The workshop on mitigation potential, comparability of effort and sectoral approaches

March 23rd -25th

Hosted by Japan, EC and Poland

Bonn

Session 1: Analysis of mitigation potentials and comparability of efforts

Purpose:

- exchange and discuss modelling approaches
- underpin the discussion on mitigation potentials as well as comparability of efforts among developed countries, including especially with a focus of sectoral analysis
- enhance transparency of the information
- facilitate the understanding on fair and effective reduction targets in the context of the UN climate negotiations
- facilitate modelling analysis of developing countries' potentials for nationally appropriate mitigation actions and their respective need for support

Model Analysis

Presentations

- 7 countries, 2 research institutes
- 9 models

Type of Models

- dynamic: general or partial equilibrium models
- statistical: bottom-up aggregation (cost, technology or action-based), IO
- mixture
- simple top-down task sharing
- Global, national and sectoral
- Long-term GHG stabilization and short-term mitigation potential

Evaluation

- emissions (GHGs or CO2)
- sectoral emissions and reduction potential
- cost (with or without trading)

Comparability

- Costs of reduction (MAC, % of GDP), GHG per capita, equal reduction from BaU, GDP per capita, population trends, early action, mitigation potentials and GHG intensity of GDP

Common views

- Large mitigation potential is in power, transportation and LULUCF sector and energy efficiency, estimate of overall potentials are not dramatically different.
- Equal effort would imply different % reduction from the base year (spread in values of QELROs).
- There is a big concern on comparable effort, but there is no simple answer on comparability.
- Small emitting countries have limited domestic flexibility based on their national conditions.
- Some countries have limited statistical data, reliable models and uncertainty of future economic conditions (economic recession).
- Wide use of 2020 as a target year

Differences in modelling exercises

- Definition of BaU is different by models.
- Basic assumptions such as economic growth (including economic crisis), population growth, oil price, technology options, and policies are different.
- Different levels of ambitions.
- A country's MAC curves is different. (MAC curve shows both cost and potential of each mitigation measures. Each country knows best its own MAC curve.)
- Preference of indicator on comparability is different (one dimensional or multidimensional).
- Different reference years (e.g. 1990, 2000, 2005 and 2006) or 2020 baseline

Way forward

- Several parties pointed out that further work could be beneficial on the following points:
  - grasp the reality of each sector to complement modeling exercise
  - consider the use of flexible mechanisms
  - take LULUCF into consideration
- Some expressed the opportunities to continue the informal exchange of views outside the political decision making process for mid-term target setting.
  - Appropriate forums were proposed for consideration
  - Interaction with and among modelers
  - Capacity building and cooperation with developing countries
  - Continuous cooperation and review of information

Session 2: Sectoral Approaches (SA)
- a tool to facilitate action -

Purpose

- move forward practical proposals for development of sectoral approaches (SA) as a tool in the future framework through discussions on the practices in the major sectors with specific goal of developing implementation methodology.

Main discussion theme:

(1) SA in Energy Intensive Industries, Power Generation and Road Transport

(2) SA in the Post 2012 Framework

SA in Energy Intensive Industries, Power Generation and Road Transport (1)

- Difference among sectors

(Iron & Steel, Cement and Aluminum)

- Exposed to international competition and the risk of carbon leakage
- SA driven by international industry associations are most advanced (WSA, CSI, IAI, APP etc)

(Power, Road Transport)

- The risk of carbon leakage is relatively small.
- Necessity of SA in these sectors is recognized provided large share in the global GHG emissions.
- Power generation sector has embarked on sectoral cooperation in such fora as the APP.

SA in Energy Intensive Industries, Power Generation and Road Transport (2)

- Various indicators on sectoral emissions performance

- Difference in indicator development, data collection and international comparability.

(Iron & Steel, Cement and Aluminum)

- Indicators (CO_2/t-production) and data collection well advanced.
- International convergence expected over time.

(Power)

- Rate of non-fossil fuels: not for international comparison
- Thermal efficiency; more suitable for comparison

(Road Transport)

- Integrated approach needed(fuel efficiency, alternative fuel, driving mode, transport flow), not suitable for international comparison
- Data collection lagging behind

SA in the Post 2012 Framework (1)

- Shared view on the need of targeted approach, taking into accoun diverse situation among sectors and countries.

- SA as a tool box;
  - sharing policy best practices
  - ensuring MRVability of actions/commitments
  - developing indicators and setting targets
  - sharing best available technologies
  - technology transfer and identifying bottlenecks
  - collaborative development of innovative technologies

- The need of indicators for MRVability in each country for grasping current status and identifying a clear path forward

- Data collection is crucial, but SA can be launched without perfect data collection (e.g., focusing on large scale and/or incoming installations).

SA in the Post 2012 Framework (2)

- Incorporate public-private sectoral cooperation in the UNFCCC framework; several proposals were expressed to establish a platform with public and private experts.

- All the tools including sectoral crediting mechanisms should be kept as options given their potential utility depending on sectors and countries needs.

- Detail of SA would not need to be fixed by COP 15. Secure “place holders” for SA in the “Copenhagen Agreement”

- Work out more clarities and convergence on;
  - sector coverage
  - sector actions
  - financial/technical cooperation to support them