

Research Needs for 3R Promotion – Case of Asia Resource Circulation Policy Research Projects and Its Activities

Yasuhiko Hotta
Integrated Waste Management and
Resource Efficiency Project
Institute for Global Environmental
Strategies(IGES)

1. Examples of policy challenges relevant to the research for 3R Promotion

- What kinds of benefits are likely to appeal to different decision makers and stakeholders?
- How different policy tools/measures can contribute to improved coordination between infrastructure, financial mechanisms, and stakeholders for sustainable resource circulation?
- How to motivate different stakeholders to participate in and contribute to implementation of the 3Rs in Asia?
- How to fill gap in data necessary for policy making and decision.
- How to upscale or replicate local good practices?
- How to achieve targets specified in the national strategies?

2. Backgrounds of the International Collaborative Research

- One of the expected functions of “Regional 3R Forum in Asia” is to provide policy-relevant advices based on international collaborative research to the participating countries. “Asia Resource Circulation Research Project” is expected to play such functions with funding from MOEJ.
- Members of Asia Resource Circulation Policy Research Project become members of subsidiary expert group of Regional 3R Forum in Asia
- In 2012, this international collaborative research is expected to come up policy-relevant research results for sustainable resource circulation in Asia.

Policy Research on Environmental Economics

- From 2009, along with Asia Resource Circulation Research Project, IGES secured a funding from MOEJ on quantitative “research on environmental, economic, and social impacts of resource circulation systems in Asia”.

3. Objectives of Asia Resource Circulation Policy Research

Based on the suggested priorities of Regional 3R Forum in Asia, the focus of the research is to;

- Identify and evaluate **multiple-benefits of the 3R policy**
- Discuss and study how to achieve **improved governance of 3R implementation in developing Asia**
- In collaboration with “Policy Research on Environmental Economics”, **provide policy advices on a vision making for sustainable resource circulation in Asia**

4. Some considerations for implementing the research project

1. **Policy-relevant output/proposals from the research in relation to general policy-relevant challenges associated with resource circulation as well as specific challenges associated with development of evaluation methods for resource circulation.**
2. **Added value to research and policy in the country as well as in other Asian countries**
3. **Common and interesting challenges/issues in 3R policy research which will be useful to have inputs from quantitative/environmental economics approach**
4. **Provide concrete inputs for the discussion on “East Asia Sound Material Cycle Society Vision” planned to be drafted in 2012.**

5. Asia Resource Circulation Research, Policy Research on Environmental Economics, and Regional 3R Forum in Asia

Regional 3R Forum in Asia

Identification of priorities

Component 1: Country specific issue studies

Research institutes in Asia

China, Malaysia, Philippines, Thailand, Vietnam, and Taiwan

Component 2: Region-wide Policy Research Contributing to Strategic Implementation of the resource circulation policies

Set an annual research theme each year which can contribute to strategic implementation of the resource circulation policies. Submit a report to the Forum every year.

Advice, Policy Research

- Proposal of effective policy mix for 3R and waste management policy areas in Asian countries
- Promoting of better understanding among policy makers in Asian countries to make 3R and waste management policy as a key area for environmental policy cooperation in the region.

Provide national data, evaluation/interpretation of modeling analysis

- Components:
1. Analysis of impact of resource limitations to the world economy
 2. Evaluation of environmental and economic effects of 3R and waste management policies in Asia
 3. Analysis of effects of policy cooperation in sound material cycle and 3R policy

Development of methodology for policy evaluation, Provide methodology for estimation if there is lack of data.

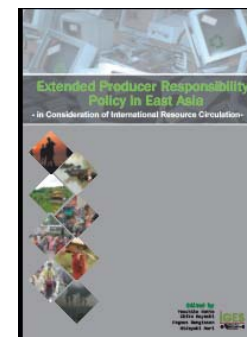
- Develop world-wide quantitative economic model or CGE model which reflects resource limitations.
- Enrich data in relation to the 3Rs such as resource productivity and resource circulation rate in Asia. If data is not available, develop methodology for estimation.
- Develop indicators to show environmental and economic effectiveness of the 3R policies
- Analyze effectiveness of environmental policy harmonization/cooperation in Asia focusing on 3R and waste management policies

Asia Resource Circulation Policy Research

Research on Environmental Economics

6. Initial research contribution to Regional 3R Forum in Asia from IGES and partners

1. Policy Report: *Extended Producer Responsibility in East Asia-in consideration of international resource circulation.*
2. Progress Report: National 3R Strategy Development – a progress report on seven countries in Asia from 2005-2009 (joint publication with UNCRD and AIT/UNEP RRC.AP)
3. Report: *Improved Organic Waste Management: Climate Benefits through the 3Rs in Developing Asian Countries*
4. Policy Report: *Towards Resource-Efficient Economies in Asia* (joint publication with ADB in March 2008)
5. Also, IGES has contributed to the initial planning of Regional 3R Forum in Asia in collaboration with MOEJ, UNCRD and ADB.



7. Component of the Project from 2009-2012

Highlighting the multiple benefits of the 3Rs: promoting awareness-raising and mainstreaming (2009-2010)

- Summarize multiple benefits/trade-offs of the 3Rs on climate benefits, better air quality, poverty reduction, resource and energy efficiency etc.

Improved governance for 3R implementation in developing Asia (2010-2011)

- Analyze the gaps between 3R policies/strategies set forth and challenges associated with policy implementation

Implications of sustainable resource circulation in Asia (2011-2012)

- In collaboration with Environmental Economics Research, extract “implications of sustainable resource circulation in Asia” from the 1st year and 2nd year research.
- Finalize the study on 3R policy evaluation method development and technology transfer studies

8. Proposed research theme of collaborating institutes

Collaborators	Institutes	Theme
Huynh Trung Hai	Director, INEST Hanoi University of Technology	Environmental, economic, and social benefits of the 3R approach for agricultural waste management in Viet Nam
Anthony SF Chiu	Professor, Dela Salle University, Philippines	The Economics of 3R in generating real employment in developing and less developed countries
Hwong-Wen Ma	Professor, Taiwan University	Improving Integrated Impact Assessment of Resource Circulation and Waste Management
P. Agamuthu	Professor, Malaya University	Impact of 3R related policies to on-going 3R activities in Malaysia: Implementation of the SWMPC Bill 2007
Geng Yong	Chair Professor, Chinese Academy of Science	Circular economy policy of China: Role of policy research towards a shift from institution building into implementation
C·Visvanathan	Professor, Asian Institute of Technology	Challenges and issues associated with technology transfer on the 3Rs

IGES's approach to strategic policy research

International/Regional Policy Process

Strategic networking of stakeholders/ forum

Analysis/ Knowledge

Science

Data/ Information

Statistics/
Database

Lessons/Wisdom

Good
Practices

Reality: chaotic mixture of numerous activities conducted by individuals, communities, private companies, and public bodies