

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)

<Shimla, India>

This city report was prepared by Shimla, 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: Municipal Corporation Shimla]

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

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

CITY REPORT: [City Name: <u>Municipal Corporation Shimla</u>]	
Q 1	What are the roles of local government stipulated in the 3R-related policies, acts, laws, or regulations?
	The roles of local government stipulated in the 3R- related policies, acts, laws or regulations are as follows: <ul style="list-style-type: none">• Reduction in the quantity of Municipal Solid Waste generation.• Full scale utilization of the organic component of municipal waste which includes food waste, as a valuable resource.• Achieve significant increase in recycling rate of recyclables (e.g. plastic, paper, metal etc.• Waste Minimization.• Build local capacity of both current and future practitioners.• Promote full scale use of agriculture biomass waste and livestock waste.• Strengthen regional, national and local efforts to address the issue of waste.• Ensure environmentally sound management of e-waste.
Q 2	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.)

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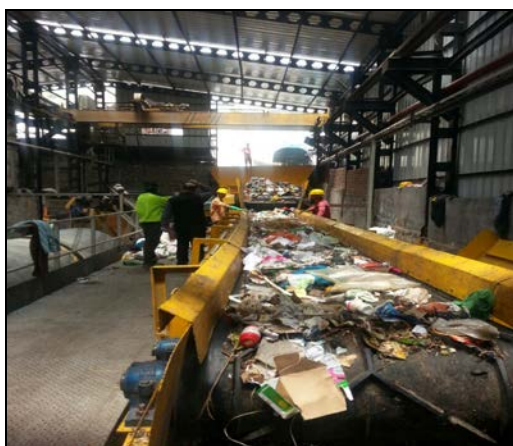
- Yes => Please share goals/visions/major achievements/important lessons learnt that could be replicated elsewhere.
- No => Please go to Q7 (please also answer Q5, 6, and 8)

Yes,

Municipal Corporation Shimla has set up a Waste to Energy Plant based on “Refuse Derived Fuel” (RDF) Technology using “Gasification Technology” through M/s Elephant Energy Pvt Limited on PPP mode. The Waste to Energy plant is based on RDF using “Gasification Technology”.



Panoramic View



RDF Section



Gasifier Section

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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”)	
	Financial constraints:	The project is on PPP mode.
	Institutional/governance challenges:	Being a hilly terrain to find a suitable land site.
	Policy gaps:	-
	Other challenges such as technical capacity, human resources etc.:	There is shortage of human resources in city as very less manpower is interested to do garbage collection work.
Q 4	What programme is in place in your city in support of NGOs activities towards promotion of 3Rs?	
	City involves the various NGOs under Swachh Bharat Mission-U. Various cleanliness and awareness activities were undertaken with the collaborations of NGOs in the city time to time.	
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 Yes Municipal Corporation Shimla has set up a Waste to Energy Plant based on “Refuse Derived Fuel” (RDF) Technology using “Gasification Technology” through M/s Elephant Energy Pvt Limited on PPP mode. The Waste to Energy plant is based on RDF using “Gasification Technology”. Municipal Corporation Shimla has signed a Waste Concession & Land Access Agreement on dated 29 th March, 2016 with M/s Elephant Energy Pvt Limited for setting up of a Waste to Energy Plant. As per agreement, the EEPL has to accept mixed Municipal Solid Waste (MSW) at the processing plant. The Power Purchase Agreement (PPA) between M/s Elephant Energy Private Limited and Himachal Pradesh State Electricity Board Limited was signed on 16-05-2016.	

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Q 6	What major future prospects or opportunities does your city have in 3R areas?			
	The major future prospect is to make Waste to Energy Plant fully functional and sustainable. And identified bulk waste generators are to be equipped with onsite Bio-Composters for onsite organic waste treatment.			
Q 7	What type of 3R infrastructure and facilities your city is equipped with? Please tick the appropriate.			
	Type of 3R infrastructure and facilities	Adequate/ Significant	If adequate, how many treatment facilities (in number)	Not-adequate / Non-significant
	<input type="checkbox"/> waste collection facility	✓	1	<input type="checkbox"/>
	<input type="checkbox"/> waste segregation facility	<input type="checkbox"/>		✓
	<input type="checkbox"/> waste storage facility	✓		<input type="checkbox"/>
	<input type="checkbox"/> waste processing & treatment facility	✓		<input type="checkbox"/>
	<input type="checkbox"/> resource recovery facility	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/> waste recycling facility	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/> waste to energy facility	✓		<input type="checkbox"/>
	<input type="checkbox"/> eco-industrial zones	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/> science parks/theme parks relevant to 3R	<input type="checkbox"/>		<input type="checkbox"/>
<input type="checkbox"/> others (please specify:)	<input type="checkbox"/>		<input type="checkbox"/>	
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).			
	To build sustainable city by encouraging “Zero waste” through sound policies, strategies, institutional mechanisms and multi-stakeholders partnerships with a primary goal of waste minizations .			
Q 9	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?			

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	<ul style="list-style-type: none"> • Maximize co-benefits from waste management technologies. • Enhance national and local knowledge base and research network on the 3Rs and resource efficiency through facilitating effective and dynamic linkages among all stakeholders, private sectors and scientific communities. • Strengthen multi stakeholders partnerships among civil society and the private sector in raising public awareness and advancing the 3Rs sustainable consumption and production and resource efficiency leading to the behavioural change of the citizens and change in production patterns. 															
Q 10	What are the main challenges in your city concerning clean water, clean land and clean air? (Please answer the below points)															
	<table border="1"> <thead> <tr> <th></th> <th>Yes</th> <th>If yes, kindly write frequency of analyzing (number per month)</th> <th>No</th> </tr> </thead> <tbody> <tr> <td>Do you regularly analyze the air pollution in laboratories (NOx, air particles and other pollutants)?</td> <td align="center"><input type="checkbox"/></td> <td></td> <td align="center">✓</td> </tr> <tr> <td>Do you regularly analyze the water contamination through chemically and biologically test (DO, heavy metal and microbial water quality)?</td> <td align="center">✓</td> <td>Chemical Test: Daily Basis Biological Test: Daily Virology Test: Monthly</td> <td align="center"><input type="checkbox"/></td> </tr> <tr> <td>Do you regularly analyze the soil pollution (disposal of hazardous and chemical waste)?</td> <td align="center"><input type="checkbox"/></td> <td></td> <td align="center">✓</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)?	<input type="checkbox"/>		✓	Do you regularly analyze the water contamination through chemically and biologically test (DO, heavy metal and microbial water quality)?	✓	Chemical Test: Daily Basis Biological Test: Daily Virology Test: Monthly	<input type="checkbox"/>	Do you regularly analyze the soil pollution (disposal of hazardous and chemical waste)?	<input type="checkbox"/>	
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Do you regularly analyze the soil pollution (disposal of hazardous and chemical waste)?	<input type="checkbox"/>		✓													
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?															
	The issues will be covered in the Smart City Project sanctioned for the city.															
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															

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	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>The city comprises 100% door to door waste collection, transportation and Scientific disposal facility.</p> <p>Waste to Energy Plant is in PPP mode. Municipal Corporation Shimla has signed a Waste Concession & Land Access Agreement with M/s Elephant Energy Pvt Limited for setting up of a Waste to Energy Plant..</p> <p>The Power Purchase Agreement (PPA) between M/s Elephant Energy Private Limited and Himachal Pradesh State Electricity Board Limited was signed to make project economic viable and sustainable.</p> <p>The Refuse Derived Fuel (RDF) lines are made functional for processing of MSW and MSW is converted into RDF for further generation of electricity. The other equipments like Gasifiers and Engines etc have been installed and the machinery has been tested by M/s EEPL. The Grid Connectivity has also been done through HP State Electricity Board, Limited. It is expected that 1.7 MWH of electricity shall be generated by processing 70 tons/day Municipal solid waste using Gasification Technology.</p>

Kindly submitted to the Secretariat of the Regional 3R Forum in Asia and the Pacific by email to 3R@uncred.or.jp
Thank you for your kind cooperation.