

17 March 2008

Dr. Rajendra Pachauri
Chairman, Intergovernmental Panel on Climate Change

Dear Dr. Pachauri:

We are pleased to send you the enclosed report, *Towards New Scenarios for Analysis of Emissions, Climate Change, Impacts, and Response Strategies*. This report summarizes the findings and recommendations from the Expert Meeting on New Scenarios in Noordwijkerhout, The Netherlands, 19-21 September 2007. This report is the culmination of the combined efforts of the New Scenarios Steering Committee, an author team composed primarily of members of the research community, and numerous other meeting participants and external reviewers who provided extensive comments during the expert review process.

The expert meeting included presentations focused on needs for scenarios as seen from a policymaking perspective, a review of past IPCC scenarios, overviews of evolving plans in the research community, needs and opportunities for scenarios on two different time scales (“near term”—to 2035, and “long term”—to 2100, extended to 2300 for some applications), and a review of options for the benchmark scenarios, referred to in the report as “Representative Concentration Pathways” (RCPs). Additional presentations addressed institutional issues and options for increasing participation by developing and transition-economy countries. The remainder of the meeting was organized around a series of breakout groups and plenary sessions that provided an opportunity for the research communities to further coordinate their plans, to refine the proposal for the RCPs, and to consider additional cross-cutting issues.

To ensure representation of all major stakeholder groups in the discussion, the Steering Committee selected over 130 participants for the expert meeting from among a much larger number of applicants. These participants represented diverse perspectives from the climate science, impacts, and integrated assessment research communities, scenario user groups, and multilateral and international organizations. More than 30 percent of the meeting participants came from developing countries and countries with an economy in transition.

As requested, through the expert meeting we identified a set of RCPs from the published literature. These pathways provide common starting points from which climate and integrated assessment modelers can begin to work in parallel toward the generation of new integrated scenarios of climate change for a possible AR5. The expert meeting conditionally recommended that the lowest radiative forcing pathway available in the literature from this class of models – IMAGE 2.6 – be used as one of the RCPs because of the strong interest of participating representatives of the policy community. But because this radiative forcing pathway has not been replicated by other models in this class of IAMs, the Steering Committee requested that the Integrated Assessment Modeling Consortium (IAMC) form an evaluation panel to ensure that the scenario is scientifically suitable for use as an RCP. An evaluation process was agreed to by the IAMC and Steering Committee and is described in the report and a series of letters provided in an Appendix. While evaluation panel members may not necessarily agree on all aspects of the robustness of the IMAGE 2.6 scenario, they are asked to provide a single recommendation to the IAMC as the convening body on whether or not it should be considered robust. The IAMC will then transmit the finding to the Steering Committee for expected confirmation of the recommendation.

The steering committee adhered to the catalytic role defined by the IPCC. The report thus describes the current state of planning by the scientific community for preparation of new scenarios. Aspects of the process are still being planned, and thus the report describes a “work in progress.” It is important to note that many of the planned activities encouraging communication and integration across the climate

modeling, impacts, adaptation, and integrated assessment communities will require a great deal of effort by the research communities and additional support from governments and funding agencies.

We wish to call two additional points to your attention:

First, the scientific community has anticipated that, in line with past practice, a clear decision on the time line and phases of a potential AR5 report would be made by the Panel in 2008. The community is concerned that any delay in that decision would have a major impact on the coordination of the climate modeling work necessary in the first phase of the plans outlined in the report. This outcome stems from the fact that, in the absence of a date certain for the completion of AR5, all the major Working Group I modeling groups will continue active development of their models until the AR5 time line is announced. The details of these developments can affect what types of inputs are needed, particularly with regard to the coupling of atmospheric chemistry and the carbon cycle. Thus increasing this model development period raises the potential for substantive changes that would require detailed reconsideration of the scenario-based inputs to be provided by Working Group III. Collectively, these timing considerations necessitate a period of at least 5 to 6 years for the completion of AR5 following its initial announcement.

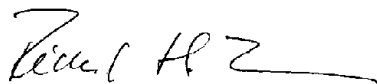
Second, the expert meeting and subsequent process of drafting the report has engendered extensive interactions across the research communities and with various user groups. Given their previous roles in the climate modeling and integrated assessment modeling communities, the World Climate Research Programme and the IAMC are poised to play key roles in the proposed plan. However, as yet there is no institutional arrangement to assist the necessary cross-disciplinary communication required—particularly on such a tight timeline. Thus, despite the current willingness and engagement of key individuals, success will be a major challenge and is by no means assured. Given the existing role of the TGICA in facilitating cross-disciplinary communication, the Panel may wish to invite the TGICA to regularly monitor and report to the Panel on progress in the planned activities.

As we transmit this report to you, we would like to offer our gratitude to those who have made our work possible. We wish to thank the Government of the Netherlands, which provided administrative and logistical support to the Steering Committee and served as a gracious host for the Noordwijkerhout meeting. The Working Group III TSU provided tireless assistance in organizing teleconferences, communications, and the expert meeting itself. Finally, as co-chairs, we would like to offer our deepest thanks to the members of the New Scenarios Steering Committee and the report's author team. These individuals showed tremendous dedication—without them preparation of the meeting and this report would not have been possible.

With best regards,



Ismail Elgizouli
Co-Chairs, Steering Committee



Richard H. Moss

Attachments:
Expert Meeting Report
List of Steering Committee Members