INTERGOVERNMENTAL PANEL
ON CLIMATE CHANGE

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SCOPING PAPER FOR THE PROPOSED

SPECIAL REPORT:

CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

(Submitted by the Chairman)

It may be recalled that the Panel had requested, at its Seventeenth Session (Nairobi, 4-6 April 2001),a scoping paper on the subject so as to enable it to make a decision on the Special Report at the Eighteenth Session.

1. INTRODUCTION

1.1 Background

At the IPCC plenary meeting in Nairobi, in April 2001, a proposal was submitted for consideration by the Panel regarding a special report on climate change and sustainable development (SRCCSD), including a scoping meeting to prepare the ground for such a report (see Annex 1 -- document IPCC-XVII/CRP.1). The Panel re-affirmed the importance of links between IPCC work and broader sustainable development issues, while requesting a more careful examination of the scope of such an IPCC activity, and its coordination with other processes addressing sustainable development concerns. It was agreed that a scoping meeting should be held, to prepare a scoping paper. Such a paper would describe the proposed focus of the study, set out a timetable and resource implications, and address the links with other relevant ongoing processes. It would be made available to governments four weeks before IPCC-XVIII (London, September 2001), to enable the Panel to take a decision on the matter.

Several previous IPCC plenary meetings have strongly endorsed the importance of incorporating sustainable development concerns more fully in the work of the IPCC. Both WMO and UNEP have stressed the importance of this linkage. Furthermore, the UNFCCC clearly recognizes the same point.[1] Accordingly, development, equity and sustainability (DES) had been recognized as key cross-cutting issues in the IPCC third assessment report (TAR) process itself -- which included a guidance paper and two expert meetings on these issues, as well as systematic attempts to incorporate them into relevant chapters in the TAR.

Accordingly, the scoping meeting held in Washington DC on 25-26 June 2001, brought together 35 leading experts from both the climate change and sustainable development communities (see Annex 2 for participant list). This scoping paper is based on the results of the two days of intensive discussions that ensued, in both plenary and parallel working group sessions. The participants shared the unanimous view that a special report on climate change and sustainable development should be accorded a high priority by the IPCC.

1.2 Main Objectives

The report will seek to improve our understanding of anthropogenically induced climate change (CC), its impacts, and adaptation and mitigation response options, by considering their interactions with the broader aspects of sustainable development (SD). In particular, it will inform policy makers and stakeholders about the implications of climate change and climate change response options for the sustainability of future development, as well as the implications of sustainable development strategies for climate change and climate change response options, including associated synergies and trade-offs. The report will be made as concise and jargon-free as possible, to make it more attractive to the target audience (see below).

1.3 Motivation and Timing

First, there is a solid and growing body of evidence demonstrating the significant coupling between climate change and sustainable development. Conclusions from the TAR also emphasize this point, but the specific issues and implications for decision making were not addressed fully. Both the current state of scientific knowledge, and the quantity and quality of relevant literature that have become available, will make it possible to fruitfully undertake the kind of assessment that the SRCCSD would require. Second, the SRCCSD will respond to the consistent requests of the IPCC plenary to examine

[1] For example, Article 3, Paragraph 4 states: "The Parties have a right to, and should, promote sustainable development. Policies and measures to protect the climate system against human-induced change should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change".

inter-linkages between climate change and sustainable development, more comprehensively. It would facilitate the future work of the IPCC in this respect, and make the latter more relevant to decision makers. Third, the SRCCSD provides an opportunity to complement and support the work of other international bodies dealing with sustainable development, by assessing the specific links between sustainable development and climate change. In particular, it will benefit from the momentum generated by the approaching World Summit on Sustainable Development (WSSD/Rio+10) in Johannesburg next year, as well as the importance attached to the topic by international for dealing with both climate change and sustainable development (e.g., UNCSD).

1.4 Target Audience

The report will be aimed primarily at decision makers engaged in all areas relevant to climate change and socio-economic development. It will be addressed also to the scientific community working in the areas of climate change and sustainable development. The process of preparing the report will include inputs from, and systematic consultations with representatives from relevant stakeholder communities (including civil society and the private sector), thereby strengthening their involvement and drawing on their experience.

2. OUTLINE OF SRCCSD: STRUCTURE AND CONTENTS (~160-190 pages)[2]

2.1 Part A: Introduction to Climate Change and Sustainable Development (~35-40 pages)

The first part of the report will seek to introduce basic concepts and issues involving climate change and sustainable development.

2.1.1 Context (~4-5 pages)

This section will begin with a brief overview of relevant IPCC work, drawing especially on the findings of the TAR and subsequent research, as well as the special report on emissions scenarios (SRES) -- especially its B1 scenario which drew attention to the potential advantages of integrating sustainable development and climate change. It would continue with a review of how wider sustainable development issues have been addressed in climate change analysis and policy formulation, and conversely, how climate change problems have been dealt with in sustainable development analysis and policy formulation. The section will conclude with the main rationale for writing the report and identify the target audience, elaborating on the points mentioned earlier.

2.1.2 Objectives (~1-2 pages)

The objectives outlined earlier, would be spelled out in greater detail, and related to the context and content of the report.

2.1.3. Frameworks and Perspectives for the Understanding CC-SD Relationship (~23-25 pages)

The first part of this section will build on prior IPCC work (e.g., reports on development, equity and sustainability; SRES; the TAR; and the synthesis report). It would identify the elements of sustainable development that are relevant to climate change, and vice versa, based on internationally and nationally recognized objectives of both climate change and sustainable development policies (e.g., as outlined in Agenda 21 and UNFCCC, UNCSD decisions, OECD documents, and national development strategies). It would describe the evolution of key frameworks and perspectives for understanding the CC-SD relationship (including illustrative case studies), especially focusing on the treatment of climate change in the sustainable development literature, and vice versa. Special attention will be paid to interactions among social, economic and ecological concerns, including synergies and trade-offs. Finally,

[2] IPCC printed pages of text, excluding figures and tables.

the implications of critical processes for both sustainable development and climate change will be analyzed in some detail (e.g., globalization, urbanization, deforestation, land use and land cover changes, water resource degradation, desertification, biodiversity loss, etc.), taking into account regional differences where appropriate.

2.1.4. Alternative Socio-economic Development Pathways (~7-8 pages)

The subject of integrated scenarios for future socio-economic development will be introduced in this section. Key sources of uncertainties, vulnerabilities and the issue of multiple baselines will be discussed. The treatment will include further elaboration of the ideas underlying the IPCC SRES B1 scenario, which indicated the potentially significant positive synergies between sustainable development and climate change.

2.2 Part B: Linking Climate Change and Sustainable Development (~100-120 pages)

This part would constitute the main body of the report. Broadly, it will provide an assessment of the implications of climate change and climate change policies (adaptation and mitigation) for achieving sustainable development objectives. Conversely, it will also assess the implications of different socio-economic development paths for climate change and climate change polices, and how they could affect the vulnerability of socio-economic and environmental systems to climate change. Synergies and tradeoffs for achieving climate change and sustainable development objectives will be analysed. The main substantive points would be illustrated throughout with case studies and boxes, including lessons learned from (replicated) success stories as well as failures. Both successes and failures would be evaluated against climate change and sustainable development criteria/indicators (see below), for both short and long term effectiveness. Each topic would be articulated in line with global, regional, national and local priorities, as appropriate.

2.2.1 Introduction (~8-10 pages)

This section will bridge Parts A and B, by linking-up with key topics introduced earlier. Relevant climate change and sustainable development criteria and indicators would be identified, based on international and national efforts in this area (e.g., environmental, economic, and social dimensions, including poverty and human welfare, lifestyle patterns, technological progress, institutions, participation, equity, human health, societal and ecological resilience, etc). Relevant analytical and decision making approaches would be examined (e.g., cost-benefit analysis, multi-criteria analysis, risk analysis, participatory methods, etc.)

2.2.2 Analysing Implications of Interlinkages between Climate Change and Sustainable Development in Critical Areas (Systems and Sectors) (~92-110 pages)

In this section, a number of critical areas (sectors and systems) will be reviewed in depth. The relevance of the report for practical policymaking would be enhanced, by focusing specifically on these key sectors and vulnerable systems. The assessment of literature will examine how human society might be steered towards preferred socio-economic development paths (e.g., building on the logic of the IPCC SRES B1 scenario). The main sectors and vulnerable systems identified, include:

- coastal systems
- energy
- food
- human health
- industry
- land use and forestry
- natural ecosystems (both aquatic and terrestrial)
- settlements
- transportation

- water

For each of these critical areas (which could be examined individually or in combination), the report will apply the CC/SD criteria and indicators identified earlier. For each sector and system, the report will investigate issues involving poverty; mitigation, adaptation, and vulnerability; different time and spatial scales; technology, human behaviour, financing and institutions; education; regional differences; and production, consumption and livelihood factors. This section will identify possible synergies and trade-offs between climate change annd sustainable development policies, and include illustrative case studies.

2.3 Part C: Synthesis and Lessons Learned (~25-30 pages)

The final part of the report would summarize the main findings and draw appropriate, policy relevant conclusions.

2.3.1 Major Causal Loops and Interlinkages (~2-3 pages)

The linkages across critical sectors and systems discussed in part B will be reviewed, across a range of spatial and temporal scales.

2.3.2 Implications for CC-SD Scenarios (~12-14 pages)

This section would integrate material from Part B, to draw lessons for integrated and internally consistent scenarios that meet both sustainable development and climate change objectives. As indicated earlier, the IPCC SRES B1 scenario could serve as a possible focus to see how the Part B findings fit together. Special attention would be paid to identifying specific examples where critical areas are already evolving in desirable directions that meet joint climate change and sustainable development objectives.

2.3.3 Policy Relevant Implications (~10-11 pages)

This section will begin with a discussion of timing, synergies, and trade offs. Preliminary policy relevant implications will be indicated, including identification of relevant sets of convergent policies. Methods of identifying and analysing tradeoffs and synergies between climate change and sustainable development objectives will be outlined, with respect to the critical areas discussed in Part B. The capacity required to formulate and implement policies (which is often limited in developing countries), will be analysed. By explicitly examining the interactions between climate change and sustainable development, the potential for developing integrated policy packages will be assessed, including their synergies and trade-offs.

2.3.4 Gaps in knowledge and Suggestions for Future Work (~1-2 pages)

The SRCCSD would conclude with some suggestions for further work, based on a brief review of gaps in scientific knowledge, weaknesses in the interaction between science and policy, and shortcomings in the dissemination of knowledge to stakeholders.

3. OTHER ISSUES

3.1 Time Schedule

If approved by the Plenary, the following timetable for preparation of the SRCCSD is suggested:

- October 2001: Nominations for lead authors requested by end of November.
- November 2001: compilation of lists of CLAs, LAs, Contributing Authors and Res.
- December 2001: IPCC Bureau to identify a group of experts from the compilation lists to guide further preparatory work, in particular the consultation process referred to below.

- December 2001 to February 2002: Begin consultation process with stakeholders and user community in order to adequately reflect their experiences and address their needs in the report, as well as to identify additional authors and specific contributions such as cases studies.
- ***March 2002: Progress report to the new IPCC Bureau and selection of Lead Authors.***
- April/May 2002: 1st LA meeting – to prepare extended outline of zero order draft and start the writing process.
- June to October – preparation of zero order draft and informal review (may require one additional LA meeting or a few smaller writing team meetings and workshops, as determined by 1st LA meeting). Continuation of consultation process (e.g., linking-up with the WSSD/Rio+10 process).
- November 2002: 2nd LA meeting – to prepare first order draft for formal expert review.
- ***December 2002/January 2003: expert review.***
- April 2003: 3rd LA meeting – to prepare second order draft for formal government/expert review.
- ***June/July 2003: government/expert review.***
- October/November 2003: 4th LA meeting -- to prepare draft for final government distribution.
- Feb/March 2004: meeting of selected Las, back to back with WG II/III session or session of the Panel
- ***Feb/March 2004: approval/acceptance by a joint Session of WG II and WG III or by the Panel.***

3.2 Writing Team

An interdisciplinary writing team of about 50-60 experts is suggested. All relevant disciplines need to be represented on the writing team, with special consideration given to the social sciences, engineering sciences and experts with practical experience in the field. A similar number of contributing authors is envisaged, for case study material and other contributions. A close interaction among chapter teams is considered essential for this report. Larger meetings and workshops involving the entire writing team are envisaged, rather than smaller meetings of individual chapter teams. As the experience with the SRES and SYR has shown, this approach would be more efficient and provide more effective integration among authors, than if chapter responsibilities were assigned to totally separate writing teams. A good regional balance among developing, developed, and transition countries would be maintained, through a flexible and transparent lead author selection process, as described in the IPCC procedures. Greater involvement of the private sector and a variety of both southern and northern NGOs will be secured, through the consultative process and solicitation of written inputs.

3.3 Resource Requirements and Management

Up to five full lead author meetings would require approximately SF 500,000 to 700.000, depending on the number of LAs. A further SF 300,000 would need to be earmarked for smaller meetings of writing teams, workshops and consultations with external experts and stakeholders. Estimated costs for a joint WG II/III session or session of the Panel are approximately SF 800.000. Estimated translation and publication costs are SF 200.000. Administrative costs such as copying, mailing, and organising meetings would be borne by the IPCC Secretariat and/or TSUs.

Two options are suggested to guide, manage and provide technical support to this effort:

1. The SRCCSD could be prepared under the joint responsibility of WG II and WG III. One of the TSUs would provide technical support, with assistance from the other TSU and/or the IPCC Secretariat, as appropriate. The special report would be accepted/adopted by a joint session of WG II and III, with the SPM being accepted later by a session of the Panel.

2. The SRCCSD could be assigned to the IPCC Chair or a Vice Chair. The IPCC Secretariat would coordinate/manage it, with the assistance of one or more TSUs. The special report and SPM would be accepted/adopted by the Panel.

ANNEX 1: PROPOSAL FOR SRCCSD

IPCC PLENARY SEVENTEENTH SESSION, Nairobi, 4-6 April 2001

Agenda Item 5. Post-TAR Work Programme

Proposal submitted for consideration regarding:
(i) A Special Report on Climate Change and Sustainable Development: Key Interactions.
(ii) A Scoping/Expert Meeting to prepare the ground for this Special Report.

A. Importance of Incorporating Sustainable Development Issues into IPCC Work

Previous IPCC plenaries have repeatedly and overwhelmingly endorsed the importance of more comprehensive coverage of sustainable development concerns in the work of the IPCC. Both WMO and UNEP have stressed the importance of this linkage. Article 2 of the UNFCCC clearly recognizes the same point. Accordingly, the TAR process included a Guidance Paper on Development, Equity and Sustainability (DES), two expert meetings on these issues, and a systematic attempt to incorporate them into relevant chapters in the WGII and WGIII reports.

B. Lessons Learned from the TAR Process

At the twenty first session of the IPCC Bureau, there was a review of the treatment of development, equity and sustainability (DES), and sustainable development (SD) issues within the TAR, and both successes and failures were noted. On the positive side, the TAR has addressed sustainable development issues better than the SAR. However, the actual incorporation of such issues into the TAR fell short of the high initial expectations. Several key reasons for this outcome, were identified:

1. The late start of the process for introducing sustainable development issues into the TAR ultimately limited the impact of this exercise on the TAR itself. The TAR chapters were already quite advanced when the DES Guidance Paper was finalized. Thus, lead authors were often too pre-occupied with meeting tight deadlines for revising existing drafts, to pay sufficient attention to sustainable development concerns.
2. The selection of lead authors took place too early, to take into account the mix of skills and expertise required to address many of the sustainable development concerns identified during the preparation of the Guidance Paper.
3. The DES Guidance Paper was restricted to about 40 pages, and had to cover the full range of sustainable development issues, thereby limiting the specificity of the guidance it was able to offer to lead authors.

C. Urgent Follow-up Action Required in the Post-TAR Work Programme and in Preparation for Further IPCC Activities

One clear conclusion at the twenty first IPCC Bureau meeting was that the treatment of sustainable development issues should be further strengthened in subsequent IPCC work. To achieve this goal, two key steps were identified; they are submitted for consideration by the IPCC Plenary as an important element of the post-TAR work programme:

1. Special Report on Climate Change and Sustainable Development: Key Interactions (SRCCSD)
2. Scoping/Expert Meeting to prepare the ground for this Special Report

The timetable envisaged for this process is to have the scoping/expert meeting in July/August 2001, and complete the SRCCSD by mid-2003. This schedule is advisable in order to maintain momentum on such an important issue; make use of the relative availability of key experts during a period when there

are fewer competing IPCC activities; and enable the SRCCSD to influence subsequent IPCC work, as much as possible.

D. Objectives of SRCCSD

The special report will build on the TAR work, and feed into future IPCC activities. It will seek to provide helpful information and guidance, by focusing on key issues arising from the interactions of climate change, adaptation and mitigation, with all relevant aspects of sustainable development (especially its economic, social and environmental dimensions). It would also provide practical applications and case studies, relating to adaptation and mitigation responses. Important topics to be addressed in SRCCSD might include:

1. Specific sustainable development criteria that are relevant for climate change.
2. Climate change impacts on poverty and equity in the context of sustainable development.
3. Sustainability of most important and vulnerable environmental and socio-economic systems.
4. Interlinkages with critical productive sectors (e.g., food and agriculture, energy, transport, water, and industry).
5. Implications for region-specific sustainable development prospects.

In summary, the earlier preparation; tighter focus on key interactions between climate change and sustainable development; increased writing time; and greater length; would enable this Special Report to provide more detailed and helpful information for future IPCC work. The SRCCSD would be a robust and useful cornerstone of whatever work program that emerges, because of the increasing policy relevance of the interactions between climate change and sustainable development.

E. Outline of Scoping/Expert Meeting

1. **Timing:** July/August 2001.
2. **Venue:** Colombo, Sri Lanka, or elsewhere convenient.
3. **Format:** 2-3 day workshop with invited papers and breakout discussion groups.
4. **Key themes and objectives:** To identify and scope out key issues arising from the nexus of climate change and sustainable development, as preparation for future IPCC work. Specific workshop goals include:
    - Review lessons learned from TAR
    - Identify main issues linking climate change and sustainable development, especially policy relevant scientific questions
    - Determine gaps in scientific knowledge that need to be filled
    - Prepare preliminary drafts of a TOR and chapter outline for SRCCSD
    - Identify potential SRCCSD writing team members, with necessary expertise
6. **Steering Committee:** Mainly drawn from IPCC Working Groups 2 and 3.
7. **Local Organizers:** Govt. of Sri Lanka (Centre for Climate Change Studies), in association with LIFE
8. **Participants:** About 25-30 international experts on climate change for the scoping/expert meeting.

ANNEX 2: LIST OF PARTICIPANTS AT SCOPING MEETING

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