Workshop 3 – Adaptation versus and/or Mitigation?

Introduction

The aims of the workshop were to share experience of adaptation and mitigation between people with different backgrounds and to explore alternative policy options and directions. The second aim was to get a sense of the complexity involved in adaptation and mitigation measures.

Conceptual Framework

The overall goal of climate change mitigation and adaptation is to keep GHG emissions at levels that are not dangerous to human beings. The workshop considered climate change impacts on both human and natural systems. The concept of mitigation was considered as a long-term measure, mainly at the global level, whereas adaptation was considered as a short-term measure at the local/regional level that can either be undertaken in anticipation of (ex ante) or after (ex post) the effects of climate change.

The Engelberg Pre-Conference Student Group developed the workshop hypothesis and discussion framework. The following issues provided departure points for the discussion:

1. Technology/infrastructure and innovation
2. Institutions
3. Capacity building and knowledge
4. Cooperation (cooperative behaviour)
5. Equity (reduced disparity, north /south)

All the five focus areas were discussed within an overall framework of the four cross-cutting issues, namely:

1. Time scales
2. Rate of change and system disruptions
3. Actors (individual to international community)
4. Costs as a function of time, money, life, moral (social)

Discussions

The following are the emerging issues that arose from the discussion

Technology/Infrastructure and Innovation

The discussions revealed that technological needs vary with the state of development. This was reinforced by the examples of artificial snow seeding in the Alpine region and the locally based mangrove conservation technology in India. The need to balance technology and behavioural change in adaptation and mitigation processes was also evident from the discussion.

Institutions

The workshop explored the shortcomings of existing institutions in promoting both mitigation and adaptation. These were identified as:

1. Top-down approaches
2. Industrialized-developing countries
3. Lack of strong global consensus needed for mitigation
4. Complexity of the problem exceeds the capacity of the existing institutions to act

Capacity Building and Knowledge

Demonstration projects could be one useful tool of enhancing capacity at the micro level. An example was cited in India where farmers are making use of knowledge centres to translate indigenous knowledge for adaptation to climate change effects like changes in rainfall patterns.

Lack of knowledge and uncertainty on climate change and social systems, coupled with gaps in understanding future demographic dynamics has hampered effective capacity building for mitigation and adaptation. This is made worse by the fact that capacity building is undertaken on the assumption that behavioural change is a direct result of education and knowledge transfer, which may not be the case.

Experience shows that society sets norms about behaviour mostly under the influence of trends, social status and fashion, as in the case of adoption of new housing technology in Switzerland and Sweden, changes in lifestyle with regard to smoking and extensive peer influences. Success on mitigation and adaptation measures would therefore not entirely depend on knowledge alone but also on the influence of social pressures within the society.

Cooperation and Cooperative Behaviour

In general, mitigation would require a top-down cooperation approach and adaptation would require a bottom-up approach. However, a horizontal connection between mitigation and adaptation is also necessary to address climate change.

Climate change will ultimately force cooperation between entities (e.g. states, enterprises, industry, individuals etc.) because single entities will not be in a position to deal with the problem in isolation.

Equity

The element on differences in the state of development worldwide (industrialized vs non-industrialized) must be factored in any mitigation and /or adaptation measures for climate change and reduction of greenhouse gases. Adaptation and mitigation measures must also be based on historical trends of emissions in different parts of the globe.

Mitigation and adaptation measures should ensure that non-industrialized countries avoid the development path pursued by the industrialized countries. These measures, however, should not undermine the development priorities of non-industrialized countries and should also not lead to social problems like unemployment in industrialized countries.

The dilemma of globalization and sustainable development was discussed considering that globalization could be one of the options in climate policy. Globalization would, according to the IPCC SRES scenario A1 in the long term lead to lower overall carbon dioxide emissions as opposed to scenario B2 that would be characterized by a steady growing emission rate. Scenario A1 is projected under the assumption that new technologies would be available; there will be healthy economies in the industrialized countries and that globalization would lead to diffusion of technology worldwide. Under scenario B2, assumptions are made that economies would be locally based, slow technological advancement, no globalization. This is commonly associated with sustainable development.

Opportunities and Conflicts

Policy conflicts could arise from mitigation and or adaptation. An example of this was given as the European Union (EU) emissions taxation on Aviation, which has negatively affected the tourism sector due to increased costs, consequently impacting negatively on non-industrialized countries whose economies are dependent on EU tourism.

Mitigation and or adaptation presents potential opportunities for tackling development priorities in non industrialized countries in Asia, Africa and Latin America by contributing to poverty reduction, reducing unemployment and securing livelihoods.

“Buying Absolvence Type Approaches” should not completely substitute nor draw attention away from practical mitigation and adaptation efforts that ultimately lead to reduction of GHG concentrations in the atmosphere.

Conclusions

Climate change mitigation and adaptation involves an extremely complicated process with many actors pursuing different, and sometimes, conflicting interests. It is necessary, therefore, to create or modify institutions at all levels to be able to effectively handle the great challenge of climate change through cooperation that ensures equity among and between all actors. It is evident that voluntary measures and initiatives are insufficient to meet the IPCC set goals; consequently, the international community must emphasize more on control and command measures.

Annex: List of Participants

	Moderator	
1	GROSJEAN	Martin
	Pre-Conference Student Group	
2	SCHWARZ	Rixa
3	MOLIDA	Martha
4	OSANO	Philip
	Participants	
5	BAKKER	Susanne
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7		David
8		Simon
9	APPADURAI	Nambi Arivudai
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