Seventh Regional 3R Forum in Asia and the Pacific
"*Advancing 3R and Resource Efficiency for the 2030 Agenda for Sustainable Development*"
Adelaide, SA, Australia, 2-4 November 2016

City Report

(Draft)

< Chandigarh Municipal Corporation>

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

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 and submitted to the **Secretariat of the Regional 3R Forum in Asia and the Pacific** by email to 3R@uncrd.or.jp

Timeline for submission: **15 September 2016**
Secretariat of the Regional 3R Forum in Asia and the Pacific
United Nations Centre for Regional Development (UNCRD)

City Report [City Name: CHANDIGARH]

Q 1	**What are the roles of local government stipulated in the 3R-related policies, acts, laws, or regulations?**

SEWERAGE:

- Byelaws related to water supply have been notified by the Chandigarh Administration. These byelaws have been amended in 2015 for better implementation of 3R-related policies in Chandigarh wherein
    - the use of Tertiary Treated water has been made compulsory in all houses/institutions having area 1 kanal (500 sqyard) and above within three months otherwise penal rate will be charged. This has been done to promote the use of Tertiary Treated water and save the precious potable water.
    - all vehicle service stations are now required to install shallow tubewells in their premises at their own cost, which will help in saving the potable water
- All the parks, Green belts in all sectors in Chandigarh are being developed and maintained by using Tertiary Treated water.

SOLID WASTE:

- 3R related policy is being carried out as per the provisions of Municipal Solid Waste (Management & Handling Rules, 2016.(copy enclosed).
- The Municipal Solid Waste is collected by informal segment (waste collectors). They segregate and sort out the inorganic components like polythene, paper, cardboard, metal, glass etc. and sell items at their own level in Kabari Market for their daily earnings. The left over MSW is then carried out through cycle carts to the nearby Sehaj Safai Kendra/garbage bin from where it is transported by fast moving vehicles

	i.e. Dumper Placers to the Garbage Processing Plant. • In its endeavour to ensure segregation at source, the Municipal Corporation is starting segregation of waste at the household level in four sectors i.e. 48, 49, 50 and 51. The Municipal Corporation is provided coloured coded bins for the segregation of waste. **Outer and Inner view of Sehaj Safai Kendra**  • To process the garbage, a Garbage Processing Plant having capacity of 500 MT was commissioned in May 2008 to process the garbage and produce RDF (Refused Derived Fuel). The Plant was allotted 10 acres of land on lease for a period of 30 years on BOOT basis. The Garbage Processing Plant processes MSW into RDF (Refuse Derive Fuel) and the inerts are transported back to the Sanitary Landfill.  **BUILDING WASTE:** Planning is being done to make a policy for the reuse of Construction and Demolition waste (C&D).
Q 2	**Is 3R policy integrated in your city development strategy or master plan?** (Please attach photo(s) of your city's waste management if available.)

■ Yes => Please share goals/visions/major achievements/important lessons learnt that could be replicated elsewhere.

☐ No => Please go to Q6 (please also answer Q4, 5, and 7)

Please attach photos with caption, if available:

SEWERAGE:

SOLID WASTE:

Not yet, but we are in the process of setting up a Unit for the production of Crude Oil from Plastic waste. To process the Organic Waste i.e. Vegetable market Waste and Hotel waste, a Biomethanation Plant has already been constructed and will start functioning soon and there is also proposal to construct another Biomethanation Plant. The methane gas so generated will be utilized to generate electricity. The total expenditure on one Biomethanation Plant will be Rs. 1.00 crore.


Door to Door Collection on Cycle Carts
M.S.W Management: CHANDIGARH
Waste Processing Unit
Segregation at the bin or at Sehej Safai Kendra
Collection vehicles pick garbage bins from SSK's
SEHAJ SAFAI KENDR
SECTOR 44-D, CHANDIGARH
JOINT VENTURE
OF
CENTRAL POLLUTION CONTROL BOAR
MUNICIPAL CORPORATION CHANDIGA
&
CHANDIGARH ADMINISTRATION


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Q 3 **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")

WATER SUPPLY,SEWERAGE AND SOLID WASTE:

Financial constrains:	Operation and Maintenance Cost Recovery is only 54 %
Institutional/governance challenges:	• People are not ready to accept the recycled water, Change in mindset is required for better acceptance • Quality of TT water • High NRW of potable water • Problem of Chemical attack on STP • Public Health Concerns due to Encroachments • Meeting the revised norms of Punjab Pollution control board
Policy gaps:	Better policy for Solid waste Management is required
Other challenges such as technical capacity, human resources etc.:	• 80% Coverage of T.T. water availability • Gaps in TT water supply

City Report [City Name: **CHANDIGARH**]

Q 4 **What programme is in place in your city to support NGOs activities towards promotion of 3Rs?**

- Majority of the parks are being maintained by the Residents Welfare Associations (NGOs) individually.
- Collection of solid waste by NGO's from door steps

	• Segregation of waste by NGO's in SEHAJ SAFAI KENDRA's for further sending to **Garbage Processing Plant**
Q 5	**Is there any collaborative 3R related activity/project/partnerships with cities and organizations at international level?**
	☒ Yes => Please brief the project(s) including objectives, project partners, target, period, budget etc. **Chandigarh is in talks with the FRENCH Govt regarding the various projects on water supply, sewerage and solid waste management.** ☐ No Please attach photos with caption, if available:
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?**
	WATER SUPPLY: o 24X 7 water supply o Reduction of NRW **SEWERAGE:** o To conserve potable water, recycling of waste water is being done and recycled water is being supplied to the green belts/Gardens, neighbourhood parks and houses having more than one kanal area. Efforts are being to have full coverage of TT water supply with quality improvement.in all green spaces. o Upgradation of Treatment plants from present technology to zero BOD STP's, so that the water can also be sold to industries for non domestic purposes. o Construction of new STP at Maloya to enhance the sewerage treatment capacity for future o To explore the potential for using decomposed dried sludge as bio-fuel due to its rich calorific value o To explore the potential for Micro Hydel Projects in STPs in Effluent Channel to tap the unused Potential

<table>
<tr><td></td><td colspan="3">SOLID WASTE:
• Waste To Energy
o To process the Organic Waste i.e. Vegetable market Waste and Hotel waste, a Biomethanation Plant has already been constructed and will start functioning soon and there is also proposal to construct another Biomethanation Plant. The methane gas so generated will be utilized to generate electricity.
o Expression of Interest floated for upgradation of existing plant /New plant for converting waste to energy and evaluation of EOI is in progress. RFP will be floated shortly.
• Waste to Compost-Project Status
o EOI has been floated and evaluation is being done.
• Conversion of Waste Plastic into Fuel Oil
o The project is under process.</td></tr>
<tr><td>Q 7</td><td colspan="3">What type of 3R infrastructure and facilities your city is equipped with? Please tick the appropriate.</td></tr>
<tr><td></td><td>Type of 3R infrastructure and facilities</td><td>Adequate/Significant</td><td>Not-Adequate/ Non-significant</td></tr>
<tr><td></td><td>☐ waste collection facility
☐ waste segregation facility
☐ waste storage facility
☐ waste processing & treatment facility
☐ resource recovery facility
☐ waste recycling facility
☐ waste to energy facility
☐ eco-industrial zones
☐ science parks/theme parks relevant to 3R
☐ others (Recycling of Waste water)</td><td>ADEQUATE
ADEQUATE
ADEQUATE
SIGNIFICANT
SIGNIFICANT
ADEQUATE

ADEQUATE</td><td>☐
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<tr><td>Q 8</td><td colspan="3">Kindly provide the important 3R policies/programmes/projects/master plans that your City Government plants to undertake within next five years (2016-2021)</td></tr>
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Q 9	**In response to the 2030 Agenda for Sustainable Development, in particular SDG 11 (*Make cities and human settlements inclusive, safe, resilient and sustainable*) and SDG 12 (*Ensure sustainable consumption and production patterns*), how is your City planning to advance 3R and resource efficiency related measures?**
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Thank you for your kind cooperation.