

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)

<Rayong, Thailand>

This city report was prepared by Rayong, Thailand 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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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: **31 January 2018**

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

CITY REPORT: <u>[City Name:Rayong City Municipality]</u>	
Q 1	What are the roles of local government stipulated in the 3R-related policies, acts, laws, or regulations?
	<ol style="list-style-type: none">1) Constitution 20172) Municipal Act 19533) Maintenance of Public Sanitary and Order Act 20174) National Strategy Plan 20 Years(2017-2036)5) 12th National Plan(2017-2021)6) National Waste Management Master Plan(2016-2021) <p>In accordance with Maintenance of Public Sanitary and Order Act B.E.2560(2017)(No.3) decentralized role of waste management to Local Administration Organization(LAOs) under Ministry of Interior, the role of local government is operator for the whole system for waste management. In addition, the action plan “Thailand Zero</p>

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	<p>Waste 2016 as national agenda lead to unlock ,promote and support waste utilization based on 3R waste segregation at source.</p> <p>The government policy also has set renewable energy as national agenda promoted production and utilization of renewable energy by subsidy Adder/FiT. The technology must be appropriated to local condition for implementation by local government. The role of local government is included in decision for e.g. feasibility study , center for recycled waste sorting, recycling industry within 324 waste cluster stations.</p>								
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 checked="" type="checkbox"/> Yes => Please share goals/visions/major achievements/important lessons learnt that could be replicated elsewhere. <input type="checkbox"/> No => Please go to Q7 (please also answer Q5, 6, and 8)</p> <p>Municipal Development had four years Plan(2018-2021) Vision: Green and Prosperous City with Sufficient Economy in 2021 Goals: 1)Sustainable and balance of environment/natural resources under the means of Low carbon City. 2) Reduce pollutants emission which can evaluated by percentage of waste recycling.</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? (Please answer only if your answer to Q2 is “Yes”)</p> <table border="1" data-bbox="289 1486 1445 1890"> <tr> <td data-bbox="289 1486 711 1581">Financial constraints:</td> <td data-bbox="711 1486 1445 1581">No</td> </tr> <tr> <td data-bbox="289 1581 711 1680">Institutional/governance challenges:</td> <td data-bbox="711 1581 1445 1680">Based on “One stop service” policy all process waste management is under Ministry of Interior, pragmatic work and human resources are major challenges.</td> </tr> <tr> <td data-bbox="289 1680 711 1778">Policy gaps:</td> <td data-bbox="711 1680 1445 1778">Waiting for ministerial notification, regulation under the Maintenance of Public and Order Act 2017 clarified implementation.</td> </tr> <tr> <td data-bbox="289 1778 711 1890">Other challenges such as technical capacity, human resources etc.:</td> <td data-bbox="711 1778 1445 1890">Intent to cooperate other cities on technical capacity and training human resources.</td> </tr> </table>	Financial constraints:	No	Institutional/governance challenges:	Based on “One stop service” policy all process waste management is under Ministry of Interior, pragmatic work and human resources are major challenges.	Policy gaps:	Waiting for ministerial notification, regulation under the Maintenance of Public and Order Act 2017 clarified implementation.	Other challenges such as technical capacity, human resources etc.:	Intent to cooperate other cities on technical capacity and training human resources.
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Q 4	<p>What programme is in place in your city in support of NGOs activities towards promotion of 3Rs?</p> <p>e.g. -“Khun Mai Chai Rao Kor” Programme run by Suan Kaew Temple Foundation(about waste recycling in community) - “3R delivery” to collect household waste to stock for segregation lead to minimize utility as raw materials and utilization. - School activities e.g. Waste bank , Zero baht shop.</p>
Q 5	<p>Is there any collaborative 3R activities/projects/partnerships involving cities (e.g., city-to-city cooperation) and organizations at international level?</p> <p><input checked="" type="checkbox"/> Yes => Please brief the project(s) including objectives, project partners, target, period, budget etc.</p> <p><input type="checkbox"/> No</p> <p><u>International Level:</u></p> <p>Urban Environmental Improvement Project Run by City of Kita Kyushu,Japan Objectives : Establishing the 3Rs and Founding recycling-oriented societies. Partners : City of Kita Kyushu ,Rayong City Municipality ,Rayong Provincial Administration Organisation, MapTa Phut Municipality. Period : 2015</p> <p>M2M Project Sponsored by EU - ASIA ECO II PROGRAMME , Objectives :to share experience in environment management between Europe and Asia. Trainning Officers in environment fields. Partners are Viborg Denmark, Zakopane Poland, Rayong city, Ban phe and Ban Chang Thailand. Run by Viborg Commune, Denmark Period : 2008</p> <p><u>National Level :</u> Intention to create City-City which on process of communication.</p> <p>Please attach photos of the project (s) with caption, if available:</p>

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Q 6	What major future prospects or opportunities does your city have in 3R areas?			
	To achieve green and prosperous city with sufficient economy in 2021, our city move on concept to pragmatic work in 3R area e.g. Set up Recovery Center lead to production of goods from waste based on creativity and innovation, Pay As You Throw Project for household by fixed time collection based on general waste while organic waste and/or recycle waste are free of charge for collection.			
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	<input checked="" type="checkbox"/>	Waste collec.truck 18	<input type="checkbox"/>
	<input type="checkbox"/> waste segregation facility	<input checked="" type="checkbox"/>	Haz.Waste 42/Plastic 25/organic 13	<input type="checkbox"/>
	<input type="checkbox"/> waste storage facility	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	<input type="checkbox"/> waste processing & treatment facility	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>
	<input type="checkbox"/> resource recovery facility	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	<input type="checkbox"/> waste recycling facility	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	<input type="checkbox"/> waste to energy facility	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	<input type="checkbox"/> eco-industrial zones	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	<input type="checkbox"/> science parks/theme parks relevant to 3R	<input type="checkbox"/>		<input checked="" 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).			

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	<p>Policy : - Waste segregation at community level.</p> <p>Project :- Construction a resource recovery center.</p> <ul style="list-style-type: none"> - Construction a weighing station - Pay as you Throw <p>Plan : - Preparation 3R master plan connected to climate change under sustainable Development Goals(SDGs)</p>		
<p>Q 9</p>	<p>In response to the 2030 Agenda for Sustainable Development, in particular <i>SDG 6 (Water and Sanitation), SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) and SDG 12 (Ensure sustainable consumption and production patterns)</i>, how your City is planning to advance 3R and resource efficiency related measures?</p>		
	<ol style="list-style-type: none"> 1) Increase green area in city. 2) Feasibility study how to rehabilitate waste water treatment plant and waste water collection system. 3) Rehabilitation an old landfill to be a park dedicated to honorable to Her Royal Highest Princess Maha Chakri Sirindhorn. 4) Construct new weighing station and transfer station within environmental quality standard. 5) Set up surveillance monitor system for air, land and water pollutants by Internet of Thing(IoT) considered proper technology and sharing information about pollutants level to citizen disiminated real time basis as a part of smart city goal. 6) Construct resource recovery center to manage recycle waste. 7) Improvement of collection fee system connected to baseline data of electricity tap water used. 8) Improvement of waste segregation method at community level. 		
<p>Q 10</p>	<p>What are the main challenges in your city concerning clean water, clean land and clean air? (Please answer the below points)</p>		
		<p align="center">Yes</p> <p align="center">If yes, kindly write frequency of analyzing (number per month)</p>	<p align="center">No</p>

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	Do you regularly analyze the air pollution in laboratories (NOx, air particles and other pollutants)?	<input checked="" type="checkbox"/>	The answer related to question 9 which expected realtime results for desiminated to citizen besides, followed the law for regular analysis.	<input type="checkbox"/>
	Do you regularly analyze the water contamination through chemically and biologically test (DO, heavy metal and microbial water quality)?	<input checked="" type="checkbox"/>	The answer related to question 9 which expected realtime results for desiminated to citizen besides, followed the law for regular analysis.	<input type="checkbox"/>
	Do you regularly analyze the soil pollution (disposal of hazardous and chemical waste)?	<input checked="" type="checkbox"/>	The answer related to question 9 which expected realtime results for desiminated to citizen besides, followed the law for regular analysis.	<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?			
	<p>1) Set up database system supported big data analysis.</p> <p>2) Educated people focused on children for waste segregation properly, inspiration awareness and concern as a part of daily life.</p> <p>3) Create activities involved participation of citizen at all level and process of waste management.</p> <p>4) Technology, equipment/instrument and 5G will be a direction in, assessment route for waste collection, and in segregation for better materials for new products lead to Smart City goals.</p>			
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?			

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*Kindly submitted to the Secretariat of the Regional 3R Forum in Asia and the Pacific by email to 3R@uncrd.or.jp before **31 January 2018**.*

Thank you for your kind cooperation.