

## **National/Regional Assessments of the Climate Change Impacts and Adaptations: The beginnings of an international dialogue**

A number of countries, both developed and developing, have undertaken national assessments of the potential impacts of climate change and adaptation options. In so doing, they have been responding to the need for systematic and periodic national and regional assessments of the current state of knowledge of the impacts of climate change and adaptations thereto. Governments have also recognized the need for these types of assessment by including commitments for national, regional and global assessments in associated international agreements (e.g., UNFCCC and its Kyoto Protocol, and Agenda 21).

Most assessments to date have been seen as a means of enhancing the understanding and informing decision and policy makers of the particular country's or region's vulnerability to projected changing in climate and as a means of furthering the identification of responsive adaptation options (i.e. one adapts to the impacts of climate change). They are also seen as contributing to the international community's understanding and informing international policy makers by providing the basis for the global assessment undertaken by the Intergovernmental Panel on Climate Change.

It is recognized (e.g., within the Climate Agenda and the IPCC), however, that the means by which such assessments are undertaken by individual countries are only just beginning to emerge and could significantly benefit from the introduction of an international dialogue on national/regional assessments.

As an initial step in introducing such a dialogue, a number of representatives of national and regional assessment teams and relevant international organizations came together north of Montreal, Quebec, Canada in late October, 2000. At this meeting, participants shared information on approaches that have been used for national/regional assessment<sup>1</sup>, on lessons learned through those assessments, and on how and why they saw these assessment evolving.

Through this initial dialogue, participants expressed their views and identified issues requiring further exploration under the following topics:

---

<sup>1</sup> Although there was purposely no detailed discussion on what the group included under the term "assessment", it has been suggested as a starting point for consideration in future discussions that one could define an assessment as an iterative analytic process that engages both analysts and end-users to evaluate and interpret the interactions of dynamic physical, biological, and social systems for the purpose of communicating useful insights about the significant causes and likely consequences of climatic change, and about potential response of affected systems and components thereof.

### Substance of future assessments

There is an increasing demand for assessments that are place-based, more integrated and comprehensive, involve stakeholders, and that address vulnerabilities and adaptations thereto.

There is a need to link national/regional and international/global assessments.

### Strategies for implementation (process)

There is a need to rethink the structure and scope of the participation process and mechanisms required for coordination, especially considering the integrated nature of assessments and the need within an assessment process for common understanding of content and structure. Consideration should be given to the timing/frequency of assessments (i.e. should they be undertaken at regular intervals, and/or on an iterative or continuing basis) and to be clear about the nature and timing of the associated review of assessments. Consideration should also be given to moving from addressing research gaps to addressing policy concerns and options.

### Audiences and Communications (devices and means)

Communications are a critical component of the assessment and need to consider explicit and implicit audiences. There is a need to ensure that the assessment is relevant and is presented in a manner that is accessible and meaningful to the target audiences (may require a range of outputs). Need to consider the possibilities of including communication experts as part of the assessment team. Linking the assessment into the education system may provide some valuable opportunities.

### Methodologies/Best Practices for Assessment Implementation

No single best method is widely accepted and there may be advantages to incorporating tools from various sources and paradigms. There is an increasing demand/desire to present the advantages and disadvantages of various policy options through the assessment process. Including climate variability and historical climate impacts and adaptations can have considerable advantages. A multidisciplinary approach is needed as impacts and adaptations are not just in the purview of the climate science community - necessity to choose the right scientists/experts who are open to multidisciplinary considerations and have appropriate interpersonal relationships. There is increasing recognition by stakeholders of the value of appropriately including traditional knowledge as an integral part of the assessment including in its conclusions. These trends and challenges suggest the need to involve both scientists and stakeholders working together to achieve the desired results. Sufficient resources are required to maintain an assessment process which is capable of yielding credible results.

## Assessment Focus

It appears that the real driver for these assessments should be vulnerability. There is a need to consider an adaptation baseline and to determine current and future vulnerabilities and the potential for adaptation options, as well as the use of past information and trends in vulnerability and adaptation. Determining whether and how best to include mitigation as part of the assessment remains a challenge.

## Comparability of Approaches

Current trends and developments suggest there may be a demand for a different role for the IPCC in regional assessments (e.g., promote, support and facilitate). This should include consideration of the purposes of the IPCC regional assessments and the intended audiences. There is a need for an expert evaluation of the successes and failures of regional/national assessments. The research and policy communities would benefit from an expanded capability for dialogue among those involved in national/regional assessments. Further benefits could be derived from stronger linkages among the different scales and complex set of impacts and adaptation assessments underway (climate change, biodiversity, stratospheric ozone, etc.).

## Uncertainties and Levels of Confidence

A lexicon is needed that can be used to effectively convey levels of likelihood and levels of confidence (and uncertainty) that is meaningful to the public. Drawing on related work in other assessments would be useful. Need to be more successful in communicating risk. The use of a framework that utilizes multiple scenarios and adopts a vulnerability focus could be helpful in communicating risks.

## Need for Further Dialogue

The participants concluded by noting that they had only begun to scratch the surface on this subject and that there is a need to involve other interested parties in further exploring the evolution of the assessment process. The participants believe that there is a need for continued dialogue, possibly an ad hoc forum that meets on an annual basis (timing and frequency dependent on the work program) and an Internet site, both which would build on the substance of this meeting and provide opportunities for more detailed discussions and to exchange experiences/lessons learned on subjects of interest.

This paper, along with the established Internet site ([http://www.msc-smc.ec.gc.ca/airg\\_dialogue](http://www.msc-smc.ec.gc.ca/airg_dialogue)) reflect the extent and scope of this initial discussion. It is our belief that by continuing these discussions and broadening the participation through similar dialogues in the future, the evolution of national/regional assessments of the

impacts of climate change and adaptation will provide more effective and responsive information to citizens, including national and international policy makers.