

Summary Record

Seminar of the Annex I Expert Group on the UNFCCC: "Working Together to Respond to Climate Change"

21-22 March 2005, Paris

Monday 21 March

Opening Session

Kiyo Akasaka, OECD Deputy Secretary General, welcomed participants to the seminar and noted the important technical contributions of the Annex I Expert Group. He also stressed the importance of a dialog between Annex I and Non-Annex I countries on key climate change issues. *Paul Watkinson*, AIXG Chair outlined the planned agenda for the seminar, particularly the five sessions, and noted the timeliness of the seminar given the anticipated start of new negotiations later in 2005.

Session 1: Experience and Approaches Related to Adaptation

Aim of session: To explore national actions on adaptation and exchange views on country experiences.

Various themes were discussed during the session on adaptation. Countries exchanged information on their existing efforts to adapt to climate change. They also exchanged views on the specific needs and hurdles they have identified to further develop their adaptation strategies. In addition, possible topics for international co-operation on adaptation were identified.

What are countries currently doing?

Several countries made presentations that focused on initiatives for adapting to climate change. The topics included:

- Research and assessment activities. Climate-risk assessments are now considered common practice in some countries and modelling of impacts is increasingly focussed on particular sectors, e.g., the water sector.
- Adaptive capacity and awareness raising activities. Examples include: toolkits, web-based tools and guidance manuals.
- Sector-driven (no-regret) strategies. The sectors mentioned include: flood management, health, transport, and land-use planning. In some cases, adaptation to climate change was only a second-order issue within a wider set of priorities, including adaptation to current climate variability. In other cases, specific efforts are being made to "climate-proof" sectoral strategies or activities.

What (else) is needed?

Generally, participants suggested that a push from research to policy was needed. This push could take various forms, in particular through initiatives to further mainstream adaptation in sectors or regional/local development plans. Several issues, such as, food security and dealing with extreme events, were considered important, in particular for developing countries. In this regard, the need for a "culture of prevention" was specifically highlighted, where more action is taken to address possible future extreme events rather than responding to past events. Some countries also considered it important to develop

comprehensive adaptation policy frameworks, not necessarily as separate policies, but more as mechanisms to co-ordinate actions on adaptation. Other countries did not consider this as a priority.

Assessing the economic aspects of adaptation was also stressed as an important priority by several countries. The effect of climate change impacts and adaptation on the insurance sector was specifically mentioned, as was the need for socio-economic scenarios to assess adaptation to climate change.

What are the key hurdles?

Some key hurdles include:

- Adaptation is location *and* issue specific. For each adaptation issue, there is a specific network of stakeholders which must be convinced of the need to respond to climate change, and a set of policy processes that needs to be mobilised. This makes mainstreaming adaptation to climate change particularly challenging.
- Raising awareness by assessing the costs and benefits of adaptation actions was noted as an important priority. The hurdle is that it is often difficult to distinguish climate change effects from those caused by climate variability or, more generally, by socio-economic or other environmental changes.
- Yet in some cases, climate change is likely to cause effects that go beyond known climate variability.
- Another key hurdle is that adaptation is not a one-time response measure. It is a process that needs to respond to climate change over different time scales.

Role for international co-operation

Participants suggested that the following topics could benefit from further international co-operation:

- Research: there is a continuing need to improve quantitative tools to assess impacts to climate change as well as to improve regional climate prediction, including better data collection.
- Adaptation technologies.
- Assessment of measures to address the transboundary effects of climate impacts.
- Exchange of information and “serious discussion” of appropriate international development assistance policies related to adaptation.
- Development of methodological guidance for adaptation assessments that includes case studies.
- Exchange of experiences on adaptation actions at a practical level: for instance, there is a need to go beyond “tool sharing”, to exchange practical information on sectoral (no-regret) measures.
- Costs/benefits/analyses of adaptation activities.
- Oversight/assessment of domestic adaptation strategies to facilitate domestic implementation.

Session 2: Experience and Approaches Related to Mitigation – National Experiences

Aim of session: To reflect on current efforts to design and implement policies that limit greenhouse gas (GHG) emissions and on what may be needed to achieve GHG mitigation reductions.

The session started with an introduction by the UNFCCC secretariat on the status of mitigation under the UNFCCC, emphasising the upcoming fourth national communications and reports on demonstrable progress for Kyoto Protocol Parties. The IEA presented the *World Energy Outlook 2004* projections of global energy supply and demand, and related CO₂ emissions. The WEO 2004 shows that unless new measures are taken, global emissions will rise by more than 60 percent between 2003 and 2030; power generation and transport GHG emissions will rise the most rapidly. In its reference scenario, fossil fuels remain dominant in primary energy supply, nuclear loses share and hydro is stable; gas surpasses coal; oil remains the primary energy source. This scenario raises concerns about security of energy supply with increased concentration of production in very few countries and increasing CO₂ emissions. The alternative WEO policy scenario shows the potential effect of policies that are currently under consideration in developed and developing countries. These policies include: end-use efficiency improvements, fuel

switching, increased use of renewables and nuclear power. Global emissions would be some 16 percent or 6 Gt CO₂ below the reference scenario emission levels in 2030. Energy efficiency would contribute the majority of reductions, mostly at no net cost. Emissions of CO₂ in OECD countries would peak by 2020, while emissions in developing countries emissions would continue to grow. Realisation of this scenario would require significant government intervention to foster increasing energy efficiency and fuel switching.

What are countries currently doing?

Several countries presented recently initiated measures to mitigate GHG emissions. They address various sectors and sources and range from local to international actions. The following issues were raised in the discussion:

- Emission caps have been established for several sectors as part of the European Union Emissions Trading Scheme (EU ETS). A carbon price now exists that can be used by investors to guide decisions relating to GHG-intensive production.
- Energy efficiency: the measures noted include building standards, labels for appliances, and tax incentives, including reduced border taxes to encourage imports of efficient end-use technologies. The role of energy efficiency in enhancing industrial competitiveness was also stressed. Some transition economies noted that in moving to a market economy and modernising their industries, they have improved efficiency.
- Price distortions (subsidies): these continue to stand in the way of rational energy use in some countries.
- Co-generation: this is an important option for small enterprises and the building sector, which may not be covered by emissions trading schemes. Investments in co-generation could reduce GHG emissions, particularly in transition economies.
- Measures to encourage fuel-switching and more energy efficient technology in power generation: these are effective, but in some cases, rapid growth in electricity demand is off-setting emission reductions achieved through such changes.
- Climate action plans and strategies: these are important tools, but they must be monitored to evaluate their effectiveness.

What measures taken for other policy purposes have contributed to mitigation?

- Policies to meet air quality standards have also contributed to lower CO₂ emissions, especially in transition economies, where part of the production capacity was removed or modernized.
- Some climate policies have been structured to bring additional benefits, such as eco-tax revenues that are recycled to lower employment taxes. These co-benefits have generally strengthened the legitimacy of the measures.

What lessons can be drawn from efforts to date?

- There are significant investments being made in the development of infrastructure in developing countries, which will affect future emissions and the ability to achieve mitigation at low cost. Infrastructure development also remains an important element for industrialised countries, particularly in the transport and power generation sectors.
- Data on historical emissions from individual sources can help promote better policies, as illustrated by the implementation of the EU ETS and the process of developing national allocation plans.
- Public awareness on climate change is important to ensure the acceptance of mitigation policies.
- Climate policies are more acceptable if the broader implications are recognised, e.g., energy security and investment needs. While there seems to be clear synergies between some of these goals, awareness may still be lacking.
- The cost implications of certain measures must sometimes be considered in a bigger picture to facilitate action, e.g., lower tax revenues from low tariffs on energy-efficient appliances, eventually off-set by lower expenditures in power capacity.

- Funding remains a stumbling block for mitigation measures, especially, but not uniquely, for transition economies and developing countries.
- The cost of certain mitigation measures can be lowered as experience is gained and measures properly monitored. For example, depending on the type of technology, it may be possible to adjust the ‘guaranteed’ price for electricity from renewable energy over time.
- Some sectors, such as transport, households and small businesses need additional attention since they are often not included in either emissions trading systems or voluntary agreements.
- Economic and social benefits that extend beyond GHG mitigation make policies more difficult to contest. These benefits are not always identified or assessed -- they warrant further analyses and information sharing.
- Drivers of energy policy include the need to: provide low income populations access to electricity, improve the economic efficiency of electricity generation, address local and global environmental issues and meet energy security requirements. It was pointed out that some energy policy decisions have led to emission increases, showing that policy drivers do not always work in synergy with climate mitigation goals.

Session 3: Experience and Approaches Related to Mitigation – Clean Development Mechanism

Aim of session: To examine developments in the Clean Development Mechanism (CDM) portfolio, institutions and investments, and to explore ideas to improve the effectiveness of the Clean Development mechanism.

The CDM session focused on the achievements at the national, international and project level. Countries also exchanged views about the “teething problems” and other barriers that impede increased numbers of CDM projects from being brought forward and/or registered in a timely manner. Discussion focused on what improvements could be made pre-2012 and what could be done post-2012.

Recent institutional and other developments

This session started with several introductory talks on the status of the CDM portfolio. As of March 2005, the CDM portfolio included 284 projects for which a project-design document has been prepared. These projects are in 51 countries.¹ It was noted that the portfolio is changing rapidly, that it is currently dominated by projects that aim to reduce high GWP waste gases, that some of the projects are very large (1-10 million credits/year) and that renewable projects seem to be declining in numbers. A relatively small number of countries (India, Korea, Brazil, Mexico and China) dominate the portfolio with Africa and AOSIS countries representing only a small portion of the proposed projects. Approximately \$1.7 B USD has been made available for CDM/JI funding from several different sources, with the World Bank accounting for nearly \$850 M USD.

A second introductory talk addressed the experiences of Latin American countries (LAC), where there is much interest in CDM development in both the public and private sectors. Not surprisingly, there has also been significant progress on CDM issues at the institutional, capacity-building and project level. In general, CDM projects developed in LAC are more diversified by size than the global portfolio. Regarding project types, renewable energy account for the majority of Latin American projects, followed by those that capture methane, e.g., from landfills. The sustainable development benefit of such project types was highlighted. These include “greening” the energy mix, increasing access to energy in rural areas, improving air quality and conserving natural resources. The issue of relatively high transaction costs has, however, been a problem particularly for the development of smaller projects and work is underway to try to reduce these costs.

¹ As of May 2005, 325 project design documents had been prepared in 53 countries.

Presentations by the UNFCCC Secretariat and a member of the CDM Executive Board (EB) focused on recent developments at the international level. The entry into force of the Kyoto Protocol has heightened interest in the CDM and provided momentum to the development of projects that promote sustainable development and provide credits for compliance purposes. By May 2005 these developments included:

- Establishment of more national CDM authorities (there were 76 “designated national authorities” or DNAs).
- Establishment of two new groups to advise the CDM EB on afforestation/reforestation issues and small-scale CDM issues.
- Approval of several methodologies to quantify the emission benefits of CDM projects in several sectors.²
- Accreditation of 8 “designated operational entities” that can validate or verify CDM projects.

What is needed to accelerate project development now?

Several issues were highlighted as current impediments to CDM project development. These include the need for:

- A post-2012 signal (to ensure the value of credits generated after that date).
- Rectification of the institutional weaknesses of designated national authorities, through additional funding and legal frameworks.
- The Executive Board to find ways to reduce delays and risks associated with methodology and project approval.
- To find other cost-reducing strategies, which would be possible if there were validators from the project-site region.
- Methodologies which help to integrate climate change into national policies.

The additionality requirement was also noted to be a problematic issue by some countries.

Key issues for the future

A number of suggestions were made for the post-2012 period. These include:

- Assessing the potential of and issues relating to sector-wide approaches.
- Consideration of policy-based approaches.
- Exploring how the large potential of energy efficiency activities could be “tapped”.
- Ensuring that CDM does not create “perverse incentives” for climate policies, which could occur if integrating climate change concerns into policies results in disqualifying potential CDM projects.
- Build capacity at a system rather than project level.

² By May 2005, 22 individual methodologies and a further 3 “consolidated methodologies” (with broad applicability) had been approved by the CDM Executive Board (EB)

Tuesday 22 March

**Session 4: Experience and Approaches Related to Mitigation –
Approaches for Future International Co-operation**

Aim of session: To share a common understanding of the main features, strengths and limits of various approaches for future international co-operation on climate change mitigation.

This session focused on three general questions:

- What options for international co-operation are most conducive to domestic action?
- Could an agreement containing different approaches be designed in such a way so as to encourage participation, provide flexibility, minimise costs and ensure that all countries have a relatively similar burden and environmental outcome?
- Which sectors are most appropriate for international discussion and which can be integrated with other approaches in a practical way?

Various views relating to future international co-operation were put forth in three introductory talks. These may be classified as ‘broadening participation and improving upon the Kyoto Protocol’, ‘the use of multiple approaches with big emitters taking the lead’, and ‘building a future agreement to address key sectors’, namely: transport, electricity and heat, manufacturing and construction, agriculture, land-use change and forestry and other fuel combustion

The AIXG Secretariat presented its ongoing work relating to options for future action on climate change mitigation. This work classifies the various options into a few broad categories: one is based on quantitative approaches that would be somewhat compatible with international emissions trading schemes. Information was presented on the nature of the quantified objectives and on the timing and differentiation of emission objectives. Another category, which would not be compatible with a broad emissions trading regime, includes various forms of agreements on policies and measures and technology-focussed approaches. The approaches are building blocks meant to present the reader with a broad set of options, which could be combined in various ways.

The ongoing work of the *Centre National de la Recherche Scientifique - Laboratoire d'Economie de la Production et de l'Intégration Internationale* (CNRS-LEPII) was also presented. This work focuses on how different types of quantitative targets would be affected by unexpected economic effects. Given the set of hypotheses adopted for this modelling exercise, the analysis suggests that unexpected emission increases from large countries with non-binding targets may not induce deviations in emissions from other countries with price caps. This is because an increase in energy prices resulting from greater demand reduces marginal abatement costs and reduces the risk of skyrocketing carbon prices.

Key issues for the future

The discussion relating to future international approaches to GHG mitigation was very broad. It was generally noted that any future agreement would have to be perceived as fair, equitable and involve more countries. Many countries also noted that a future agreement would need to:

- Be based on differentiated responsibilities.
- Allow developing countries to achieve economic growth.
- Give greater consideration to incentives.
- Continue to make use of market instruments.
- Balance mitigation and adaptation.
- Recognise that competitiveness is a significant issue for many sectors facing international competition.
- Focus on stimulating investments in technology development and providing incentives for the transfer of technology.

In addition, several countries noted that an agreement could have multiple elements and provide for different approaches such as a cap and trade system and voluntary measures.

Session 5: International Technology Collaboration

Aim of session: To explore the role that international technology collaboration can play to enhance innovation and investment in climate-friendly practices and technology to achieve the objectives of the UNFCCC.

This session started with a presentation by the UNFCCC Secretariat on technology transfer activities under the Convention. A technical paper on innovative financing options relating to technology development and transfer is planned for November 2005 (SBSTA 23) and a synthesis report of the Technology Needs Assessments activity is to be considered by SBSTA in May 2006. This is in addition to continuing work on technology information and networking. Ghana presented information on its experience in developing a Technology Needs Assessment, particularly the process, content and challenges. The TNA notes that there are insufficient entrepreneurial skills and financing to advance quickly from the technology assessment phase to the implementation phase.

The AIXG Secretariat presented three new case studies of international technology collaboration: *Appliance Energy Efficiency*, *Clean Coal Technologies* and *Wind Power Integration into Electricity Systems*.

Key issues for the future

During the discussion, the participants noted the importance of maintaining support for several recent initiatives, including:

- Renewable energy policy network.
- Proposed international collaboration on renewables market deployment.
- Renewable energy action plan (Bonn 2004).

It was noted that bilateral agreements are an important means of transferring information and facilitating the technology transfer process. It was also noted that working with industry in developing countries to promote energy efficiency can be an opportunity to deploy new technologies, as was the case when the Japanese and Chinese steel industries collaborated. However, it was also noted that importing technology on a strictly commercial basis can be expensive for developing countries and that such transfers do not meet the commitments identified in Article 4.5 of the UNFCCC.

Some of the main messages from the presentations and the discussion among delegates were:

- International collaboration is very useful, particularly during the R&D phase.
- Collaborative international R&D programmes need to be linked to national and local innovation systems.
- Successful diffusion involves more than the transfer of equipment, as demonstrated in the case of the GEF-supported transfer of efficient industrial boilers to China.
- There is a need for governments to establish frameworks and policies that encourage investments.
- International property rights need to be respected.
- Governments in industrialised countries should support capacity building, since this is not a high priority for the private sector.

There was broad agreement that technology development and transfer should be a main element of a future framework for addressing global climate change.

Closing Session

The seminar was concluded by the Chair after a brief discussion among the participants about the value of the seminar, what they had learned and how future seminars might be designed.