

Sixth Regional 3R Forum in Asia and the Pacific

“3R as an Economic Industry - Next Generation 3R Solutions for a Resource Efficient Society and Sustainable Tourism Development in Asia and the Pacific”

Malé, Maldives, 17-19 August 2015

City Report

(Draft)

<Dhaka North City Corporation>

This city report was prepared by Dhaka North City Corporation as an input for the Sixth Regional 3R Forum in Asia and the Pacific. The views expressed herein do not necessarily reflect the views of the United Nations.

City Report [City Name: Dhaka North City Corporation]

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Next Generation 3R Solutions for a Resource Efficient Society and sustainable tourism Development in Asia and the Pacific

Guideline for City Reporting on Major Initiatives/Achievements in 3R areas

The main objective of the City Reporting is to share among international community the progress, achievements and best practices, including various challenges faced, in the areas of 3R (Reduce, Reuse, Recycle), and sustainable waste management. This would help development agencies, donors, including development banks, in assessing the needs and challenges of cities to better devise their existing as well as future capacity building programmes and operations in the field of 3Rs and sustainable waste management.

It would be appreciated if a consolidated city report could kindly be prepared by answering the following questionnaire (7 Questions in total) and submitted to the secretariat of the Regional 3R Forum in Asia and the Pacific by email to 3R@uncred.or.jp.

Timeline for submission : 17 July 2015

Secretariat of the Regional 3R Forum in Asia and the Pacific
United Nations Centre for Regional Development (UNCRD)

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Q 1	<p>What are the roles of local government stipulated in the 3R-related policies, acts, laws, or regulations?</p> <p>National Environmental Policy 1992 , National Policy for Safe Water Supply and Sanitation 1998, Urban Management Policy Statement 1998, National Agriculture Policy 1999, National CDM strategy 2005 & National Urban Sector Policy 2006, Bangladesh Climate Change Strategy and Action Plan 2009, National 3R strategy highlights the need of Waste reduction and Recycling. Ministry of Local Government has endorsed the 3R strategy by preparing action plan with short-term, mid-term and long-term targets. Some of the guiding principle of the 3R related activities of local government are:</p> <ul style="list-style-type: none">(i) The local government authorities can promote and implement 3R strategies by initiating projects and activities in collaboration with international partners and donors.(ii) Arrange required infrastructure facilities/ finances to implement the 3R strategy.(iii) Take initiative for the market of recyclable products(iv) Accommodate the informal sector in 3R activities
Q 2	<p>Is 3R policy integrated in your city development strategy or master plan? (Please attach Photo(s) of your city's waste management if available.)</p> <p><input checked="" type="checkbox"/> Yes=Please share goals/visions/major achievements/important lessons learnt that could be replicated elsewhere.</p> <p><input type="checkbox"/> No=Please go to Q6 (Please also answer Q4, 5 and 7)</p>

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	<p>Based on the National 3R Strategy, Department of Environment has taken a 3R Pilot project which includes source-segregation at households and composting of organic wastes. Under the Climate Change Trust Fund of Government of Bangladesh, Department of Environment has taken a programmatic CDM project in 64 districts where organic wastes will be composted. In first phase, four composting projects in Narayangonj, Mymensingh, Gazipur and Cox's Bazar are being implemented. In response to the National 3R Strategy, six City Corporations under the Urban Public Environmental Health Sector Development Project (UPEHSDP) funded by ADB, composting plants (20 tons/day) will be constructed as part of the Integrated Waste Management Project. In the Urban Governance Infrastructure Improvement Project (UGIIP-III), in 30 municipalities composting projects (1 to 5 tons/day) will be constructed. Under UNICEF funded Environmental, Sanitation and Hygiene and Water Supply Project in urban slums and fringes project, 11 compost plants have been constructed. In Baridhara residential area, with the technical support of Swiss Contact source segregation at household and composting of organic waste initiative has been taken. In a European Union supported project SUNYA-Towards Zero Waste in South Asia, a pilot project has been taken of closing the loop of organic material by rotary composter, rooftop gardening and rainwater harvesting.</p> <p>Please attach photos with caption if available:</p>				
<p>Q 3</p>	<p>What are the major challenges and constraints faced by your city in implementing 3R policies and programmes? (Please answer only if your answer to Q2 is "Yes")</p> <table border="1" data-bbox="288 1137 1525 2002"> <tr> <td data-bbox="288 1137 711 1704"> <p>Financial constrains:</p> </td> <td data-bbox="711 1137 1525 1704"> <p>Capital and Operational cost is high</p> <p>Organic products to compete with highly sub-sidized chemical fertilizers</p> <p>Revenue and cost recovery is slow</p> <p>Market size is small</p> <p>Economy of scale</p> <p>, weak market demand for compost and lack of awareness among farmers on benefits of using compost</p> </td> </tr> <tr> <td data-bbox="288 1704 711 2002"> <p>Institutional/governance challenges:</p> </td> <td data-bbox="711 1704 1525 2002"> <p>Land scarcity for waste processing and disposal in city areas</p> <p>People resistance to set up waste related facilities</p> <p>Municipal staff lacks knowledge and skill in waste reduction and recycling.</p> <p>Local Government priority is towards landfill as it is the</p> </td> </tr> </table>	<p>Financial constrains:</p>	<p>Capital and Operational cost is high</p> <p>Organic products to compete with highly sub-sidized chemical fertilizers</p> <p>Revenue and cost recovery is slow</p> <p>Market size is small</p> <p>Economy of scale</p> <p>, weak market demand for compost and lack of awareness among farmers on benefits of using compost</p>	<p>Institutional/governance challenges:</p>	<p>Land scarcity for waste processing and disposal in city areas</p> <p>People resistance to set up waste related facilities</p> <p>Municipal staff lacks knowledge and skill in waste reduction and recycling.</p> <p>Local Government priority is towards landfill as it is the</p>
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		<p>cheap means of waste disposal.</p> <p>Complicated and time-consuming licensing procedure</p>
	Policy gaps:	<p>Solid waste management is a neglected service in urban development.</p> <p>There is no legislative framework or rules for scientific management of municipal solid waste so far and it is left to the municipal authorities to manage their waste as they like. Targets in the 3R strategy are not realistic. Capacity of the municipality was not assessed; consultation with the stakeholders was not done adequately.</p> <p>Budgetary allocation was not considered in preparing the strategy..</p> <p>Weak regulatory enforcement systems with poor monitoring capabilities to ensure proper waste management system and standard</p> <p>Community participation is confined to waste delivery from households and paying service charge. Community residents are not willing to take the responsibility of the 3R activities.</p>
	Other challenges such as technical capacity, human resources etc.:	<p>Technological developments & innovations</p> <p>Design, size and scale of operation</p> <p>Cultural behavior, attitude and value</p> <p>Lack of awareness on benefits of waste reduction and recycling</p> <p>Source-segregation is a difficult task</p>
Q 4	What programme is in place in your city to support NGOs activities towards promotion of 3Rs?	
		Market waste supply to Composting plant of Waste WWR & Waste Concern
Q 5	Is there any collaborative 3R related activity/project/partnership with cities and organizations at international level?	
		<ul style="list-style-type: none"> ▪ √Yes = Please brief the project(s) including objectives, project partners, target, period, budget etc. ▪ No

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Please attach photos with caption, if available:

Pilot project Name: **Introduction of 3R (Reduce, Reuse and Recycle) principles in the Banani kitchen market**

Project Name: **SUNYA-Towards Zero Waste in South Asia funded by European Union**

Budget for the pilot project: **US\$3000**

Objective of the pilot project: Closing the loop for organic material from the market and immediate surroundings

Approach: There is lot of organic wastes generated in the kitchen market. However, due to lack of organized collection of waste, waste has been found in the internal drains and walking spaces of the market. This clogs drains, obstructs movement of the customers and creates filthy environment in the market. The wastes are collected and disposed of in the nearby secondary storage containers. The organic wastes generated in the kitchen market could be utilized to make compost. With the idea of waste recycling, a concept was developed for making compost from the organic wastes by a rotary composter on the roof top of the market building. The components of the project are: (i) Organizing waste collection in the market area by providing bins ii) Producing compost from the organic wastes generated in the kitchen market and the surrounding areas on the rooftop of the building iii) Use the compost in the Roof-top garden iv) Arrangement of rainwater harvesting for watering the plant.

Implementation of the pilot project: Two rotary perforated drums with steel blades inside for cutting the wastes in small pieces and facilitating forced aeration are placed in a steel frame. After 7 days, the wastes are transferred into perforated vertical drums with passive aeration facilities. Wastes are kept in the drums for 20 days, mixing cowdung and water and turning the wastes by moving the plastics pipes. At the end of 20 days, when the composting process is completed, the composts take out from the drums and keep for maturation for 3 days. After that, compost is used in the garden. Roof top garden is prepared with fruit and flower plantation. Rainwater harvesting arrangement is made for watering the garden.

Results/Outcomes

- Market wastes are collected and taken up to roof top for composting
- Market place is found cleaner than before
- Establish a beautiful garden on the roof top for promoting greening the roof

- Roof of the top floor is cool.
- Rainwater is harvested and utilized to some extent.
- Fresh fruit and flower are harvested.

Challenges

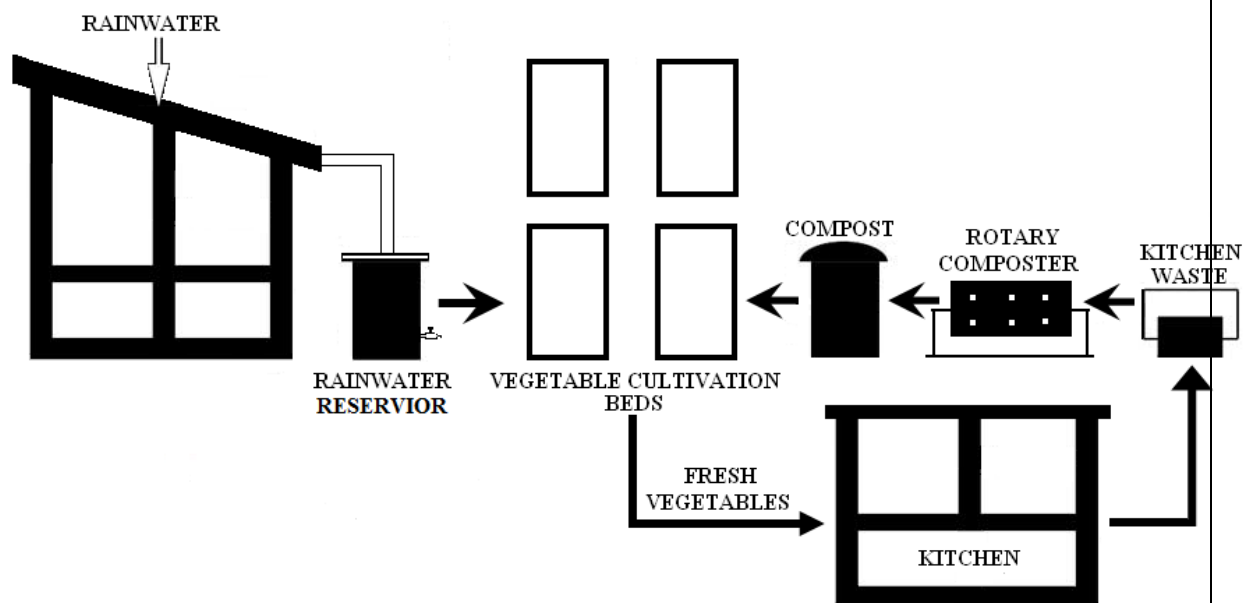
- Initial perception of the authority of making the roof dirty, put extra load on the roof and damage the roof etc.

Sustainability

One garden supervisor and a gardener of DNCC has been involved in the composting process and nursing the garden. They are paid by DNCC.

Replication

This concept is well accepted and can be replicated in the office and residential building.



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Q 6	Even if your city doesn't have any dedicated 3R policies/programmes/ activities, what future prospects or opportunities does your city have in 3R areas? - We have 3R policies <input type="checkbox"/>
Q 7	What type of 3R infrastructure and facilities your city is equipped with? Please tick the appropriate. <input checked="" type="checkbox"/> Waste collection facility <input type="checkbox"/> Waste segregation facility <input type="checkbox"/> ✓ waste storage facility <input type="checkbox"/> waste processing & treatment facility <input type="checkbox"/> resource recovery facility <input type="checkbox"/> Waste recycling facility <input type="checkbox"/> Eco-industrial zones <input type="checkbox"/> Science parks & theme parks covering 3R areas <input type="checkbox"/> Others (please specify :)