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OTHER PROGRESS REPORTS

Progress Report on the on-going scenario process and the IPCC catalytic role

(Submitted by the Co-Chairs of the IPCC Working Group III and Working Group II)



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Scenario Development and Coordination with the Scientific Community

The assessment of research on projected climate change, its impacts, and adaptation and mitigation policies will be one of the core elements of the IPCC Fifth Assessment Report (AR5). After the development of the so-called Representative Concentration Pathways (RCPs) based on greenhouse gas emissions and associated levels of radiative forcing initiated at the IPCC Expert Meeting on New Scenarios (Noordwijkerhout, Netherlands, September 2007) the climate modelling communities are performing model ensemble runs based on the RCPs.

The integrated assessment modelling (IAM) communities and the impacts, adaptation and vulnerability (IAV) communities developed a matrix approach for scenario development based on the RCPs, shared socio-economic pathways (SSPs), and shared policy assumptions. The process was facilitated by the Joint IPCC Workshop on Socioeconomic Scenarios for Climate Change Impact and Response Assessment (WoSES; Berlin, Germany, November 2010; Workshop Report published in May 2012) by Working Groups III and II and resulted in the paper "A framework for a new generation of socio-economic scenarios for climate change impact, adaptation, vulnerability and mitigation research"¹. The draft paper was widely circulated to IAM and IAV scientific communities resulting in substantial feedback. The paper is to be published once these comments are incorporated.

At a further meeting on socioeconomic scenarios organized by the IAM and IAV scientific communities, basic narratives for the main SSPs were developed² (Boulder, Colorado, USA, November 2011) and subsequently operationalized.

At the meeting "New Socioeconomic Pathways for Climate Change Research" (The Hague, Netherlands, May 2012), organized by the governments of the Netherlands and co-sponsored by IPCC Working Groups II and III, potential refinements and extensions of SSPs will be discussed. The scenario communities will further explore the development of regional SSPs – in terms of narratives and their operationalization – and discuss how outcomes from integrated assessment models can be usefully applied for impact, adaptation and vulnerability analyses. Also, the meeting aims to further enhance developing country participation in the scenario development process.

Overall, the scenario development process is well under way to provide timely outputs for assessment in the AR5 by WGs II & III. A documentation of the scenario process, including published documents, is available on the TGICA website³.

Within IPCC WGIII, scenario efforts have been further pursued by organizing expert meetings on scenarios before each of its lead author meetings. These meetings serve to establish scenarios as an integrative element in the WG III contribution of the AR5. For detailed information, please see the Progress Report on WGIII.

¹ http://www.isp.ucar.edu/sites/default/files/Scenario_FrameworkPaper_15aug11_0.pdf

² <u>https://www.isp.ucar.edu/sites/default/files/Boulder%20Workshop%20Report_0.pdf</u>

³ http://sedac.ciesin.columbia.edu/ddc/ar5_scenario_process/index.html