

Session VII: Integrated assessment models and their applications

Integrated Assessment Modeling Consortium (IAMC)

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The Integrated Assessment Consortium (IAMC) is an organization comprising more than 40 participating organizations. The IAMC was created in 2007 in response to a call from the Intergovernmental Panel on Climate Change (IPCC) for a research organization to lead the integrated assessment modeling community in the development of new scenarios that could be employed by climate modelers in the development of prospective ensemble numerical experiments for both the near term and long term.

The first task of the IAMC was to organize the research community to provide four scenarios, characterized by four different levels of radiative forcing in the year 2100 (see Moss et al., 2008) and including data on emissions and concentrations of greenhouse gases, short-lived species, and aerosols, as well as associated land-use and land-cover, which could be used by the climate modeling community to develop new ensembles for the near and long term. Those four scenarios are referred to as Representative Concentration Pathways (RCPs). The second stage of new scenario development is to develop Shared Socio-economic Pathways (SSPs) in collaboration with IAV (Impact, Adaptation and Vulnerability) communities.

Since 2008, four annual meetings of IAMC were held to discuss progress on the RCPs, SSPs, ongoing community activities, coordination with the IPCC, and potential future activities of interest to IAMC members. The special issue of RCP studies was published in 2011 (see van Vuuren et al., 2011). Archived agendas and presentations are at IAMC website (<http://www.iamconsortium.org>).

Workshops to explore the new SSP Approach were held in Changwon, South Korea and Boulder, USA in 2011 and in Utrecht, The Netherlands in 2012. Many integrated assessment modeling activities are conducted by researchers of participating organizations. Examples of these are development of SSP, EMF, AME, Model comparison on energy end-use, AMPERE, RoSE and LIMITS. IAMC organizes a database to share the results of these comparison projects.

References:

- Moss, R.H. et al. (2010) The next generation of scenarios for climate change research and assessment. *Nature*, 463, 747-756
- van Vuuren, D.P. et al (2011) The representative concentration pathways: an overview. *Climatic Change*, DOI 10.1007/s10584-011-0148-z.