1. Introduction

IGES conducted a preliminary comparative analysis on governance for implementing 3R policies in selected ASEAN and East Asian countries and regions: Japan, Taiwan, Malaysia, Philippines, Viet Nam, and Thailand.

Although a significant progress is underway in Asian countries with regard to the legal frameworks and policies for improved materials circulation, there are significant gaps in actual policy implementation and the effective systems and programs.

There are significant disparities among and within Asian countries in terms of the development of recycling economy and the associated social systems. Accordingly, the priority tasks in the operation of 3R-related schemes and programs naturally differ between the developed economies, the emerging economies, and the less developed countries.

The study proposes phased approach for different level of development in recycling economy and governance structure.

2. Comparative analysis of governance of implementing 3R policy in East Asia and South East Asian Countries

<table>
<thead>
<tr>
<th>Country/ Region</th>
<th>Comprehensive law and strategy specialized in the 3Rs</th>
<th>Subsidies or funding mechanism</th>
<th>Information sharing</th>
<th>Relations of central and local governments</th>
<th>Stakeholders involvement</th>
</tr>
</thead>
</table>
| Japan           | - FL and FP of Sound Material Cycle Society and related legislations  
- Grant in Aid and Local Action Plan for Sound Material Cycle Society, Eco-town program etc.  
- Various ways for information sharing  
- Various programs to nominate good practices | - Clear role for local government  
- Various mechanisms to collect and reflect opinions from LGs | - Role sharing and competition of METI and MOEJ plays a key role  
- Central/local role in information sharing | - No formal mechanisms to reflect opinions from stakeholders |
| Taiwan          | - Waste Management and Public Cleaning Law & Recycling Law  
- National Resource Recovery Management Fund: Recyclers  
- Waste Management Fund: Local government  
- Awareness raising campaign  
- State-centric market management | - State-centric/top-down approach  
- No formal mechanism to reflect opinions from LGs | - No formal mechanisms to reflect opinions from stakeholders |
| Malaysia        | - 2007 Solid Waste Management and Public Cleaning Act  
- Planning for feed collection from citizens  
- Not clear in responsibility of management of facilities under privatized scheme | - Not clear role sharing in practice  
- Political conflict between central and local governments | - Planning to introduce mentality separation thus emphasizing stakeholders involvement |
| Philippines     | - RA 9003 of 2000  
- NWFM fund is established under RA 9003. No allocation to facilities  
- National Ecology Center established in Dec. 2010 | - ~X | - ~X | - ~X |
| Thailand        | - Law and strategic plan under drafting as of May 2011  
- Gathers responsibility for budget allocation to local governments on the 3Rs  
- Gathers responsibility between managing pilot project and awareness campaign | - Planning to introduce mentality separation thus emphasizing stakeholders involvement | - In general, Thai government emphasizes stakeholders involvement and grass-root activities |
| Viet Nam        | - ~X | - ~X | - ~X | - ~X |

3. A Phase-in Approach

- Key for improved governance are how to establish governmental capacity, recycling industrial infrastructure, and a stable recycling economy in collaboration with stakeholders.
- It would take considerable time and resources to develop institutional capacity, mechanisms, infrastructure, stakeholder attitudes, and markets needed for full-scale implementation of 3R Policy. This priorities in each situation should then be ordered in keeping with the local and national level of ecological modernization.
- Thus, need a phased approach depending on the level of development of recycling economy

4. Governance for 3R Policy Implementation in Asia: Needs for A Phased Approach

- Emerging economies in Asia have begun to leave the status of ODA recipients. Under these circumstances, new models are needed in international cooperation for the environment.
- Industrialized economies emphasizing market mechanisms and coordination with a stakeholder such as Japan and Taiwan.
- There are significant disparities among and within Asian countries in terms of the development of recycling economy and the associated social systems. Accordingly, the priority tasks in the operation of 3R-related schemes and programs naturally differ between the developed economies, the emerging economies, and the less developed countries.
- The study proposes phased approach for different level of development in recycling economy and governance structure.

- Developing 3R-related legislations and strategies are to be associated with budget allocation and related infrastructure to ensure the operation of materials circulation mechanism. (Malaysia, Philippines, also China)
- There seems to be a significant distinction in the way of governance where countries emphasizing information-sharing and coordination with a stakeholder such as Japan and economies emphasizing market mechanisms for resource circulation such as Taiwan. (Japan and Taiwan)

- Despite the significant progress is underway in Asian countries with regard to the legal frameworks and policies for improved materials circulation, there are significant gaps in actual policy implementation and the effective systems and programs.

5. Ecological modernization (harmonization of environmental and economic concerns) of recycling economy

- Least developed countries: (Cambodia, Lao PDR and others)
  - Lack of waste management and recycling legislations
  - Poor infrastructure for waste collection and treatment
  - Informal collection and recycling
  - Difficulty of identifying producers

- Emerging economies (China, Thailand, Malaysia and others):
  - Start to develop waste management and recycling legislation and policy
  - Environmentally-unsound treatment and recycling
  - Start to have sound recycling industries but competition with informal sector

- Industrialized economies (Japan, Korea, Taiwan and others):
  - Recycling industries functioning as a basis for resource circulation policies
  - Integrating upstream policy and downstream policy for DE

6. Phase 2: Integration of externalities into consumption and production

- Involvement of stakeholders to policy making
- Extended Producer Responsibility or other market instruments
- Good practices
- Zero Waste Factory
- Eco-Industrial Parks
- Quality Standards for Recyclable

7. Phase 3: Design for the environment in products

- Greening of Supply chain
- Green purchasing
- Ban of throw-away products
- EPR to IPR
- Reduction policy

- Multi-lateral financial mechanism for sustainable resource management and resource circulation
- Policy collaboration on resource reduction
- International collaborative scheme for contributing part of national recycling funds
- Product information sharing in life cycle