

**Eighth Regional 3R Forum in Asia and the Pacific**

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

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

# **City Report**

**(Draft)**

**<Balikpapan, Indonesia>**

---

This city report was prepared by Balikpapan, 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.

**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

**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](mailto: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

| <b>CITY REPORT: [City Name: BALIKPAPAN ]</b> |   |
|--|---|
| <b>Q 1</b>                                   | <b>What are the roles of local government stipulated in the 3R-related policies, acts, laws, or regulations?</b>  |
|  | <ul style="list-style-type: none"><li>- Ecology City Concept ‘Zero Waste to Landfill’</li><li>- Balikpapan City Local Regulation No. 13 on 2015 about Waste Management of Household and a kind of Household Waste.</li><li>- Draft of Mayor of Balikpapan Regulation about Permit of Waste Management Business</li><li>- Draft of Mayor of Balikpapan Regulation about Procedures for waste segregation and collection</li><li>- Draft of mayor of Balikpapan Regulation about Reduction for Disposable Plastic Bag and / or Styrofoam Packages Food and Beverage</li><li>- Circular Letter of Mayor of Balikpapan No. 660.1/0218/DLH about Waste Segregation and Management on Source in Balikpapan City;</li><li>- Development of Adiwiyata School with local environmental content learning (started from 2000 for Elementary, Junior and High School with KTSP 2006’s Curriculum)</li></ul> |

**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

|                   |   |
|-------------------|---|
|                   | <ul style="list-style-type: none"> <li>- 3R-based waste segregation Pilot Project in Gunung Bahagia Sub-district, South Balikpapan</li> <li>- Development Waste Management Center (Rumah Kompos, TPS3R, MRF dan ITF)</li> </ul>   |
| <p><b>Q 2</b></p> | <p><b>Are 3R policies integrated in your city development strategy or master plan?</b><br/>         (Please attach photo(s) of your city’s waste management facility if available.)</p>   |
|                   | <p><input checked="" type="checkbox"/> Yes =&gt; Please share goals/visions/major achievements/important lessons learnt that could be replicated elsewhere.<br/> <input type="checkbox"/> No =&gt; Please go to Q7 (please also answer Q5, 6, and 8)</p> <p>3R-based waste management system in Balikpapan has been disseminated to 53 cities throughout Indonesia . Hereby can be seen in the picture below :</p> <p><b>WASTE COLLECTION SYSTEM (PILOT PROJECT 3R) GUNUNG BAHAGIA URBAN VILLAGE</b></p> <p>PROJECT SITE: A PART OF KEL. GB (RT 18 – 30- 13 RTS)<br/>         HOUSEHOLDS: 1.201 OR 1.597<br/>         POPULATION: 4.763 (AS OF 2014)</p> <p><b>12.92 TON/WEEK</b></p> <p><b>ORGANIC WASTE 5 DAY/WEEK</b><br/>         8.34 TON/WEEK (14 TRIPS/DAY/3 UNITS)</p> <p><b>TRANSFER DEPO (8M3 X 3 UNITS)</b><br/>         8.34 TON/WEEK (3 TRIPS)</p> <p><b>ITF WILL BE OPERATE 2017</b></p> <p><b>9.04 TON/WEEK</b><br/>         MANGGAR LANDFILL</p> <p><b>RECYCLABLE WASTE 1 DAY/WEEK</b><br/>         4.59 TON/WEEK (8 TRIPS/DAY/2 UNITS)</p> <p><b>MRF CAPACITY 21.6 M3/HR 30 TON/DAY</b></p> <p><b>0.7 TON/WEEK RESIDUE</b></p> <p><b>3.24 TON/WEEK</b><br/>         TPS 3R</p> <p><b>0.64 TON/WEEK</b><br/>         WASTE BANK</p> <p><b>TRADER</b></p> <p><b>TOTAL WASTE REDUCTION REACHED 30%</b></p> <p><b>SOURCE SEPARATION</b> → <b>SEPARATE COLLECTION</b> → <b>TRANSPORTATION</b></p> |
| <p><b>Q 3</b></p> | <p><b>What are the major challenges and constraints faced by your city in implementing 3R policies and programmes?</b><br/>         (Please answer only if your answer to Q2 is “Yes”)</p> <p>Financial constraints: <b>Limited Funding of Municipal Budget to manage waste in Balikpapan City</b></p>  |

**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

|            |  |   |
|------------|--|---|
|            | Institutional/governance challenges:   | <b>Limited Funding from Province to manage waste in Balikpapan City</b>   |
|            | Policy gaps:   | <b>Mayor of Balikpapan Regulation of 3R has not been ratified.</b>  |
|            | Other challenges such as technical capacity, human resources etc.:   | <ul style="list-style-type: none"> <li>- <b>Increasing Population (Increasing Waste Generation)</b></li> <li>- <b>Limited Area of Sanitary Landfill</b></li> <li>- <b>Limited waste management facilities and infrastructure</b></li> <li>- <b>Limited technical personnel</b></li> <li>- <b>Lack of public awareness to managing waste (waste separation on source)</b></li> </ul> |
| <b>Q 4</b> | <b>What programme is in place in your city in support of NGOs activities towards promotion of 3Rs?</b>   |   |
|            | <ul style="list-style-type: none"> <li>- Campaign for Reducing Plastic Shopping Bag (cooperation with Earth Hour Community and Environmental Ambassador)</li> <li>- Organic Waste Management to be composted (Cooperation with Peduli Lingkungan Kota Balikpapan Foundation)</li> <li>- Anorganic Waste Management with Bank Sampah (Cooperation with Ecowalibar dan Bank Sampah Induk)</li> <li>- Environmental Education at School in Balikpapan (Cooperation with Adiwiyata Mandiri Forum )</li> <li>- Socialization of Waste Segregation on Source at Gunung Bahagia Sub-district, South Balikpapan, Clean Village Program at Kampung Atas Air Margasari, a thousand tumblers Campaign at School, Zero Plastic bag Campaign at Pasar Segar, Clean Coastal Program with anti-drug ambassador (Cooperation with Environmental Ambassador Forum)</li> <li>- GEMES: Gerakan menuju bersih dan sehat dan Gerakan say no plastik bag (Cooperation with GG Junior)</li> <li>- Gembol: Gerakan membawa botol minum dan Bermanja: Bersama menjaga lingkungan (Cooperation with Green Generation)</li> </ul> |   |
| <b>Q 5</b> | <b>Is there any collaborative 3R activities/projects/partnerships involving cities (e.g., city-to-city cooperation) and organizations at international level?</b>  |   |
|            | <input checked="" type="checkbox"/> Yes => Please brief the project(s) including objectives, project partners, target, period, budget etc.<br><br><input type="checkbox"/> No<br>Sister City Kitakyushu City, Japan (in terms of waste segregation on Source)<br>JICA (in terms of waste segregation on Source)<br>PT. Pupuk Indonesia (in terms of pilot projects processing organic waste into granule fertilizer)<br>PT. Biru Laut Persada (in terms of managing household waste oil)   |   |

**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

BPJS Kesehatan (in terms of waste grant from Company for Poor Community Health Services)

Please attach photos of the project (s) with caption, if available:



Anorganic Waste Segregation



Organic Waste Segregation



Waste Station



Organic Waste Management  
into compost by citizen



Waste Transportaion

**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

|  |   |                                       |   |                                       |
|--|---|---------------------------------------|---|---------------------------------------|
| Q 6  | What major future prospects or opportunities does your city have in 3R areas?   |                                       |   |                                       |
|  | <ul style="list-style-type: none"> <li>- Development with third parties in Organic Waste Management</li> <li>- Development of Sludge Disposal Installation</li> <li>- Development of Waste Cooking Oil into Energy</li> <li>- Development landfill mining in TPAS Manggar</li> <li>- Development Waste to Energy</li> <li>- Development anorganic recycling center</li> <li>- Application Waste Management Technology in TPAS Manggar</li> <li>- Waste Segregation on Source at all levels of society / government agencies / private / business entities / housing developers / hotels / restaurant / super and mini market</li> </ul> |                                       |   |                                       |
| Q 7  | What type of 3R infrastructure and facilities your city is equipped with? Please tick the appropriate.  |                                       |   |                                       |
|  | <b>Type of 3R infrastructure and facilities</b>   | <b>Adequate/ Significant</b>          | <b>If adequate, how many treatment facilities (in number)</b> | <b>Not-adequate / Non-significant</b> |
|  | <input type="checkbox"/> waste collection facility  | <input checked="" type="checkbox"/>   | <b>1</b>  | <input type="checkbox"/>              |
|  | <input type="checkbox"/> waste segregation facility   | <input checked="" type="checkbox"/>   | <b>65</b>   | <input type="checkbox"/>              |
|  | <input type="checkbox"/> waste storage facility   | <input checked="" type="checkbox"/>   | <b>443</b>  | <input type="checkbox"/>              |
|  | <input type="checkbox"/> waste processing & treatment facility  | <input checked="" type="checkbox"/>   | <b>65</b>   | <input type="checkbox"/>              |
|  | <input type="checkbox"/> resource recovery facility   | <input checked="" type="checkbox"/>   | <b>2</b>  | <input type="checkbox"/>              |
|  | <input type="checkbox"/> waste recycling facility   | <input checked="" type="checkbox"/>   | <b>5</b>  | <input type="checkbox"/>              |
|  | <input type="checkbox"/> waste to energy facility   | <input checked="" type="checkbox"/>   | <b>2</b>  | <input type="checkbox"/>              |
|  | <input type="checkbox"/> eco-industrial zones   | <input checked="" type="checkbox"/>   | <b>22</b>   | <input type="checkbox"/>              |
|  | <input type="checkbox"/> science parks/theme parks relevant to 3R   | <input checked="" type="checkbox"/>   | <b>7</b>  | <input type="checkbox"/>              |
| <input type="checkbox"/> others (please specify: ) | <input checked="" type="checkbox"/>   | <b>1 Balikpapan Botanical Garden,</b> | <input type="checkbox"/>                                      |                                       |

**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

|             |   |  |  |  |
|-------------|---|--|--|--|
|             |   |  | <b>1 KWPLH,<br/>         1 Green City<br/>         Nursery,<br/>         2 Protected forest,<br/>         5 Mangrove Forest,<br/>         28 City Forest</b> |  |
| <b>Q 8</b>  | <b>Kindly provide the important 3R policies/programmes/projects/master plans that your City Government plans to undertake within next five years (2017-2022).</b>   |  |  |  |
|             | <ul style="list-style-type: none"> <li>- Development of waste segregation on source area</li> <li>- Development of Compost House and Rumah Kompos dan 3R Shelter</li> <li>- Development MRF (Material Recovery Facilities)</li> <li>- Development Integrated Shelter</li> <li>- Development Landfill Mining at TPAS Manggar</li> <li>- Reducing of Disposable Plastic Shopping Bag</li> <li>- Development Plan for Regional Waste Recycling Center</li> </ul> |  |  |  |
| <b>Q 9</b>  | <b>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?</b>  |  |  |  |
|             | <ul style="list-style-type: none"> <li>- <b>Sea desalination development plan</b></li> <li>- <b>Development Sludge Disposal Installation</b></li> <li>- <b>Development of Manggar Reservoir and Aji Raden Reservoir</b></li> <li>- <b>Waste to energy (gas methane) development</b></li> </ul>  |  |  |  |
| <b>Q 10</b> | <b>What are the main challenges in your city concerning clean water, clean land and clean air?<br/>(Please answer the below points)</b>   |  |  |  |

**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

|             |  | 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 checked="" type="checkbox"/> | One time a year by BATAN<br>We also analyze with another equipment, such as: Gent Sampler, Passive Sampler, AQMS. Ambien | <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"/> | One time a year  | <input type="checkbox"/> |
|             | Do you regularly analyze the soil pollution (disposal of hazardous and chemical waste)?  | <input checked="" type="checkbox"/> | One time a year  | <input type="checkbox"/> |
| <b>Q 11</b> | <b>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?</b>   |                                     |  |                          |
|             | We already have ‘Climate Village Program’ and ‘Clean Green and Healthy Program’, where a village should be able to adapt and mitigate in Climate Change such as making biopores, absorption wells, reused water, rainwater harvesting, composting and ext.   |                                     |  |                          |
| <b>Q 12</b> | <b>[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?</b> |                                     |  |                          |
|             |  |                                     |  |                          |



**EIGHTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC**  
**9-12 April 2018, Indore, Madhya Pradesh, India**

**CITY REPORT: [City Name: Balikpapan City, Indonesia]**

*Kindly submitted to the Secretariat of the Regional 3R Forum in Asia and the Pacific by email to [3R@uncrd.or.jp](mailto:3R@uncrd.or.jp) before **31 January 2018**.  
Thank you for your kind cooperation.*