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INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



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NOTE ON EMISSION SCENARIOS FOR USE BY THE IPCC

(Submitted by the Chairman)

EMISSION SCENARIOS FOR USE BY THE IPCC

1. Background

- 1.1 The Panel at its 20th Session (Paris, February 2003) addressed under agenda item 3.3, the subject of emissions scenarios for use by the IPCC. In essence, two issues were addressed in this context:
- (a) How best to respond to recent criticism in the media and elsewhere on the SRES scenarios used in the Third Assessment Report (TAR); and
 - (b) How to ensure that the Fourth Assessment Report (AR4) is not subject to similar criticisms.
- 1.2 A contact group was set up to recommend a response strategy and the Panel took the following decision: “Based on the recommendations by the contact group the Panel noted the recent criticisms of some methodological aspects of the SRES scenarios and encouraged the Chair and the SRES authors to respond to them. The Panel decided that the Chair, in consultation with the Bureau, should prepare a process to ensure the consistent use of scenarios in the Fourth Assessment, as part of the scoping meetings.”

2. Outcome of Discussions During the Two Scoping Meetings

- 2.1 Following up on the decision by the Panel during IPCC-20, the Chair has pursued a dialogue with several members of the team that worked on the SRES as well as others not connected in the recent past with emissions scenarios work specifically for the IPCC. To carry this process further, a group was assembled to work in parallel on this subject at the first AR4 Scoping meeting in Marrakech. Additionally, before the Second AR4 Scoping Meeting an informal meeting was held in Potsdam on Sunday, the 31st of August, 2003 at which some experts involved in the work on the SRES as well as some others were invited to participate. In addition, the three Co-Chairs of the Working Groups were either present themselves or arranged participation of representatives to reflect the views of each Working Group, so that the issue of emissions scenarios could be dealt with across the board in a consistent manner. Three objectives were put forward by the Chairman before the participants of the meeting at Potsdam.
- (i) To come up with a consistent and forward-looking approach on the use of scenarios in various parts of the AR4.
 - (ii) To indicate directions for scenarios related work beyond the AR4 and particularly for the Fifth Assessment Report (AR5).
 - (iii) To deal with recent criticism of SRES in the media and elsewhere, after adequate discussion had taken place on items i and ii.
- 2.2 Participating experts explicitly agreed that the focus should be on how the IPCC should deal effectively with scenarios in its work as related to the AR4 and beyond. On the basis of the meetings and consultations that were carried out on this subject, both in Marrakech and Potsdam, some broad conclusions were arrived at as summarised below:
- 2.3 On objective (i) there was broad agreement that for the AR4 assessment period, the IPCC should assess new work on emissions scenarios as well as reactions to the SRES. Each of the Working Groups will assess relevant work in the literature, which in some cases may be based on scenarios and assumptions in addition to SRES. However, consistent with the

IPCC procedures, it would not be appropriate for the IPCC to endorse any emissions scenarios that had not been fully assessed and reviewed.

2.3.1 Based on the process of continuing re-assessment, the conclusion was that the SRES scenarios provided a credible and sound set of projections, appropriate for use in the AR4.

2.3.2 The Chairman and the Working Group Co-Chairs should ensure effective coordination between the Working Groups in dealing with scenarios during the preparation of the AR4.

2.3.3 In the treatment of stabilisation scenarios, it was agreed that IPCC should not go into harmonising such scenarios, but focus on a broad assessment of new literature on various multi-gas mitigation, and stabilisation scenarios in the AR4. In support of that task, IPCC could organise an expert meeting to tap into ongoing studies such as the collaborative efforts of the EMF.

2.4 On objective (ii) there was considerable discussion on long-term work on emissions scenarios specifically for the AR5. Several options were considered in this context for IPCC's activities. Specifically, the following options were discussed:

1. The IPCC continues to actively develop scenarios on the basis of extensive assessment of literature
2. The IPCC encourages or induces work on scenarios by others and sees how it can add value to the work of these groups
3. The IPCC only carries out assessment of scenarios work

2.4.1 There were voices in support of options 2 and 3, but it was also mentioned that scenario development and modelling may be difficult for developing country groups if the IPCC withdraws completely from that activity. Greater thought needs to be given to this aspect. The timing of new scenarios was also discussed and it was felt that new scenarios (if any) should become available early in the AR5 assessment cycle, i.e. 2008. To initiate preparatory work on scenarios for AR5, a workshop could be held within a year and a half to review the AR4 assessment work in hand.

2.5 On objective (iii) the group agreed that SRES authors, in addition to the responses published in the journal "Energy and Environment", shall try to get articles published on matters addressed in the criticism and future work on emissions scenarios in reputable peer reviewed journals. As an additional option, it was suggested a more general debate on scenarios related issues be stimulated through other publications as well as appropriate meetings, including IPCC co-sponsored experts meetings and workshops. Concerning criticism repeatedly voiced by certain individuals, it was felt that no further response is required other than publications in peer-reviewed journals.

2.6 During the course of the scoping meeting in Potsdam informal discussions continued and the matter was briefly discussed at the 30th Session of the IPCC Bureau as well.

3. Proposals for handling emissions scenarios related issues in AR4

The recommendations of the Chair on the basis of the foregoing discussions are as follows:

- 3.1 It would not be desirable for the IPCC as a body to respond to any criticism on SRES. As an organisation that rests on the work and contributions substantially of leading experts from all over the world, it is best left to the experts to respond to any such criticism. The response of experts that have been involved in IPCC work should be in the nature of papers to be published in established peer reviewed journals.
- 3.2 The IPCC can and should at least provide timely responses on the process that led to SRES. The validity of the assessment work carried out by the IPCC rests on the strength of the procedures and processes followed in the production of any report, which were faithfully observed in the case of the SRES. The IPCC could make efforts to interest reputable scientific publications to write on the subject in an objective manner by consulting if necessary the Chair, the Co-Chairs and, most importantly, experts who have worked on the SRES.
- 3.3 As part of the preparation of the AR4, a thorough assessment will be done of all new scenarios literature, including publications that criticise the SRES. In support of that, an IPCC expert meeting will be organised in 2004, bringing together a wide variety of experts in the field, including experts from the fields of development economics and statistics. This expert meeting could also begin to look into the question of new scenarios for the AR5. It may also be necessary to hold in 2005 a follow up IPCC expert meeting, especially on the AR5 scenarios question.
- 3.4 The IPCC may also encourage other institutions to organise focused meetings and workshops in this field, and consider IPCC co-sponsorship for such meetings. The Chair is in contact with relevant groups, such as the Australian Bureau of Agricultural and Resource Economics (ABARE) and with the Earth Institute at Columbia University in New York concerning possible meetings on that subject that are likely to be held in 2004.
- 3.5 The Panel should be kept fully informed in subsequent sessions of the IPCC of the progress achieved in implementing the actions outlined above, should this session approve of the proposals put forward in this document.