

Waste Separation and Recycling in Asian Cities

Report on the activity about 3R Conference for
Asian Local Governments

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Introduction of Japan Environmental Sanitation Center (JESC)

Name of organization:

Japan Environmental Sanitation Center (JESC)

Locations:

Head Office/East Branch Office: Kawasaki City, Kanagawa Prefecture

West Branch Office: Onojo City, Fukuoka Prefecture

Acid Deposition and Oxidant Research Center: Niigata City, Niigata Prefecture

Founding:

February 12, 1954

Incorporation:

March 12, 1956

(Approved as a nonprofit corporation under Article 34 of the Civil Code via Ministry of Health and Welfare)

Organizational policy:

As a nonprofit corporation geared towards the improvement of the living environment, JESC actively pursues environmental protection and conservation through the whole range of its activities, and thereby contributes to worldwide efforts to create a healthier global environment in the future.

URL: <http://www.jesc.or.jp/>



About 3R conference for Asian Local Governments

- Economic is growing rapidly in Asian countries, and cross-boundary movement of material is arising.
- In this situation, recently, collaboration between governments and researchers and experts in Asian region regarding 3R was facilitated. Among them, the role of local governments is extremely important.
- Based on the above understanding, Japan Environmental Sanitation Center has organized “3R conference for Asian Local Governments “ in order to exchange experience and opinion each other, and enhance mutual understanding, and facilitate joint action regarding 3R.

Outline of past Conferences

The 1st 3R Conference for Asian Local Governments

- Venue : Saitama City
- Date: October 28 – 30 ,2008
- Theme: Progress regarding 3R and administrative problem
- Invited speakers from 4 cities in 4 countries in Asia
Shanghai/China, Ulsan/Korea, Hanoi/Vietnam, Phitsanulok/ Thailand
5 speakers from 5 Cities in Japan
Saitama Prefecture, Saitama City, Sapporo City, Yokohama City, Kawasaki City
- Outcome
Discuss about 3R promotion and administrative problem, and participants could understand that in Asian Local Governments, 3R Activities can contribute to conserve natural environment and create comfortable living environment and civil life through “Reduce” “Reuse” and “Recycle” .
And the result was agreed as “Saitama Declaration”

Outline of past Conferences

The 2nd 3R Conference for Asian Local Governments

- Venue: Fukuoka City
- Date: October 25 – 26, 2009
- Theme: Promoting 3R through reducing disposal plastic bags
- Participants
 - Invited speakers from 7 cities in 7 countries in Asia
 - Calbayog City/ Philippine, Hanoi/Vietnam, Ulsan/Korea, Phnom Penh/ Cambodia, Shengyang/China, Seberang prai/ Malaysia, Vientiane/ Laos
 - 6 speakers from 56 Cities in Japan
 - Fukuoka Prefecture, Fukuoka City, Kitakyushu City, Sapporo City, Saitama Prefecture, Saitama Prefecture, Kawasaki City
- Outcome
 - In the second meeting, participant (Invited speakers) from Asian Cities increased from 4 cities to 7 cities.
 - Network expanded, and theme is decided, and participants could discuss by focusing on the most important points.
 - In the discussion, problems regarding plastic shopping bags were pointed out (e.g. Increase disposal-oriented climate, quantity of waste increase, increase of budget, increase of water pollution, etc. And decreasing of plastic bags can conserve the natural resources and decrease greenhouse effect gas at intermediate treatment facility.
 - And the result was agreed as “Fukuoka Declaration”.

Outline of Conference this year

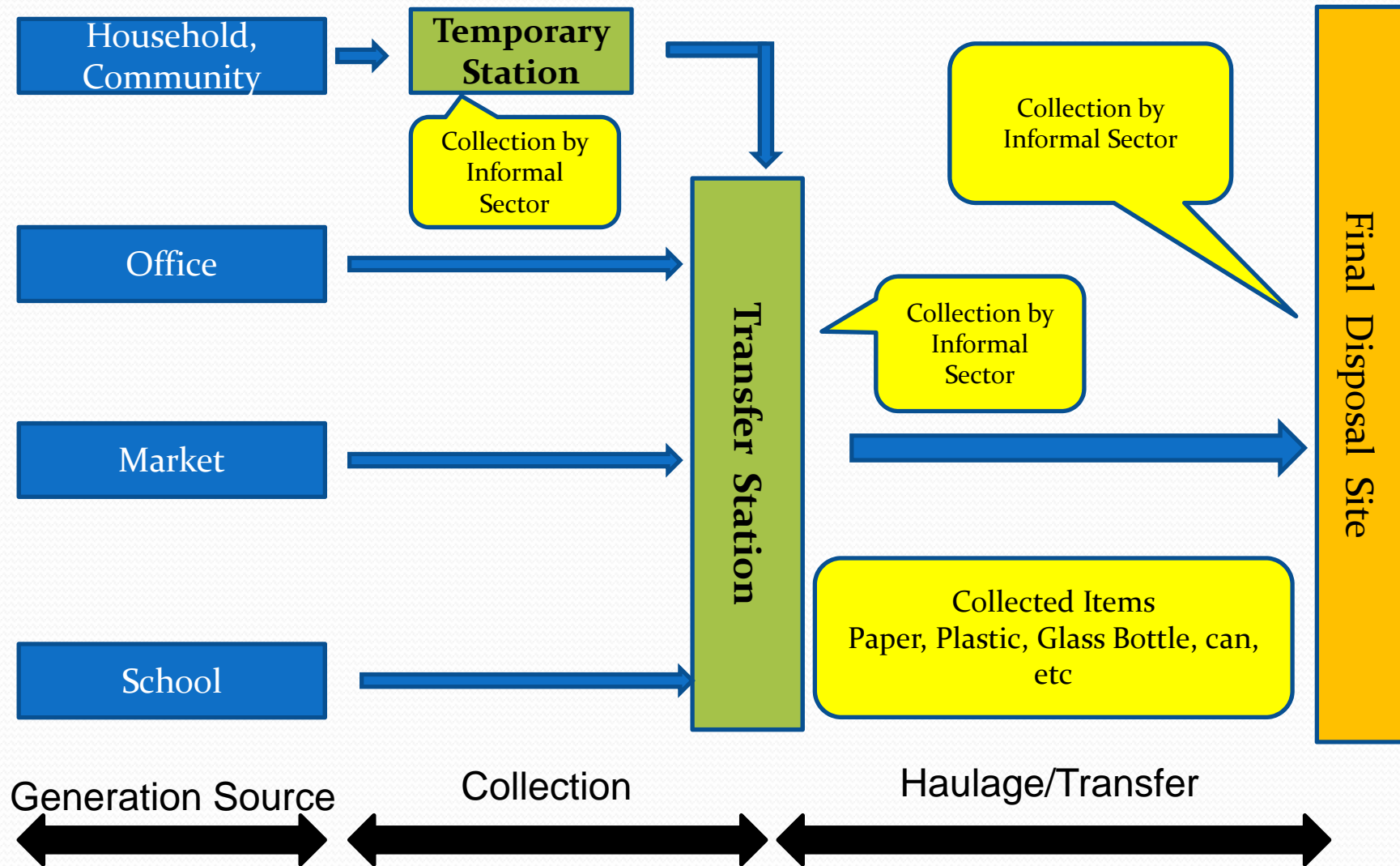
The 3rd 3R Conference for Asian Local Governments

- Venue : Kobe City
- Date : November 14 – 15, 2010
- Theme: Source Separation and Recycling
- Participants

Invited speakers from 10 cities in 9 countries in Asia
Phnom Penh/ Cambodia, Shengyang/China, Slabaya City/ Indonesia,
Padang City/ Indonesia, Ulsan/Korea, Vientiane/ Laos,
Seberang prai/ Malaysia , Calbayog City/ Philippine,
Phitsanulok/ Thailand, Hanoi Vietnam

6 Participants from 6 Local Governments in Japan
Hyogo Prefecture, Kobe city and four other cities.

Typical Example of Waste Recycling in Asian Countries

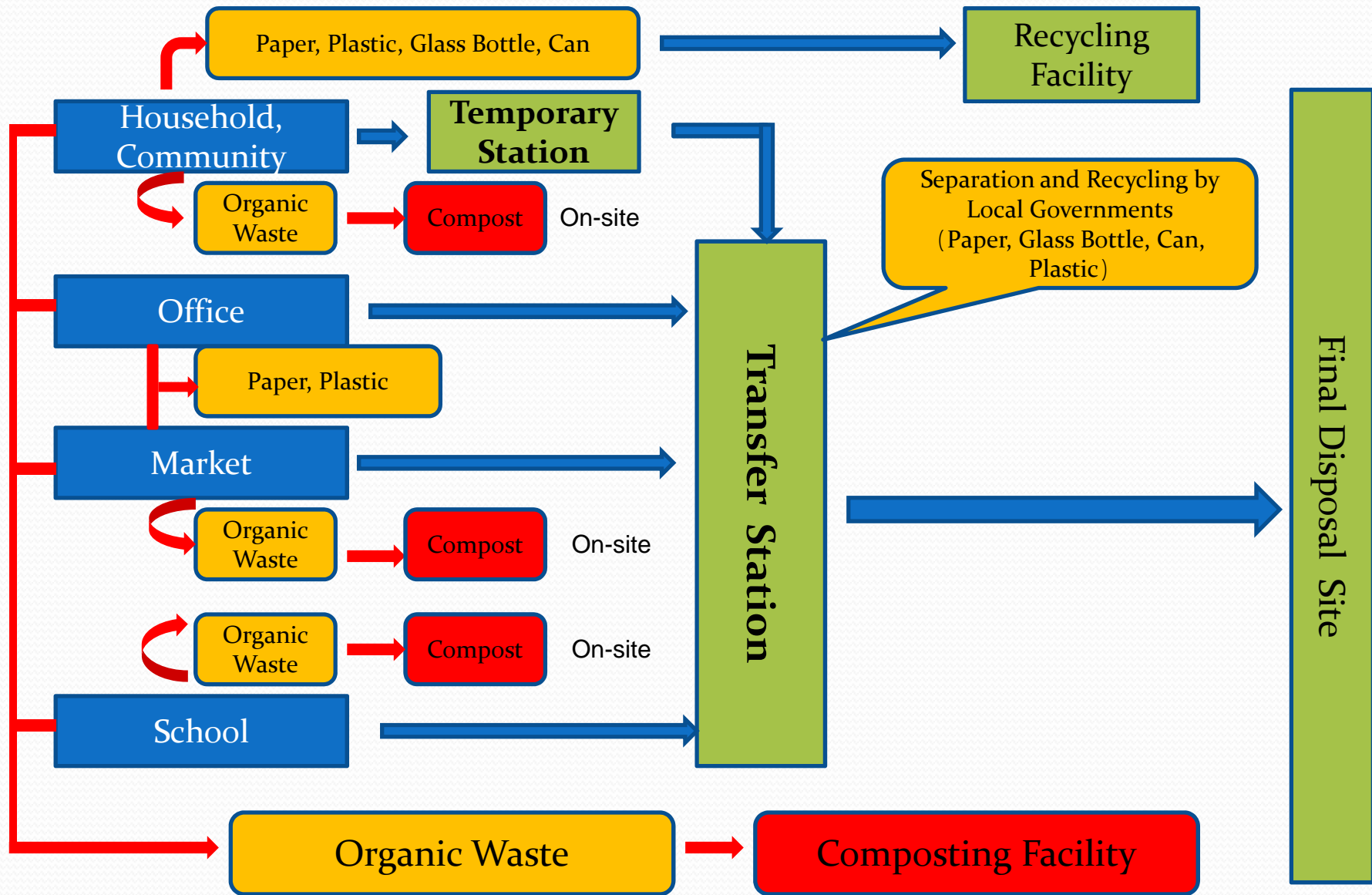




Typical Example of Waste Recycling in Asian Countries

- Collection and transfer system to maintain clean city is not sufficient and it is more difficult to introduce separate collection.
- In many Asian cities, waste separation is done by informal sector (Waste picker). Work environment is bad, and there are many wastes scattered which is not recycled.
- Informal sector (Waste picker) collects paper, glass bottle, can, plastic mainly at the final disposal site. And they also pick wastes at household, and transfer station, too.

Typical collection system (Separate Collection)



Example in many cities participating in 3R conference for Asian Local Governments

- In each household and community, organic waste and recyclable waste (Paper, Plastic, Glass Bottle, etc) are separated by citizens and collected. Some wastes are composted on site and others are sent to composting facility.
- In case there is a transfer station, waste separation is done by local governments (Paper, Glass Bottle, Can Plastic, etc)

However, there are many problems for local governments to do such as waste separation. Here we show you the result of questionnaires to the participants of the 3rd 3R Conference for Asian Local Governments.

Problems when Local Governments do waste separation

A:Very Serious B:Serious C: Not so Serious D: No problem

Problem	A	B	C	D
Not enough equipment for sorted collection				
Not enough market for recyclable waste				
Not enough budget for sorted collection				
Recycling activity of informal sectors				
Lack of public awareness for 3R				
Limited cooperation from the public				
Other problems of sorted collection				

Seberang prai

Hanoi

Phitsanulok

Padang

Vientiane

Summary ; Problems of waste separation and collection

- Regarding waste management, it is preferable to establish waste separation system by local government. And it is necessary to each stakeholder such as local government, citizens, private collector, plays role according to the situation in each community.
- In many local governments, Waste separation in final disposal site is mostly done by informal sector. The ability should be collaborated with landfill operation by local government. And to secure security and working environment to do separation is important. And formalization and education for informal sector is also recommended.
- While waste separation at the source of generation is desirable, there are many problems for prosecution. Some of the significant problems are
 1. There are no sufficient budget for source separation collection as the most serious problem and
 2. There are no market for segregated wastes,
 3. insufficient understanding by citizens, and
 4. Companies would not collect the used items produced by them (Example; fluorescent light, battery, Rubber/Tire) (Answer of the questionnaire) Less costly waste separation and collection is necessary.

Discussion Point of The 3rd 3R Conference for Asian Local Governments

Point 1 ; Role of Local Government

Discuss how we can change economic principle - based and unstable recycling system into sustainable system by public involvement.

Point 2 ; Role of Business Enterprise

Many of the companies do recycling are very small, but they are playing very important role. It should be discussed how to develop these minute enterprises.

Point 3 ; Role of Citizens

Discuss how to rise the public awareness regarding waste separation. It took more than 10 years for citizen to get accustomed to sorted collection in Japan. Discuss how we can rise the public awareness.

Point 4 ; How to promote Waste Separation and Recycling

Discuss how to collect and recycle the waste in the flow of waste generation, collection, transfer, final disposal. In developing countries, many of the waste are separated at final stage and not separated at generation source. Discuss how each actor like government, companies, citizens should get involved in about the separation at the up stream of waste flow.

Thank very much for
your attention!

