

International Conference Water Resources Assessment and Seasonal Prediction

Koblenz, 13 – 16 October 2015

First Announcement



Introduction and Rationale of the Conference

Knowledge about the quantitative variability of the components of the world water balance over a range of scales in space and time is necessary to develop science-based methodologies of predicting changes in global and regional water balances. The same knowledge is also a precondition for improving water management by means of seasonal predictions of water availability and water quality. Changes in water availability and quality are occurring mainly as consequences of global changes including environmental factors, climate change and human-induced changes. In the light of dynamic water-resources assessment and management schemes, the inter-annual variability of the water balance is gaining in importance over studies of mean annual water balances. Important research efforts focus on issues such as possible changes or intensification of the hydrological cycle, predictions of freshwater availability under climate change, and the ability to predict the variations of global and regional hydrological processes and water resources. Improving our capabilities in seasonal forecasting is one of the main challenges we face today. As the water cycle is linked to bio-geochemical cycles, these linkages influence the availability of freshwater and its quality. The improved capability to predict seasonal to inter-annual variations of the global water balance provides the ground-base for interaction with water managers and policy makers at regional and national scales. The conference is meant to provide a platform for scientists and practitioners to exchange their views on monitoring, assessment and prediction of key variables for water management.

Key objectives of the conference are to...

- ... Present state-of-the-art research in the quantification and prediction of the world water balance including changes of its components due to environmental factors and climate change
- ... Identify scientific and methodological approaches to water-resources assessments
- ... Discuss and further develop seasonal prediction capabilities for water availability and water quality
- ... Derive requirements for improved integrated water-resources management under conditions of climate change and human-induced changes

Themes to be covered include:

1. Scientific approaches to conduct world water balances
2. Data and observations as basis for the conduct of water balances
3. Drivers of change: changes in the elements of the water cycle and the water balance

4. Scientific and methodological approaches for water resources assessments
5. Capability of countries to conduct water resources assessments
6. Seasonal forecasting strategies and methodologies
7. The limits of seasonal forecasting
8. Water quality assessments and forecasting of water quality
9. Drivers of change: variability and change of available fresh water resources on national and regional levels
10. Consequences of change for Integrated Water Resources Management
11. Scientific and methodological requirements for improved predictions, water balance
12. Water resources assessments in a changing environment

The conference is expected to conclude with a call for priority actions that aim to influence the formulation and implementation of major science programs and initiatives and discussions in planning for policy options and decision-making in integrated water resources management.

Target Group

The conference aims to reach scientists and water managers actively involved in world water balance research, as well as the development and application of new approaches to water resources assessments and decision-making in water policies and water management. Demand driven-applications to meet requirements of the target group are expected to cover improvements in the observation of the elements of the world water balance, methods for water resources assessments, and the predictability of world and regional water balances. Likewise, quantifiable impacts of changes of the temporal and spatial availability of water resources for integrated water resources management practices will be addressed.

Hosting Organization

The conference is jointly organised by the German Federal Institute of Hydrology (BfG) and the International Centre for Water Resources and Global Change in Koblenz, Germany from 13 to 16 October 2015. Co-sponsoring organisations are WMO, UNESCO, GEOSS and IAHS.

Co-Sponsorship

Currently, the conference will be co-sponsored by the following organizations with more expected to follow:

WMO | UNESCO | IAHS | GEOSS

If your institution is interested in sponsoring the conference, please contact contact@worldwaterbalance.org

Participation

Participation is by invitation with a limited number of participants who may attend on a first come first served basis.

Funding

Limited funds may be available to support invited presenters on request and participants primarily from developing countries.

Conference Secretariat

Ms Ana María Conde Corral, email: contact@worldwaterbalance.org

Organization of the Conference

The organization of the conference is supported by a Local Organizing Committee (LOC) and a Science Support Group (SSG).

Members of the Local Organization Committee (LOC) are at this stage

R. Busskamp | A. Conde | J. Cullmann | W. Grabs | B. Lohner | U. Looser | M. Moser | P. Saile | Y. Strunck

The Science Support Group (SSG) is under development and current members are:

D. Carlson | C. Cudennec | S. Demuth | P. Döll | B. Fekete | R. Lawford | K. Sung | J. Wellens-Mensah

More details will be provided in due course.