

Eighth Regional 3R Forum in Asia and the Pacific

“Achieving Clean Water, Clean Land and Clean Air through 3R and Resource Efficiency- A 21st Century Vision for Asia-Pacific Communities”

Indore, Madhya Pradesh, India, 9-12 April 2018

City Report

(Draft)

< Rajkot, Gujarat, India >

This city report was prepared by Rajkot, Gujarat, India as an input for the Eighth Regional 3R Forum in Asia and the Pacific. The views expressed herein do not necessarily reflect the views of the United Nations.

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CITY REPORT: [City Name: Rajkot, Gujarat]

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 plan their existing and 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 questions and submit to the **Secretariat of the Regional 3R Forum in Asia and the Pacific** by email to 3R@uncrd.or.jp

Timeline for submission: **30 March 2018**

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

CITY REPORT: [City Name: Rajkot, Gujarat]	
Q 1	What are the roles of local government stipulated in the 3R-related policies, acts, laws, or regulations?
	<p>Currently, in India, 3R related strategies are incorporated in various waste management rules such as Solid Waste Management Rules 2016, Plastic Waste Management Rules 2016, E-Waste Management Rules 2016. These national policies and regulations determines the specific duties and roles of local urban body, state government body and central government. Out of which, the role of local urban body is the most important in implementing the policies in the city.</p> <p>As stated in Solid Waste Management Manual 2016, Waste minimisation or reduction, waste reuse, and waste recycling practices (3Rs) have a significant impact on the waste composition and quantities of waste to be handled and disposed. ULBs should therefore plan for an effective IEC campaign to promote the concept of 3Rs to minimise waste generation.</p> <p>Decentralised approaches for treatment and disposal of waste will also reduce waste quantities to be transported and handled as compared to centralised plants and should therefore be included in the Municipal Solid Waste Management plan, wherever appropriate.</p> <p>I. Reduce: Buy only what you need because a better way to reduce waste is by not creating it. II. Reuse: If you have to acquire goods, try getting used ones or obtaining substitutes. III. Recycle: When discarding your waste, find ways to recycle it instead of letting it go to landfill.</p> <p>RMC has taken following steps through notifications or legalizing policy framework with strict enforcement of 3R related strategies.</p> <p>For Reduce:</p>

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	<ol style="list-style-type: none"> 1) Optimum utilization of paper by encouraging printing on both sides. 2) Promoting use of cloth products instead of plastic or paper products in day to day purpose. 3) Encouraging the shift towards digitalization of data thereby reducing the use of paper. 4) Enforcing through a ban over the use of plastic bags in shopping areas to reduce the waste generation across the city. <p>For Reuse:</p> <ol style="list-style-type: none"> 1) Promoting donation of discarded or not in use items instead of throwing away. 2) Issuing of public notice in local newspapers while promoting the innovative concepts such as setting up thrift stores for collection of not-in-use items, refurbishing it and re-selling the same products at lower price at ward level. 3) Donation of use text books and novels in library. 4) Reduce the practice of using of disposal items such as plates, spoons, bowls. <p>For Recycling:</p> <ol style="list-style-type: none"> 1) Mandating the use of recycled products across several domains such as construction industry, print media i.e. newspapers, textbooks, journals etc. 2) Setting up strong informal sector chain (rag pickers, tipper vans drivers etc) and linking it with the local government strategy of waste management thereby allowing the informal sector to sell the recyclables products to kabadiwallas. 3) Making strategies for setting up facilities for decentralized waste treatment/recycling/processing. 4) Setting up incubation centers for research development, capacity building over the subjects of 3R's.
Q 2	<p>Are 3R policies integrated in your city development strategy or master plan? (Please attach photo(s) of your city's waste management facility if available.)</p>
	<p><input 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 Q7 (please also answer Q5, 6, and 8)</p> <p>No, 3R policies are not directly integrated in the city's development plan. However, some of the aspects of 3R's is indirectly integrated in the city culture through traditions and income demography.</p> <p>Also, RMC is planning to implement 3R's under City Sanitation Plan in the future.</p> <p>Please attach photos with caption, if available:</p>
Q 3	<p>What are the major challenges and constraints faced by your city in implementing 3R policies and programmes?</p> <p>(Please answer only if your answer to Q2 is "Yes")</p>
	<p>Financial constraints: NA</p>

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	Institutional/governance challenges:			
	Policy gaps:			
	Other challenges such as technical capacity, human resources etc.:			
Q 4	What program is in place in your city in support of NGOs activities towards promotion of 3Rs?			
	RMC has independent IE&C Cell for campaigning, promoting and making the strategies for various awareness related activities in the city and implementing them successfully to achieve the goals in corporation with SHGs, and NGOs and help them promote and implement the initiatives.			
	Currently, RMC IE&C cell is actively implementing the fortnightly thematic drives and other activities scheduled by Ministry of Housing and Urban Affairs under Swachh Bharat Mission.			
Q 5	Is there any collaborative 3R activities/projects/partnerships involving cities (e.g., city-to-city cooperation) and organizations at international level?			
	<input type="checkbox"/> Yes => Please brief the project(s) including objectives, project partners, target, period, budget etc. <input type="checkbox"/> No			
	No, currently no such collaborations have been made with international organizations. However, RMC is open to explore the opportunities for the same towards sustainable development.			
	Please attach photos of the project (s) with caption, if available:			
Q 6	What major prospects or opportunities does your city have in 3R areas?			
	In 2016, to implement SWM Rules 2016 and complete the projects in the given timeframe, RMC created a new department/ cell called as “WOW Cell” (Wealth out of Waste Cell) to explore the innovative technologies and ways to generate revenue out of waste and to introduce new methods to handle the waste.			
	Since FY 2016-17, RMC has also introduced SWM user charges in the property tax bill paid by residential and commercial properties of the city. The specialized user chargers are helpful to Corporation as those funds are useful in improving the SWM facilities in the City.			
	Independent IE&C Cell of RMC is a unique opportunity and a platform for creating awareness and capacity building; developing a scientific culture of source segregation, waste reduction and reuse of the materials and thereby strengthening the implementation of 3R policies among the communities.			
Q 7	What type of 3R infrastructure and facilities your city is equipped with? Please tick the appropriate.			
	Type of 3R infrastructure and	Adequate/	If adequate, how	Not-adequate /

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facilities	Significant	many treatment facilities (in number)	Non-significant
<input type="checkbox"/> waste collection facility	✓	100% coverage of the residential and commercial areas. Total 284 mini tippers running across the city.	
<input type="checkbox"/> waste segregation facility	✓	Provision of Household and commercial level dustbins for promoting source segregation	
<input type="checkbox"/> waste storage facility	✓	Intermediate Storage and Transfer Facility i.e Refuse Transfers Stations at K.S. Diesel and Raiyadhar.	
<input type="checkbox"/> waste processing & treatment facility	✓	2 Nos. Waste to Compost plants (5 TPD each) and 1 No. Biomethanation plant (5 TPD). In total, 15 TPD plants and two Organic Waste Converter of 200kg and 400kg respectively.	
<input type="checkbox"/> resource recovery facility			x
<input type="checkbox"/> waste recycling facility			x
<input type="checkbox"/> waste to energy facility			x
<input type="checkbox"/> eco-industrial zones			x
<input type="checkbox"/> science parks/theme parks relevant to 3R			x
<input type="checkbox"/> others (please specify:)			x

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Q 8	Kindly provide the important 3R policies/programmes/projects/master plans that your City Government plans to undertake within next five years (2017-2022).															
	<p>Decentralized approach towards waste management is one of the important strategies towards achieving 3R's initiative in the city. A decentralized system reduces cost incurred for the collection, transportation and disposal of waste by the urban local bodies. While planning for decentralized systems, adequate care should be taken to ensure that these systems are an integral part of the larger solid waste management strategy of the city.</p> <p>RMC has already taken steps towards establishing decentralized system for municipal solid waste recycling/ treatment. One Biomethanation plant is currently constructed at 80 feet road, RMC center store and is running successfully as a model project. Also, two 5 TPD waste to compost plants are already given and work has already been started. Another 17 such decentralized plants (waste to compost plant) are projected to be implemented by 2019 under Swachh Bharat Mission.</p> <p>RMC has installed two OWC (automatic) plants in RMC gardens i.e. at race course garden and Jubilee garden as a model project for the treating the waste generated by bulk waste generators. This pilot project is running successfully.</p> <p>Also, RMC has planned on establishing plastic waste, construction and demolition waste, E-Waste recycling plants on PPP mode in the city. RMC has already awarded waste to energy project of 600 TPD to a private agency which will be commissioned by 2019.</p>															
Q 9	<p>In response to the 2030 Agenda for Sustainable Development, in particular <i>SDG 6 (Water and Sanitation)</i>, <i>SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable)</i> and <i>SDG 12 (Ensure sustainable consumption and production patterns)</i>, how your City is planning to advance 3R and resource efficiency related measures?</p> <p>India's national development goals and its "sab ka saath, sab ka vikas" or "development with all, and for all," policy initiatives for inclusive development converge well with the SDGs. Schemes such as Swachh Bharat Mission (SBM), Pradhan Mantri Awas Yojana (PMAY), Atal Mission for Rejuvenation and Urban Transformation (AMRUT) etc. aims at achieving the targets of SDGs. RMC is diligently working on all these schemes to achieve affordable housing, inclusive development, safe, resilient and green surroundings, sanitation and Open Defecation free status and IE&C for Solid Waste Management which are part of SDG 6, SDG 11 and SDG 12.</p>															
Q 10	<p>What are the main challenges in your city concerning clean water, clean land and clean air? (Please answer the below points)</p> <table border="1" data-bbox="280 1570 1435 1898"> <thead> <tr> <th data-bbox="280 1570 857 1682"></th> <th data-bbox="865 1570 938 1682">Yes</th> <th data-bbox="946 1570 1320 1682">If yes, kindly write frequency of analyzing (number per month)</th> <th data-bbox="1328 1570 1435 1682">No</th> </tr> </thead> <tbody> <tr> <td data-bbox="280 1682 857 1793">Do you regularly analyze the air pollution in laboratories (NOx, air particles and other pollutants)?</td> <td align="center" data-bbox="865 1682 938 1793">✓</td> <td data-bbox="946 1682 1320 1793">30(Daily basis)</td> <td data-bbox="1328 1682 1435 1793"></td> </tr> <tr> <td data-bbox="280 1793 857 1898">Do you regularly analyze the water contamination through chemically and biologically test (DO, heavy metal and</td> <td align="center" data-bbox="865 1793 938 1898">✓</td> <td data-bbox="946 1793 1320 1898">30(Daily basis)</td> <td data-bbox="1328 1793 1435 1898"></td> </tr> </tbody> </table>					Yes	If yes, kindly write frequency of analyzing (number per month)	No	Do you regularly analyze the air pollution in laboratories (NOx, air particles and other pollutants)?	✓	30(Daily basis)		Do you regularly analyze the water contamination through chemically and biologically test (DO, heavy metal and	✓	30(Daily basis)	
	Yes	If yes, kindly write frequency of analyzing (number per month)	No													
Do you regularly analyze the air pollution in laboratories (NOx, air particles and other pollutants)?	✓	30(Daily basis)														
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	microbial water quality)?			
	Do you regularly analyze the soil pollution (disposal of hazardous and chemical waste)?			*
Q 11	In response to the New Urban Agenda, in particular <i>Sustainable and inclusive urban prosperity and opportunities for all</i> and <i>Environmentally sustainable and resilient urban development</i>, how your City is planning to contribute to safe, inclusive and resilient city building related to 3R and sustainable waste management areas?			
	RMC is planning to adopt and implement integrated waste management systems, including low cost waste disposal site designs, semi-aerobic landfills suitable ward-wise towards achieving New Urban Agenda.			
Q 12	[For Indian cities only], how is your city linking 3R (Reduce, Reuse and Recycle) to the Swachh Bharat Mission (Clean India Mission)? Do you think circular economic utilization of all waste streams in India would accelerate faster achievement of Swachh Bharat Mission? If so, is your city equipped with required 3R policies, programmes and infrastructures towards circular economic utilization of the waste streams?			
	<p>Yes, we believe circular economic utilization of all waste streams in India would accelerate faster achievement of Swachh Bharat Mission.</p> <p>Indian culture, unlike some western culture, has always promoted the 3R's i.e. reduce, reuse and recycle through its utilitarian attitude of optimally using the products till the end of its life-cycle. Recyclable waste with a value attached have been sold to the authorized dealers such as pastiwala and kabadiwallas.</p> <p>However, with the improvement of standard of living, there is a drastic change in urban lifestyle, utilitarian Indian culture and hence the amount of waste generated is increasing at an alarming rate. Thus, to retain the circular economic utilization of all the waste generated in the system, it is necessary to promote, manage and handle the waste through effective framework and by including informal sector in the main stream. Informal sector in waste management industry has always played a major role in India. Resource recovery in most developing countries relies heavily on informal workers, who collect, sort, and recycle 15-20% of generated waste.</p> <p>RMC has integrated and authorized rag pickers under Swachh Bharat Mission initiative thereby streamlining the recyclable waste collection system.</p> <p>Also, RMC has planned on promoting the use of recyclable products thereby bringing the waste back in the circular system.</p>			

*Kindly submitted to the Secretariat of the Regional 3R Forum in Asia and the Pacific by email to 3R@uncrd.or.jp before **30 March 2018**.
Thank you for your kind cooperation.*