Outcome on JICA 3R Partnership Project between Da Nang and Yokohama from 2017 – 2020

City of Yokohama,
JICA Yokohama and IGES
23rd December 2019
1. Overview
1) Project Outline

• Project Title
  JICA Partnership Program Solid Waste Management Project for Promoting segregation and recycling in Da Nang City

• Project Period
  February 2017 – February 2020

• Background
  ✓ Increasing Wastes (urbanization & tourism)
  ✓ 40% increased (278,000 T/y (2014) -> 197,000 T/y (2007))
  ✓ Main Treatment Method: Collection & Dump
  ✓ Khanh Son Landfill: Full by 2020

• Project Purpose
  To establish a foundation in Da Nang city to implement 2020 targets

• Output
  I. Action plan toward 3R promotion at selected model areas in two targeted administrative districts is developed.
  II. Citizens with improved environmental awareness on waste management understand how to separate waste at the source of generation through the pilot project.
  III. A foundation to promote waste management and recycling system especially for a household toward 3R implementation is prepared
2) Overview of the Project

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<th>Establishment of Taskforce Team</th>
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| Initial Discussion & Baseline Survey | |
|--------------------------------------| |
| Survey | |
| Pilot project in Thuan Phuoc and Thach Thang | |
| Training in Yokohama | |

| FY2018 | |
|--------| |
| Mission 5 | |
| Mission 6 | |
| Mission 7 | |

| Survey | |
| Pilot project in Hoa Khe and Thanh Khe Tay Ward | |
| Survey | |
| Training in Yokohama | |

| FY2019 | |
|--------| |
| Mission 8 | |
| Mission 9 | |
| Mission 10 | |
| Mission 11 | |
| Mission 12 | |

| Survey | Evaluate the project activities and the way forward | |
| Decision of separation at source in entire Da Nang City (1577/QD—UBND) | |
2. Activities
Activity-1. For development of the Action Plan

Training in Japan (June 2017)

Waste Characterization Survey
December 2017
Activity-2. Develop Action Plan for Separation at Source in Pilot Sites

Hai Chau  
(August 2017)

Thành Khe  
(December 2018)


Policy Background:
- Decision No. 41/2008/QD-UBND dated 21/08/2008 by Da Nang People’s Committee approving the Project “Building Da Nang - the environmental city”;
- Decision No. 2149/QD-TTg dated 17/12/2009 by the Prime Minister approving the National strategy for integrated management of solid wastes to 2025, with vision to 2030;
- Decision No. 9019/QD-UBND dated 28/12/2016 by Da Nang People’s Committee approving the Plan for Solid Waste Treatment in Da Nang City to 2020, with vision to 2030;
- Decision No. 359/QD-UBND dated 16/01/2017 by Da Nang People’s Committee approving the reception of Solid Waste Management Project for Promoting Segregation and Recyling in Da Nang City under JICA Partnership Program.

I. PURPOSES:
Increasing recovery rate of recyclable wastes from sources in the targeted areas, with a view to reduce the rate of burning wastes at landfill; Gradually building the habit of citizens to separate wastes at source and reaching the targets of building environmental city.

II. EXPECTED OUTCOMES:
- Systematize the flow of separating and collecting recyclable wastes from domestic wastes with the participation of several players;
- Raise public awareness about Reduce, Reuse, Recycle (3R), with a view to make 3R practices become daily habits of citizens;
- Reduce the rate of burning wastes in targeted areas by 15 - 20% compared to pre-implementation rate.

III. ASSESSMENT CRITERIA AND PROJECT DURATION
1. Assessment criteria:
- 70% targeted recyclable wastes are separated from domestic wastes at sources;
Activity-3. Implementation of Activities in Pilot Sites

Collection in the community Initiatives (Women Union)

Regular collection by Women union

Awareness material & collection bag distribution

School Awareness

Awareness in the community meeting

Separation Awareness at the communities

Trainer’s Training for the 3R communicator
Activity-4. Community Awareness on Separation at Source
Activity-5. Promotion of Sustainable Circular Economy in Da Nang
Activity-6-1. Training in City of Yokohama in 2017 and 2018
Activity-6-2. Training in City of Yokohama (Photos)
3. Output
Output-1. Identification of Waste Flow in Da Nang

Municipal Solid Waste (1,146t/d)
- Collection (URENCO) (860t/d: 75%)
- Self Management (35t/d: 3%)
- Organic/Recycle (166t/d: 4%)
- Material/Recycle (24t/d: 2%)
- Mismanaged (65t/d: 6%)

Khanh Son Landfill

Waste Pickers

(Estimation, 2018, IGES)
Output-2. The Way of Thinking/Behavior Change (Hai Chau)

Questionnaire result in Hai Chau Before & After the pilot project

Thạch Thang

Understanding of 3R

Regular separation manner

Join the programme

Do separation

Thuan Phuoc

Understanding of 3R

Regular separation manner

Join the programme

Do separation

2018

2017
Output-3. The Way of Thinking/Behavior Change (Thanh Khe)

Questionnaire result in Thanh Khe Before & After the pilot project

Hoa Khe

Thanh Khe Tay

Understanding of 3R

Regular separation manner

Join the programme

Do separation

Regular separation manner

Join the programme

Do separation

2019

2018
Output-4. Separation in whole Da Nang

- DPC officially announced the notification on source separation plan in whole Da Nan City in 11th April 2019
- Separation at Source by 2025
- Target on Reuse/Recycle rate; 12% by 2020 and 15% 2025
Output-5. 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

Note: 
JS-1: Intermediaries purchasing - Level-1 Junkshop (Sale to Level-2 Agent); JS-2: Intermediaries purchasing - Level-2 Junkshop (Sale to Level-3 Agent); JS-3: Intermediaries purchasing - Level-3 Junkshop (Sale to Recycling Factory); JS-4: Recycling directly at Shop