

RE-LAUNCH: IAH COMMISSION ON GROUNDWATER & CLIMATE CHANGE

APPLICATION DATE: 31 MARCH 2011

START DATE: 1 JULY 2011

TERM: 4 YEARS

MISSION STATEMENT:

The mission of the IAH Commission on Groundwater and Climate Change (**IAH-CGCC**) is:

to improve understanding of (1) the relationship between groundwater and climate change, and (2) the role of groundwater in adaptation to climate variability and change.

The **IAH-CGCC** will seek to fulfil its mission by:

- promoting related research and development to advance scientific and technical knowledge;
- fostering inter-disciplinary, international collaborations with research institutions, water resource managers, and water policy makers;
- fostering linkages with related research and development activities in climate, hydrological, agricultural and health sciences;
- engaging with key international organisations, agencies and programmes (e.g. UNESCO-IHP, WMO, FAO, UNICEF, WHO, IAEA-WRP, GEWEX, GWSP)
- working with the International Groundwater Resources Assessment Centre (IGRAC) to promote the development of a programme and facility for the collection, evaluation, archiving and sharing of groundwater data including both ground-based observations and satellite measurements;
- identifying and evaluating a series of representative case studies illustrating the relationship between groundwater and climate change and the role of groundwater in adaptation to climate variability and change;
- disseminating research and development outcomes to the global research community including specifically the IPCC, and global development community including governmental and non-governmental organisations and those specifically concerned with enabling adaptation to climate change; and
- creating awareness of the IAH-CGCC among IAH members, related professions and wider water resources and water supply communities.

WEBSITE:

- <http://www.iah.org/gwclimate/> (to be revised for 1 July 2011)

ACTIVITIES:

Group Meetings

Open, plenary meetings will be held regularly at IAH Symposia and at other appropriate opportunities at global and regional meetings (e.g. World Water Forum, African Water Week, Stockholm Water Week) to engage with research and development communities. Reports from Group Meetings will be disseminated via the IAH-CGCC website.

Sessions at Conferences

Special IAH-CGCC supported sessions will be held at the annual IAH Congress and at other appropriate opportunities at global and regional scientific and policy-relevant conferences. Upcoming, planned IAH-CGCC supported sessions are listed below.

- 5-9/12/2011: *AGU Fall Meeting: Groundwater and Climate Change: Evidence from Remote Sensing and In Situ Monitoring* (San Francisco, USA)
- 26-29/03/12: *Planet Under Pressure: New knowledge towards solutions* (London, UK)
- 16-23/09/12: IAH 2012 39th Congress *Confronting Global Change* (Niagara Falls, Canada)

Stand-alone Specialist Meetings/Symposia

The IAH-CGCC will work with UNESCO-IHP GRAPHIC programme to hold at least one stand-alone specialist symposia every 2 years.

Training Workshops

The IAH-CGCC will work through its members and alongside UNESCO-IHP GRAPHIC and other agencies (WMO, FAO, IAEA) to provide training workshops to improve understanding and the technical capacity to engage in research and monitoring of the relationship between groundwater and climate change, and the role of groundwater in adaptation to climate variability and change. Upcoming, planned training workshops are listed below.

- 15-17/06/11: *Climate Change and Its Impacts: Water in a Changing Climate* (Brown University, Providence, USA)
- 31/10/11 – 04/11/11: *Methods for Assessing Impacts of Climate Change and Human Activities on Groundwater Resources* (Sun Yat-sen University, Guangzhou, China)

Exchange of Knowledge

The IAH-CGCC will seek exchange knowledge via a variety of fora. In addition to its work at Group Meetings, Special Sessions at conferences, Stand-alone Specialist Symposia and Training Workshops, the IAH-CGCC will seek to develop and maintain on its website: (1) a searchable database of relevant literature listings; (2) notices of meetings and fora; and (3) a moderated BLOG wherein commentary and queries regarding the relationship between groundwater and climate change, and the role of groundwater in adaptation to climate variability and change are discussed and debated.

Dissemination of Knowledge

The IAH-CGCC will seek: (1) to develop a communications strategy to deliver key messages to popular media in a variety of languages; (2) to produce position papers, critical reviews

(e.g. targeting IPCC-AR5), policy briefs and training materials; and (3) to develop and maintain a bibliography of papers relevant to its goals via the IAH-CGC website.

Research

The IAH-CGCC will support the initiative of its members to develop research proposals that seek to improve understanding of (1) the relationship between groundwater and climate change, and (2) the role of groundwater in adaptation to climate variability and change. Support may be delivered in a variety of ways including idea development, networking and team building, identification of research gaps, provision of data, and critical reviews.

Liaison / Interaction with other groups / organisations

The IAH-CGCC will interact with a variety of allied organisations and initiatives including UNESCO-IHP GRAPHIC, IAH Commission on Transboundary Aquifer Resource Management, IAH Commission on Managing Aquifer Recharge (e.g. joint session at IAH 2013 is proposed), Global Water System Project (GWSP) and GEWEX (Global Energy and Water Cycle Experiment).

Education

In addition to conducting Training Workshops and developing training materials, the IAH-CGCC will seek to ensure the widest possible circulation in accessible formats of research and policy outcomes from its activities.

Advice to UN Agencies

Through its activities and outputs, the IAH-CGCC will seek to provide expert advice to UN agencies, national governments, and transboundary basin organisations.

OTHER ACTIVITIES:

The IAH-CGCC will advocate for a global initiative to rectify the absence of accessible and reliable groundwater data. Working with the International Groundwater Resources Assessment Centre (IGRAC) under the auspices of UNESCO-IHP and WMO, the IAH-CGCC will promote the development of a programme and facility for the collection, evaluation, archiving and sharing of groundwater data including both ground-based observations and satellite measurements under the Gravity Recovery and Climate Experiment (GRACE).

DELIVERABLES:

The IAH-CGCC will provide Annual Reports, as per guidelines for IAH Commissions, and expects to produce or facilitate the production of position papers, critical reviews (e.g. targeting IPCC-AR5), policy briefs and training materials. An IAH Blue Book Series publication is already in production and is slated for publication in 2012: *Groundwater as a key for adaptation to changing climate and society* (editors: Jason Gurdak, Jose-Luis Martin Bordes & Holger Treidel).