

# Comments

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By Carlo Carraro, Charles Kolstad  
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## ASSESSMENT AND COMMUNICATION OF THE SOCIAL SCIENCE OF CLIMATE CHANGE: BRIDGING RESEARCH AND POLICY

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By **Carlo Carraro**<sup>1</sup>, **Charles Kolstad**<sup>2</sup> and **Robert Stavins**<sup>3</sup>

*On February 18-20, 2015, twenty-four experts gathered in Berlin to explore approaches to improving the process by which research on climate change is assessed -- with a focus on the social-sciences (economics, political science, policy studies). The workshop was sponsored by the [Fondazione Eni Enrico Mattei](#), the [Harvard Project on Climate Agreements](#), the [Mercator Research Institute on Global Commons and Climate Change](#), and the [Stanford Environmental and Energy Policy Analysis Center](#). Leaders of three of the sponsoring organizations, [Carlo Carraro](#) (FEEM), [Charles Kolstad](#) (Stanford University), and [Robert Stavins](#) (Harvard Kennedy School), have prepared a memorandum drawing from the workshop. The memo describes the specific challenges and opportunities facing the [Intergovernmental Panel on Climate Change](#) (IPCC) and provides recommendations for improving the IPCC's process of assessing scientific research on climate change.*

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The IPCC is at a crossroads. It has successfully completed its [Fifth Assessment Report](#) (AR5) and continues to perform important functions in helping countries address, in a scientifically-informed manner, the problem of global climate change. However, it has grown in size and become

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cumbersome, it does not always address the most critical issues, and it is at risk of losing the participation of the world's best scientists due to the burdens that participation involves. The IPCC can carry out its mandate to provide policy-relevant assessments of research only if the scientific excellence of its products is sustained. This is a moment of great opportunity for addressing these challenges, with AR5 complete and the direction of future assessments open for discussion and debate.

Given this setting, twenty-four participants with experience with the IPCC convened in Berlin for a three-day workshop on the climate-assessment process (18-20 February 2015). Participants included social scientists who contributed in various capacities to AR5 and earlier IPCC assessments, users of IPCC reports (from national governments and intergovernmental organizations), and representatives of other stakeholder groups. Participants came from both developed and developing countries. Discussions were held under Chatham House rules, with no public attribution of any comments to individuals.

This memorandum represents the views of the authors on key challenges facing the IPCC, based on their reflections on the discussions that took place at the workshop. Workshop participants were not given an opportunity to review this document, and it may not represent the views of all of them. A comprehensive report from the workshop will be forthcoming later this year. Following are five areas in which the IPCC might be improved. In each case, the authors offer a set of potential actions to realize those improvements.

**1. The IPCC could better integrate and coordinate across IPCC Working Groups, as well as enhance interaction between scientists and governments.**

- **The scoping process could include more interaction between governments and scientists, driven by policy questions governments**

**want answered and issues scientists feel need addressing.** More experts could be involved in the process leading up to scoping meetings so that draft outlines going into scoping meetings might better reflect broad scientific consensus.

- **The scoping meeting for the Synthesis Report (SYR) could be held prior to those of the Working Groups.** To underscore the importance of the SYR and the policy questions that governments want answered, the SYR could be scoped before considering the structure of the individual Working Groups. Among other advantages, relationships between mitigation and adaptation could thereby be better addressed from the start of the Assessment-Report process.
- **Feedback among policymakers, scientists, and other stakeholders during the assessment process could be improved.** A lack of coordination and discussion between policymakers and scientists during the scoping and writing process has sometimes led to controversies and misunderstanding at the Summary for Policymakers (SPM) government approval sessions, which might have been avoided through earlier consultation. The IPCC could increase its efforts to encourage feedback among the IPCC, the scientific communities, and other stakeholders throughout the assessment process—including prior to finalizing the Working-Group-report outlines.
- **The role of the Chair of the IPCC in facilitating coordination among Working Groups could be enhanced.** The Chair could improve coordination between Working Groups at multiple stages of the assessment process, including in the preparation of the SYR. To facilitate this task, the Chair could receive additional organizational support

from a Technical Support Unit (TSU) operating from the same geographical location as the Chair.

- **Special Reports could be developed to flexibly target emerging issues, develop closer interactions between Working Groups, and inform future Assessment Reports.** Shorter reports would be easier to produce and involve shorter turnaround times.

## ***2. The IPCC could enhance its interface with various social scientific disciplines and communities***

- **Involving experts from a more diverse set of social-scientific communities in the scoping process, prior to scoping meetings, could enhance the quality of the Working-Group outlines and reports.** Scholars from a wider range of fields might contribute to the scoping process by suggesting policy-relevant questions and by indicating which questions from policymakers are most amenable to response.
- **The IPCC leadership could engage with relevant research communities that may initiate research projects and consortia to address gaps of knowledge identified in the IPCC scoping or in current assessment processes.** Such recommended research might then be evaluated during the current or subsequent assessment cycles and incorporated as appropriate into Assessment Reports.
- **Establishing interfaces with professional societies and national academies of sciences could facilitate identification of authors from various scientific disciplines, including social sciences, during the author selection process.** This could facilitate the task of the Bureau, Coordinating Lead Authors (CLAs), TSUs, and governments in identifying and recruiting the most appropriate

disciplinary mix of scientists for the IPCC.

- **The IPCC could be productively complemented by other institutions that review grey literature and research in progress and grapple with politically sensitive issues.** Building networks of scientific institutions—or establishing other scientifically credible entities that provide assessments as complements to the IPCC—could offer greater efficiency and flexibility in the overall mission of assessing research on climate change.

### ***3. The IPCC could increase its efforts to facilitate the contributions of expertise from developing countries***

Selecting CLAs and LAs on the basis of scientific skills, capability, and international reputation is paramount for the IPCC. But it is also important to reflect the perspectives of both developed and developing countries among authors. Today, excellent scholars are available from all regions of the world. The challenge for the IPCC is to identify and attract them to contribute to the process.

- **The IPCC could invite authors from developing countries, regardless of where they are currently based.** There are a significant number of scholars of international repute from the developing world living and working outside their countries of origin. These scholars could contribute significantly to IPCC reports. Authors could be allowed to self-designate their country affiliation(s), with the understanding that the governments of the countries they designate retain the authority to rule on these affiliations.
- **New partnerships, including with national, regional, and international academies of sciences, could support the author-nomination process.** The academies might support CLAs, TSUs, and national focal points in identifying excellent

researchers from a diverse set of geographic regions (in addition, as noted above, to enhancing disciplinary diversity).

- **The IPCC could facilitate efforts of other organizations to build scientific expertise in developing countries.** While the IPCC does not have the mandate to finance or execute such capacity-building efforts, the IPCC could recognize and support other international organizations that help develop stronger developing-country scientific expertise.

### ***4. The IPCC could increase the efficiency of its operations and ensure scientific integrity through a number of targeted organizational improvements***

Preparing IPCC Reports is a complex management operation. Operational aspects of the Assessment-Report process could be improved significantly in a number of ways:

- **The IPCC Chair and Co-Chairs of the Working Groups could be selected early in the assessment cycle, and particularly before the scoping meetings, in order to enable careful preparation of the overall assessment process.** Having the Chair and Co-Chairs engaged in the process from the beginning would also help foster a more deeply-shared vision between IPCC leadership and governments of the ultimate assessment products.
- **The IPCC could improve the efficiency of TSUs, which is essential for effectively managing the Assessment-Report process, in several ways:** (i) The basic functioning of the TSUs requires frequent and intense face-to-face collaboration among staff and with the Co-Chairs. This would be facilitated by maintaining a single TSU for each Working Group, physically located in a single

geographic location under the authority of the Working Group Co-Chairs and with clearly assigned responsibilities (ii) The specific roles and responsibilities of the TSUs could be made more explicit to authors, thereby enhancing confidence in the process among all parties (iii) Geographic balance in a TSU could be increased through thorough aggressive global searches for qualified professionals, including from developing countries, to serve on the TSU staff (iv) Additional support staff could be located with the Co-Chairs not leading the TSU to enable their full participation in TSU operations and to ensure their full inclusion in the Assessment-Report process.

- **Work organization, in particular of Lead Author (LA) meetings, could be improved.**

Inefficient organization and high workload significantly reduce the incentives for researchers to contribute to the IPCC process, putting at risk the future participation of the best scientists in the process. In particular: (i) Frequent LA meetings are putting a high travel burden on authors, and the IPCC could reduce the number and length of LA Meetings (LAMs) and use means of remote collaboration, communication, and organization (including videoconferencing and digital platforms for collaborative writing). While some developing country LAs may not have access to high-speed internet, there may be national or regional venues from which they could participate (for example, regional UN facilities) (ii) Chapter teams often have limited staff support. Chapter Science Assistants (CSAs) provide critical support for chapter teams, facilitating the functioning and organization of work between and during LAMs. The IPCC could allow them to participate in all meetings and provide dedicated funding streams for CSAs for all chapters. The money saved by holding fewer and briefer LAMs could partly be dedicated

to this purpose.

- **Procedures for ensuring the quality of chapters in the review process could be clarified and strengthened.** Current procedures in the review process for dealing with concerns about the quality of chapters are unclear to many LAs and CLAs. It would be useful to revisit these procedures to ensure that scientific quality of chapters can be advanced in a predictable and procedurally sound manner.
- **Consider expanding the definition of conflict of interest to include not only economic conflicts, but also conflicts due to institutional affiliation.** For example, authors, Bureau members, Working Group leadership, and other IPCC personnel with dual roles as national negotiators could be identified as having a potential conflict of interest. Also, authors who work for an organization that aims to influence climate policy might be defined as having a potential conflict of interest. While this expanded definition need not preclude these individuals from working with the IPCC, public disclosure of the potential conflict of interest should help assure the integrity of the IPCC process. It could be valuable to have such an expanded definition in effect early in the AR6 process.

##### ***5. Outreach and communications could be strengthened***

- The SPMs, as well as the Technical Summaries (TS), are widely considered by non-experts to be difficult to access and understand. It would be difficult to change the SPM process, given its negotiated character. However, the IPCC could consider engaging expert science communicators to help produce more concise TSs, making them more accessible to policymakers and the

general public. In addition, re-naming the TS as “Executive Summary” could more accurately characterize this component of the Assessment Reports and draw the interest of a broader readership.

- The impact of IPCC publications on the UNFCCC process may have suffered from not being more closely aligned in the past in terms of timing. The IPCC could consider synchronizing the IPCC Assessment cycle more closely with the UNFCCC negotiation schedule.

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## **Disclaimer**

*The authors are solely responsible for the content of this memorandum. Affiliations of the authors—including IPCC affiliations—are included for identification purposes only. There is no implication that any of the affiliated institutions endorse the views offered in this memorandum. Likewise, Ottmar Edenhofer, Director of MCC and Professor of the Economics of Climate Change at Technische Universität Berlin, acted as a co-organizer of the workshop, and welcomes—without endorsing—the views expressed in this memorandum as a contribution to discussions on the future of the IPCC*