

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 application of 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

- In the absence of a comprehensive law or policy to promote the 3Rs, the 3R efforts are tend to be scattered as local good practices. (Thailand, Viet Nam)
- Developing 3R-related legislations and strategies are to be associated with budget allocation and related infrastructure to enable the operation of material 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 stakeholders such as Japan and economies emphasizing market mechanism for resource circulation such as Taiwan. (Japan and Taiwan)

Country/Region	Comprehensive law and strategy specialized in the 3Rs	Subsidies or funding mechanism	Information sharing	Relations of central and local governments	Stakeholders involvement
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 mechanism to collect and reflect opinions from LGs.	○ •Role sharing and competition of METI and MOEJ plays a key role. •Periodical policy review
Taiwan	○ •Waste Management and Public Cleansing 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 Cleansing Act	△~× •Planning for fee 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 mandatory separation thus emphasizing stakeholders involvement
Philippines	○ •RA 9003 of 2000	△~× •NSWM fund is established under RA 9003. No allocation to facilities	△ •National Ecology Center established in Dec. 2010	○~△ •NSWMC supposed to coordinate between CG and LG. •Clear role for LG	○~△ •NSWMC but formalistic
Thailand	× •Law and strategic plan under drafting as of May 2011	△ •Scattered responsibility for budget allocation to local governments on the 3Rs	△ •Scattered responsibility between managing pilot project and awareness campaign	○~△ •Promotion of pilot projects at local level	○ •In general, Thai government emphasizes stakeholders involvement and grass-root activities.
Viet Nam	△	×	×	×	×

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. The 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

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

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

Phase 1: Improved Waste Management and Development of Capacity of Actors

- Improvement of organic waste management through climate co-benefit
- Nurturing interface organization to engage the informal sectors
- Nurturing formal industries for resource recovery
- Subsidies for recyclers

Industrialized economies (Japan, Korea, Taiwan and others)

- Recycling industries functioning as a basis for resource circulation policies
- Integrating upstream policy and downstream policy for DfE

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 Recyclables

Phase 4: Regional/international collaboration towards better governance for resource circulation (departure from bilateral aids)

- 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

Phase 3: Design for the environment in products

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

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

- The effective operation of 3R and materials circulation policies in Asia requires a core group of industrial sectors and business enterprises for the sound recycling that should be identified and nurtured to emerge from the conventional informal recycling economy.
- For an emerging country such as China that is making ongoing efforts to organize a recycling economy and is building its legal framework, mechanisms should be developed to motivate the recycling industry to improve its processes.
- The creation of a solid industrial base for recycling is effective in encouraging the production of easy-to-recycle products and the construction of more resource-efficient new business models. This is an effort that should be made also by developed economies.
- 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. For instance, future bilateral cooperation should be promoted as model projects that take the emerging countries' international cooperation into account.