



JICA's Approach to WEEE/e-waste Management

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Global Environment Department,
Japan International Cooperation Agency
(JICA)

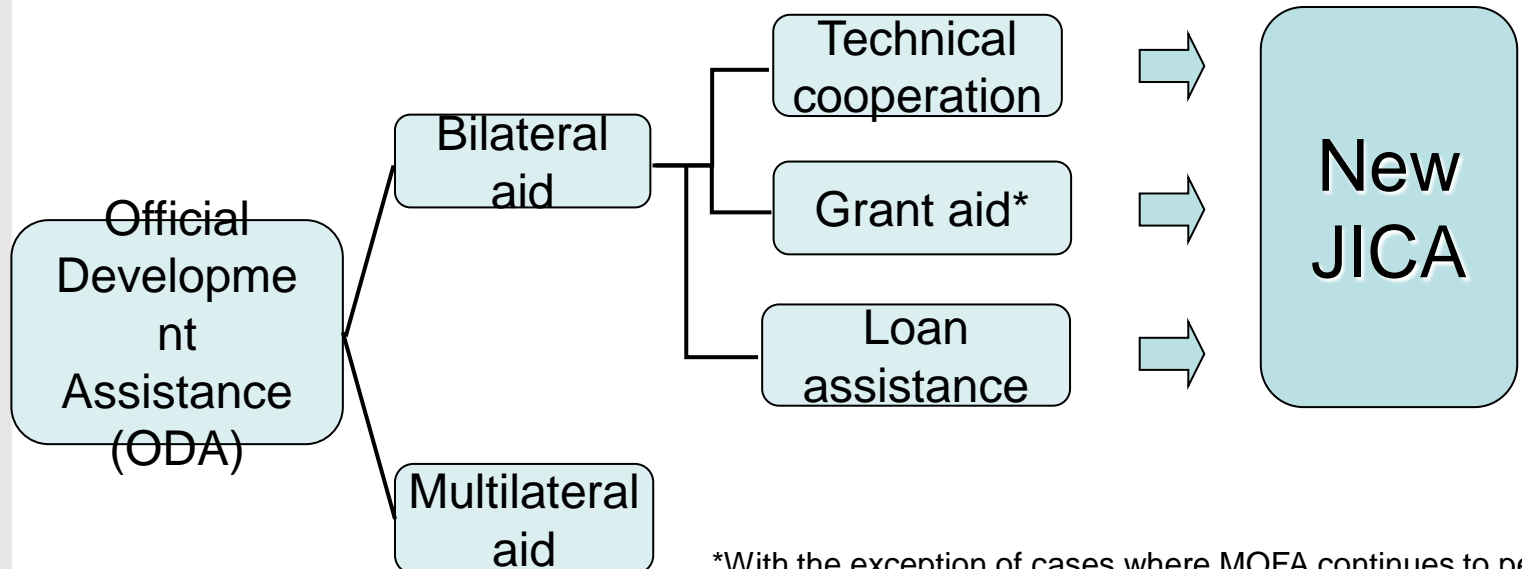
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Introduction of JICA

1. New JICA founded on October 1, 2008
2. Creating a new framework to centrally manage Japan's ODA
3. Aiding over 150 countries with a total project scale of about USD 10 billion



*With the exception of cases where MOFA continues to perform grant aid itself based on diplomatic strategy reasons.

JICA's Assistance Strategy on Waste Management

1. Building a sound material-cycle society (encouragement of the “3R” initiative by the Government of Japan)
2. Developing capacity of governmental organizations for improvement of waste management services
3. Improvement in collection, transportation and disposal for sound waste management
4. Promoting activities to address climate change

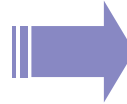
Waste problem covers several issues/sectors

Public sanitation

Pollution

Resource saving

Poverty



(1) **Clear division of roles & responsibilities and coordination** among relevant departments are necessary in administrative viewpoint.

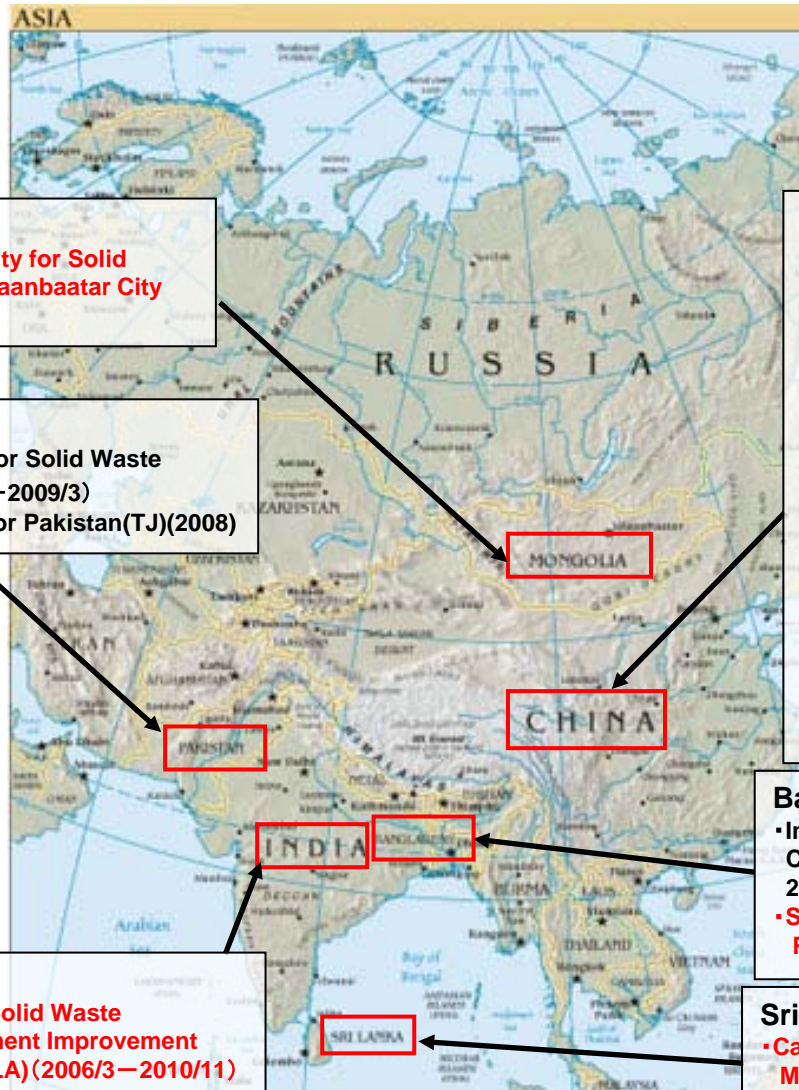
(2) **Stakeholder participation and cooperation** who generate waste are indispensable.



Achievements in WM sector (FY 2009)

Scheme	Amount (million \ / million US\$*)
Technical cooperation	934 / 11.7
Loan assistance	2,552 / 31.9
Grant aid	985 / 12.3
Total	4,471 / 55.9

Achievement in WM Sector in Asia



Training for East Asia Countries

- Establishment and designing of sound material cycle society for Asian countries (TJ) (2006—2008)
- Hazardous Waste Management and Appropriate Disposal for Asia (TJ) (2007—2009)

Mongolia

- Strengthening the Capacity for Solid Waste Management in Ulaanbaatar City (TC)(2009/10-2012/10)

China

- Promotion of Circular Economy (Ex & TJ) (2006—2008)
- Establishment of Urban Environmental Improvement System and Resources Recycling System in China (GTC) (2007/7—2009/12)
- Xinjiang Uygur Autonomous Region Yining City Comprehensive Environmental Renovation Project (LA) (2005/4—2011/9)
- Anhui Municipal Solid Waste Treatment Project (LA) (2008/1-2012/9)
- Hunan Municipal Solid Waste Treatment Project (LA) (2008/4-2010/12)
- Model Project; Support Da-tong City Construct the Resource Circulative Society (GTC) (2008/4—2011/3)
- Promotion of Circular Economy Project (TC) (2008/10-2013/10)

Pakistan

- Capacity Building Project for Solid Waste Management (TC) (2006/8—2009/3)
- Solid Waste Management for Pakistan (TJ) (2008)

Bangladesh

- Improvement of Solid Waste Management in Dhaka City toward the Low Carbon Society (GA) (2009/2-2009/8)
- Strengthening of SWM in Dhaka City -Clean Dhaka Project (TC) (2007/2—2011/2)

India

- Kolkata Solid Waste Management Improvement Project (LA) (2006/3—2010/11)

Sri Lanka

- Capacity Upgrading Project for the National Solid Waste Management Support Center (TC) (2007/3—2011/3)
- Country Focused Training for Solid Waste Management in Sri Lanka (TJ) (2009-10/13)

TC: Technical Cooperation
 TD: Technical Cooperation for
 Development planning
 GTC: Grassroots Technical Cooperation
 GA: Grant Aid
 LA: Loan Aid
 TJ: Training Course in Japan
 GT: Group Training in Third Countries
 Ex: Expert

Achievement in WM Sector in Asia (cont'd)

Training for East and Southeast Asia Countries

- Hazardous Waste Management and Appropriate Disposal for Asia (TJ) (2007–2009)
- Establishment and Designing of Sound Material Cycle Society for Asian Countries (TJ) (2006–2008)
- **Establishment of Sound Material Cycle Society for ASEAN Countries -Formulation of Practical Measures- (TJ)(2009-2011)**

Thailand

- Capacity Development for Young Officer in SWM (GTC) (2008/4–2010/3)

Cambodia

- Strengthening of Solid Waste Management for the Municipality of Phnom Penh (TC) (2006/10-2008/3)

Malaysia

- **Plan and Operation of Program to promote Awareness for 3R of Solid Waste (Naha City Model) (GTC) (2008/4-2011/3)**
- **Community-Based Solid Waste Management System Development Project in Sibu City (GTC)(2010/6-2011/3)**

TC: Technical Cooperation
 GTC: Grassroots Technical Cooperation
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Vietnam

- Program for the Trainee from Shizuoka City's Friendship City Hue, Vietnam (GTC) (2006/4–2009/3)
- The Project for Implementation Support for 3R Initiative in Hanoi City (TC) (2006/11–2009/11)
- **Plan and Operation of Program to Promote Awareness for 3R of Solid Waste (Naha City Model) (GTC) (2008/4-2011/3)**
- **HaiPhong City Environmental Improvement Project (I) (LA)(2005/4–2011/12)**
- **HaiPhong City Environmental Improvement Project (II) (LA) (2005/4–2013/9)**

Philippines

- The Study on Recycling Industry Development in the Republic of the Philippines (TD) (2006/7–2008/3)
- The Master Plan on Solid Waste Management for Boracay Island and Municipality of Malay (TD) (2007/3–2008/3)
- Solid Waste Management for Boracay Island and Municipality of Malay (Ex) (2009/7–2010/3)
- **Subic Bay Freeport Environment Management Project –Phase II- (LA) (2003/1–2010/7)**
- **Establishment of Ecological Solid Waste Management in Three Cities (TC) (2007/10–2010/10)**

Indonesia

- **Community-Based Solid Waste Management System Development Project in Makassar City (GTC)(2009/8-2010/3)**

Direction of JICA Cooperation for WEEE/E-Waste Management

JICA can contribute to WEEE/E-waste management with the following approach;

- 1. Comprehensive Support for Capacity Development (CD)**
- 2. Sharing of Experiences and Information Exchange**
- 3. Promotion of Partnership at the Regional Level**

1. Comprehensive Support for CD



* MP/ FS... Master Plan/Feasibility Study

1. Comprehensive Support for CD

Vietnam “Hanoi 3R Initiative Stimulation Aid Project”

➤ Establishment of institutional framework for sound material cycle society

- Forum to discuss policy based on consensus building among diverse participants
- Building partnerships among stakeholders



➤ Support for making policy and regulation

- Review and amendment of regulations on SWM
- Strategic paper on 3R initiative through SS
- Manual for SS planning
- Action plan of SS expansion



2. Sharing of Experiences and Information Exchange

- ✓ **Sharing the experiences of Japan**
- ✓ **Exchange of information on WEEE/E-waste issues and management**

(Training Program in Japan)

**Creation of Recycling Society based on Hazardous Waste Management and Appropriate Disposal in Asia
(JICA Yokohama Training Center)**

Program Objective:

- Identify the issues for implementation/improvement of the hazardous waste management and recycling
- Prepare and follow up on the action plan for the respective country of the participant

Participants: Officials in charge of hazardous waste management in local/national governments



3. Promotion of Partnership at the Regional Level

✓ Support for South-South Cooperation

(Third Country Training Program)

Waste Water Treatment in Food Industry at Environmental Institute of Malaysia

(2007-

2009)

Program Objective:

- Understand the technology, process and operation of industrial waste water treatment system
- Share knowledge and skill on performance monitoring and inspection of waste water treatment system

Participants: Officials in charge of waste water in Cambodia, Laos, Myanmar and Vietnam



Analyzing treated waste water

Example of a Project on E-waste

Malaysia “The Project for Model Development for E-waste Collection, Segregation and Transportation from Households for Recycling”

Type: Technical Cooperation Project

Project Period: 2011.09-2013.03

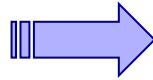
Target Area: Penang Island

Project Goal:

An e-waste collection, segregation and transportation model for recycling e-waste generated from households is developed through a pilot project in Penang.

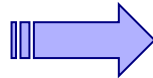
Issues and Concerns

Organizational and institutional issues



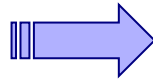
- Managed by several different organizations
- No comprehensive legislation
- Fragmented legislations/regulations

Human resources and technical issues



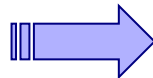
- Lack of experts and management capacity
- Lack of technical know-how and technology

Financial issues



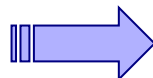
- Lower priority among public works
- Difficulty of collecting charges

Economic issues



- Rapid growth of waste generation amount
- Qualitative change of waste

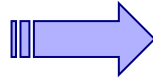
Social issues



- Lower status of work in the field of SWM
- Informal sectors
- Lower public awareness

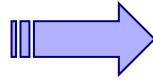
Issues and Concerns

People's participation



- **Protection of the environment**
- **Separation of wastes**
- **Payment for waste disposal expenses**
- **Illegal dumping**

Cost-benefit



- **Who pays the expense?**
- **The prices of plastics and (minor) metals are not stable.**

Transboundary movements of materials



- **Balance between worldwide e-waste recycling and the Basel Convention**

Thank you for your attention!



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