



**Joint Meeting of the World Climate Research Programme
(WCRP) Global Energy and Water Exchanges (GEWEX) Project
Hydroclimatology (GHP) and Data and Assessments (GDAP)
Panels**

**Instituto de Geociências (IGEO), Centro de Ciências Matemáticas e da
Natureza (CCMN), Universidade Federal do Rio de Janeiro (UFRJ),
Cidade Universitária, Ilha do Fundão, Rio de Janeiro, Brazil**

Lectures: 2 – 3 September 2013

Sponsored by

Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ), Universidade Federal do Rio de Janeiro and the World Climate Research Programme with GEWEX

Purpose of the Meeting

The Global Energy and Water Exchanges (GEWEX) is based on integrated research projects, observations and scientific activities that aim to improve the knowledge about global climate change and its impacts on a regional scale. GEWEX integrates scientific research, production and collection of information in the form of observational data, as well as products derived from applied algorithms and analysis of numerical model solutions, all distributed among different panels. The GEWEX Hydroclimatology Panel (GHP), and the GEWEX Data and Analysis Panel (GDAP) are organized in order to address most of GEWEX Science Questions (GSQs) in support to the World Climate Research Programme (WCRP) activities.

South American scientific community is also interested in answers for questions that coincide with GSQs, and lead to better understanding of the major causes of environmental disasters associated with natural climate variability and/or anthropogenic forcing. In particular, IGEO-UFRJ scientists are interested in how climate change impacts areas of complex topography in South America. Thus, in order to enhance and exchange knowledge, the IGEO-UFRJ through its Graduate, and Extension and Outreach Programs proposed that the Joint Meeting of GHP and GDAP was held in the City of Rio de Janeiro, together with presentations by invited researchers from South America and the Caribbean, dedicated to studies on climate, water resources, geomorphology, and risk analysis and environmental disasters. Besides the scientific meeting of the two panels, which assess international projects that receive support from WCRP, lectures by researchers associated with the WCRP/GEWEX, as well as invited talks from local researchers are scheduled. The lectures target undergraduate and postgraduate students, professionals working in the areas of risk analysis and prevention of disasters related to extreme events, and members of the local scientific community.

MEETING PROGRAM

Sessions (Monday and Tuesday AM, with translation)

Monday September 2, 2013

09:00 – 10:00 REGISTRATION

Convened at *Horácio Macedo (Roxinho)* Auditorium (400-seat room), CCMN, UFRJ.

10:00 – 10:45 Opening ceremony with participation of UFRJ and GEWEX Representatives, and GHP-GDAP Panel Chairs.

10:45 – 11:15 WCRP/GEWEX Presentation (Peter van Oevelen, Director of the International GEWEX Project Office)

11:15 – 12:00 [Session 1](#): “Climate change and environmental disasters.”
(Chairs: [Ana Nunes](#)/[Peter van Oevelen](#))

11:15 – 12:00 “How human-induced climate change affects weather extremes.” ([Kevin Trenberth*](#), Chair of the GEWEX Scientific Steering Group, National Center for Atmospheric Research).

12:00 – 14:00 Lunch break.

14:00 – 16:00 [Session 1 continued](#).

14:00 – 14:30 “Drought and heavy precipitation over Canada with implications for other regions.” ([Ronald Stewart*](#), University of Manitoba).

14:30 – 15:00 “Real-time global flood estimation using satellite rainfall information.” ([Robert Adler*](#), ESSIC/University of Maryland).

15:00 – 15:30 “On the role of atmospheric rivers and low-level jets in South American precipitation patterns.” ([Germán Poveda*](#), Universidad Nacional de Colombia).

15:30 – 16:00 “A new system for environmental disaster and risk assessment.” ([Ana Nunes*](#), Nelson Fernandes and Maria Naise O. Peixoto, Depts. of Meteorology and Geography IGEO, UFRJ).

16:00 Adjourn session.

Tuesday September 3, 2013

09:00 – 12:00 **Session 2:** "Hydrological Cycle and Energy Balance on a Planet in Transformation." (**Chair: Howard Wheater**)

Convened at *Roxinho* Auditorium (400-seat room), CCMN, UFRJ.

09:00 – 09:30 "Groundwater and wetlands in South America." (**Gerson Cardoso da Silva Júnior***, Dept. of Geology, IGEO, UFRJ).

09:30 – 10:15 "Can we observe and assess whether the global hydrological cycle is intensifying?" (**Eric Wood***, Princeton University).

10:15 – 11:00 "Observations of the Earth's water cycle: progress and challenges." (**Graeme Stephens***, Jet Propulsion Laboratory, NASA).

11:00 – 11:30 "PBMC and the First National Assessment Report: Scientific Basis." (**Tercio Ambrizzi***, *Instituto de Astronomia, Geofísica e Ciências Atmosféricas*, USP)

11:30 – 12:00 "Causes and impacts of Amazonian droughts." (**José Marengo***, *Centro de Ciência do Sistema Terrestre*, INPE).

12:00 Lectures end.
