



# INTERNATIONAL SEDIMENT INITIATIVE

## NEWSLETTER

*Reporting ISI news to you quarterly*

No. 46 Nov. 20, 2017

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## NEWS

### Outgoing UNESCO Director-General thanks IRTCES for hosting the Secretariat of ISI

Ms. Irina Bokova, the outgoing UNESCO Director-General expressed her gratitude for the support of IRTCES to UNESCO, as well as to the ISI. In her letter addressed to Prof. Shangfu Kuang, Director of IRTCES, Ms. Bokova thanked IRTCES for its unerring support to UNESCO and, particularly, to the International Hydrological Programme (IHP), manifest in the hosting of Secretariat of the International Sediment Initiative (ISI).

Ms Bokova emphasized that this support “helped to drive forward the values, and objectives we share.” She highlighted the vital importance of UNESCO’s role in the face of the world’s current challenges, stating, “Today, in times of conflict and as so many countries unite against violent extremism and sectarian hatred, peace must be constructed through education, intercultural dialogue, mutual understanding and a better knowledge of history and religions.” She continued, “moreover, faced with the impact of climate change and the sustainable development imperative, we need to invest more in quality education, scientific research and other forms of knowledge that have the power to open the doors to innovation and progress. UNESCO, the ‘soft power’ agency of the United Nations, is leading on all of these fronts, and I know that the initiatives we took forward together have helped translate this message into actions. We must persist with these efforts.”

IRTCES appreciates the recognition of its work by the DG and commitment to continuing to perform its duties responsibly.

### Audrey Azoulay named as Director-General of UNESCO



Paris, 10 November—On November 10th, the General Conference of UNESCO named Audrey Azoulay (France) to the post of UNESCO Director-General. Ms Azoulay was nominated on 13 October to succeed outgoing Director-General Irina Bokova (Bulgaria) by UNESCO’s Executive Board.

The President of the 39th session of the General Conference Zohour Alaoui, congratulated the new Director-General at the end of a vote that endorsed the choice of the Executive Board.

“I now think of all the people I met in recent months, or had met in my various professional capacities, who have great expectations from UNESCO,” declared Ms Azoulay to the General Conference. “I think of UNESCO’s mandate, which is strikingly modern. I think of all of you who are

aware of the difficulties of the Organization but who know that it is irreplaceable, that it is essential, in facing current global challenges and who aspire to the unity and serenity necessary to let it exercise its mandate to best effect.”

Born in 1972, Ms Azoulay was France’s Minister of Culture and Communication from February 2016 to May 2017. She has occupied senior positions in France’s public broadcasting sector and then served as rapporteur to France’s public auditing authority, the Cour des compte, and as a European Commission legislative expert on issues of culture and the media. Ms Azoulay served France’s National Cinema Centre (CNC), first as Deputy Audiovisual Director, then as Director of Financial and Legal Affairs, and finally as Deputy Director-General. She is a graduate of the Ecole National d’Administration and the Paris Institut d’études politiques. Ms Azoulay also holds a Masters degree in Business Administration from the University of Lancaster (UK).

Ms Azoulay is the 11th Director-General of UNESCO and the second woman to occupy this position. She will take office on 15 November. (Source: UNESCO)

### New ISI publication launched at UNESCO Knowledge Forum 2017



UNESCO launched the latest ISI publication on “Sediment Problems and Strategies for their Management: Experiences from several large river basins” at its recent event entitled the Knowledge Forum on Water Security and Climate Change: Innovative solutions for sustainable water resources management. The Knowledge Forum, which took place at UNESCO Paris Headquarters from the 18-20 October 2017, featured a session focused on the launch of seven of UNESCO-IHP’s newest publications featuring its ongoing work at the local, regional and global levels to address water security and climate change challenges.

The new ISI publication looks at six river basins: the Nile, Mississippi, Rhine, Volga, Yellow River, and the Haihe and Liohe River Basins. The basins were chosen from different parts of the world to highlight examples of basins with different climatic, physiographic, socio-economic conditions and varying sediment problems which require different sediment management strategies. The study gives an overview of these varying conditions and presents policy and strategy options and key recommendations for improving the sustainable management of such basins globally. Through sharing best practices and recommendations, the study aims to contribute to Sustainable Development Goal 6 on ensuring availability and sustainable management of water for all.

Anil Mishra, Programme Specialist at UNESCO-IHP



presented the ISI publication at the session launch. The session was attended by a number of water professionals specialised particularly in water sciences and policy development. The new publication is available online at: <http://unesdoc.unesco.org/images/0025/002587/258795e.pdf>. A full programme of the Knowledge Forum and related abstracts from each session is available here: <https://en.unesco.org/events/knowledge-forum-water-security-and-climate-change>.

## UN: China's success against soil loss could be replicated in other countries

(2017-09-07) China's success in fighting desertification, or soil loss, is a model that can be replicated in other parts of the world, delegates to a United Nations (UN) conference said on Wednesday.

"The achievements of China are very encouraging because many of the successful projects are launched in the country's poorest areas with low technology," said Monique Barbut, secretary-general of the United Nations Convention to Combat Desertification (UNCCD).

"China's examples are comparable to other situations in the world, and we could introduce them somewhere else."

The UNCCD convened a conference in Ordos, the Inner Mongolia autonomous region, on Wednesday, which is expected to establish a strategic framework on land degradation for 2018-30.

Erik Solheim, Deputy Secretary-General of the UN and Executive Director of the UN Environment Programme, also spoke highly of Ordos's commitment to the greening of the vast Kubuqi Desert, saying its experience in developing ecological economies in desert conditions is invaluable for other regions and countries facing desertification.

He encouraged other regions and countries that are ravaged by sand and dust - Africa, the Middle East and Latin America - to adopt Ordos' Kubuqi model.

In 2002, China became the first country to issue a law on the prevention and control of desertification. It has also carried out projects to curb desertification, including the Three-North Shelter Forest Program and the Beijing-Tianjin Sand Source Control Project.

According to the State Forestry Administration, the area of desertified land in the country shrank by an average of 1,980 km<sup>2</sup> annually from 2010 to 2014.

Inner Mongolia, which is covered by large areas of sand, accounts for 23 percent of China's desertified land. However, forest coverage increased by more than a percentage point to 21 percent last year, according to a national forest resources survey.

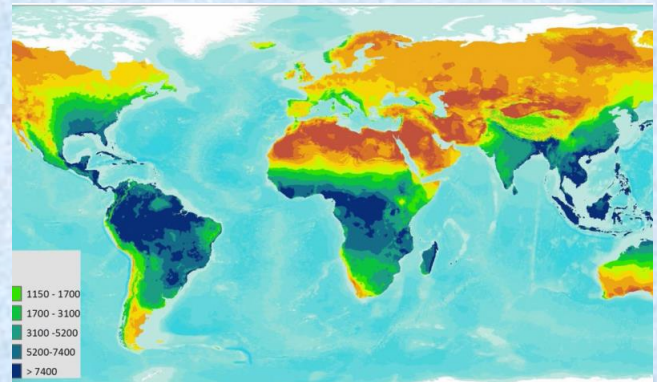
The region now tops the country with 248,667 km<sup>2</sup> of forests, an increase of 12,015 km<sup>2</sup> since the previous national survey was released in 2014. By 2020, about 40 percent of the region's sandy land will be improved, and wetlands are expected to exceed 60,000 km<sup>2</sup>, according to the administration.

"We have always given top priority to the prevention and control of desertification and the improvement of the environment, because they are the key to sustainable development," said Bu Xiaolin, chairwoman of the Inner

Mongolia autonomous region.

She said that the local government has established 182 natural reserves, three global geoparks, along with 100 national-level forest parks, wetland parks and geoparks. It also has been optimizing ecological forestry development by planting Scots pine trees in Hulunbuir, Horqin and the Maowusu Desert. (by Yuan Hui in Ordos and Yang Wanli in Beijing, China Daily)

## Global erosivity map shows differences between climatic regions



The first ever global erosivity map gives new insights into the geography of the rain's impact on soil erosion. The underlying JRC research, published in the Nature Group's Scientific Reports, highlights differences between climatic regions and calls for global action to protect our soils.

Soil is our most important source of food. And yet, much of the world's soils are being eroded faster than they are formed.

The capacity of rain to cause soil erosion is known as erosivity. Soil erosion by water is the most serious cause of soil degradation globally. Heavy rainfall and extreme weather events aggravated by climate change increase soil erosion, which ultimately impacts on economies and people's lives.

Lack of data on rainfall erosivity patterns across the globe hampers the implementation of effective soil degradation mitigation and restoration strategies.

Responding to this shortcoming, the JRC has collected data on rainfall erosivity from 3 625 meteorological stations in 63 countries to establish the first ever Global Rainfall Erosivity Database (GloReDa) and a global erosivity map which illustrates the differences between climatic regions.

The highest rainfall erosivity is found in South America (especially around the Amazon Basin) and the Caribbean countries, Central Africa and parts of Western Africa and South East Asia. The lowest values are in mid- and high-latitude regions such as Canada, the Russian Federation, northern Europe, northern Africa, the Middle East and southern Australia.

It should be noted that high rainfall erosivity does not necessarily mean high levels of erosion, as factors such as soil characteristics, vegetative cover and land use also have an important impact on soil erosion.

The new global erosivity map is a critical input to global and continental assessments of soil erosion by water, flood risk and natural hazard prevention. It provides an important



dataset for soil experts and policy makers for raising awareness on the importance of healthy soil for healthy life and for achieving the UN's Sustainable Development Goals.

The map is publicly available and can also be used by other research groups to perform national, continental and global soil erosion modelling.

The dataset of the Global Rainfall Erosivity Database (GloREDa) can be requested for free.

More information: Panos Panagos et al, Global rainfall erosivity assessment based on high-temporal resolution rainfall records, Scientific Reports (2017). DOI: 10.1038/s41598-017-04282-8. (Source: <https://phys.org/news/>)

### **Prof. Zhaoyin Wang, member of the ISI Expert Group, receives IAHR Honorary Member Award**



The 37th World Congress of the International Association for Hydro-Environment Engineering and Research (IAHR) was successfully opened at the Putra World Trade Centre, Kuala Lumpur, Malaysia on August 14, 2017. At the opening ceremony, Prof. Zhaoyin Wang was presented with the 2017 IAHR HONORARY MEMBER AWARD in recognition of his outstanding contribution to the field of sediment transport and river dynamics, and his devoted service to IAHR in various capacities, including most recently service as Vice President during the period 2011-2015. This award is the most prestigious honour conferred by the IAHR Council, and is given to only three distinguished IAHR members at each World Congress. Together with Prof. Wang, Prof. Roger Falconer from the UK and Prof. Jörg Imberger from Australia also received 2017 IAHR HONORARY MEMBER AWARDS. Because of health problems, Prof. Wang was unable to attend the Congress to receive the Award in person. His former student Prof. Mengzhen XU from Tsinghua University, Beijing, accepted the award from the present IAHR President Prof. Peter Goodwin on his behalf.

**More News on ISI Website**  
(<http://www.irtces.org/isi/> )



## CONFERENCE REPORT

### UNCCD's high-level segment held in Ordos, China



The high-level segment of the 13th Session of the Conference of the Parties to the Convention to Combat Desertification (UNCCD) was held in Ordos, Inner Mongolia Autonomous region, on Sept 11, 2017.

Vice-Premier Wang Yang attended the conference and delivered the congratulatory letter sent by President Xi Jinping. In the letter, President Xi affirmed the Chinese government's strong determination to fulfil the UNCCD and contribute to the reduction of global desertification.

The vice-premier said desertification is a serious problem that all human beings are facing and that no country could win the battle against desertification by itself. Wang also said the battle required enhanced international cooperation and communication for a successful outcome. Wang said China has been a pioneer in combatting desertification, as one of the developing countries that has suffered from the serious problem.

The vice-premier reviewed China's achievements in combatting desertification and eliminating poverty. He said people in Inner Mongolia are not only replacing sand and desert with grass and trees, but also developing a series of eco-friendly industries to help eliminate poverty.

"Inner Mongolia is an outstanding example of combatting desertification in China. The history of the province is also a record of combatting desertification," Wang said.

At the conference, Monique Barbut, Executive Secretary of UNCCD, said that the Belt and Road cooperative mechanism — launched on Sept 10 — would aid the realization of the conference's goals.

About 300 people from 20 countries, international organizations and NGOs attended the conference. A series of representatives expressed commitment to the UNCCD and a willingness to partake in more international cooperation and to share more information within the framework of the conference.

A representative from Civil Society, an NGO, said gender equality, especially women's access to land, should have more importance. This emphasis, she said, would greatly help the anti-desertification efforts.

(Source: <http://chinadaily.com.cn>)

### The 1st World Conference on Soil and Water Conservation under Global Change (CONSOWA) was Held in Spain



The 1st World Conference on Soil and Water Conservation under Global Change (CONSOWA) was held from 12-16 June 2017 in Lleida (Spain). For the first time, all the main World Scientific Organizations promoting wise and sustainable use, management and conservation of soil and water, the main natural resources responsible for maintenance of life on Earth, collaborated to organize a joint Conference, christened CONSOWA.

The Conference brought together the International Soil Conservation Organization, the World Association for Soil and Water Conservation, the European Society for Soil Conservation, the International Union of Soil Science, the Soil and Water Conservation Society, the International Erosion Control Association and the World Association for Sedimentation and Erosion Research in parallel with the VIII Simposio Nacional sobre Control de la Degradación y Restauración de Suelos. Nearly 250 registered participants attended the conference. They came from 35 countries representing all continents, including: Algeria, Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Chile, Colombia, Costa Rica, France, Germany, Hungary, Italy, Iran, Japan, Jordan, Mexico, Mozambique, Paraguay, Peru, Portugal, Rumania, Russia, Serbia, Spain, Switzerland, Turkey, UK, USA, and Venezuela, etc.

The main objectives of CONSOWA were:

1. To analyze the present and future global status of the conservation of soil and water



resources, as influenced by global changes, including population growth and development, changes in land use and management, and human induced climate changes. This situation would be analyzed and discussed taking into consideration the close and critical relation of the use and management of the limited soil and water resources with present and future climate changes, natural disasters, and with food and water supply for an increasing world population.

2. To promote increased collaboration, and even a full integration of the main international scientific organizations promoting soil and water conservation research and related activities at the worldwide level, enabling them to achieve their goals more efficiently.

The program of the Conference included 19 invited keynote plenary lectures, 87 oral presentations in 13 sessions, and 104 poster presentations in three daily sessions. In addition the programme included two discussion sessions, with the following objectives:

1. Discussion Session 1: Analysis and recommendations to address present limitations for researching and studying soil and water degradation processes and in the application of prevention and remediation practices.

2. Discussion Session 2 (Activity dedicated to the International Decade of Soils (2015-2024)

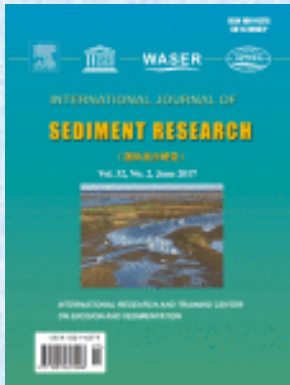
proclaimed by IUSS): Setting the challenges and goals for the next decade, to prevent and counteract the predicted effects of global change on soil and water degradation processes, on food and water supply for an increasing world population, on environmental degradation and on natural disasters.

Additionally, the programme included 7 field trips, one pre-conference, one post-conference and five during the conference, which visited and observed different systems and practices of land use and management, and different soil and water degradation processes and effects, under both dry-land and irrigated conditions.



Prof. Zhaoyin Wang, member of the ISI Expert Group, giving a keynote lecture

## PUBLICATIONS



### Papers Published in the International Journal of Sediment Research Volume 32, No. 3, 2017

Pages 259-304

Morphological reactions of schematic alluvial rivers: Long simulations with a 0-D model  
Pages 295–304  
M. Franzoia, M. Nones

Bedform development and its effect on bed stabilization and sediment transport based on a flume experiment with non-uniform sediment  
Pages 305–312  
Su-Chin Chen, Chia-Ning Yang, Ching-Ying Tsou

Study on the assessment of the comprehensive benefits of the utilization of sediment resources in reservoir areas  
Pages 313–323  
Jingmin Hou, Yuanjian Wang

Methodology for determination of correction factors in direct gamma spectrometric measurement of radionuclides in sediments  
Pages 324–330  
Esra Uyar, Alptuğ Özer Yüksel, Rufiyet Güven, Haluk Yücel

Particle size distribution of bed materials in the sandy river bed of alluvial rivers  
Pages 331–339  
Luohao Zhang, Hongwu Zhang, Hongwu Tang, Chensu Zhao

A comparative study of three different learning algorithms applied to ANFIS for predicting daily suspended sediment concentration  
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Keivan Kaveh, Minh Duc Bui, Peter Rutschmann

The morphodynamic responses to deposition-promoting projects in island and reef coasts of the Zhoushan Archipelago, China  
Pages 351–363  
Qingzhi Hou, Zhili Wang, Yongjun Lu, Siping Mo

Reduction of local scour at river confluences using a collar  
Pages 364–372  
Nargess Amini, Behnam Balouchi, Mahmood Shafai Bejestan

Influences of retrogressive erosion of reservoir on sedimentation of its downstream river channel—A case study on Sanmenxia Reservoir and the Lower Yellow River  
Pages 373–383  
Jianguo Chen, Wenhao Zhou, Shanshan Han, Gaohu Sun

Bed roughness and grain sorting- an experimental study over fine to medium sand beds  
Pages 384–400  
Barendra Purkait, Dipanjan Das Majumdar, Rajat Mazumder

Distribution characteristics of inertial sediment particles in the turbulent boundary layer of an open channel flow determined using Voronoï analysis  
Pages 401–409  
Xin Liu, Chunming Ji, Xiaoli Xu, Dong Xu, John J.R. Williams

Geochemical fractionation and ecological risks assessment of benthic sediment-bound heavy metals from coastal ecosystems off the Equatorial Atlantic Ocean  
Pages 410–420  
Nsikak U. Benson, Essien D. Udosen, Joseph P. Essien, Winifred U. Anake, ... Abass A. Olajire

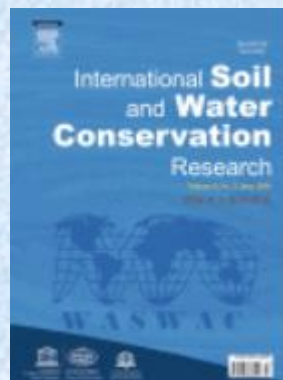
Modelling of resuspension due to fish activity: Mathematical modeling and annular flume experiments  
Pages 421–431  
Olya Skulovich, Catrina Cofalla, Caroline Ganai, Holger Schüttrumpf, Avi Ostfeld

Evaluation of phosphorus bioavailability in El Mex Bay and Lake Mariut sediments  
Pages 432–441  
Naglaa F. Soliman, Gehan M. El Zokm, Mohamed A. Okbah

Phosphorus fractions and sorption dynamics in the sediments of two Ca-SO<sub>4</sub> water reservoirs in the central Argentine Andes  
Pages 442–451  
José Gabriel León, Fernando Luis Pedrozo, Pedro Félix Temporetti

Study on hydraulic characteristics of sabo dam with a flap structure for debris flow  
Pages 452–464  
Yeonjoong Kim, Hajime Nakagawa, Kenji Kawaike, Hao Zhang

Full papers are available at ScienceDirect:  
<http://www.sciencedirect.com/science/journal/10016279> with free access to the paper abstracts.



### Contents of ISWCR (Vol. 5, No.3, 2017)

International Soil and Water Conservation Research  
Volume 5, Issue 3, Pages 167-252

Soil carbon sequestration, carbon markets, and conservation agriculture practices: A hypothetical examination in Mozambique



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Timoteo E. Simone, Dayton M. Lambert, Ivan Cuvaca, Neal S. Eash

Measuring flow velocity on frozen and non-frozen slopes of black soil through leading edge method

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Dredging effects on selected nutrient concentrations and ecoenzymatic activity in two drainage ditch sediments in the lower Mississippi River Valley

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The evaluation/application of Hydrus-2D model for simulating macro-pores flow in loess soil

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Xuexuan Xu, Shahmir Ali Kalhoro, Wenyan Chen, Sajjad Raza

Grid-cell based assessment of soil erosion potential for identification of critical erosion prone areas using USLE, GIS and remote sensing: A case study in the Kapgari watershed, India

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Gurjeet Singh, Rabindra Kumar Panda

Deposition of eroded soil on terraced croplands in Minchet catchment, Ethiopian Highlands

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Alemtsehay Subhatu, Tatenda Lemann, Kaspar Hurni, Brigitte Portner, Hans Hurni

Estimating landscape susceptibility to soil erosion using a GIS-based approach in Northern Ethiopia

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Lulseged Tamene, Zenebe Adimassu, Ermias Aynekulu, Tesfaye Yaekob

Soil and water conservation effects on soil properties in the Middle Silluh Valley, northern Ethiopia

Pages 231–240

Solomon Hishe, James Lyimo, Woldeamlak Bewket

The effect of grid size on the quantification of erosion, deposition, and rill network

Pages 241–251

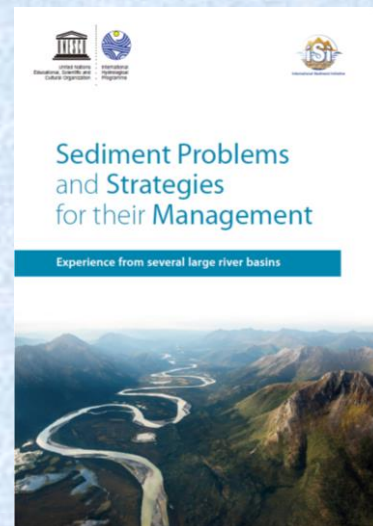
Xiaoyu Lu, Yingkui Li, Robert A. Washington-Allen, Yanan Li, ... Qingwu Hu

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<http://www.sciencedirect.com/science/journal/20956339>

## **Sediment Problems and Strategies for their Management - Experience from several large river basins**

Cheng Liu, Desmond E. Walling, Manfred Spreafico, Jayakumar Ramasamy, Hans Dencker Thulstrup, and Anil Mishra



**Abstract:** The management of sediment in river basins and waterways has been an important issue for water managers throughout history. The changing nature of sediment issues has meant that water managers today face many complex technical and environmental challenges in relation to sediment management. UNESCO's International Hydrological Programme (IHP) launched the International Sediment Initiative (ISI) in 2002. ISI addresses the wide-ranging social, economic and environmental impacts of erosion, sediment transport and sedimentation processes and aims to support the global agenda for sustainable integrated land and water resources management by promoting sound sediment management. Among other actions, ISI has endeavoured to collate and document international experience on sediment problems and their management through the compilation of a series of case studies representative of a broad range of physiographic and socio-economic conditions, which are made available as guidance for policy makers dealing with water and river basin management. Case studies prepared to date include the Nile River Basin, the Mississippi River Basin, the Rhine River Basin, the Volga River Basin, the Yellow River Basin, and the Haihe and Liaohe River Basins. Key experience relating to sediment management drawn from these river basin studies is briefly introduced in this paper, which aims to provide an accessible overview of sediment problems and sediment management around the world and present policy and strategy options to improve the sustainable management of such rivers. Key recommendations for developing management strategies presented in this paper have been extracted from these river case studies.

Full paper is available at UNESCO and ISI websites at the following links:

<http://unesdoc.unesco.org/images/0025/002587/258795e.pdf>

f

<http://www.irtces.org/> .

## **Publications in ISI Information System**

More .....

(<http://www.irtces.org/> )



## COMING EVENTS

### **FRIEND 2018 - International Conference on African Large River Basin Hydrology (Algeria, May 6-9, 2018)**

**Date:** May 6-9, 2018

**Venue:** Blida, Algeria

**Summary:** The FRIEND 2018 - International Conference on African Large River Basin Hydrology will be organized in Blida, Algeria on 06 & 09 May 2018. WASER is one of Co-sponsors of the conference, and WASER members will enjoy a discounted registration fee for participation in the conference. The Conference is organized under the UNESCO's FRIEND WATER program, within the International Hydrological Program. It contributes to the regional water resources research development, global change, hydrological cycle, education and capacity building. The aim of this program is to determine the impacts of climate and human activities on the spatial and temporal evolution of water resources from the analysis of long-term hydrological variables changes. For more than 30 years, it has brought together the hydrological expert community working on the deepening and popularization of knowledge in regional hydrology. This third International Conference on the hydrology of African Large River Basins will focus special attention to strategies for the sound management, rational use and protection of water resources, based on technical and scientific tools. Through the various themes proposed, the conference will allow the academic community, researchers and managers, to exchange experiences and knowledge on the means that can be implemented to better optimize and better manage water in the ecosystems.

**Conference website:** <http://friend2018.ensh.dz/>

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friend2018.blida@gmail.com

### **2nd International Symposium on Hydraulic Modeling and Measuring Technology (China, 30 May - 01 June 2018)**

**Date:** 30 May 2018 - 01 June 2018

**Venue:** Nanjing, China

**Conference website:** <http://ishmmt2018.iahr.org/cn>

### **8th International Symposium on Environmental Hydraulics (USA, June 4 - 7, 2018)**

**Date:** 04 June 2018 - 07 June 2018

**Venue:** University of Notre Dame, Indiana, USA

**Conference website:** <https://ceees.nd.edu/iseh2018>

### **13th International Conference on Hydrosience & Engineering (China, June 18**

**- 22, 2018)**

**Date:** 18 June 2018 - 22 June 2018

**Venue:** Chongqing, China

**Summary:** The 13th International Conference on Hydrosience & Engineering (ICHE-2018) will be organized in Chongqing, China during June 18-22, 2018. WASER is one of Co-sponsors of the ICHE-2018, and WASER members will enjoy a discounted registration fee for participation in the conference. The International Conference on Hydrosience & Engineering (ICHE) began in Washington DC in 1993. Beijing hosted ICHE in 1995, followed by Cottbus (1998), Seoul (2000), Warsaw (2002), Brisbane (2004), Philadelphia (2006), Nagoya (2008), Chennai (2010), Orlando (2012), Hamburg (2014) and Tainan (2016). The forthcoming one will be held in Chongqing (2018). ICHE2018 is the premier interdisciplinary platform for the presentation of new advances and research results in the fields of Hydrosience and Engineering. The conference will bring together leading academic scientists, researchers and scholars in the domain of interest from around the world.

**Conference website:** <http://iche2018.iahr.org.cn/>

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### **The 6th International Conference on Estuaries and Coasts (France, August 20-23, 2018)**

**Date:** August 20-23, 2018

**Venue:** University of Caen, Caen City, France

**Summary:** The International Conference on Estuaries and Coasts (ICEC) is a triennial event initiated by the International Research and Training Center on Erosion and Sedimentation (IRTCES). Five such conferences have now been held in Hangzhou and Guangzhou, China; Sendai, Japan; Hanoi, Vietnam; and Muscat, Oman in 2003, 2006, 2009, 2012 and 2015. With support from related international associations, and with the participation of experts and scholars worldwide, the ICEC has attracted wide attention and has become an important and popular event. The ICEC provides an opportunity for scientists, engineers, researchers and decision-makers to exchange ideas, research results and advanced techniques, and develop collaboration and friendships. The 6th International Conference on Estuaries and Coasts (ICEC-2018) will be held in the University of Caen Normandy, France on August 20-23, 2018.

**Organizers:**

- University of Caen Normandie (France) and its laboratory LUSAC
- GIS HEDD (Group of Scientific Interests « Hydraulics for the Environment and for the Sustainable Development »)



· International Research and Training Center on Erosion and Sedimentation (IRTCES)

**Under the patronage of:** the International Association for Hydro-Environment Engineering and Research (IAHR); the French Society of HydroTechnics (SHF), and the World Association for Sedimentation and Erosion Research (WASER).

**Theme of the Conference:**

Estuaries and Coastal Zones in times of Global Change

**Topics of the Conference:**

The conference will be organised around parallel sessions in the following domains:

1. Saline intrusion and sea level rise: measurements, modelling and forecasting their impacts to economic development and human lives;
2. Waves and Tsunami: Measurements, modelling, forecasting and warning system;
3. Estuarine and coastal flows and their evolution by climate change;
4. Sediment transport and morphological change in estuaries and coastal zones
5. Megacities development and coastal floods under the threat of sea level rise and climate change: Observation, modelling, forecasting and early warning systems;
6. Environment and ecosystem change in estuaries and coastal zones in time of global change;
7. Integrated Coastal Zone Management for sustainable developments in global change context;
8. Environment and Marine Renewable Energies.

**Conference website:**

<http://lusac.unicaen.fr/evenements/icec-2018/>

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## 21st Congress of IAHR-APD (Indonesia, Sept. 3-5, 2018)

**Date:** 03 September 2018 - 05 September 2018

**Venue:** Yogyakarta, Indonesia

**Invitation:** We cordially invite you to join the 21<sup>st</sup> Congress of the Asia Pacific Division of the International Association for Hydro-Environment Engineering and Research (IAHR-APD) to be held in Yogyakarta, Indonesia, on 3<sup>rd</sup> – 5<sup>th</sup> September 2018. The theme of the congress is: "Multi-perspective Water for Sustainable Development", which I believe may inspire us in sharing the Hydro-Environment related knowledge and experiences towards the effective and efficient ways to elevate the community welfare. Your efforts to disseminate this information to the related

networks are highly appreciated. Thank you and looking forward to seeing you in Yogyakarta, Indonesia.

Sincerely yours,

The Local Organizing Committee

Radiana Triatmadja

**Important Dates:**

Deadline of Abstract	Friday, 27 October 2017
Notification of Abstract Acceptance	Friday, 3 November 2017
Deadline of Full Paper Submission	Friday, 2 February 2018
Notification of Full Paper Acceptance	Friday, 16 March 2018
Registration	Before 30 April 2018 (early bird)

**Conference website:** <http://iahrapd2018.ugm.ac.id/>

## River Flow 2018 (France, Sept. 3-7, 2018)

**Date:** 03 September 2018 - 07 September 2018

**Venue:** Lyon, France

**About the conference**

River Flow has become since 2002 a major international conference in river engineering and fluvial hydraulics. It is a unique occasion to present and discuss the latest scientific researches, and to communicate with scientists, engineers, and researchers involved in areas such as fluvial flow and structure processes or sediment transport. River Flow 2018 will focus on the latest findings in the field of fluvial hydraulics, addressing fundamental issues related to fluid processes of sediments and pollutants in rivers. More practical issues related to river morphodynamics, river restoration, and river interaction with structures will be discussed. Finally, a specific theme on extreme events (flood, drought) is proposed. Several master classes dedicated to graduate students and young researchers will be organized and led by recognized international experts on topics in hydrodynamics, mixing, morphology, flood hazard and sediment transport.

**URL:** <https://riverflow2018.irstea.fr/>

**Contact:** for sponsoring River Flow 2018 conference, proposing exhibition or any information about the conference, please contact [riverflow2018@irstea.fr](mailto:riverflow2018@irstea.fr)

**Language:** English will be the official language for the conference and the master classes.

**Note:** *this conference site will be regularly updated with new information as soon as it is available. Please visit it regularly.*

**Conference dates**

Masterclasses: September 4, 2018 (at Irstea).

Conference : September 5 to 7, 2018 (at Espace Tête d'Or)

Technical visit: September 8, 2018

## 7th International Conference on Debris Flow Hazards Mitigation (USA, June 10 -13, 2019)

**Date:** 10 June 2019 - 13 June 2019

**Venue:** Golden, Colorado USA

**Conference website:** <http://dfhm7.csmospace.com/>

## More Coming Events in ISI Website

More .....

(<http://www.irtces.org/isi/>)





## INTERNATIONAL SEDIMENT INITIATIVE (ISI)

International Hydrological Programme (IHP)  
UNESCO

### ORGANISATION: UNESCO

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**ISI URL:** <http://www.irtces.org/isi/>

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(Lhasa River, China, by: Zhiwei Li on November 6, 2017)