



**Flow Regime from International Experimental and Network Data**

**The 8<sup>th</sup> Global FRIEND-Water Conference**

**Hydrological Processes and Water Security in a Changing World**

**Beijing, China**

**November 6-9, 2018**

**First Circular**

## **Background**

FRIEND-Water (Flow Regime from International Experimental and Network Data), initiated 32 years ago, is an international collaborative network of experts of the UNESCO International Hydrological Programme (UNESCO-IHP) with the aim to generate new understanding on regional hydrology and multi-scale hydrological processes. FRIEND-Water investigates long-term variations and changes in hydrological regimes and parameters to better understand the climate and river basin features, as well as the impact of human activities on the temporal and spatial distribution of water. The scientific research and development supported by the FRIEND-Water programme are critical for water resources management, socio-economic development, securing livelihoods, protection of the environment, and assessment of the impact of global change on hydrological processes, including the climate change and human activities. As a cross-cutting theme of UNESCO's IHP-VIII on addressing water security challenges at local, national, regional and global scales, FRIEND-Water contributes to the investigation of regional water resources, hydrological extremes (drought and floods), global change and the hydrological cycle, as well as water education and capacity building.

The FRIEND-Water programme complements and interacts with many national and international projects and initiatives such as International Sediment Initiative (ISI), International Drought Initiative (IDI), International Floods Initiative (IFI), Global Network on Water and Development Information for Arid Lands (G-WADI), Internationally Shared Aquifer Resource Management (ISARM), International Initiative on Water Quality (IIWQ), Groundwater Resources Assessment under the Pressures of Humanity and Climate Change (GRAPHIC), and WMO/GWP Integrated Drought Management Programme (IDMP), etc.

FRIEND conferences have been taken place every four years in Norway, Germany, Slovenia, South Africa, Cuba, Morocco, and France. The 8th Global FRIEND-Water Conference will be held in Beijing, China in 2018.

## **Main Theme and Objectives**

The Conference will focus on the theme of hydrological processes and water security in a changing world. Due to climatic and anthropogenic causes, the environment is changing rapidly which modifies the components of the hydrological cycle, ranging

from local to global scales. Multidisciplinary approaches are needed to help to understand these changes in hydrological processes, hydrological extremes and water resources management, and to explore how society and environment interact.

The river basins must be considered from the headwaters, where undisturbed environments allow studying pristine basins, to human-impacted areas, where anthropogenic activities on river regimes, hydrological extremes, and urban hydrology and water resources have strong impacts on the sustainable development. The allocation and operation of water resources in response to societal needs are also of great importance, and therefore should be better monitored to improve the balance between green and blue waters, to reduce the vulnerability of populations to water shortage and water quality, and to enhance water security for achieving the water related targets.

The Conference is placed under the United Nations 2030 Agenda for Sustainable Development that focuses on the sustainable development of society, economy and environment. This requires the better understanding of hydrological processes and the interaction between the society and hydrological system under the changing environment. In a changing world, improved knowledge based on multidisciplinary approaches is indispensable for evidence-based decision making for better water resources management.

### **Topics**

- Hydrological observations under the changing environment and scarcity.  
Including the monitoring of quantity and quality of atmospheric, surface and ground water.
- River regimes and hydrological extremes under the changing environment.  
Emphasis will be on how the river system and the nature of floods and droughts respond to these environmental changes.
- Simulation and prediction of surface water and groundwater processes under the impact of human activities.  
New advance in modeling development and understanding of hydrological processes.
- Urban hydrology and sponge city.  
Cutting-edge approaches of urban hydrology and their applications in the development of the sponge city.
- Multi-objective water resources allocation and operation.  
Eco-environmental friendly and multi-objective approaches for better and efficient water resources utilizations.

- Integrated watershed management including eco-hydrology and socio-hydrology. Ecological and societal based approaches for watershed management.
- Water quality and sediment transport including coastal hydrology: changes under climate change and human activities.  
Better understanding of the water quality and sediment transport under environmental changes.
- River health and ecological baseflow under changing environment.  
Focusing on the assessment of river health, the relationship between the health of aquatic ecosystem and river, and estimation of ecological baseflow.

### **Venue and Time**

The conference will be held at China Palace Hotel (Add: 1 Zhenwumiao Road, Beijing 100045, China <http://www.zgzgzj.com.cn>) from the 6<sup>th</sup> to 9<sup>th</sup> of November, 2018 in Beijing with on-site registration starting from Nov. 5<sup>th</sup>.

### **Organization**

#### 1) Hosts

- UNESCO-IHP
- International Association of Hydrological Sciences (IAHS)
- China National Committee of UNESCO-IHP

#### 2) Organizers

- Department of Hydrology, Ministry of Water Resources of the People's Republic of China (MWR, P. R. China)
- Center of Hydrology and Water Resources Monitoring and Forecasting, MWR, P. R. China
- China Institute of Water Resources and Hydropower Research (IWHR)

#### 3) Co-organizers

- Nanjing Hydraulic Research Institute (NHRI)
- Hohai University
- Bureau of Hydrology, Changjiang Water Resources Commission
- Bureau of Hydrology, Yellow River Conservancy Commission
- State Key Laboratory of Simulation and Regulation of Water Cycle in River Basin
- State Key Laboratory of Hydrology-Water Resources and Hydraulic Engineering

### **Organizing Committee**

Chairman:

-Jianyuan CAI	Director, Department of Hydrology, MWR, P.R. China President, China National Committee of UNESCO-IHP
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Vice-Chairman:

-Ge LI	Deputy Director, Department of International Cooperation, Science and Technology, MWR, P.R. China Vice-President, China National Committee of UNESCO-IHP
-Aiwen YING	Vice-President, Center of Hydrology and Water Resources Monitoring and Forecasting, MWR, P. R.China
-Jing PENG	Vice-President, IWHR

Secretary-General:

-Dazheng YU	Secretary-General, China National Committee of UNESCO-IHP Director, Division of Hydrological Monitoring, Department of Hydrology, MWR, P.R. China
-Gil Mahe	Director of Research, IRD, Montpellier, France and President of FIGCC, France

Deputy Secretary-General:

-Jianhua WANG	Professorate Senior Engineer, IWHR
-Zongzhi WANG	Professorate Senior Engineer, NHRI
-Chunhui LU	Professor, Hohai University
-Abou Amani	Chief of Section, Water Science Division, UNESCO Paris
-Li ANG	Programme Assistant for Natural Sciences, UNESCO Beijing office, China

**Scientific Committee**

Committee:

Gil Mahe	Director of Research, IRD, Montpellier, France President of FIGCC, France
Blanca Jimenez Cisneros	Director Water Sciences Division and IHP Secretary, UNESCO Paris, France
Abou Amani	Chief of Hydrological Systems and Water Scarcity Section, Water Sciences Division, UNESCO Paris, France
Anil Mishra	Programme Specialist, Hydrological Systems and Water Scarcity Section, Water Sciences Division, UNESCO Paris, France
Jayakumar Ramasamy	Regional Hydrologist for Africa, UNESCO

	Nairobi Office, Kenya
Hans Thulstrup	Regional Hydrologist for Asia and Pacific, UNESCO Jakarta Office, Indonesia
Miguel Doria	Regional Hydrologist for Latin America and Caribbean, UNESCO Montevideo Office, Uruguay
Bisher Iman	Regional Hydrologist for Arab region, UNESCO Cairo Office, Egypt
Siegfried Demuth	Director of UNESCO Centre on climate change and water resources, Koblenz, Germany
Trevor Daniell	Coordinator FRIEND Asia and Pacific, Australia
Henny van Lanen	Coordinator FRIEND Europe, Netherlands
Bamory Kamagate	FRIEND-AOC Coordinator and Professor University of Abidjan, Cote d' Ivoire
Denis Hughes	FRIEND-Southern Africa Coordinator and Professor University of Kuazulu Natal, South Africa
Eduardo Rodriguez	FRIEND Latin America and Caribbean Coordinator, Professor, University Cuba
Oula Amrouni	MEDFRIEND Tunisia
Eric Servat	Director Institute on Water and Environment, Montpellier, France
Pascal Breil	IRSTEA France Ecohydrology
Giuseppe Arduino	UNESCO IHP Ecohydrology France
Abdou Ali	AGRHYMET Niamey Niger
Le Thi Phuong Quynh	Viet Nam Academy of Science and Technology Hanoi Water Quality and Sediment Transport
Bernal Isabel Carolina	National Polytechnic School Quito Equator
Tzoraki Ourania	Ass. Prof. University of Mytilene, Greece, MEDFRIEND
Harouna Karambiri	Head of Doctoral School of 2IE, Ouagadougou Burkina-Faso FRIEND AOC
Andrew Ogilvie	G-Eau Laboratory Montpellier France Socio-Hydrological Dynamics
Duong Thi Thuy	Viet Nam Academy of Science and Technology Hanoi River Health and Ecological Baseflow
Waldo Lavado Casimiro	National Meteorological and Hydrological Service Peru
Ernest Amoussou	University of Parakou, Benin
Chantha Oeurng	Deputy Head of Department & Lecturer of Hydraulic, Irrigation and Watershed Management, Department of Rural Engineering, Institute of Technology of Cambodia

Hao WANG	Professorate Senior Engineer of IWHR, Academician of China Engineering Academy
Jianyun ZHANG	Professorate Senior Engineer of NHRI, Academician of China Engineering Academy
Jun XIA	Professor of Wuhan University, Academician of the Chinese Academy of Sciences
Jinren NI	Professor of Peking University, Academician of the Chinese Academy of Sciences
Zhongbo YU	Professor of Hohai University
Yangwen JIA	Professorate Senior Engineer of IWHR
Guangheng NI	Professor of Tsinghua University
Zongxue XU	Professor of Beijing Normal University
Xiuying DONG	Professorate Senior Engineer of Bureau of Hydrology, MWR
Guoqing WANG	Professorate Senior Engineer of NHRI

Coordinators:

Gil Mahe	Zhongbo YU	Abou Amani
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### **Call for Papers**

The registered participants are required to submit abstract first. Approved participants need to submit full papers. Accepted papers will be published in conference proceedings. Abstract and papers shall be submitted through the 8th Global FRIEND-Water Conference official website <http://8thfriendwater.iwhr.org>, where the template could be downloaded.

### **Important Dates and Deadlines**

Abstract submission deadline: March 30, 2018

Notification of acceptance (oral or posters) and invitation issue date: May 15, 2018

Full paper submission deadline: July 30, 2018