

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)

< Battambang, Cambodia >

This city report was prepared by Battambang, Indonesia 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: BATTAMBANG MUNICIPALITY

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>Battambang Municipality</u>	
Q 1	What are the roles of local government stipulated in the 3R-related policies, acts, laws, or regulations?
	Battambang Municipality - in conjunction with the Provincial Department of Environment - is responsible for the implementation of the Sub-Decree on Solid Waste Management (1999), which is the sole 3R related act in Cambodia to date. The Municipal council is entitled to promulgate Prakas (regulations) on the local level. No waste management related regulations have come into effect though.
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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	<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>The Municipal Land Use Master Plan, which was approved and promulgated in 2015, does not address 3R-related strategies, objectives and implementation of measures adequately. The reasons are manifold, and described under Q3.</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> <table border="1" data-bbox="272 835 1429 1839"> <tr> <td data-bbox="272 835 698 1024">Financial constraints:</td> <td data-bbox="698 835 1429 1024">From the municipal budget only a small percentage is allocated for 3R-related programs and activities, so that any substantial impact is not to be expected. Larger investments into solid waste management systems (hard infrastructure) under these circumstances are impossible.</td> </tr> <tr> <td data-bbox="272 1024 698 1570">Institutional/governance challenges:</td> <td data-bbox="698 1024 1429 1570">The institutional capacity of Battambang Municipality is weak. Even though the city is responsible for planning of waste management, any implementation (e.g. construction of a new landfill / dump site) is handled by the Provincial Department of Environment. It is apparent that there is a need to clarify the respective roles of municipality and provincial officials and to strengthen the institutional capacity of the city. Decentralization and self-government are still new to Cambodia - the city has rarely made use of their right to manage and control development in Battambang by legally binding regulations (since 2009 not a single Prakas has been promulgated by the council). Furthermore, even if there would be regulations, they would probably face challenges regarding their enforcement by the respective authorities.</td> </tr> <tr> <td data-bbox="272 1570 698 1638">Policy gaps:</td> <td data-bbox="698 1570 1429 1638"></td> </tr> <tr> <td data-bbox="272 1638 698 1839">Other challenges such as technical capacity, human resources etc.:</td> <td data-bbox="698 1638 1429 1839"> <ul style="list-style-type: none"> • lack of human capacity on local level (especially at municipal level); • no access to advanced technology; • limited funding for medium and large-scale 3R operations </td> </tr> </table>	Financial constraints:	From the municipal budget only a small percentage is allocated for 3R-related programs and activities, so that any substantial impact is not to be expected. Larger investments into solid waste management systems (hard infrastructure) under these circumstances are impossible.	Institutional/governance challenges:	The institutional capacity of Battambang Municipality is weak. Even though the city is responsible for planning of waste management, any implementation (e.g. construction of a new landfill / dump site) is handled by the Provincial Department of Environment. It is apparent that there is a need to clarify the respective roles of municipality and provincial officials and to strengthen the institutional capacity of the city. Decentralization and self-government are still new to Cambodia - the city has rarely made use of their right to manage and control development in Battambang by legally binding regulations (since 2009 not a single Prakas has been promulgated by the council). Furthermore, even if there would be regulations, they would probably face challenges regarding their enforcement by the respective authorities.	Policy gaps:		Other challenges such as technical capacity, human resources etc.:	<ul style="list-style-type: none"> • lack of human capacity on local level (especially at municipal level); • no access to advanced technology; • limited funding for medium and large-scale 3R operations
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Q 4	What programme is in place in your city in support of NGOs activities towards promotion of 3Rs?
	<p>The Municipality has a program in place to conduct 3R-related activities. In its' annual budget plan, 500,000,000 Khmer Riel (=125,000 US\$) are allocated for these measures. The City implements certain activities directly: for instance waste bins have been disseminated to every school within Battambang and placed in public spaces such as parks and domestic sidewalks in an attempt to stimulate waste-related behavioral changes of citizens. NGOs and organizations can apply for funding, too. A selection of some of these NGOs, operating in Battambang, and their fields of activities are described below.</p> <p>Battambang Municipality has cooperated with a non-governmental organization named COMPED to pilot a biodegradable waste composting facility. Pre-segregated organic material (collected from the city's various wet markets) is recycled into compost, which is then made available to local farmers in the region (the economy of Battambang province is based on agriculture). As part of this project, Battambang Municipality and COMPED provide 3R-related trainings and awareness workshops (individual waste management, behavioral education) to communities, numerous monasteries and school classes within the city. In the process, recyclables are sorted out and sold. The residues will be disposed of together with other waste at the nearby disposal site. The facility is of small scale: 2 tons of compost are produced per month, where in theory the facilities capacity is 5 tons. Waste from only two out of six markets is processed. Furthermore, the facility is not equipped properly: for the lack of a grinder, larger pieces cannot be processed and are dumped together with other waste.</p> <p>SCM / Canadian NGO cooperates with the Municipality in promoting public awareness regarding solid waste management (among others things, they providing trainings to households).</p> <p>LEAPLIM is commissioned by the Municipality to collect waste and to conduct public awareness programs and activities:</p> <ul style="list-style-type: none">• The have produced a brochure on household waste management and segregation;• Conducted trainings to restaurants and street vendors, selling food in public areas, on waste segregation and packing;• LEAPLIM provided educational workshops on waste segregation and packing of hazardous / infectious waste to hospitals, private clinics and health centers;• Promoted public awareness through media campaign. <p>Furthermore, LEAPLIM works on improving and maintaining the city-wide storm water drainage system and beautification (cleaning of public spaces such as roads, gardens and sidewalks of Battambang Municipality). LEAPLIM is responsible to deal with illegal</p>

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	random dumping.
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 type="checkbox"/> Yes => Please brief the project(s) including objectives, project partners, target, period, budget etc.</p> <p>✓ <input type="checkbox"/> No</p> <p>Please attach photos of the project (s) with caption, if available:</p>
Q 6	<p>What major future prospects or opportunities does your city have in 3R areas?</p> <p>The situation, as it is at the moment, offers a vast amount of opportunities to reduce, reuse or recycle solid waste in Battambang. With the a few reasonable investments, considerable output could be achieved.</p> <ol style="list-style-type: none"> 1) Waste Collection: the current contractor collects only 50 per cent of the mixed household waste, due to various limitations that could be easily overcome (e.g. roads too narrow for waste collection trucks, insufficient number of collecting vehicles). 2) City dump: for the lack of a segregation facility, solid waste of all kind is dumped untreated. A larger number of households are living next to the dumpsite and earn a living by collecting recyclables. This could be formalized by employing these individuals and have them segregate the mixed waste upon arrival and prior to dumping. Afterwards recyclables would be sold for profit, whereas other (hazardous) waste would be stored in a facility to await further treatment. 3) Waste recycling facility: Battambang does not have a waste recycling facility. As of today, recyclables (metal, glass, paper etc.) are collected by private enterprises and sold to the neighboring countries. Often recyclables will even end up at the city dump, which can be blamed to missing segregation procedures and facilities. Segregating the waste at the household level and a dedicated segregation facility (manually by labor work) in conjunction with a waste storage facility would be first steps towards a more sustainable solid waste management. 4) Composting: as described above, the waste segregation and composting facility operates under its capacity limit and is not equipped adequately. Biodegradable material is often dumped with other waste instead of being processed. Output could be easily increased by collecting mixed / pre-segregated waste not only from two but all six local markets and other sources, such as households, as well. Purchasing a grinder would help in increasing the amount of biodegradables that can be processed and would shorten the time required to compost. Both measures together could have a drastic impact on the output of the facility.

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	Public awareness: composting is not practiced. Instead, burning degradable waste is still widely done by citizens. Farmers are not aware of the advantages of organic farming. Increasing public awareness building activities by reaching out to more citizens can make a tremendous difference. A campaign to segregate waste already at home is strongly recommended.			
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 checked="" type="checkbox"/> <input type="checkbox"/> waste collection facility	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	<input type="checkbox"/> waste segregation facility	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/> waste storage facility	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/> waste processing & treatment facility	<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/> resource recovery facility	<input type="checkbox"/>		<input type="checkbox"/>
	<input checked="" type="checkbox"/> waste recycling facility	<input type="checkbox"/>		<input checked="" type="checkbox"/>
	<input type="checkbox"/> waste to energy facility	<input type="checkbox"/>		<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 checked="" type="checkbox"/> others (please specify: several private waste collection facilities)	<input type="checkbox"/>		<input checked="" 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).			
	<p>In the next years, the budget allocated for waste management related programs will be gradually increased. By 2018, 700,000,000 Khmer Riel (175,000 US\$) will be available for 3R related measures. The city is planning to extend activities in the field in terms of diversifying and range of outreach. More NGOs are encouraged to apply for funding. The Municipal Land Use Master Plan, which was promulgated in 2015, will be revised in the coming years. 3R strategies and objectives will be an integrated part of the updated Master Plan.</p> <p>Battambang Municipality is committed to improve waste management in manifold ways, as there is an enormous potential for effective solutions to overcome existing</p>			

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	shortcomings in this area (see Q6). Yet, lack of technical knowledge, access to technology and insufficient budget to implement significant 3R activities and measures, are the main constrains of the Municipality and must be tackled. The city seeks to partner up with other cities in the region, international organizations or development agencies to address these challenges.			
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?			
	In the upcoming revision of the aforementioned Municipal Land Use Master Plan, SDGs have a strong influence on the formulation of several of the cities' own mid-term development goals (they might even be identical to the SDGs). Objectives and strategies will be defined to help achieve these goals by implementing 3R related activities and measures.			
Q 10	What are the main challenges in your city concerning clean water, clean land and clean air? (Please answer the below points)			
		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"/>		✓ <input type="checkbox"/>
	Do you regularly analyze the water contamination through chemically and biologically test (DO, heavy metal and microbial water quality)?	<input type="checkbox"/>		✓ <input type="checkbox"/>
	Do you regularly analyze the soil pollution (disposal of hazardous and chemical waste)?	<input type="checkbox"/>		✓ <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?			

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	The Municipal Land Use Master Plan, which was promulgated in 2015, will be revised in the coming years. 3R strategies and objectives will be an integrated part of the updated Master Plan.
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?

*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.*

