community based composting activities - collection of recyclable materials to sell scarp dealers - promotion of recycled goods to be used e.g. products from milk packages, compost
Private Sectors	- coordination with municipalities	- promotion of reusable materials to the market - activation of wholesale market for reusable goods	- Activation of recycling businesses - collection of recyclable materials to sell or recycle - Expansion of market for compost and recycle goods
SWMTC /KMC	- Consideration of policy level strategy - Conducting of public awareness campaigns/ exhibitions	- Promotion of 'reuse' activities e.g. support of the related activities, conducting of exhibitions	- Promotion of recycling home/community composting activities e.g. conducting of composting training, sale of compost kits and public awareness, expansion of recycle market - Operation of recycling centers - Coordination with private sectors and NGOs/CBOs



Current Status - Major components of 3R activities for improving Kathmandu's waste management:

There is an urgent need of improving Kathmandu's waste management by promoting the concept of waste management at the local level through waste reduction, reusing and recycling at the source. Establishment of Community Mobilization Unit (CMU) plays a vital role in initiating 3R activities in Kathmandu city. It has initiated various activities related to reduce, recycle and reuse in partnership with citizens, schools, community groups and other organizations.

To improve Kathmandu's waste management system, some programmes have been launched by participation of women and children to bring about positive thinking in household waste and 3R management practices. Some of them are as follows:

- School Programme:
- Community Participation and Training programme:
- Public Awareness Campaign:
- Public Exhibitions
- Formation of Ward Environment Committees (WECs)
- Formation of Nature Clubs in Schools
- City Volunteers
- Compost-Bin
- Community recycling Centre

Conclusion:

With these all activities, KMC is promoting 3R programs in Kathmandu city, Realizing the vital role of the 3R, KMC therefore in the process of developing local level strategies and cooperation with different organizations. Lessons learned from different countries and cities of reducing waste management as a economic benefits of the respective countries and cities. The cooperation and partnership between regional forum, international workshop, cities have received valuable suggestions and recommendation on 3R. I hope the upcoming regional 3R forum in Surabaya, Indonesia enhanced awareness and insight to the importance of Hanoi Declaration (2013-2023). KMC has allocated about one million rupee for the internalization of 3R in this current fiscal year 2013/2014. KMC also trying to establish a leaning center for all local authorities, ngo/cbo's and other organizations.