

EMF22: Climate Policy Scenarios for Stabilization and in Transition

Introduction and Objectives

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Mikiko Kainuma
National Institute for Environmental Studies
<http://www-iam.nies.go.jp/aim>

EMF22: Climate Policy Scenarios for Stabilization and in Transition

EMF22 Sub-groups Sessions:

- Transition scenarios
- Uncertainty
- Black and organic carbon
- Land modeling

Special Session on International Consortium:

- to facilitate the coordination of scenario development efforts
- Stabilization/Sustainable scenarios

GHG Stabilization Scenarios Workshop

Energy Modeling Forum & National Institute for Environmental Studies

January 22-23 2004, Tsukuba, Japan

Kick-off Meeting of EMF22

Key Issues in the Design of Stabilization Scenarios

Presented by Prof. John Weyant

- Whether or not to use stabilization targets?
- What to stabilize and when?
- What range of stabilization targets to consider?
- What baseline assumptions to use?
- What transition pathways to consider?
- What policy options to include ?
- How to provide hedging relevant information via scenarios?
- What to assume about international trade?
- What burden sharing assumptions to make?
- What to assume about other “climatically important substances”?
- What feedbacks to consider?
- How to provide useful input to impact community?
- What outputs to look at?

Scenarios categories proposed by IPCC Task Group on New Emission Scenarios (TGNES) (March 13, 2006) for IPCC 4th Assessment Report :

- **Category 1: long-term, global emission scenarios** (time horizon over 150 years) for a limited number of regions and sectors based on a few story lines with appropriate reflection of socio-economic drivers in order to assess the impacts on the climate system of possible emission trajectories and its impacts on human and natural systems and the possible adaptation and mitigation requirements.
- **Category 2: short-to-mid-term global emission scenarios** (generally looking 20-40 years ahead) for a larger number of regions and sectors based on reference or "best-guess" scenarios with appropriate sensitivity analysis (or moderately diverging scenarios), using probabilistic assessments for major drivers and parameters. These scenarios should be connectable with the long-term scenarios of category 1.
- **Category 3: short-to-mid-term emission scenarios** (generally up to 50 years ahead) for specific regions or nations with considerable detail, which would primarily have a regional or national function in terms of climate change policy development and evaluation (both mitigation and adaptation); these scenarios would preferably be consistent with the scenarios described under category 1 and 2.

Idea of International Consortium to Facilitate the Coordination of Scenario Development Efforts

The main objectives:

- to help coordinate a process leading to the development of new standardized global scenarios**
- to consult with other climate modeling communities in order to address their scenario development needs as appropriate.**
- to organize the development of new multi-gas scenarios and to select limited number of stabilization scenarios**

How long run scenarios should we go?

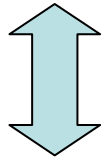
(Important to link climate and impact scenarios)

How about medium-term regional/country

scenarios? (Important in the mitigation context)

What issues to be discussed?

- How to coordinate developing scenarios?
- What kind of scenarios should be developed (Stabilization/Sustainable scenarios)?
- What are driving forces, gases to be considered, targets, etc.?



Link between new scenarios and EMF22

- How to utilize methodologies and data studied in EMF22 (Transition scenarios, Uncertainties, BC/OC/ Land modeling)?