

# Overview of Asia Resource Circulation Research Project (September 2009- March 2012)

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

## 1 . Backgrounds of the International Collaborative Research

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### Regional 3R Forum in Asia

- Ministry of the Environment of Japan (MOEJ) and UNCRD, in collaboration with ADB and IGES, is going to launch Regional 3R Forum in Asia; a regional facility to promote international collaboration in sustainable resource circulation in Asia, on November 11-12, 2009.
- 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.
- 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 on quantitative studies on resource circulation and environmental, social, and economic effects of the 3R policies from MOEJ.

## 2. Objectives/Missions of Asia Resource Circulation Research

•**Provide policy-relevant advices** based on international collaborative research to the participating countries of Regional 3R Forum in Asia: **Members of Asia Resource Circulation Research Project are members of subsidiary expert group of Regional 3R Forum in Asia.**

•Identify and evaluate **multiple-benefits of the 3R policy**

•Discuss and study how to achieve **improved governance of 3R implementation in developing Asia**

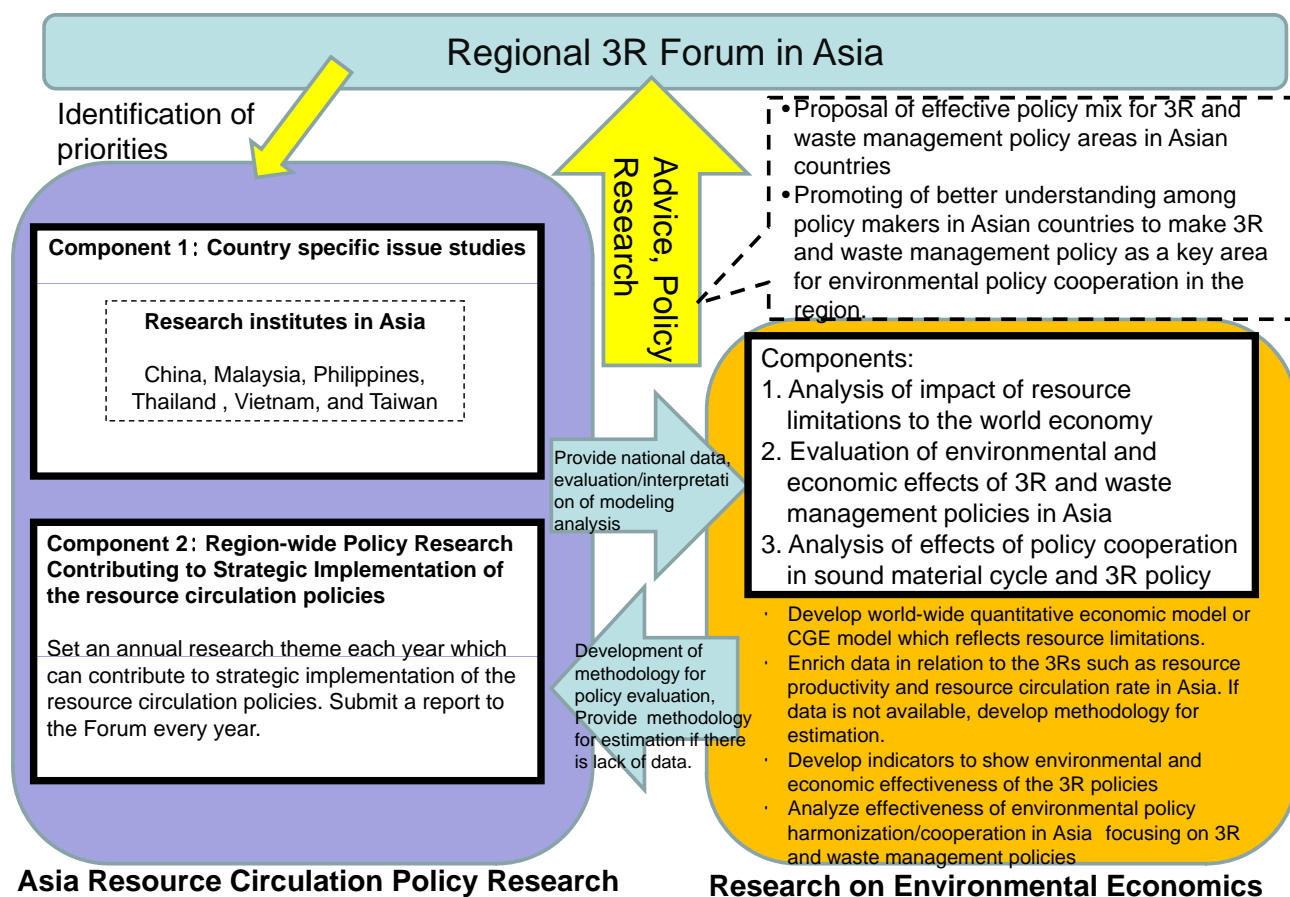
•In collaboration with “Policy Research on Environmental Economics”, **provide policy advices on a vision making for sustainable resource circulation in Asia**

•**Assist to identify relevant data**, especially in relation to **international resource circulation**, as well as case studies which can not discuss through quantitative modeling analysis to “Policy Research on Environmental Economics.

## 3. Some considerations for implementing the research project

- 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.
- Added value to research and policy in the country as well as in other Asian countries
- Common and interesting challenges/issues in 3R policy research which will be useful to have inputs from quantitative/environmental economics approach
- Provide concrete inputs for the discussion on “East Asia Sound Material Cycle Society Vision” planned to be drafted in 2012.
- In addition to reporting requirements, the collaborators are expected to publish the progress and outcomes of the project in international academic conferences and international peer-reviewed journals.

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



### 4. Component of the Project

Asia Resource Circulation Research Project is consisted from the following three components:

- Highlighting the multiple benefits of the 3Rs: promoting awareness-raising and mainstreaming (2009-2010)
- Improved governance for 3R implementation in developing Asia (2010-2011)
- Implications of sustainable resource circulation in Asia (2011-2012)

## **4-1. Highlighting the multiple benefits**

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- IGES has already started a research/survey on co-benefits of climate benefit, food security, and the 3Rs in Laos, Thailand and Cambodia.
- In addition to the on-going research, this component will summarize other environmental, social and economic benefits as well as trade-offs associated with the 3Rs policy including climate benefits, better air quality, poverty reduction, food security, energy efficiency from recycling etc. The report will be submitted to the Regional 3R Forum in Asia.

## **4-2. Improved governance for 3R implementation in developing Asia**

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- IGES has pointed out in its work on “Extended Producer Responsibility in Asia” that there is often a gap between the policies and actual requirements of institutions, finance and infrastructure to make such policies workable.
- By focusing on how to match the 3R policies and required institutions and infrastructure for collection and treatment, this component conducts a policy research on improved coordination between infrastructure, financial mechanisms, human resource development, and technology transfer for more effective implementation of the 3R policies.

### 4-3. Implications of sustainable resource circulation in Asia

- The evaluation of international resource circulation is not consistent.
- On one hand, utilization of recyclables through international resource circulation can contribute to optimal distribution and utilization of resources. On the other hand, there are several such as a) environmental and health issues caused by improper recycling practices, b) functional disorder of domestic recycling and waste management mechanisms due to excessive import, or c) unfair distribution of costs associated with final disposal between countries.
- This component will examine how to develop policies to establish environmentally sound resource cycles in Asia which contributes better resource utilization.

## 5 . 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

## 6 . Schedule and requirements for FY 2009

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< Fall 2009- March 2010 >

- Annual Theme “**Highlighting the multiple benefits of the 3Rs: promoting awareness-raising and mainstreaming**”
  - Summarize multiple benefits/trade-offs of the 3Rs on climate benefits, better air quality, poverty reduction, food security, energy efficiency from recycling etc.
  - For the first year, IGES would like to propose to **start with Viet Nam and Philippines**. It is because these countries have developed National 3R Strategy.
- In collaboration between **IGES and Taiwan University, research on evaluation methods of impact of national 3R and waste management policies** will be started.
- Organize an **inaugural workshop** in mid **November** (Tokyo), back to back with Inaugural Conference of Regional 3R Forum in Asia.
- A workshop will be held in **March 2010 in Bangkok**.
- A progress report will be submitted to MOEJ in **March 2010**.
- Reporting requirements are about 100 pages report for compiling the result of Viet Nam and Philippines research. About 200 pages for total report for this year. Both in English and Japanese.

### 7. Major challenges in relation to collaboration with Policy Research of Environmental Economics

- How to reflect the actual policy priorities, various impacts, and challenges, associated with implementation of 3R policies and waste management, into the economic modeling?
- Identify what kind of policy instruments and combination of policies can be analyzed by economic modeling?
- How to reflect invisible flows/ informal sectors into analysis which is a problem because of lack in official data.
- What kind of indicators/ approaches are useful to “translate” the language of economic modeling into the language understandable to policy makers.

## 8. About the WS

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- The workshop is to inaugurate the Asia Resource Circulation Research Project.
- Participating expert will make a presentation on the proposed research and exchange opinions and share understanding of objectives and directions of this international collaborative research for the next three years.
- Also, the workshop is intended to generate the synergies with “Policy Research on Environmental Economics” from the early stage.
- The workshop will generate an initial message from this research group towards Regional 3R Forum in Asia.

## 9. Discussion Points of the WS

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- *What kinds of incentives or co-benefits exist to further implement the 3Rs in Asia?*
- *How can different stakeholders, especially private sectors and local communities, be motivated to participate in and contribute to the strategic implementation of the 3Rs in Asia?*
- *How can effective collaboration with the environmental economics research group be achieved?*
- *How can research/science contribute to policy formulation and better implementation of policies?*