Chairman's Summary for the Progress Meeting of Research Project on Promotion of Sustainable Development in the Context of Regional Economic Integration – Strategies for Environmental Sustainability and Poverty Reduction –

27 – 29 March 2006
IGES Headquarters,
Hayama, Japan

The Progress Workshop of Research Project on Promotion of Sustainable Development in the Context of Regional Economic Integration – Strategies for Environmental Sustainability and Poverty Reduction – was held at the Institute for Global Environmental Studies on 27 – 29 March 2006. About 30 participants from six countries gathered at the meeting (List of Participants is attached as Annex 1).

The following summarises the major points of discussion and agreement.

1. Overall research framework

The following were noted as important concepts of the project.

(1) The three narrative scenarios will be developed to be applied in the policy and the modelling framework. Economy wide scenarios will take into account 57 sectors in the modelling framework.

(2) Sector specific policy packages as those developed by the policy group for different scenarios.

(3) Strategic environmental policy options are a synthesis of sector/issue specific policy packages (policy analysis) and economy-wide policy packages (modelling analysis).

2. Scenarios development

(1) Three narrative scenarios (i.e. shallow, moderate and deep) will form the basis for both modelling and policy analysis.

(2) The narrative scenarios of regional economic integration need to be further refined, taking into account other elements such as technological changes in the future.

(3) Geographical coverage of this study should concentrate on ASEAN+3 only, and its possible extension will be considered in the future.

(4) Analysis of the services sector will include all four modes and labour force changes will be analyzed separately.

(5) Some degree of technological advancement in the future will be considered together by policy group and modelling group.

(6) East Asia will be an economic partnership agreement not merely an FTA in trade liberalisation per se.

(7) Different sensitive sectors in each country will be included. In the Deep Economic Integration case, all sensitive sectors are assumed to be liberalized.

3. Policy Analysis Methodologies

(1) A set of methodologies will be applied which include causal chain analysis, strategic environmental assessment techniques, cost-benefit analysis, multi-criteria analysis, and social capacity assessment. They will be applied in series both to national and regional studies.

(2) Assessment of institutional capacity will examine capacities held by not only the public sector but also other stakeholders in resolving conflicts of interests and implementing agreed rules and procedures.

(3) Causal chain analysis can be undertaken backward (from response to causes) and forward (from causes to response) to make sure all possible linkages are to be covered.

(4) Multi-criteria analysis can be done manually by expert panels. Indicators widely employed include cost-effectiveness, efficiency, participation, sustainability and so on. There are many criteria available for multi-criteria analysis, but 5-6 criteria are considered appropriate.

4. Policy Analysis

The following 3 sectors were selected from the five sectors originally proposed. The countries to be involved each policy analysis are indicated as well below.

Sectors	Electric appliance and electronics/ Automobile industry	Agriculture/ Agro-Forestry	Energy/ Industry
issues	wastes	natural resource management	air pollution GHGs
China	○	○	
Korea		○	○
Indonesia		○	○
Thailand	○	○	
Vietnam	○		○
Japan	○		○

(1) The three studies to be conducted are a combination of national studies and a regional study. This arrangement makes it possible to examine policy issues in a more holistic manner as well as comparing policy responses between countries.

(2) Detailed TOR including more specific scope will be developed by the end of April, taking into account i) specific concerns raised by each country, and ii) complementarity that can be inserted in the study design.

(3) Electric appliances and electronics/ Automobile industry- Wastes

- Waste issues cover both transboundary movement of waste and waste minimization within national boundaries. The study also will cover both production process and post consumption of products.
- The study should be conducted in such way that one country deals with industrial waste generated from production processes (such as policies to promote utilization of by-product and to discourage land-filling) and others with post consumption waste issues (such as policies to promote, environmentally sound management of e-waste), so that the study covers full range of policies from upstream to downstream of the product life cycle at the national level and allows for bridges to be built with the regional study.
- Implementation for the informal sector in developing countries need to be covered, as the issue is related to poverty.
- How e-waste issue is handled in relation to recycling markets and the Basel convention is a matter for further discussion.

(4) Agriculture (including agro-forestry)

The following points were noted:

- Importance of conducting causal chain analysis in choosing commodities to be studied e.g. top 5 tropical fruits and vegetables for export.
- Importance of examining water pollution by increased fertiliser and pesticide use.
- Policies such as those related to conversion of forest areas to agriculture such as deforestation, biodiversity loss, haze, water pollution
- Importance to examined agriculture/forestry interface (i.e. agro-forestry)
- Demand side policies including those to promote organic agricultural products. Use of certification and eco labelling is also needed to be analysed as non tariff barriers.
- The importance of multi-functionality of agriculture was also noted.
- Poverty aspect needs to be covered as well.

(5) Energy and industry- clean coal and renewable energy.

- Concerns include: 1) the energy sector or other industrial sectors; and 2) to what extent macro-economic policies are considered.
- Both supply side and demand side policies should be considered.

- Policies to promote renewable energy should be a priority
- Technology transfer issues (e.g. clean coal technologies) should be considered

5. Modelling Analysis

(1) The scope of the modelling analysis is economy-wide to show the overall environmental impact of regional economic integration as well as policy impact on the environment, on economy and on society.

(2) Three different scenarios can be quantified by translating narratives to parameters such as tariff rates. Also, using a set of data in GTAP model, non-tariff barriers can be converted into tariff relevant units.

(3) Social Accounting Matrix (SAM) for each country will be used only in relation to poverty. Firstly, we have to see the SAMs of each country, and then will look at the distribution of income from various sectors and see implications for the household. It was agreed that as soon as social accounting matrix is prepared, the work on developing a distributional analysis should start.

(4) Environmental coefficients will be calculated separately from the GTAP model that only simulates economic activity.

(5) It is suggested that, if necessary, participating institutes visit various potential data sources such as major polluting industries for obtaining proxies for BOD and COD.

(6) The following proposal is more or less agreed

- Two track approach to use 2001 dataset and environmental coefficients and then introduce adjustment to 2020 to both the GTAP data set and environmental coefficient as necessary.

6. Tasks and Timelines in FY 2006

6.1 Policy Group

(1) Assessment of the impact of economic integration under SEI and DEI scenarios (April to June 2006). Note: Timeframe is indicative and needs to take into account different country situation.

- assessing the likely impact of REI under Shallow Economic Integration (SEI) scenario and Deep Economic Integration scenario (DEI). Using the Causal Chain Analysis method (CCA), this approach will consist in first identifying the cause and effect linkages between economic changes resulting from REI and their consequent economic effects. Then, trace the social, i.e. in relation to poverty and environmental impacts of the economic changes.

(2) Analysis of sector/issue specific policies (July to December 2006)

- developing the list of environmental policies and actions which can be promoted under the SEI and DEI scenarios. Policies that might be considered for the SEI can be essentially conventional environmental policies such as command and control measures or other policies currently used in the region. Policies that might be

considered for the DEI scenario could focus on the use of new instruments such as market based measures to internalise the environmental externalities to the extent possible in an efficient manner. They also include the issue of supply chain management including promoting corporate social responsibility (CSR), voluntary agreements and informational policies.

(3) Policy impact assessment (November 2006 to May 2007)
- conducting a policy impact assessment in order to determine the cumulative and residual impacts of the policies suggested – use strategic environmental assessment for that purpose – and the policy effectiveness – use cost-benefit analysis and multi-criteria analysis. Please refer to the methodology reference document.

(4) Institutional assessment (November 2006 to May 2007)
- evaluating the implementability of policies to be recommended, employing the Social Capacity Assessment （SCA） approach in order to examine the capacity of government, firms, and citizens and the interrelationships between them. Three stages of institutional capacity development are assumed (i.e. system-making stage; system-working stage; and self-management stage.) Benchmarks and indicators will be used for each stage.

(5) Contribution to regional study (April 2006 or May 2007)
- contributing to the qualitative and quantitative assessment of the socio-economic and environmental effects of economic integration at the regional level,
- contributing to designing of sector/issue specific policy packages for the regional study, providing timely inputs such as the challenges which require a regional approach

(6) Synthesis and adjustment of policy packages (November 2006 to March 2007)
- conducting an integrated policy assessment in order to finalise the sector/issue specific policy packages, consolidating analysis results from both policy and modelling groups.

Note: For the purpose of methodology familiarization, small meetings or workshops will be planned for both modelling and policy groups in the beginning of FY 2006. Detailed methodology guidelines will be developed by the end of May this year by IGES and will be shared with partner institutes as soon as possible.

6.2. Modelling group

(1) Development of environmental coefficients (January to October 2006)
- collecting environmental data for environmental coefficients, in consultation with McGill University and IGES.

(2) Development of modified GTAP model (McGill university with data input from each country) (October 2006 to January 2007)

- assisting data/information collection for this purpose, upon the request from McGill University and IGES.

(3) Preparation of SAM (each country, if available) (from April 2006 to January 2007)
- attempting to obtain social accounting matrix (SAM) with adequate household classification for analysing distributional impacts of policy packages, in consultation with McGill University and IGES.

(4) Scenario development (from April 2006 to July 2006)
- contributing to the development of economy-wide quantitative scenarios for modelling analysis

7. Overall timelines

(1) First Regional workshop (December 2006)
- To discuss quantitative impacts predicted by the modelling group, to examined policy analysis conducted by the policy group, policy makers and experts should be, if resources allow, invited to the meeting to receive their expert views and to agree the detailed work plan after the workshop.

(2) Second Regional workshop (June/July 2007)
- To discuss the outcomes of the modelling group regarding overall implications of the economy-wide policy packages, to examined all the detailed policy analysis conducted by the policy group, and to work out detailed work plan after the workshop. Specific work to be conducted after the workshop will include, among other things, refinements of modelling analysis, synthesis and strategic environmental policy options.

(3) Conclusion workshop (March 2008)
- To discuss strategic environmental policy options developed through the synthesis of both policy and modelling analysis, taking into account cross-sectoral policy analysis (financing and environmental governance), and guiding principles regarding the choice of the policies.

8. Country views and concerns

8.1 Republic of Korea and Japan:

(1) Policy Analysis

- In comparison to other countries in East Asia there will be less negative environmental impacts of regional economic integration envisaged in Korea and Japan.
- Focus of the analysis should be on promoting positive impacts and on examining regional implications. Examples include eco-labelling and certification issues and integrated products policies.
- Analysis in Korea and Japan contribute to other countries in the study to develop sector/issue specific policy packages under deep economic integration scenario.
- Korea and Japan can provide policy analysis from the perspectives opposite to those held by other countries in the study. For example, Korea and Japan export wastes while others import.
- Details of how Japan and Korea policy analysis can complement studies conducted by other countries will be developed later, by properly incorporating the above points.

(2) Modelling Analysis

- Environmental data will be developed by KEI and IGES in respective countries.
- Data necessary for scenario development will be collected by KEI and IGES in respective countries.
- Data necessary for development of other models (distributional model and emission model) will be collected by KEI and IGES in respective countries.

8.2 China

(1) Policy Analysis

- Agriculture and Electric appliances and electronic/automobile industry. Sectors need to be confirmed by Dr HuTao/PRCEE.
- Draft TOR was changed following the structure of diagram.
- Synthesis and adjustment of sector specific policy packages can be completed by the end of FY 2006
- Organisation of training workshop on methodologies to familiarize researchers from participating countries with policy methodologies to be applied to ensure the consistency of the approach.
- TOR needs to be changed consistent with the flow chart.

(2) Modelling Analysis

No particular concerns expressed.

8.3 Indonesia

- A wide range of data shall be collected from different sources while ensuring data consistency,
- Past/ongoing studies should be reviewed and built upon,
- Local/district level studies should be included to supplement the national study,
- Pragmatic output should be aimed at to support policy development and implementation processes,
- Select sectors/commodities based on the trade volume, economic significance and potential importance in the future

Research timetable: elements to be added/adjusted to the presented timeframe

<u>April – mid May 2006</u>

(1) Review of past/current studies on Indonesia's trade, selected sectors and relevant policy/institutional issues;
    - three studies on CGE (Computable General Equilibrium); poverty, industry, trade (trade liberalisation under APEC),
    - UNDP Capacity Need Self Assessment,
    - UNEP Country studies
(2) (ii) Study on CCA (Causal Chain Analysis) methodology and Environmental Coefficients construction

<u>May 2006</u>

(1) Expert discussion in the national levels:
    - - to develop methodologies for studying two major sectors (Agro-forestry and Energy sectors) and obtain relevant information
    - - to develop criteria for selecting the provinces and communities for conducting province/district based case studies

(2) Priority areas to be identified for both agriculture/forestry, and energy/industry

- Potential environmental impacts to be assessed will include air pollution, energy efficiency, water pollution, etc.

Note:

1) Expert consultation meetings/drafting group meetings will be convened as required under the initiative of the LIPI.

2) It is suggested that it would be useful to have a handbook on RISPO research methodologies for a use by researchers to be involved in this research; training opportunities would be also useful provided that they are planned and undertaken in a way to promote common understanding on the methodologies among national researchers/experts sufficiently.

3) Continuous support and involvement of the IGES colleagues are important including the participation at the suggested national focus group discussions/district level discussions.

4) Level of funds and the timing of its disbursement to be clarified.

8.4 Thailand

(1) Selected Priority Sectors

- Agriculture focusing on Thailand's top five exported vegetables and fruits
- Electronic/electrical appliances and automobile industries

These two sectors will be replaced the textile industry in 2.1.1 (1)

1) Agriculture

- The top five exported vegetables and fruits that intensively use chemicals (pesticides and fertilisers) for growing are focused for detailed study.
- The proposed policies take into account
  - Data of chemicals traded.
  - Chemicals-related water pollution (but not to include water pollution in the Gulf of Thailand which should be studied at the regional level). Soil quality degradation, erosion and organic farming (if data is available).
  - Agriculture-related economic, trade and poverty issues.

2) Electronic/electric and automobile

- Electronic appliances and industry is also included for this sector study.

- Automobile industry, including used cars, might be abandoned from this sector study due to existing management approaches of this industry in Thailand (to be confirmed later with more information support)
- Waste from production processes and used products (from both industries, HHs and commerce) will be examined.

(2) Formulation of policy response options

- We suggested that this should be completed before the regional workshop (Nov./Dec. 2006) for the policy response options can be revised in the workshop.

(3) Other issues discussed

- In-dept data of the selected priority sectors, for example water pollution, traded volumes of pesticides and fertilizers as well as of the five agricultural products, etc., will be provided to the modeling team to assist developing the coefficient and running GTAP.
- National data to be provided to IGES / McGill for the modelling includes
  - Updated SAM (as soon as available).
  - Data for environmental coefficient (raw data to be provided).
- Required data will be sent to McGill Univ. and IGES as and when available, as to update the progress.
- Modeling and policy groups must have the same understanding about the scope or definition of SEI and DEI.
- To run the model on REI, the data of countries involved and specified conditions of FTAs (which sectors to be included/excluded, tariff and non-tariff barriers, sensitive sectors excluded from the scope of the FTAs, etc.) need to be included.

8.5 Vietnam

(1) Results discussion on TOR

The terms mentioned in TOR are unanimous, such as:

1) Time schedule
2) Structure, and
3) Tasks related to Policy and Modeling groups

4) Selection of Electronic/ electrical appliances and Energy sectors due to its development trend of trade in the future. Sectors to be confirmed by Dr. Nhan.

(2) Environmental issues in relation with above mentioned sectors:

1) hazards caused by recycling and resource recovering processes
2) health and environmental risks caused by the hazardous wastes
3) air pollution and GHGs issues related to CDM and technology transfer

(3) Matters should be made clear

1) Institutional Assessment: evaluating the implementability of policies to be recommended, employing a Social Capacity Assessment approach
2) It is hoped that IGES provide benchmarks and indicators used for assessment?

(4) Policy Impact Assessment

1) Use Strategic Environmental Assessment (SEA) for policy impact assessment to determine the cumulative and residual impacts of the policies suggested
2) Use Cost - Benefit Analysis (BCA) and Multi-criteria Analysis (MCA) for assessing the policy effectiveness
   → It is hoped that methodology reference document be provided by IGES
   → Training on SEA since not many Vietnamese experts are familiar with SEA
   → Difficulties in doing BCA, even with benefit/ value transfer methods

(5) Viet Nam has SAM – 2000

1) SAM needs permission to use in the study
2) Only need to adjust to 2020 and no need to update to 2001.
3) Need to revise disaggregate and aggregate into 57 sectors from 112 subsectors.

Annex

1. List of participants