

# Capacity Development in Solid Waste Management

With Special Reference to the Introduction of KitaQ Composting

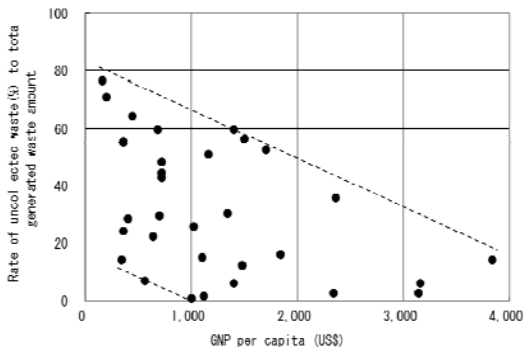
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## Outline of the Presentation

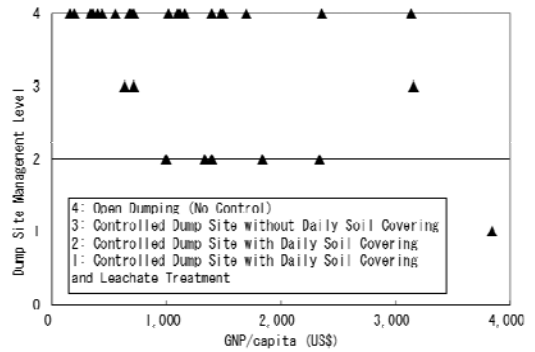
- (1) Introduction – Why we discuss Capacities?
- (2) Capacities required for Solid Waste Management and Composting
- (3) Capacity Development
- (4) Group Discussion

### Economic Growth vs. Waste Collection/Transportation in SWM



Cross-country Analysis, Yoshida(2011)

### Economic Growth vs. Waste Final Disposal in SWM

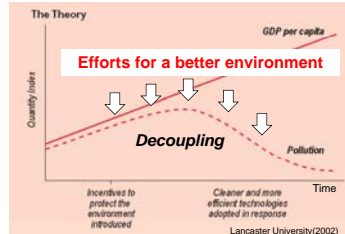


Cross-country Analysis, Yoshida(2011)

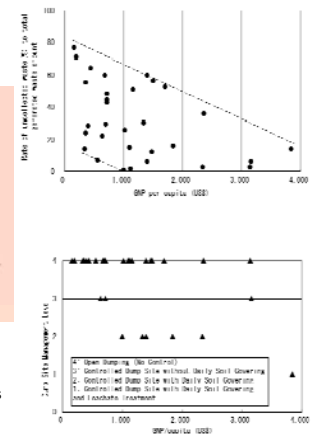
### Economic Growth vs. Development of SWM

- The quality of waste collection/transportation service is enhanced with economic growth.
- The quality of waste final disposal is enhanced with economic growth.
- However, the SWM service qualities widely diversified even in the same level of economic growth.
- Economic growth is one factor for qualified SWM, but **other factor(s)** are probably much more important when .

### Environmental Kuznets Curve



Environmental pollution increases over time while a country is economically developing, and then after a certain level of economic growth is attained, environmental load begins to decrease.



## Efforts for a better environment in SWM sector

- Qualified SWM system
  - Minimizing waste generation
  - Waste discharging in good manner
  - Well-organized waste collection/transportation
  - Recycling
  - Sound environment final disposal of minimized amount of waste
- KitaQ Composting is one of the Efforts.
- Capacity Development

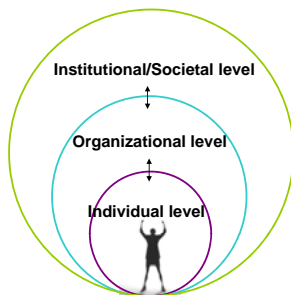
The Efforts are collectively called:  
**Capacity Development (CD)**

- **Capacity Development Concept:**
- **Comprehensive:** Capacity Development (CD) refers to the ongoing process of enhancing the problem-solving abilities of a country/society by taking into account all the factors at the individual, organizational, and societal levels.
- **Endogenous:** Defining capacity as the ability of a country to solve problems on their own and considering it as a complex of elements including institutions, policies, and social systems, the concept of CD attaches great importance to proactive and endogenous efforts (ownership) on the part of the country.

JICA(2006)



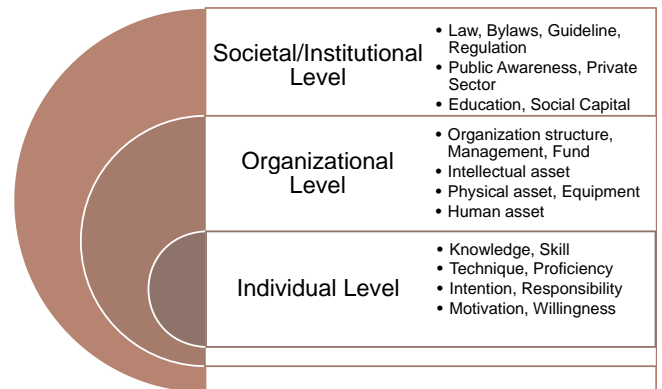
## Capacity at different three levels



### Issues in practice

- (1) Organization without qualified individuals
- (2) Qualified individuals but poor activity of organization
- (3) Qualified individuals and well organization, but poor acceptance in the society

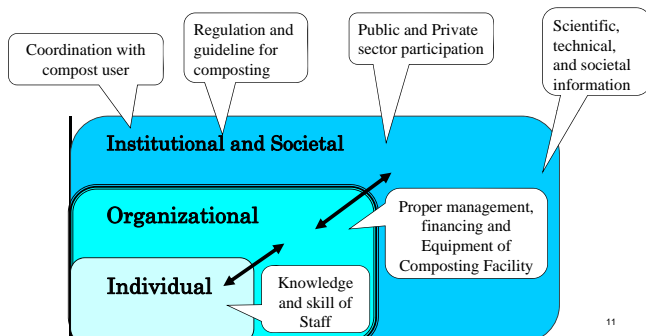
## Components of Capacity at Each Level



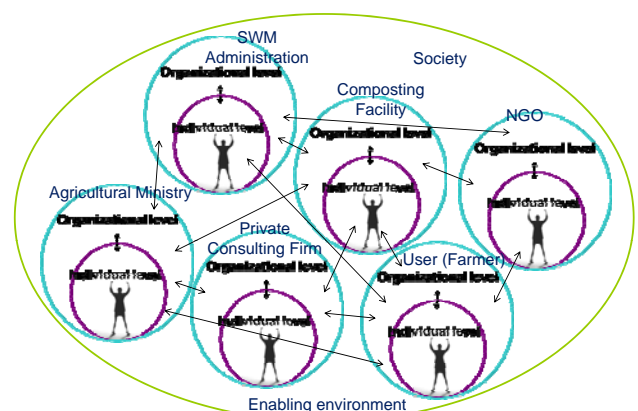
Yoshida(2006)

## Comprehensive feature of Capacity

(An Example for Composting Organization)



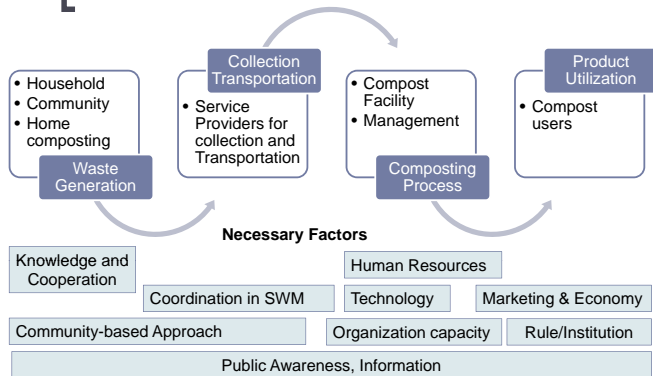
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Actual society is an ensemble of various individuals and organizations, the Stakeholders.

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## A Flowchart of Composting in Solid Waste Management



## General Questions observed in the City Reports

- What are necessary capacities?
  - What are promotion and inhibiting factors?
- For:
- Establishing Organization/Institution for Composting
  - Introducing Community-based Approach
  - Marketing of Compost and Financial Sustainability
  - Raising Public Awareness

### [Group Discussion]

- Scaling-up and Replication Strategy

## Discussion Groups

- Formation of the Discussion Groups
  - Group Leader
  - Group Members
  - Collaborators
- Points of Discussion
  - What is the necessary capacities?
  - What is promotion and inhibiting factors?
- Reporting (evening session)

Topics of Group Discussion:

Promotion Factors		Inhibiting Factors (Obstacles)	
Level	Capacities		
Individual			
Organizational			
Institutional Societal			

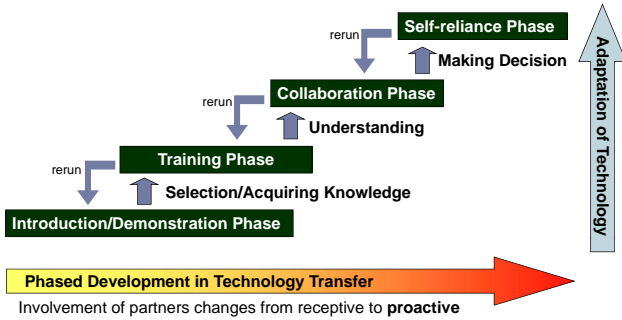
## Workshop Activities

- June 30
  - Keynote Lecture (Now)
  - Group Discussion
  - Reporting and Discussion
- July 01
  - Summary of the Promotional Factors, Obstacles, Lessons and Challenges
  - Strategy

## Transferring technology

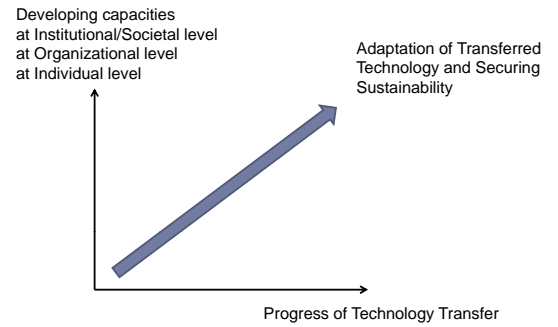
- It is widely accepted that technology is one of the major forces underpinning socio-economic growth and national development.
- Developing countries, thus, need technologies to alleviate their economic difficulties.
- Efficient technology transfer would lead to an efficient use of resources and national development.
- Main concern is what is the responsible factor to effectiveness of transferring technology.

## Phased Development in Technology Transfer



modified from Yoshida(2004)

## Technology Transfer and Capacity Development



## Practical

- Stakeholder Analysis
- Problem Analysis
- Capacity Assessment
  - SWOT Analysis
  - Organization Scanning
- Capacity Development Strategy

### (1) Stakeholder Matrix in Waste Composting

	Waste Generation & Discharging	Waste Collection & Transportation	Composting Process	Utilization of Compost products
Public Sector				
Private Sector (Formal)				
Private Sector (Informal)				

### (2) Problem Analysis Matrix in SWM

	Waste Generation & Discharging	Waste Collection & Transportation	Composting Process	Utilization of Compost products
Problem(s) to be solved				
Causes of the Problem				
Background				

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### (3) Capacity Assessment Matrix in SWM

	Waste Generation & Discharging	Waste Collection & Transportation	Composting Process	Utilization of Compost products
Individual level				
Organizational level				
Institutional level				
Societal level				

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# SWOT Analysis

A SWOT analysis must first start with defining a desired end state or objective.

<p><b>Strengths</b> characteristics of the organization that give it an advantage over others in the sector.</p>	<p><b>Weaknesses</b> characteristics that place the organization at a disadvantage relative to others.</p>
<p><b>Opportunities</b> <i>external</i> chances to make greater profits in the environment.</p>	<p><b>Threats</b> <i>external</i> elements in the environment that could cause trouble for the business.</p>

Organization Scanning Diagram

