Lessons learnt from the JICA 3R Partnership Project and the way forward

JICA Partnership Program on Solid Waste Management Project for Promoting Segregation and Recycling in Da Nang City

23rd December 2019
City of Yokohama / JICA Yokohama / IGES
Municipal Solid Waste (1,146t/d)

Collection (URENCO) (860t/d: 75%)

Self Management (35t/d: 3%)

Organic/Recycle (166t/d1: 4%)

Material/Recycle (24t/d: 2%)

Mismanaged (65t/d: 6%)

Khanh Son Landfill

Waste Pickers

Identification of Waste Flow in Da Nang

(Estimation, 2018)
Identified three (3) Challenging Issues

1. Limited option for recyclable collection (Only community-based collection and collaboration with URENCO)

2. Limited route for recyclable collection and vulnerable junkshop operation (Only community-junkshop route)

3. Unclear recyclable material flow (Type, Amount & Fate) in each process
<table>
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<th>Identified Challenging Issues</th>
<th>Countermeasure</th>
<th>The Way Forward</th>
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| 1. Limited option for recyclable collection (Only community-based collection and collaboration with URENCO) | ● Develop additional options to promote the source separation programme in whole Da Nang City | ➢ Seek an alternative option to collect recyclables incorporated into the formal municipal solid waste collection services  
 ➢ OUTPUT-2 (Pilot Project)                                                                   |
| 2. Limited route for recyclable collection and vulnerable junkshop operation (Only community-junkshop route) | ● Develop alternative routes to promote sustainable recyclable collection  
● Interventions to improve junkshop operation in a environmentally-friendly manner (tbc) | ➢ Establish monitoring system on integrated municipal solid waste management  
 ➢ OUTPUT-1 (Data Management Methodology)                                                    |
| 3. Unclear material flow (Type, Amount, & Fate)                                               | ● Develop a monitoring system in each waste management flow to utilize efficient collection service, waste management plan and awareness activity  
● Identify the clear material flow for proper recycling                                     | ➢ Review the Solid Waste Treatment in Da Nang City 2030 with the vision to 2050  
 ➢ OUTPUT-3 (Recommendation for vision 2050)                                                  |
2. The Way Forward

I. Data collection & analysis on MSWM
II. The pilot project on MSW collection and transportation
III. Review the SWM Master Plan in Da Nang City 2030

Current Status: Estimated Amount of Recyclables

Phase-I

Junkshop

Alternative Player?

Alternative Facility?

Opportunity

What's Next? Improvement of MSW Collection Services including recyclables Collection
Outline of the Possible Future Project  
(Proposal Submitted to JICA Partnership Programme as phase-II)

• Overall Goal  
  Sustainable Municipal Solid Waste Management System is established.

• Project Purpose  
  The framework on sustainable resource circulation and proper separation collection and treatment for MSW in Da Nang City is established.

• Project Period  
  July 2020 – July 2023

• Output  
  1. Data management methodology on MSWM in Da Nang City is developed.
  2. The pilot project to improve MSW collection and transportation is implemented.
  3. Develop recommendation on MSWM for the review of the Solid Waste Treatment in Da Nang City 2030 with the vision to 2050
1. Data management methodology on MSWM in Da Nang City is established.

1.1 Organize the Taskforce Team in Da Nang side
1.2 Reviews the current MSWM status in Da Nang
1.3 Training in Yokohama on MSWM data collection, analysis and monitoring
1.4 Implement data collection, analysis, and evaluation
1.5 Implement awareness activities for separation at source according to the community context based on data analysis
1.6 Conduct a survey for littering and illegal dump related to the marine plastic pollution
1.7 Establish data management system on MSWM
2. The pilot project to improve MSW collection and transportation is implemented.

   2.1 Develop the workplan on the pilot project on MSW collection and transportation
   2.2 Implement the pilot project
   2.3 Evaluate the pilot project

3. Develop recommendation on MSWM for the review of the Solid Waste Treatment in Da Nang City 2030 with the vision to 2050

   3.1 Incorporate the outcome of the activities listed in above outputs into discussion of sustainable environmental city 10-year framework in Da Nang
   3.2 Organize workshops on sustainable MSWM for Da Nang in the occasion of Da Nang Urban Development Forum.
   3.3 Review the Solid Waste Treatment in Da Nang City 2030 with recommendation for its future revision