



WMO

# INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE



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## **FUTURE OF THE IPCC**

(Submitted by the Secretariat)



EUROPEAN COMMISSION  
DIRECTORATE GENERAL JRC  
JOINT RESEARCH CENTRE  
INSTITUTE FOR ENVIRONMENT AND SUSTAINABILITY (IES)  
Unit Global Environment Monitoring (GEM)

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RE: Proposed IPCC Special Report on Climate Change and Desertification

A recommendation to compile an IPCC Special Report on Climate Change and Desertification was made earlier this month by “The International Forum on Soil Science and Society” which was organized at Selfoss, Iceland, by the Icelandic Soil Conservation Service under the Patronage of the President of Iceland, Ólafur Ragnar Grímsson. This recommendation was supported by representatives of many international organizations and an extended summary report on the findings of the Working Groups of that meeting can be downloaded from the Internet at <http://www.iisd.ca/download/pdf/sd/ymbvol144num1e.pdf>.

An IPCC Special Report on Climate Change and Desertification is urgently needed. The results of our recent meeting, the workshop on 'Climate Change and Desertification: Monitoring, modelling and forecasting', held in Wengen, Switzerland, from 10 to 13 September 2007 (<http://www.unige.ch/climate/Workshops/wengen07.html>), demonstrated that scientific knowledge about desertification and climate change is scattered in the literature of many disciplines and that there is an urgent need to establish a policy-relevant scientific assessment. The results of our meeting also highlighted that the processes and implications of desertification are of great and widespread concern, as well as affecting particularly the poorer segments of the global population.

The most recent IPCC predictions indicate that dryland areas may be expanding. Although research related to desertification is on-going, recent results have underscored a number of challenges to policy and a lack of a consolidated intellectual understanding of the underlying causes and effects. The development of a special report and a better integration between climate change and desertification research results would establish synergy and

provide a unique opportunity to examine future impacts of climate change. The rate of climate change predicted by IPCC echoes the rate of environmental change in the Sahel experienced in the past three or four decades, providing a test case of how humans have had to respond. Adaptation has already occurred to some extent in the Sahel, while massive dislocations and adjustments have taken place in central Asia after the collapse of the Soviet Union and associated institutions. Areas facing the risk of reduced precipitations in the future, and drylands in particular, host numerous inhabitants who may not have been severely affected yet, and thus may not have built the necessary expertise or conducted sufficient preparatory actions. These examples provide opportunities to examine, inter alia, the relationship between science and policy under predicted climate change.

Our meeting has also highlighted the relationships between climate change and desertification processes, which include many feedbacks at different scales so that both global and local assessments and accessible data sets are needed. It is particularly urgent to consider vulnerability as well as food and environmental security. Tackling desertification by means of ecosystem restoration and sustainable land management can positively influence micro and meso-climates, as well as the land surface energy and moisture budgets. Last but not least, sustainable land management and ecosystem restoration can and is being used to sequester carbon.

Participants in the above-mentioned Wengen-2007 Workshop on Climate Change and Desertification strongly support the recommendation for IPCC to issue a Special Report on Climate Change and Desertification.

We look forward to your favourable response,



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31 October 2007

Dear Ms. Christ,

On behalf of the ISDR system, please accept our sincere congratulations to the IPCC for the Nobel Peace Prize. The IPCC secretariat's support to the process has been invaluable and intrinsic to enabling the recognition of the IPCC's work.

I wish also to refer to the informal discussion between you and my colleagues on 11 October 2007 regarding the ISDR secretariat's interest in submitting a formal proposal for further IPCC assessment of risk management. As suggested, the ISDR secretariat has developed a short proposal, here attached.

I request the IPCC secretariat take appropriate steps to make this proposal available to the members of the Panel for their consideration, for example as part of an Information Document to be circulated at the Twenty-Seventh Session of the IPCC, as you had suggested.

Best wishes for the conclusion of discussions of the Fourth Assessment Report.

Yours sincerely,

Sálvamo Briceño  
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# NEED FOR SCIENTIFIC ASSESSMENT BY IPCC ON MANAGING THE RISK OF EXTREME EVENTS TO ADVANCE CLIMATE CHANGE ADAPTATION

PROPOSED BY THE SECRETARIAT OF THE  
INTERNATIONAL STRATEGY FOR DISASTER REDUCTION (ISDR) SYSTEM

Given the urgency and scale of the adaptation challenge it is imperative to learn from long experience in managing—and reducing—the risk of extreme climate events, such as floods, droughts, storms and extreme temperatures. The IPCC Fourth Assessment Report recognises the opportunity to advance adaptation through the use of such policies and tools. In particular, it states: “Reducing vulnerability to current climatic variability can effectively reduce vulnerability to increased hazard risk associated with climate change.”<sup>1</sup>

## Need for further assessment

The IPCC Fourth Assessment Report identifies the usefulness of taking a *risk perspective* in order to identify synergies to “promote sustainable development, reduce the risk of climate-related damages and take advantage of climate-related opportunities”<sup>2</sup>. The Report, however, does not systematically review the literature detailing *recommended policies and measures* to reduce disaster risk. Such policies and measures include building the institutional basis for risk reduction, increasing both scientific and popular understanding of risk, strengthening early warning systems, improving environmental management and construction practices, and establishing preparedness to respond to inevitable climate impacts, through contingency planning for instance. A review of such literature—including guides, frameworks and tools—would be very helpful to guide the adaptation policies and processes in respect to extreme events.

Similarly, further assessment of existing risk reduction *practice* is required. Although the Report reviews those practices that are specifically identified as adaptation efforts, it does not review the great range of efforts undertaken worldwide labelled under terms like “disaster risk reduction” and “sustainable development”, or “environmental risk management”. In-depth assessment to understand which practices are the most successful, with information on appropriate contexts, cost and constraints, would provide concrete guidance to governments in planning and implementing adaptation activities. A systematic review would also enable governments to identify those existing practices that should be strengthened because they provide important synergies with adaptation strategies.

The Report also identifies a “disconnect between disaster risk reduction and adaptation”<sup>3</sup> but does not assess recent initiatives to bring the disparate communities together to work on common concerns, such as the development of cross-sectoral plans to manage climate risks. A review of such efforts could guide governments and donors on priorities for directing attention and scarce resources.

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<sup>1</sup> IPCC, *Climate Change 2007: Impacts, Adaptation and Vulnerability*, Chapter 20.5 pg 821.

<sup>2</sup> IPCC, *Climate Change 2007: Impacts, Adaptation and Vulnerability*, Chapter 20.9 pg 837.

<sup>3</sup> IPCC, *Climate Change 2007: Impacts, Adaptation and Vulnerability*, Chapter 20.5 pg 820.

It is for these reasons that the International Strategy for Disaster Reduction system<sup>4</sup> suggests that further analysis by the IPCC of policies, measures, tools and practice to reduce disaster risk would be greatly beneficial to advancing knowledge on effective adaptation.

### **Policy linkages with risk reduction**

Disaster risk reduction and adaptation to climate change share the same ultimate goal of reducing vulnerability to weather and climate hazards. Over the past 30 to 40 years, a large body of knowledge has been accumulated in the field of disaster risk reduction, especially regarding climate-related hazards, which are responsible for 75 percent of disasters worldwide<sup>5</sup>. Disaster risk reduction efforts are guided by *The Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*, to which 168 Governments agreed in Hyogo, Kobe, Japan, in 2005<sup>6</sup>. The Framework aims for “the substantial reduction of disaster losses, in lives and in the social, economic and environmental assets of communities and countries.” As part of its text, Governments agreed to integrate climate change adaptation and disaster risk reduction through:

- (i) The identification of climate-related disaster risks,
- (ii) The design of specific risk reduction measures, and
- (iii) The improved and routine use of climate risk information by planners, engineers and other decision makers.

### **Outline of the proposed assessment**

The proposed IPCC assessment would build on the Fourth Assessment Report to provide more specialized and detailed information on the nexus between climate change adaptation, disaster risk reduction and sustainable development, possibly in the form of an IPCC special report<sup>7</sup> through the assessment of policies, measures, tools and practice to reduce disaster risk.

To capture existing practice, a case-study approach may be helpful. Case studies would be useful in illustrating local practice and would provide a means to include in the assessment information that is nationally held but not published in scientific journals. Through case studies a wider spectrum of information, held by Governments and community-based organizations, would be integrated. For example, the integration of disaster risk reduction and climate change adaptation strategies might be best profiled in a case study from a Small Island Developing State. A successful drought risk reduction effort that strengthened early warning could be highlighted in a Least Developed Country case study, while risk transfer tools, such as insurance and micro-credit, could be illustrated through a case study of a hurricane-resilient community.

The proposed assessment would:

- Identify information and reveal trends about socio-economic vulnerabilities and capacities, from sources specializing in disaster risk assessment.

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<sup>4</sup> The ISDR is a system made up of governments, inter-governmental and non-governmental organisations, international financial institutions and technical bodies and networks as well as civil society and private sector—all of which have essential roles to play in disaster risk reduction at global, regional, national and local levels.

<sup>5</sup> EM-DAT: The OFDA/CRED International Disaster Database.

<sup>6</sup> Referred to in IPCC, *Climate Change 2007: Impacts, Adaptation and Vulnerability*, Chapter 20.8 pg 832.

<sup>7</sup> From the Chair's Summary of the ISDR system's first session of the Global Platform: "The Intergovernmental Panel on Climate Change and ISDR system should collaborate on the preparation of a special report on adaptation, disaster risk reduction and sustainable development." See ISDR/GP/2007/6 at [http://www.preventionweb.net/globalplatform/first-session/docs/session\\_docs/ISDR\\_GP\\_2007\\_6.pdf](http://www.preventionweb.net/globalplatform/first-session/docs/session_docs/ISDR_GP_2007_6.pdf)

- Identify statistical data and figures on disaster occurrence and losses from international, regional and national disaster risk management literature and databases (e.g. EMDAT, NatCat, Sigma, Desinventar, GLIDE, etc) to estimate the appropriate targets for relevant adaptation action.
- Assess, by sector, the success of current risk reduction practices to present-day climate risks, such as in food security, water management and the protection of critical infrastructure and energy investments.
- Examine and develop lessons learned from community-level risk reduction (good practices).
- Identify opportunities to build on existing adaptive successes.
- Provide an accurate baseline for worldwide adaptation efforts and identify needed adjustments for the increased hazard risk associated with climate change.
- Quantify the costs and benefits of specific measures to reduce climate-related risks and the costs of relief and recovery<sup>8</sup>.
- Identify risk reduction efforts that have been “mainstreamed” into development and reveal opportunities to integrate adaptation, disaster risk reduction and sustainable development.

### **Contribution to international and national efforts**

Further assessment as proposed through an IPCC special report, would contribute to the goals of the UNFCCC<sup>9</sup> and to the work of its Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change. The assessment would inform the UNFCCC post-2012 negotiations in respect to adaptation to climate change by identifying practical measures to reduce risk. It would likewise promote the implementation of the Hyogo Framework.

The proposed assessment would contribute to improved understanding of the implications of climate-related risks for the Millennium Development Goals and the achievement of sustainable development. It would help Government officials to frame the issues of climate change adaptation and disaster risk reduction in the context of national development efforts in particular sectors. The assessment would provide a tool to gain the support of policy makers and strategic partners to promote more effective and “climate resilient” investment, as well international cooperation and assistance.

Ultimately the knowledge generated by the assessment would enable Governments and communities to jump-start the implementation of adaptation activities and proceed confidently in a systematic and well-targeted fashion. It would also stimulate the development of scientific and technical networks in many countries, which in turn would assist their Governments in the implementation of adaptation.

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<sup>8</sup> The United Nations (through the ISDR system) and the World Bank are jointly undertaking a study of the economics of disaster risk reduction, to be completed in 2008.

<sup>9</sup> See UNFCCC Article 2 and 4.8.