

## INTERNATIONAL COMMISSION ON WATER RESOURCE SYSTEMS (ICWRS)

### Status Report April 2014

#### *Commission membership*

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#### *Associate members:*

Barry Croke  
S.K. Jain  
Alla Kolechkina  
Ian Littlewood  
Junguo Liu  
Gil Mahé  
Stephen Mallory  
John Ndiritu  
Ronald van Nooyen  
Taha Ouarda  
Saket Pande  
Magdalena Rogger  
Dan Rosbjerg  
Jose Luis Salinas  
Murugesu Sivapalan  
Alberto Viglione  
Ross Woods  
Kim Young-Oh

#### *ICWRS Meetings*

Every other year, there is either an IAHS Scientific Assembly or an IUGG General Assembly. In the years between assemblies, ICWRS usually organizes a symposium on Integrated Water Resources Management (IWRM).

In the year 2013, ICWRS organized in Gothenburg the symposium: "Considering hydrological change in reservoir planning and management". 28 contributions/presentations of it were published in the IAHS Red Book number 362. The main topics are:

- Problems of reservoir planning
- Operation of reservoirs
- Governmental problems
- Sedimentation
- Impacts of reservoirs on watersheds
- changing supply conditions.

An excellent support was provided during the review process by the International Commission on Continental Erosion (ICCE), International Commission on Statistical Hydrology (ICSH) and the International Commission on Surface Water (ICSW).

In the year 2014 the series of IWRM conferences of ICWRS will be continued by the symposium: **“Evolving Water Resources Systems - Understanding, Predicting and Managing Water - Society Interactions”** in Bologna from June 4<sup>th</sup> to 6<sup>th</sup>. Alberto Montanari is the main organiser. 6 invited speakers are scheduled and fee waivers and travel supports will be provided for young participants from developing countries. A named lectures, in honour of Peter Loucks will be started and Loucks himself will be the first speaker of this series. There will be a conference dinner as well as two parallel excursions. It is planned to formulate during the conference a visionary paper for Panta Rhei. All information about this conference is available at the web site: [www.iahs.info/bologna2014](http://www.iahs.info/bologna2014).

The proceedings of the conference will be published in a Red Book “Evolving Water Resources Systems: Understanding, Predicting and Managing Water–Society Interactions, Proceedings of ICWRS2014, Bologna, Italy, June 2014 (IAHS Publ. 36x, 2014)”. The book will collect 89 contributions presented by research groups active in 31 different countries from 5 continents (see Fig. 1).

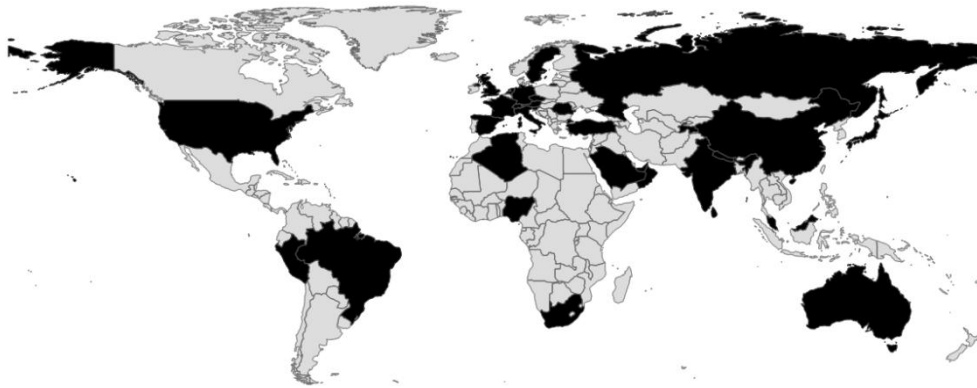


Figure 1. Countries of origin of the international research groups that contributed to the volume “Evolving Water Resources Systems: Understanding, Predicting and Managing Water–Society Interactions”.

The papers focus on a broad variety of topics associated with water resources assessment and management in a changing environment, and concentrate in particular on the two-way interaction between water and society. Water resources systems, catchment hydrology, eco-hydrology, groundwater hydrology, water security and socio-hydrology are driving scientific areas, which are grouped in four chapters associated with the following main themes (see also Fig. 2): (A) Hydrological processes in a changing environment: Coping with uncertainties; (B) Floods, droughts and water risks in a changing socio-hydrological context: Feedbacks between water resources and social systems; (C) Water resources: Monitoring, integrated assessment and management; (D) Optimization of water resources systems: changing boundary conditions, targets and criteria of water management.

- Hydrological processes in a changing environment:  
Coping with uncertainties
- Floods, droughts and water risks in a changing socio-hydrological context:  
Feedbacks between water resources and social systems
- Water resources:  
Monitoring, integrated assessment and management
- Optimization of water resources systems:  
changing boundary conditions, targets and criteria of water management

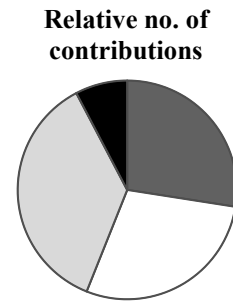


Figure 2. Main themes of “Evolving Water Resources Systems: Understanding, Predicting and Managing Water–Society Interactions” and relative number of contributions in the forthcoming Red Book “Evolving Water Resources Systems: Understanding, Predicting and Managing Water–Society Interactions”.

The collection of papers, in virtue of the broad spectrum of geographic and climatic conditions and the composite palette of emerging and topical water issues addressed by the studies, represents a unique piece of knowledge for advancing our understanding of water-society interactions, improving integrated water resources systems management and governance and addressing the water problems for the next generations.

Furthermore, for the year 2015, the Commission will be involved in the organization of several workshops during the IUGG-IAHS General Assembly to be held in Prague. The following workshops have been proposed:

- HW6 - “Socio-hydrological Modelling”, Lead convener: Murugesu Sivapalan
- HW7 - “Water Resources Control”, convened by Ronald van Nooijen, Alla Kolechkina and Taha Ouarda.
- HW8 - “Water Security in a changing world”, convened by Barry Croke & Stephen Mallory

along with the following Symposia:

- HS1 - Changes in flood risk and perception in catchments and cities

Finally, in 2013, the following working groups are proposed:

- Socio-hydrology alliance (Murugesu Sivapalan)
- Floods in historical cities (Andrea Kiss)

### Website

The website ([www.iahs-icwrs.org](http://www.iahs-icwrs.org)) is up-to-date.

Alberto Montanari, President ICWRS