

# INTERNATIONAL SEDIMENT INITIATIVE

# NEWSLETTER

Reporting ISI news to you quarterly

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## NEWS

### Chinese president says UNESCO's role 'irreplaceable'



Chinese President Xi Jinping said on Thursday that the United Nations Educational, Scientific and Cultural Organization (UNESCO) plays an "irreplaceable" role in promoting international understanding and cooperation.

Xi, who is paying a state visit to France, made the remarks in a meeting with UNESCO Director-General Irina Bokova at the headquarters of the world body.

The international situation is currently undergoing profound and complex changes, and mankind is facing increasing common challenges, noted the president.

Under such circumstances it is necessary to enhance understanding and strengthen cooperation among countries and peoples, Xi said, adding that the role of UNESCO in this undertaking is "irreplaceable."

"China appreciates UNESCO's advocacy of cultural diversity and focus on universal education, especially its priority on gender equality and Africa," said the president.

Speaking highly of the long-standing cooperation between China and UNESCO, Xi said China is ready to increase support for the UN body, especially in helping African countries and the least developed countries promote sustainable development and cultural preservation.

Beijing, he added, has decided to expand the annual enrollment of the Great Wall Fellowship -- a program in which China provides scholarships for African and other developing countries through UNESCO -- from 25 to 75 so as to support the capacity-building of African teachers.

Bokova, for her part, expressed gratitude for the long-running support from China, adding that she believes Xi's visit will inject fresh vigor into the cooperation between China and UNESCO and make bilateral collaboration more fruitful.

Founded in 1946, UNESCO is the largest UN agency specializing in educational, scientific and cultural fields. The organization aims to promote cooperation among countries in those fields and contribute to world peace and security.

France is the second leg of Xi's ongoing Europe trip, which will also take him to Germany and Belgium. Before France, Xi visited the Netherlands and attended the third Nuclear Security Summit in The Hague.

(Source: <http://www.ecns.cn/>)

### Minister Chen Lei attended the 2nd MRC Summit (China)



On April 5, 2014, the Chinese Delegation led by Minister Chen Lei took part in the 2nd MRC Summit. During the summit, Minister Chen delivered a speech with four suggestions made for consolidating cooperation of all MRC member countries: developing development strategy, strengthening integrated planning, furthering up cooperation in hydropower development and creating a favorable environment for cooperation. China shall continue to play an active role in MRC's annual dialogue, increase contacts with MRC member states, so as to consolidate strategic partnership between MRC countries, said the Minister.

During the summit, Minister Chen met with Vietnam Prime Minister Nguyen Tan Dung, Cambodian Prime Minister Hun Sen, Laos Prime Minister Thongsing Thammavong, Permanent Secretary of the Ministry of Foreign Affairs of Thailand Mr. Sihasak Phuangketkeow. The Minister also held a meeting with Hans Guttman, Chief Executive Officer at the Mekong River Commission Secretariat (MRCS).

Under the theme "Water, Energy and Food Security in the context of climate change for the Mekong River Basin", the event focused on key current issues in Mekong cooperation. Participants reviewed the implementation of the 2010 Hua Hin Declaration, deliberated on opportunities and challenges, and outlined measures to continue strengthening the management, sustainable exploitation and development of the Mekong River in the coming time. (source: MWR, <http://www.mwr.gov.cn/>)

### The International Sediment Initiative (ISI) and its contribution to addressing 'Water Security' challenges of the 21st Century

The concept of "water security" involves the sustainable use and protection of water systems, the protection against water related hazards (floods and droughts), the sustainable development of water resources and the safeguarding of (access to) water functions and services for humans and the environment. Sound governance policies, based on well-grounded science, are the precondition to address water security challenges in today's setting. Sediment management must be seen as playing a key role in achieving 'water security' at different scales. Across the world, erosion, sediment





transport and sedimentation processes have wide-ranging social, economic and environmental impacts. Modification of the sediment budgets of catchments and river basins by human activities result in important social, economic and environmental repercussions. The negative impacts of erosion and sedimentation are further exacerbated by global change and particularly a rapidly growing population and increased vulnerability to severe climatic conditions, which increase soil erosion. However, there are major gaps in baseline sediment data, in current knowledge and understanding of sediment mobilization, transport and storage and sediment budgets, and in our understanding of socio-economic and environmental impacts. Sediment management strategies and practices must be improved if we are to deal effectively with erosion and sedimentation problems.

The International Sediment Initiative (ISI) was launched by UNESCO's International Hydrological Programme (IHP) in 2004. ISI activities aim to increase awareness of the importance of erosion and sedimentation dynamics and sediment issues in all spheres of water management. The Initiative promotes sustainable management of soil and sediment as a key element of sustainable water resources and river basin management. ISI represents an important component of the eighth phase of the (IHP VIII, 2014-2021) '**Water Security: Responses to Local, Regional and Global Challenges**'. ISI aims to contribute to addressing water security challenges via the following objectives:

#### Objectives:

- ISI is a vehicle to advance the sustainable management of soil and sediment at local, regional and global scale, taking into account the commitments of the international community to sustainable water resource development.
- ISI deals with both sediment quantity and quality and focuses on economic, social, environmental and ecological impacts and problems related to sediment.
- ISI aims to motivate and activate the scientific and professional communities dealing with sediment in those regions and countries where sediment represents an important threat to water security.
- ISI aims to promote improved understanding of sediment mobilization, transport and storage and sediment budgets at local, regional and global scales, to support effective sediment management.
- ISI aims to promote education and capacity building programmes for sustainable sediment management.
- ISI supports the organisation of scientific conferences, workshops and seminars focusing on important issues relating to erosion and sediment transport and deposition at the local, regional and global scale.
- ISI aims to promote improved cooperation in sediment management within transboundary river basins.
- ISI aims to link science with policy & management needs and to promote the global agenda for sustainable sediment management.
- ISI aims to develop a decision support framework for sediment management, in order to provide guidance on legislative and institutional solutions, applicable to various socio-economic and physiographic settings, in the context of global change.
- The ISI outcomes contribute to addressing the objectives of the eighth phase of the IHP (IHP VIII, 2014-2021) '**Water Security: Responses to Local, Regional and Global Challenges**'.

#### Outreach

The International Sediment Initiative (ISI) organizes and promotes an international information exchange on sediment related matters, ensuring direct access for policy makers in the member states. The Web page <http://www.irtces.org/isi/> has been established and is in operational use. The ISI Information System (<http://www.irtces.org/isi/info.asp>) has been developed for the purpose of helping to organize and promote international information exchange and provides direct access for policy makers in Member States, while activating and linking scientific and professional communities in all regions.

The Secretariat for the initiative is provided by the International Research and Training Centre on Erosion and Sedimentation (IRTces) in Beijing, China. (by Manfred Spreafico, Des Walling, Anil Mishra and Liu Cheng)

#### UNESCO, Sweden, SIWI Launch International Centre for Water Cooperation

25 March 2014: Irina Bokova, UN Educational, Scientific and Cultural Organization (UNESCO) Director-General, Léna Ek, Swedish Minister of Environment, and Torgny Holmgren, Executive Director, Stockholm International Water Institute (SIWI), have signed an agreement creating the International Centre for Water Cooperation.

The Centre, a Category 2 UNESCO Centre, will help support UNESCO work under the Potential Conflict to Cooperation Potential (PCCP) programme, the International Hydrological Programme (IHP), and the World Water Assessment Programme (WWAP), as well as cooperating with the International Shared Aquifer Management (ISARM) programme.

UNESCO Director-General Bokova highlighted Sweden's support for the International Year of Water Cooperation, which took place in 2013, and stated that "In a world where 276 trans-boundary lakes and river basins cover nearly half the land surface and account for 60 percent of global freshwater flow -- cooperation is not a matter of choice, it is an imperative." [UNESCO Press Release]

#### Elwha Sediment Detailed in New Document (USA)

As the largest dam-removal project in history moves into its third year, scientists from the U.S. Geological Survey released a new report that documents the movement of sediment down the Elwha River in Washington State.

"During last winter's high flows, we set a record for the largest concentration of sediment thus far measured on the Elwha River," said USGS hydrologist, Chris Curran. "We expect more high flows this season and are interested to see how much of the sediment remaining behind the former dam sites is flushed toward Puget Sound."

In the lower Elwha River, a suite of sediment-detection instruments and samplers operate 24 hours a day, 7 days a week to track the downstream flux of sediment. Periodic measurement of sediment concentration in the river allows scientists to calibrate the sediment-detection instruments and calculate the total load of sediment carried by the river.



The release of millions of tons of sediment from the former reservoir areas is restoring the natural function of the downstream river, estuarine, and marine ecosystems. Understanding the timing and magnitude of mobilized sediment provides a foundation for cross-disciplinary basic research in the Elwha River with benefits far beyond dam-removal projects.

"Deposition patterns on the floodplain, estuary, and beaches are all influenced by the timing and caliber of arriving sediment," says USGS's Jon Warrick. "The pre-removal models gave us a rough approximation of system response, and now we get to document the fascinating details of change in the downstream river channel, floodplain, and marine delta. This includes the massive growth of a new delta along a shoreline that historically eroded at rapid rates."

Calculations of suspended-sediment concentration in the lower Elwha River, recently updated to include the first two years of the restoration project, are available in a USGS document, "Suspended-Sediment Concentrations during Dam Decommissioning in the Elwha River, Washington."

This research and monitoring was funded by the USGS, the U.S. Environmental Protection Agency, and the National Park Service. (Source: <http://www.usgs.gov/>)



Elwha River (near Port Angeles, WA) (Chris Magirl, USGS)

## Experts hail Three Gorges project, deny link to disasters (China)

Experts hailed the benefits of the Three Gorges project after the world's largest hydropower station has been successfully operating for a decade. Shen Guofang, former vice president of the Chinese Academy of Engineering, said the project has yielded enormous benefits in terms of water control, power generation, and water transport.

The Three Gorges project is a multi-functional water control system consisting of a 2,309-meter-long, 185-meter-high dam, a five-tier ship lock and 26 hydropower generators. From the occasion when the construction plan of the Three Gorges project was proposed to the time after the construction was finished, controversies never die down. The construction plan was passed by the National People's Congress (NPC), or the top legislature, in April 1992 even after nearly one third NPC delegates opposed it or abstained from voting. Construction on the project, which cost over 200 billion yuan (33 billion U.S. dollars), began in December 14, 1994. (After nine-year

construction, the dam's first generator went into operation in July 2003. The last generator started operating in July last year. Some 1.3 million people have been relocated to make way for the project.

"Each project has its own impacts on the environment. But any approval of construction plans should hinge on whether the pros exceed the cons or vice versa," said Shen. After the project was finished, the Jingjiang section, the most dangerous part of the Yangtze River, the country's longest, could withstand the worst flooding in 100 years, compared to the most serious in a decade before, Shen said.

The Three Gorges reservoir has a designed water storage capacity of 39.3 billion cubic meters after the water level rises to a designed ceiling of 175 meters. In the raining season, it stores water to ease flooding pressure downstream. While in the dry season, it discharges water to alleviate drought downstream. When the reservoir received the largest ever flood crest of 71,200 cubic meters per second in July last year, it only discharged 43,000 cubic meters of water downstream, Shen said, adding this helped ensure safety in downstream areas.

With an installed capacity of 22.5 million kw, the largest among hydropower stations worldwide, the project helps save energy and curb air pollution by churning out clean power, Shen said. The Three Gorges hydropower station had generated 629 billion kilowatt-hours (kwh) of electricity by 2012, equivalent to the saving of 217 million tonnes of coal, according to the China Three Gorges Corporation. It helped cut emission of carbon dioxide by 490 million tonnes and that of sulfur dioxide by 5.9 million tonnes.

Meanwhile, the project improved transport conditions in 660-km-long waterway from Chongqing to Yichang to allow much bigger cargo ships to sail from Shanghai to Chongqing, said Cao Guangjing, chairman of the China Three Gorges Corporation. The throughput of the five-tier ship lock of the Three Gorges Dam exceeded 100 million tonnes for the first time in 2011, 5.6 times of the volume before the dam was constructed and meeting the throughput target for 2030, Cao said.

Despite the benefits, there are lingering worries that the project could have negative impacts on environment and climate change, and could lead to more geological disasters and even earthquakes. "It is normal to have different views on such a massive project, but some arguments lack common sense of science," said Gao Anze, former chief engineer of the Ministry of Water Resources. "It is wrong to blame all issues on the project." Some believe the dam obstructs the atmospheric circulation and could bring extreme weather like severe drought to surrounding regions, Gao cited an example as saying. "The atmospheric circulation occurs in the sky thousands of meters high and how could a 185-meter-high dam obstruct it," Gao said. "Accusations like this do not have scientific basis and will not help nurture objective evaluations on the impacts of the Three Gorges project," Gao said.

However, Gao said that he worried about the clearer water flowing downstream after large amount of sediment is intercepted and deposited by the dam, which leads to lower water level as against unchanged flows in the lower reach of the Yangtze River. (Source: <http://www.ecns.cn/>)



## OBITUARY: PROF. **LIN BINGNAN** (1920-2014)



Prof. Lin Bingnan, senior academician of Chinese Academy of Science, honorary member of IAHR and honorary president of China Institute of Water Resources and Hydropower Research (IWHR), passed away on January 3, 2014 at the age of 94 years old.

He obtained his master's and doctor's degrees in the State University of Iowa. Long devoted

to the research and application of hydraulics and river dynamics, he made extraordinary accomplishments in a wide range of research topics, including unsteady open-channel flow, high-velocity flow, wave of dam break and reservoir sedimentation. He was also among the first scientists simulating unsteady flow field with mathematical method, and one of the inventors of new type of energy dissipator of flaring gate piers for high-dam flow.

Prof. Lin Bingnan made great efforts for the development of IAHR Asia and Pacific Regional Division as the chair from 1991 to 1996. One of the initiators of IAHR China Chapter, as well as one of the founders of International Research and Training Center on Erosion and Sedimentation (IRTCES) and World Association for Sedimentation and Erosion Research (WASER), he was also the visiting professor of Tsinghua University and Colorado State University, the honorary chairman of the Advisory Council of IRTCES, and the Chief of the Sedimentation Panel for the Office of Three Gorges Engineering Commission, China State Council.

## More News in ISI Website

- Minister Chen Lei attended the 2nd MRC Summit (China) (2014-4-15 10:32) (Hits:6)
- At mouth of Elwha River, new beaches taking shape after dam lake sediment is pushed out (USA)
- Contents of IJSR (Vol. 29, No.1, 2014)
- MPCA outlines sediment reduction strategy for rivers (USA)
- Chinese president says UNESCO's role 'irreplaceable'
- An Undammed River's Sediment Brings New Life Downstream (USA)
- Get the science right: Diverting river sediment is key to saving the coast (USA)
- Dartmouth-UConn Study Shows Coastal Water, Not Sediment, Predicts Mercury Contamination (USA)
- Elwha Sediment Detailed in New Document (USA)
- Contents of ISWCR (Vol. 1, No.3, 2013)
- Final Report of the UNESCO Strategic and High-Level Meeting on Water Security and Cooperation (Nairobi, 11-13 September 2013)
- Erosion washes away four villages in Dhubri (India)
- U.S. Geological Survey Report on Sediment in the San Francisco Bay, Delta, and Coastal System includes Hydraulic Gold Mining
- Army Corps of Engineers says Cuyahoga River sediment clean enough to dump into Lake Erie; OEPA disagrees (USA)
- Experts hail Three Gorges project, deny link to disasters (China)
- Water diverted from the Hanjiang River (China)
- Letters of Condolence to Prof. Dr. Lin Bingnan
- OBITUARY: PROF. **LIN BINGNAN**

More .....

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

## CONFERENCE REPORT

### Final Report of the UNESCO Strategic and High-Level Meeting on Water Security and Cooperation (Nairobi, 11-13 September 2013)

Circular SC/WATER/8 (in English only)

Paris, 20 January 2014

To : IHP National Committees and Focal Points

cc: Members of the IHP Bureau

From: Secretary IHP

Subject: **Final Report of the UNESCO Strategic and High-Level Meeting on Water Security and Cooperation (Nairobi, 11-13 September 2013)**

Dear colleagues,

I am pleased to inform you that the Final Report of the UNESCO Strategic and High-Level Meeting on Water Security and Cooperation, which took place in Nairobi, Kenya, from 11-13 September 2013, is now available online, at <http://unesdoc.unesco.org/images/0022/002259/225993E.pdf>

The final report has been circulated for comments to all participants of the Nairobi meeting and it includes the matrixes produced by the Working Group established by the IHP Intergovernmental Council at its 20th session for the preparation of the action plan for the implementation of the Eighth Phase of IHP (IHP-VIII, 2014-2021).

2013 was a significant year for the Division of Water Sciences, which was tasked to coordinate the International Year of Water Cooperation and the World Water Day on the same topic. Over 1,000 events were organized worldwide and key events included:

- Launching Ceremony of the International Year of Water Cooperation at the UNESCO Headquarters in Paris, France, in February 2013;
- World Water Day - official celebrations in The Hague, The Netherlands and New York, United States of America, on 22 March 2013;
- High Level International Conference on Water Cooperation in Dushanbe, Tajikistan, in August 2013;
- World Water Week in Stockholm, Sweden, on the theme of Water Cooperation – Building Partnerships - in September 2013;
- UNESCO Strategic and High-Level Meeting on Water Security and Cooperation in Nairobi, Kenya, in September 2013;

- Budapest Water Summit in Hungary in October 2013.
- Closing Ceremony of the International Year of Water Cooperation, Mexico City, in December 2013.

A report on the achievements of the International Year will be released early this year.

2013 also marked the conclusion of the seventh phase of IHP. An evaluation of IHP-VII, requested by the IHP Bureau, is now in place and the results will be submitted to the IHP Council at its next session.

2014 is also a promising year for the UNESCO water network. IHP will celebrate its 40<sup>th</sup> anniversary and will start its eight phase on Water Security. About seven new centres under the auspices of UNESCO and chairs devoted to freshwater are foreseen to become operational. UNESCO-IHE will start its third period as a UNESCO Institute, given that the agreement between UNESCO and the Government of the Netherlands has been recently extended. WWAP will initiate the production of annual reports, a move from the typical triennial World Water Development Reports. In terms of internal coordination, I will also initiate my term as vice-chairperson of UN-Water and do my utmost to further promote collaboration among the UN-system on freshwater activities. On all these endeavours to better serve Member States and the Peoples of the United Nations, we expect to further strengthen collaboration with you and all other members of the UNESCO water networks.

Warm regards,  
Blanca

**Dr Blanca Jimenez-Cisneros**

Director of the Division of Water Sciences

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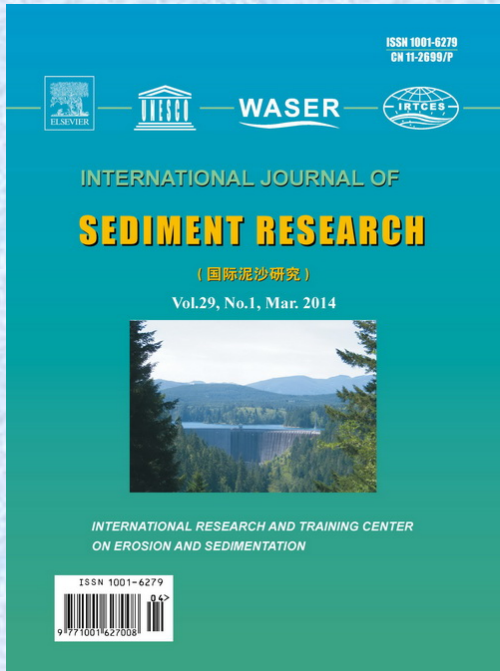
<http://www.unesco.org/water>

(source: E-mial information by Dr Blanca Jimenez-Cisneros, Director of the Division of Water Sciences, Secretary of the IHP, UNESCO)



## PUBLICATION

### Papers Published in Issue 1 Volume 29, 2014, International Journal of Sediment Research



Volume 29, Number 1

Mar. 2014

#### **Technical Papers**

A long-term record of land use change impacts on sediments in Oualidia lagoon, Morocco  
Mehdi MAANAN, Ana Carolina RUIZ-FERNÁNDEZ, Mohamed MAANAN, Paul FATTAL, Bendahou ZOURARAH, and Mohamed SAHABI pp. 1–10

Distribution of clay minerals in marine sediments off Chennai, Bay of Bengal, India: indicators of sediment sources and transport processes  
Subramanian VEERASINGAM, Ramdoss VENKATACHALAPATHY, and Thirunavukkarasu RAMKUMAR pp. 11–23

Fluvial geomorphology of the Middle Reach of the Huai River  
Bang-yi YU, Peng WU, Jue-yi SUI, Xing-ju YANG, and Jin NI pp. 24–33

Assessment of reservoir sedimentation effect on coastal erosion in the case of Nestos River, Greece  
M. ANDREDAKI, A. GEORGOULAS, V. HRISSANTHOU, and N. KOTSOVINOS pp. 34–48

3D Modeling of sediment movement by ships-generated wakes in confined shipping channel  
Shengcheng JI, Abdellatif OUAHSINE, Hassan SMAOUI, and Philippe SERGENT pp. 49–58

Recent surface marine sediments of Cocos Island in Costa Rica  
Jeffrey A. SIBAJA-CORDERO, Jesús S. TRONCOSO, Eddy GÓMEZ-RAMÍREZ pp. 59–72

Determination of the suspension competence of debris flows based on particle size analysis  
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Growth patterns and dynamics of mud cracks at different diagenetic stages and its geological significance  
Zhen-yu ZHAO, Yan-ru GUO, Yan WANG, Hong LIU, and Qing ZHANG pp. 82–98

Provenance discrimination and source-to-sink studies from a dryland fluvial regime: an example from Kachchh, western India  
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#### **Technical Notes**

Numerical analysis of synthetic granulate deposition in a physical model study  
Gabriele HARB, Stefan HAUN, Josef SCHNEIDER, and Nils Reidar B. OLSEN pp. 110–117

Prediction of the soil erosion in a forest and sediment yield from road network through GIS and SEDMODL  
Aidin PARSAKHOO, Majid LOTFALIAN, Ataollah KAVIAN, and Seyed Ataollah HOSSEINI pp. 118–125

Flow resistance of gravel bed channels  
Wen C. WANG and David R. DAWDY pp. 126–132

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Cover Photo: The Alder Dam on the Nisqually River in the USA

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Effects of long-term organic material applications and green manure crop cultivation on soil organic carbon in rain fed area of Thailand <i>Tomohide Sugino, Wanida Nobuntou, Nuttapong Srisombut, Praisorn Rujikun, Suphakarn Luanmanee, and Nongluck Punlai</i> .....	29-36
The expansion of Brazilian agriculture: Soil erosion scenarios <i>Gustavo H. Merten and Jean P. G. Minella</i> .....	37-48
Effects of tillage practices on nutrient loss and soybean growth in red-soil slope farmland <i>Yang Jie, Zheng Haijin, Chen Xiaolan, and Shen Le</i> .....	49-55
Rainwater harvesting, its prospects and challenges in the uplands of Talugot, Nueva Ecija, Philippines <i>Samuel M. Contreras, Teresita S. Sandoval, and Silvino Q. Tejada</i> .....	56-67
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## Publications in ISI Information System

- Changes in runoff and sediment load from major Chinese rivers to the Pacific Ocean over the period 1955–2010 (Liu et al., 2013)
- Suspended-Sediment Concentrations during Dam Decommissioning in the Elwha River, Washington (Curran et al., 2014)
- Final Report of the UNESCO Strategic and High-Level Meeting on Water Security and Cooperation (Nairobi, 11-13 September 2013)
- Dutch Guidance Document for Sediment Assessment
- Risk-Informed Management of European River Basins (Brils et al., 2014)
- Advances in River Sediment Research (Fukuoka et al.)
- Eroding Soils Darkening Our Future (Brown)
- Morphodynamic signatures of braiding mechanisms as expressed through change in sediment storage in a gravel-bed river (Wheaton et al.)

More .....

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

## COMING EVENTS

### 5th International Conference on Estuaries and Coasts (Oman, Nov. 2-4, 2015)

**Date:** November 2–4, 2015

**Venue:** Muscat, Sultanate of Oman

**Summary:** The Middle East region is going through an era of rapid coastal development which may be attributed to the strategic location of this region. Usually such developments bring economic growth and pose environmental concerns at the same time. This region has a diversity of sea grass beds, coral reefs, mangroves and salt marshes. Therefore, it is important to involve engineers and environmental professionals in the decision making process related to coastal and marine construction in order to minimize damage to the important ecosystems. ICEC 2015 will serve as a venue for engineers, researchers and administrators from industry, academia and public agencies to discuss and exchange information on issues important to sustainable coastal development.

**Organizer:** Sultan Qaboos University

**Sponsors:** International Research and Training Centre on Erosion and Sedimentation (IRTCES)

Sultan Qaboos University

The Research Council, Oman

Potential Sponsors from Public and Private Sectors in the Sultanate of Oman

**Co-Sponsors:** UNESCO, IAHR, IAHS, WASER, and other institutes and organizations to be invited

**Secretariat:** Sultan Qaboos University

**Permanent Secretariat:** IRTCES

**Conference Themes:**

- \* Coastal erosion: measurements, modeling, management
- \* Seawater quality: coastal and offshore pollution, measurements, modeling, solutions
- \* Tsunami: field observations, numerical modeling, mitigation
- \* Estuaries: water quality observations, modeling and effect on marine resources, mangrove rehabilitation
- \* Integrated Coastal Zone Management: approaches, measures
- \* Seawater intrusion: measurement, modeling, management

\* Social, economical and political problems involving coasts and estuaries

**URL:**

online submissions:

<https://www.easychair.org/conferences/?conf=icec2015>

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### International Conference on the Status and Future of World's Large Rivers (Brazil, 21-25 July 2014)

**Date:** 21-25 July 2014

**Venue:** Manaus/Amazon/Brazil

**Summary:** This conference aims to provide a global forum for a wide-ranging discussion of key issues related to research on large rivers and to their effective and sustainable management, involving both scientists and decision makers. We strongly encourage scientists and practitioners to present their research results and experiences in the fields of

- Hydrology, hydraulics & water quality
- Sediment transport & river morphology
- Ecology & restoration

as well as in a special session about

- Amazonia (incl. ORE-HYBAM research)

**URL:** <http://worldslargerivers.boku.ac.at>

**Contacts:**

Naziano Filizola

Chair of Local Organizing Committee (LOC)



Helmut Habersack  
 Chair of International Scientific Committee (ISC)  
[worldlargerivers@boku.ac.at](mailto:worldlargerivers@boku.ac.at)

## 6th International Conference on Flood Management (Brazil, Sep. 16-18, 2014)

**Date:** September 16-18, 2014

**Venue:** São Paulo – Brazil

**Summary:** The 6th International Conference on Flood Management (ICFM6) marks the continued advancement of flood management practices and policies around the world. The name change from "Defence" as used in the previous four events to "Management" is reflective of the more integrative approaches to flood management that nations are increasingly employing. The first International Symposium on Flood Defence, held in Kassel, Germany in 2000, emphasized flood defence measures with each successive event (Beijing 2002, Nijmegen 2005, Toronto 2008 and Tsukuba 2011) evolving towards more integrative approaches, including risk, vulnerability and capacity building. The ICFM6 theme is "Floods in a changing Environment". ICFM is the only recurring international conference wholly focused on flood related issues. It is designed to bring together practitioners and researchers alike, including engineers, planners, health specialists, disaster managers, decision makers, and policy makers engaged in various aspects of flood management. It provides a unique opportunity for these various specialists to come together to exchange ideas and experiences. ICFM6 will be held in São Paulo (SP), Brazil September 16-18, 2014, and will be organised by the Brazilian Water Resources Association and Acquacon Consultoria.

**Key Themes:** The event will focus on the following seven key themes:

1. Urban Floods
2. Floods in a changing climate
3. Flood risk management in mega cities
4. Impact of climate change on flood risk
5. Land use and Floods, landslides and erosion
6. Flood forecasting and early warning systems
7. Flood resilient societies through community preparedness

**URL:** <http://icfm6.com/>

**Executive Secretariat:**

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## River Flow 2014 (Switzerland, Sep. 3-5, 2014)

**Date:** Sep. 3-5, 2014

**Venue:** Lausanne, Switzerland

**Summary:** On behalf of the IAHR Committee on Fluvial Hydraulics it is our pleasure to invite you to participate at River Flow 2014 – the 7th International Conference on Fluvial Hydraulics – at EPFL, Lausanne, Switzerland. The conference intends to create an environment for reflection, discussion and exchange of knowledge regarding fluvial hydraulics and river morphology. It is an opportunity to meet, to discuss and to learn about the interaction between water, sediments and structures in natural or built environments. The conference offers scientific presentations, site visits and master classes given by experts from different countries. It further aims to link science with river engineering practice. It

would be a pleasure to meet you at EPFL in September 2014!

**Organizer:** IAHR Committee on Fluvial Hydraulics

**Theme and Topics:**

- A. River hydrodynamics
- B. River morphology and sediment transport
- C. River engineering and restoration
- D. Reservoir sedimentation
- E. Swiss competences in river engineering and restoration (KOHS).

**URL:** <http://riverflow2014.epfl.ch/>

**Contacts:**

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## ICCE Symposium on Erosion and Sediment (USA, Dec 11-14, 2014)

**Date:** Dec 11-14, 2014

**Venue:** New Orleans, USA

**Summary:** An international symposium on erosion and sediment, ICCE 2014, will be held in the city of New Orleans, USA, December 11-14, 2014. The symposium is a series of symposia organized under the auspices of the International Commission on Continental Erosion (ICCE), which is one of the ten commissions of the International Association of Hydrological Sciences (IAHS). The first ICCE symposium was held in Florence, Italy in 1981, and recent symposia have been held in Moscow, Russia in 2004, Dundee, United Kingdom in 2006, Christchurch, New Zealand in 2008, Warsaw, Poland in 2010, and Chengdu, China in 2012. The 2014 ICCE Symposium in New Orleans will have the following themes:

- Monitoring and modeling erosion on hills, floodplains, and coastal shorelines
- Monitoring and modeling sediment transport in streams, rivers, and estuaries
- Erosion and sediment-associated chemical transport across landscape and waterscape
- Land use and climate change effects on erosion and sediment transport
- Interactions between sediment hydrodynamics, channel morphodynamics, river delta, and coastal processes

**URL:** <http://www.nmr.lsu.edu/icce2014/>

**Contact:** Symposium Organizing Committee  
[ICCE2014NO@gmail.com](mailto:ICCE2014NO@gmail.com)

## 7th International Conference on Scour and Erosion (Dec. 2 – 4, 2014, Australia)

**Date:** Dec 2-4, 2014

**Venue:** Perth, Western Australia

**Summary:** The first six conferences were successfully held in Texas, USA (2002), Singapore (2004), Amsterdam, The Netherlands (2006), Tokyo, Japan (2008), San Francisco, USA (2010) and Paris, France (2012). The objective of the conference is to provide a platform for scientists and engineers from various disciplines (e.g. Hydraulic and geotechnical engineering) to exchange ideas and report advances in research and practice on scientific and engineering challenges related to scour and erosion. The broad topics covered in ICSE conferences include fundamental mechanisms of erosion and scour, modelling (both physical and numerical) of erosion and scour processes and engineering applications that involve scour



and erosion processes. The ICSE conferences have been well attended by scientists and engineers from broad areas such as Civil Engineering, hydraulic Engineering, Coastal and Offshore Engineering. One of the strong features of the ICSE conferences has been the cross discipline collaborations and exchanges between geotechnical and hydraulic engineers. ICSE-7 will endeavour to maintain the traditions of the ICSE conferences and build on the success of the previous ICSE conferences. You will find Perth, the Capital City of Western Australia a unique place to visit. I hope you will be able to join us and play your part in making the ICSE-7 a successful and memorable event.

The ICSE conference series is the biennial meeting of hydraulic and geotechnical engineers discussing all issues of scour and erosion, including internal erosion and filtration topics. It was initiated by the International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) in 2002 and is currently run by the Technical Committee TC213 "Scour and Erosion" (<http://scour-and-erosion.baw.de/>)

Prof. Liang Cheng of the University of Western Australia will organize the forthcoming conference.

URL: <http://www.2014icse.com/index.html>

### 11th International Conference on Hydroscience & Engineering (Germany, Sep. 28-Oct. 2, 2014)

**Date:** 28 September to 2 October 2014

**Venue:** Hamburg, Germany

**Summary:** ICHE 2014 in Hamburg is the latest in a well-established series of bi-annual Hydroscience & Engineering conferences, which 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) and Orlando (2012). These conferences have served as a welcome forum to report and discuss the latest scientific advancements and practitioner's solutions in hydroscience and engineering. Four full days of presentations under the slogan "Hydro-Engineering for Environmental Challenges" will put you in touch with researchers from many disciplines and will provide ample networking opportunities for future activities.

**Theme and Topics:** Conference topics include:

- Water Resources Planning and Management
- Experimental and Computational Hydraulics
- Groundwater Hydrology, Irrigation
- Urban Water Management
- River, Estuarine and Coastal Dynamics
- Sediment Transport and Morphodynamics
- Interaction between Offshore Utilisation and the Environment
- Climate Change, Adaptation and Long-Term Predictions
- Eco-Hydraulics and Eco-Hydrology
- Integrated Modeling of Hydro-Systems
- Uncertainty and Reliability of Hydro-Systems
- Remote Sensing and Field Monitoring
- Information Management and Decision Support Systems
- Academic and Professional Training

URL: <http://www.iche2014.baw.de/why/index.html>

### 19th IAHR-APD 2014 Congress (Vietnam, Sep. 21-24, 2014)

**Date:** 21 - 24 September 2014

**Venue:** Water Resources University, Hanoi, Vietnam

**Summary:** On behalf of the 19th IAHR-APD 2014 Congress, and IAHR, we are delighted to extend our personal invitation to you to join us in Hanoi, Vietnam for the 19th IAHR-APD (IAHR Asian and Pacific Regional Division) 2014 Congress of the International Association for Hydro-Environment Engineering and Research (IAHR). Water Resources University is collaborating with IAHR to organize the 19th IAHR APD Congress. The Congress theme "Working globally on water and climate change issues but acting locally" focuses on the central roles of hydraulic engineering, hydrology and water resources, estuarine and coastal engineering, and environmental hydraulics in our changing world, and how these roles link to the broader issues. Water related disaster and climate change are becoming hot issues in many regions of the world and the Pacific Region as well. Careful management and innovative solutions are required and solutions must be able to deal with the uncertainty in the natural world as well as the changing human world. Hanoi, Vietnam is an attractive destination - a developing city, within close proximity to some of the world's heritage attractions! We look forward to welcoming you to our 19th IAHR-APD 2014 Congress in September 2014 to what we are confident will be the best ever IAHR APD Congress.

Prof. Dr. Nguyen Quang Kim

Rector of Water Resources University

Chairperson, Local Organizing Committee

19th IAHR-APD 2014 Congress

**Host:** Water Resources University, Hanoi, Vietnam

URL: <http://iahr-apd2014.wru.edu.vn/>

**Contacts:**

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### The 4th International Symposium on Sediment Management (Italy, Sept. 17-19, 2014)

**Date:** Sept. 17-19, 2014

**Venue:** Ferrara, Italy

**Summary:** The 4th International Symposium on Sediment Management (I2SM) will be held in Ferrara, Italy, Sept. 17-19, 2014, during the annual RemTech Expo. The symposium is organized by Ferrara Fiere Congressi, Politecnico di Milano-Department of Civil and Environmental Engineering-Environmental Section, and the École des Mines de Douai. The aim of I2SM is to gather academics, industry professionals, and public agencies involved in sediment issues to discuss the state-of-the-art. Previous editions of I2SM were held in Lille (France, 2008), Casablanca (Morocco, 2010) and Alibaug (India, 2012). The event will consist of an opening plenary session followed by parallel technical sessions. The official language of I2SM 2014 is English. Simultaneous translation (English to Italian) is available at some of the sessions.

URL: <http://i2sm.remtechexpo.com/>

**Contacts:**

For general information about the Symposium and registration, please contact: [i2sm@remtechexpo.com](mailto:i2sm@remtechexpo.com)

For enquiries about the scientific program, abstract and paper submission, please contact: [i2smscientific@remtechexpo.com](mailto:i2smscientific@remtechexpo.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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The Alder Dam on the Nisqually River in the USA