

# SEA of Solutions

partnership week for marine plastic pollution prevention  
11-14 november 2019

Day 3, Opening Plenary  
Localizing Multi-Stakeholder Coordinated Actions  
for Fighting Plastic Pollution

## Some Good Practices for Multi-Stakeholder Coordination

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# REGIONAL KNOWLEDGE CENTER FOR MARINE PLASTIC DEBRIS

## Overview

The Regional Knowledge Center (RKC) is a **information clearinghouse** regarding marine plastic in APT countries.

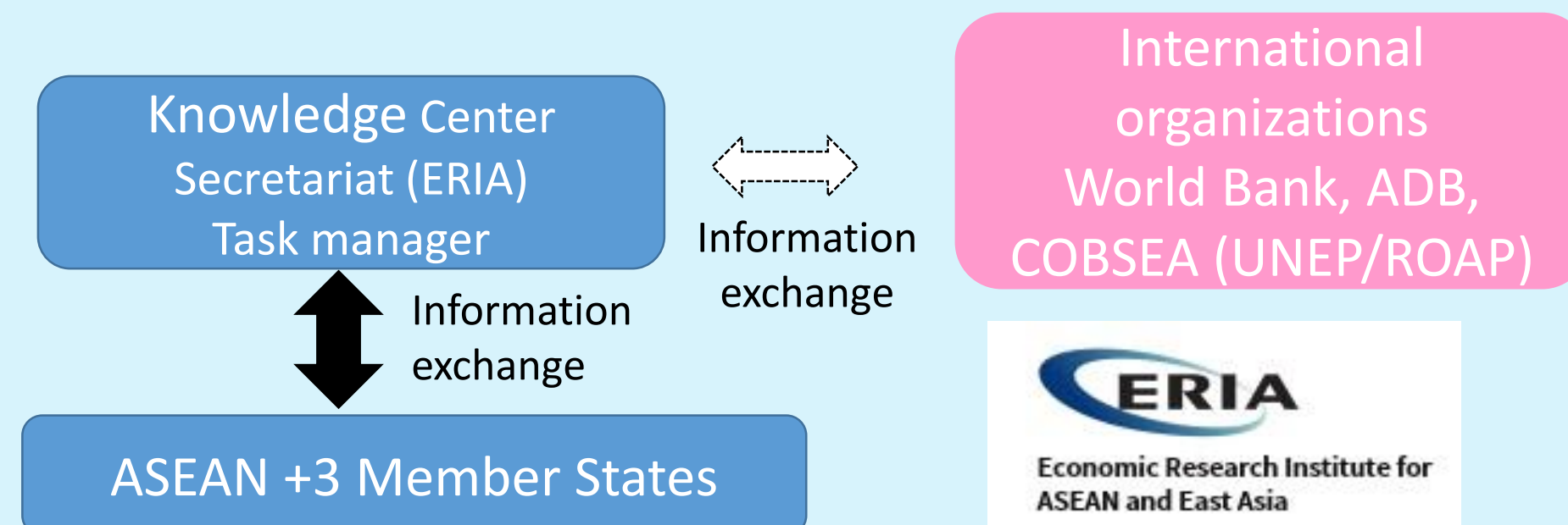
<Purpose>

1. Networking and raising awareness
2. Promoting innovative actions in each county
3. Facilitating national and regional cooperation

## Implementation Framework

Secretariat: To be established at **ERIA**

Task manager: To be hired in charge of information collection, communication and coordination among stakeholders



## Major Activities

### Development of RKC Foundation

Identify **focal ministries and agencies** in member states

Establish **network of relevant organizations**

### Collection and Analysis of information

Review and share **good practices and relevant policies**

- Policies and initiatives
- Material flows and monitoring methodologies
- Best practices and innovative solutions



### Knowledge Sharing

Develop **website**



### Raising Awareness and Capacity Building



# LOCALIZING MULTI-STAKEHOLDER COORDINATED ACTIONS

## *Production and Consumption*

- Ban or Levy on Use of Single-USE Plastics

## *Waste Management and recycling*

- Source Separation Program
- Buy Back Center
- Raising Fund for Community, School, and charity.
- Inter-municipal Cooperation on Waste

## *Collection of Waste from the Environment*

- Clean Up at Beach and River
- Collecting Waste from seabed, during fishing.





## REDUCE SINGLE USE PLASTICS

- Some local governments regulate or restrict use of some types of single use plastics, such as plastic bags, straws or food container made from Expanded Polystyrene (Styrofoam).
- Bali, Indonesia: ban on plastic bags, straws and Styrofoam.
- Penang, Malaysia: no free bag day (In the begging, once a week. Gradually increase the number of days in a week)
- Some shops and restaurants voluntary reduce single use plastics.
- One of condition of items which can be easily regulated by local governments or used by shops and restaurants is availability of alternative materials.
- One local government, shops and restaurants may not have enough power to force producer for using alternative materials.



Straw made from paper and muddler made from sugar cane.





## BUY BACK RECYCLABLES

- The traditional collection system of recyclables rely on waste collectors who try to collect recyclable waste as cheap as possible, such as picking recyclable waste from waste collection point or disposal site.
- But some dealers of recyclables including junk shops, buy back centers operated by local governments and waste banks supported by local governments are open the buying price and ask citizens to bring recyclable waste separately to shops or recyclable waste collection center.



Buy back center operate by City Government of Marikina City, Philippines. (Oct. 2005)



Wongpanit, a franchise of collecting recyclable waste, has a price list at the store, and the web site. (Dec. 2013)





## RAISING FUND FOR COMMUNITY ACTIVITY, SCHOOLS AND CHARITY

- Some recyclable waste is not valuable enough for households to bring it to buy-back center or junk shops.
- But even if unit price of recyclable are cheap, the large amount of waste may generate good revenue.
- Some collection program are organized by a community, a Parents and Teachers Association of school or religious group. Household donate recyclable waste to contribute activities by community, school, temple, church and others.



Community Recyclable Waste  
program for charity, Malaysia, 2011.



Waste PET bottle donated to a  
temple, which also accept various  
secondhand goods. Thailand, 2019.



## SOURCE SEPARATION PROGRAM

- Many local governments try to introduce source separation program.
- But some source separation programs have been failed. Many people do not dispose separately, if separated wastes are collected together by one truck.
- Source separation program should be introduced with separate collection of waste. In addition, intensive awareness raising program is necessary before starting source separation program. To conduct intensive awareness raising program, it is better to initiate source separation program area by area.
- How to separate wastes should be determined by the destinations of each category of waste.



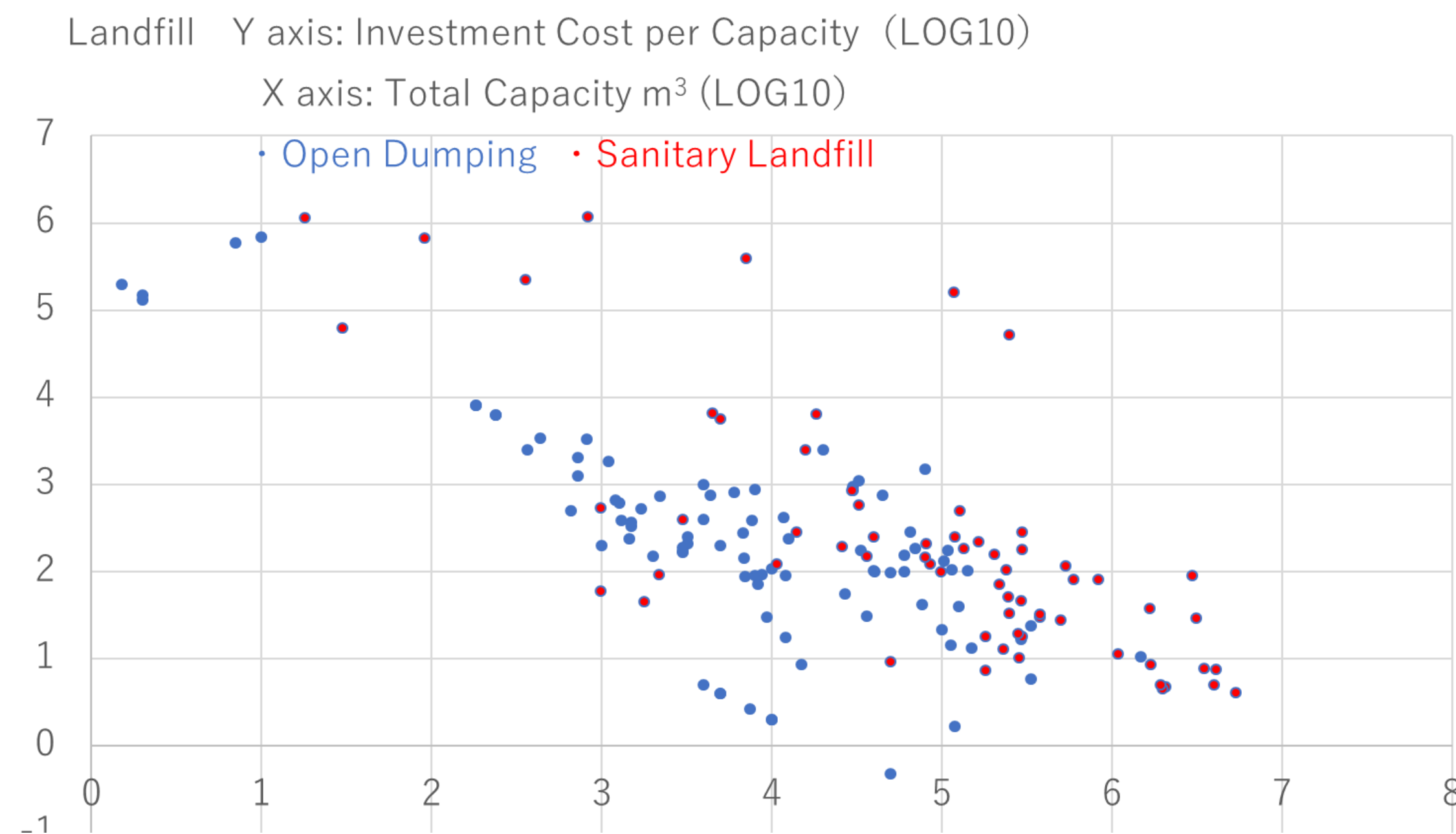
A waste collection point in Tokyo, Japan.  
**Recyclables**(Glass Bottle, Steel and Aluminum Can, Cardboard, Newspaper, Magazine, PET Bottle):**Monday.**  
**Combustible: Wednesday and Saturday.**  
**Non-combustible: 2<sup>nd</sup> Tuesday**  
**Bulky waste:** Call to designated office.



# INTER-MUNICIPAL COOPERATION ON WASTE MANAGEMENT

- To prevent generation of marine litter, local government should collect waste throughout the region. In addition, local government should treat and dispose waste properly.
- From landfills, plastic waste might be leaked to rivers if wastewater control was not properly conducted. Plastic waste might be blown away from landfills, in case of no covering.
- one waste treatment and disposal facilities such as sanitary landfill, composting and waste to energy plant exhibits economy of scale.
- Unit cost of constructing and operating such facility is going down, in capacity of facilities getting bigger.

## Unit Construction Cost of Open Dumping and Sanitary Landfill in a Country in Southeast Asia



ERIA is conducting research project on this topic. We will organize a seminar in this Friday in Bangkok and make a report reviewing the regional waste management in Asian countries, especially focusing on Indonesia, Japan, Philippines. Thailand by next year.



## TYPES OF REGIONAL WASTE MANAGEMENT

	Types	Example	Explanation
Inter-municipal cooperation	Regional Government Scheme	Waste-To-Energy plant planed in West Jawa, Indonesia.	Regional government make agreement with local governments in the region and accept waste from them.
	Leading Municipality Scheme	Waste to Energy Plant in Phuket.	A municipality hosting waste treatment or disposal facility make agreement with and receive waste from other municipalities.
	Municipalities' Association Scheme	Partial Affairs Association in Japan	Local governments formulate association to treat and/or dispose waste jointly.
	Private Sector Leading Scheme	Some private landfills accepting ashes from Waste-to-Energy plants in Japan. Some private landfills and RDF Plants in Thailand.	Private sector operates waste treatment and disposal facility which accept waste from multiple local government.





## COLLECTING WASTE FROM OCEAN WITH COLLABORATION TO FISHERMAN

- Several local governments in Japan have agreement with fishermen associations, to bring back marine debris which are jointly captured with fishes, shrimps and others.
- After fishermen bring back wastes, local government collect the wastes. Although not all fishermen participated, some fishermen believe such collection program is good for preserving resources.
- In Kagawa prefecture Japan, not only coastal local government, but also inland local government bear treatment cost of collected by fishermen, because some of waste may be leaked from inland area through river to the SEA. The provincial government takes a lead to formulate such schemes.



Marine Debris collected by fishermen in Takamatsu, Japan, which will be collected by local government for disposal, in September 2019.





## COLLECTING WASTE FROM SHIPS AND SURFACE OF PORT

- If local governments have authority to manage or regulate ports, it is good to consider collection of waste generated on ships. Ports should have waste reception facility and properly manage the collected waste.
- In addition, it is good to spend budget to have a boat to clean up the ship route, in order to prevent damage to ship screws due to garbage. The cost of operation can be covered by the fee for using port.



A ship collecting waste at the port in Takamatsu, Japan.



Collected Waste at Takamatsu Port, September 2019.





# MONITORING HOTSPOT OF LITTERING IN COLLABORATION WITH CITIZENS

Record on video streets  
using a smartphone



Analyze the video on a  
computer



Produce heat maps and  
reports



Litter research system “Takanome” developed by Pirika, Inc.



Video are sent by anyone who download the professional APP of Pirika, Inc., which analyses the data and makes a reports.



## KEYS FOR VARIOUS STAKEHOLDER INVOLVEMENT

- There are limit of capacity in each stakeholders. Without supply of alternative material, it is difficult stop use of plastics. Without waste collection service, no one can dispose their waste properly.
- Various stakeholders should be collaborated to prevent generation of marine plastic debris and collecting plastic debris from the environment.

