INTERNATIONAL SEDIMENT INITIATIVE

NEWSLETTER

Reporting ISI news to you quarterly

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IN THIS ISSUE

International Sediment Initiative

NEWS

The 6th International Sediment Initiative Steering Committee Meeting and Workshop held in Beijing on November 5-7, 2008

Under the framework of UNESCO-IHP the 6th International Sediment Initiative Steering Committee Meeting (ISI SCM) and Workshop on Global Change Impacts and Role of ISI was successfully held in the International Research and Training Center on Erosion and Sedimentation (IRTCES), Beijing, China from November 5 to 7, 2008. The representatives from UNESCO and Ministry of Water Resources, P.R. China (MWR), members of ISI Steering Committee, observers and relevant IRTCES staffs attended the meeting. The total 3 day activities include ISI SCM, the workshop and a technical tour (details can be seen in the conference report).

The 7th IRTCES Advisory Council Meeting held in Beijing on November 6, 2008

The first meeting of the 7th IRTCES Advisory Council was held in IRTCES, Beijing on November 6, 2008. Over 20 participants from UNESCO, Ministry of Water Resources of China (MWR), IRTCES Advisory Council, International Sediment Initiative (ISI) Steering Committee and IRTCES attended the meeting.

The meeting was chaired by Prof. WANG Zhao-Yin, the Chairman of the 7th IRTCES Advisory Council and Professor of Tsinghua University. At first, Prof. HU Chunhong, the Secretary-General and Deputy Director of IRTCES, welcomed the council members representing 6 regions of the world, and welcomed good advices and suggestions on the future development of IRTCES from council members. Mr. LIU Zhiguang, Deputy Director General of the Department of International Cooperation, Science and Technology, MWR said in his speech that the MWR will continue provide both financial and policy support to IRTCES. Dr. Anil Mishra, Programme Specialist of the Division of Water Sciences, UNESCO represented DADG and IHP secretary A. Szollosi Nagy at the meeting. Dr. Mishra commended the contribution made by IRTCES to research and training for solving scientific and engineering problems related to the erosion and deposition of sediment. He also thanked IRTCES for serving the ISI technical secretariat.

Prof. LIU Cheng, Deputy Division Chief of Department of Research and Training, IRTCES, delivered IRTCES Work Report on behalf of the IRTCES. He reported the achievements of researches, trainings, conference organizations and international communications during the period of the 6th IRTCES Advisory Council, and putted forward proposals on establishment of International Networks of Erosion and Sedimentation (INES) and research projects.

Chaired by Prof. WANG Zhao-Yin, ten topics were listed, and participants discussed choosing randomly each topic proposed. The members had discussion enthusiastically and offered good advices and suggestions on international training workshop, international cooperation project, scientist exchanging with other institutes and centers, etc.

On November 7, the members visited the Longfengling Water and Soil Conservation Scientific Demonstration Site located in suburban of Beijing.

IRTCES is the first established UNESCO water-related Category II center. Since it was established in 1984, IRTCES has conducted many bilateral and multilateral collaborative researches, training and information exchanging programs. The activities have actively promoted the development and communication in the field of erosion and sedimentation, and won high recognition by UNESCO and MWR.

The 7th IRTCES Advisory Council is established according to the Agreement between Chinese Government and UNESCO concerning IRTCES resigned in 2005. The Council consists of 13 prominent individuals including: one representative of the Chinese Government, one representative of the Director General of the UNESCO, six members elected by the IHP Intergovernmental Council and five members selected by the Government in consultation with the Director-General of the Organization. (LIU Cheng, IRTCES)

Prof. Chih Ted Yang Receives the Prince Sultan Bin Abdulaziz International Prize for Water

Thursday, November 20, 2008, FORT COLLINS - Saudi Arabia this week honored Chih Ted Yang, a civil engineering professor at Colorado State University, with an international prize for water engineering - one of most prestigious awards for water-related subjects in the world.

Yang is the recipient of the Prince Sultan Bin Abdulaziz International Prize for Water, Surface Water Branch: Sedimentation Control in Surface Water Systems. The honor comes with a personal award of 500,000 Saudi Riyals, or about $133,000.

Yang accepted his award and presented the keynote address on Nov. 16 at the Third International Conference on Water Resources and Arid Environments in Riyadh, Saudi Arabia.

Yang is the Borland Professor of Water Resources and director of the Hydroscience and Training Center in the Department of Civil and Environmental Engineering at Colorado State University. He is a world-renowned expert in sediment transport and river morphology. He developed and published two fundamental laws governing the formation and evolution processes of river systems due to erosion and sedimentation.

While working for the U.S. Bureau of Reclamation, he developed the Generalized Sediment Transport model for Alluvial River Simulation, or GSTARS, a series of computer models that have been applied in many countries for solving a wide range of river and reservoir sedimentation problems. Yang's dimensionless unit stream power formula for sediment transport has been ranked by the American Society of Civil Engineers, among others, as the most accurate formula in the world for predicting sediment transport rate and concentration in rivers.

Yang has published three books, five computer model programs and user's manuals, and more than 100 technical papers. He has received numerous honors and awards for his accomplishments in research and engineering practice from professional societies, universities and government agencies in the United States and in other countries.

"Professor Yang is an example of the kind of faculty member we have at Colorado State University - enterprising, innovative and willing to apply his research and knowledge to real-world problems," said Bill Farland, vice president for Research. "This award is a tremendous honor for him, the College of Engineering and for the university."

"Dr. Yang is unique in that he has been able to develop the basic theory behind erosion and sedimentation as well as apply it," said Luis Garcia, head of the Department of Civil and Environmental Engineering at Colorado State. "He has also been able to make significant contributions by writing several books on these subjects that are now widely used throughout the world."

Prior to joining the university in 2004, Yang served as manager of the Sedimentation and River Hydraulics Group, Technical Service Center, U.S. Bureau of Reclamation, from 1994-2003. Previously he had served as the International and Technical Assistance Program manager for the Bureau and as a hydraulic engineer for the U.S. Army Corps of Engineers North Central Division.

Yang teaches graduate courses in fluvial hydraulics, computer modeling, river morphology and river restoration. He has also developed and conducted technology transfer courses in the United States and other countries.
(Source: http://www.newsinfo.colostate.edu/)

Stability of Contaminated Sediments

The Norwegian Geotechnical Institute (NGI) has completed a five-year Strategic Research Programme on “Stability of Contaminated Sediments” supported by The Research Council of Norway (RCN).

The research program focused on advancing the state of knowledge on physical and chemical sediment stability, the understanding and prediction of contaminant transport, and the design of long term containment methods.

Historically, sediments have been a sink for the contaminant input, from rivers, urban and industrial activity as well as atmospheric input to the fjords. Significant reduction in industrial point sources has been achieved over the last decades. Detailed site investigation can answer the question whether the sediments at present are still forming a sink or have become a secondary source of contaminants to the fjord system. Diffuse sources related to our daily life, like run-off from traffic and urbanised areas, have been shown to be significant for the near coastal zone. This contaminant input sets clear limits to the environmental objectives that can be achieved by sediment remediation alone.

Significant environmental improvement of fjords and the coastal zone can only be achieved if a set of remedial measures is implemented that covers all relevant sources both on shore and off-shore. This clearly indicates that sediment contamination is not an echo from the past but a mirror of our behaviour.

The main focus of the research was on the integration of knowledge on the physical and chemical interactions in contaminated sediments, with the following objectives:

1. Quantify the principal parameters determining the physical and chemical stability of contaminants in the sediment matrix.

2. Determine the contaminant migration resulting from engineering operations in contaminated sediments, like dredging, backfilling and construction works.

3. Establish design criteria for containment methods with a long-term intrinsic stability and required safety.

4. Develop tools to evaluate efficiency of remediation methods.

5. Develop innovative methods for sediment remediation, e.g. through thin-layer capping or sorbent amendment.

The final report summarizes the main results of the research program. A bibliography of the published papers is given in the last section for further reference. A summary report is available free of charge. You can order a copy via ngi@ngi.no. It will also be possible to download the report from www.ngi.no. (Source: www.SedNet.org)

Main works of Three Gorges Project finished a year ahead of schedule

With the last turbo-generator in operation on the south bank of the Yangtze River at 9 a.m. Wednesday (Oct. 29), the Three Gorges Project looks set to be completed one year ahead of construction schedule.

Generating unit 15, which had a 72-hour test run, would be connected to the power grid on Thursday, said Cao Guangjing, deputy general manager of China Three Gorges Project Corporation.

"More checks on unit 15 and other aspects concerning the entire project, including final financial accounting are also be pending," said Cao.

Begun in 1993, the Three Gorges Project was expected to be finished by November 2009.

With a budget equivalent to 22.5 billion U.S. dollars, the project is also a water control system for the upper and middle reaches of the Yangtze, China's longest waterway. Its functions cover power generation, flood control and navigation.

Main works of the project are a 185-meter-high dam, a five-tier ship lock, and 26 hydropower turbo-generators. The dam has 14 turbo-generators on the left bank and 12 on the right.

Combined, they will produce 84.7 billion kw of electricity annually, which would require 40 million to 50 million tonnes of coal consumption for a coal-fired station to produce.

Plans were expanded further to include six more turbines by 2012. A ship lift will be finished by 2015.

The project has produced 270 billion kwh of electricity since July 2003, when the first generating unit began operation.

The electricity generated by the project supplies 15 provinces in central, eastern and southern China, easing a severe power shortage in industrial regions.

As of June, 1.24 million residents had been relocated to make way for the construction (Source: Xinhua).

Experts: Chesapeake Bay program has failed

December 8, 2008, ANNAPOLIS, Md. USA- The current program to clean up the polluted Chesapeake Bay has failed, according to top scientists, policy makers and environmentalists.

Experts who gathered in Annapolis on the eve of the 25th anniversary of the Chesapeake Bay Agreement say the existing voluntary, collaborative approach to Chesapeake Bay cleanup needs to be abandoned. They want to see it replaced with mandatory, enforceable measures for meeting the nutrient, sediment and toxic chemical reductions.

"The current Bay Program and restoration efforts have been insufficient and are failing to achieve water quality to assure healthy populations of oysters, clams and finfish," says Bill Dennison, a hands-on scientist from the University of Maryland Center for Environmental Science at Horn Point.

"We must act quickly to transition from the voluntary collaborative approach that has failed to a comprehensive regulatory program that addresses the prime sources of nutrient and sediment pollution, or watch the bay die a death of 1,000 cuts. Drastic change is called for."

The agreement to improve the nation's largest estuary was signed in 1983. The agreement called for bay states to meet cleanup goals. High levels of nitrogen, phosporus and sediment are killing bay life. This summer, dead zones kept aquatic life from thriving in parts of the Chesapeake and its tributaries.

"We in the scientific community have seen strong evidence in our research that efforts to reduce nutrients and sediment over the past 25 years are not succeeding," says Walter Boynton of the Chesapeake Biological Laboratory in Solomons.

"Water quality is declining in key Bay rivers, like the Patuxent, and consequently the Bay's living resources also are in decline. Unless a new structure of mandatory limits with enforceable deadlines is adopted that will sharply reduce pollutant loads, the Bay may never recover."

Author and professor Howard Ernst says the bay is dying a slow death.

"The bay is not dying because we do not know what is wrong," Ernst says. "The bay is dying a slow death because the current approach to regional environmental management has left the area with nonbinding agreements instead of enforceable laws, goals instead of pollution limits, an environmental bureaucracy that lacks enforcement powers, and a severely impaired ecosystem that shows no sign of systemic improvement."

Scientists want to see new regulations that reduce individual pollution loads, change development patterns, establish a no net loss of forest and wetlands policy and reduce agricultural pollutants. They also want to see better fishery management and for pollution reductions to be targeted to individual rivers. (Source: http://www.wtop.com/)

More News in ISI Website

- China blocks river for 3rd largest hydropower plant
- China to speed up building gigantic south-to-north water diversion project in 2009
- Alcoa dredges contaminated sediment from Columbia
- New Year Greeting from UNESCO-ISI Technical Secretariat (IRTCES)
- Draft Report of the 6th ISI SC Meeting and Workshop

More ……
(http://www.irtces.org/isi/)

The 6th International Sediment Initiative Steering Committee Meeting and Workshop (Beijing, China, November 5-7, 2008)

Under the framework of UNESCO-IHP the 6th International Sediment Initiative Steering Committee Meeting (ISI SCM) and Workshop on Global Change Impacts and Role of ISI was successfully held in the International Research and Training Center on Erosion and Sedimentation (IRTCES), Beijing, China from November 5 to 7, 2008. The representatives from UNESCO and Ministry of Water Resources, P.R. China (MWR), members of ISI Steering Committee, observers and relevant IRTCES staffs attended the meeting. The total 3 day activities include ISI SCM, the workshop and a technical tour.

Welcome Speech by Mr. Liu Zhiguang, Deputy Director General of the Department of International Cooperation, Science and Technology, MWR of China

Speech by Mr. Abhimanyu Singh, UNESCO Director and Representative, UNESCO Office Beijing

Speech by Prof. Dr. Manfred Spreafico, Chairman of UNESCO-ISI Steering Committee

In the opening ceremony Mr. LIU Zhiguang, Deputy Director General of the Department of International Cooperation, Science and Technology, MWR, delivered his opeing remarks and welcomed international experts from over 13 countries.. As was remarked by Mr. Liu IRTCES has been a focus of MWR and the Ministry will continue to support IRTCES and its function as the technical secretariat of ISI jointly with UNESCO. Mr. Abhimanyu Singh, Director and Representative of UNESCO Office Beijing, acknowledged the contribution of IRTCES to the ISI in his speech, and wished the meeting and workshop a great success. On behalf of IRTCES, Prof. LIU Guangquan, Assistant Director and Division Chief of Department of International Communication, expressed gratitude appreciates to the supports of UNESCO, MWR and ISI Steering Committee. Prof. Manfred Spreafico, Chairmen of UNESCO-ISI Steering Committee, appraised IRTCES on its supports as the ISI Technical Secretariat, as well as its excellent contribution to the construction, operation and maintenance of ISI information system. Prof. LIU Cheng, Deputy Division Chief of Department of Research and Training, IRTCES, chaired the opening ceremony.

The ISI SCM was chaired by Prof. Manfred Spreafico. The members reported major activities carried out, put forward and discussed future plans and activities. On behalf of ISI Technical Secretariat, Prof. LIU Cheng reported the work undertaken by IRTCES as the ISI Technical Secretariat, and introduced a proposal for the establishment of the International Networks on Erosion and Sedimentation (INES). Prof. Liu also introduced a project proposal for the construction of a database for the runoff and sediment loads of main rivers in China as a database example for ISI Information System. Dr. Anil Mishra, Programme Specialist, Division of Water Sciences, UNESCO, presented an overview of the 7th phase of IHP (2008-2013) titled Water dependencies: Systems under stress and societal responses. He further outlined expected deliverables for IHP-VII (2008-2013), in which ISI as one of the Associated Programme should also contribute to the implementation of the IHP. Dr. Mishra also presented draft version of the ISI Brochure.

The Workshop on Global Change Impacts and Role of ISI was chaired by Prof. Manfred Spreafico. In-depth discussions were focused on the main topics as was shown in the presentation “Studying the Impact Of Global Change on Erosion and Sediment Dynamics: Current Progress and Future Challenges” made by Prof. Des. Walling. The ISI SC members also shared the research results in their own field. The meeting and workshop presented significant importance in fulfilling the goals and objectives of ISI.

On November 7, the members visited the Longfengling Water and Soil Conservation Scientific Demonstration Site located in the suburb area of Beijing.

(This report was drafted by LIU Cheng and SHI Hongling, IRTCES and revised by A. Mishra and R. Jayakumar, UNESCO)

Presentation by Dr. Anil Mishra, Programme Specialist, Division of Water Sciences, UNESCO

Presentation by Desmend E.Walling in workshop

Technical tour in Longfengling Water and Soil Conservation Scientific Demonstration Site, Beijing.

Responding to Global Change, Devoting to Sustainable Development High-level International Forum on Water Resources and Hydropower Opened in Beijing

On Oct. 17th, 2008, High-level International Forum on Water Resources and Hydropower officially opened in Beijing. This Forum is sponsored by the Ministry of Water Resources and organized by IWHR. QIAN Zhengying, former Vice Chairperson of the Chinese People's Political Consultative Conference, attended the opening ceremony; CHEN Lei, Minister of Water Resources of China delivered an important speech at the ceremony. Distinguished guests from the five International organizations of water sector and over 400 experts from more than 20 countries and regions attended the Forum.

At present, said Minister CHEN, China is at a critical historical period of building a relatively well-off society in an all round way and accelerating the socialist modernization. The development and reform of water resources cause is deepening; water conservancy cause is at the critical transition phase from traditional water control to modern water management. To achieve fast and sound national economic development, protect and improve the livelihood of the people, protect national food and energy security, build ecological civilization and respond to the global climate change. All of these put forward new demands for water resources and hydropower development.

CHEN also denoted that, the Chinese government has been paying great attention to water issues, and will do the work focusing on the following aspects: adhere to the harmony between human beings and water and further boost the transformation from traditional water conservancy to sustainable development of water resources; be people-oriented and further improve the key water management work related to people's livelihood; carry out our work in a coordinated and all-round way and further consolidate the guarantee to the development of economy and society with water resources industry; adhere to independent innovation and promote the level of science and technology cause; adhere to opening to the outside world and further enhance communication and cooperation of international water resources and hydropower.

QIAN Zhengying present at the Forum

CHEN Lei (Minister of Water Resources, PRC) delivering important speech

Chairpersons of the five international organizations on water resources and engineering delivered speech respectively at the Forum. Mr. Luis BERGA, President of the International Commission on Large Dams (ICOLD), emphasized the role that large dams play in water resources development and management, as well as the effects of large dams on human economic and social development, and analyzed how to devote to sustainable development of dam construction and management. Mr. Nobuyuki TAMAI, President of International Association of Hydraulic Engineering and Research (IAHR), introduced the concept of "social effects brought by man-made infrastructure" into the domain of ecological services, thus coordinate the conflicts between human construction and natural protection by extending the connotation of the concept. Mr. Desmond WALLING, President of World Association for Sedimentation and Erosion Research (WASER), cited a great number of examples and analyzed data and introduced the evolution and developing tendency of the world river sedimentation load under the circumstances of global change. Ms. Letitia A.

OBENG, Chair of Global Water Partnership (GWP), denoted in her speech that, nowadays, the management of water resources is critically insufficient, thus GWP would continuously contribute to the sustainable management of the world water resources. Mr. Refaat ABDEL-MALEK, President of the International Hydropower Association (IHA), introduced the challenges that the sustainable hydropower development would face in the future.

High officials from several national large-scale enterprises also delivered speech at the Forum, the topics of which are around the situation and tasks that Chinese hydropower development is now facing, constructing harmonious river basin hydropower developing mode, as well as the Chinese hydropower industry and global hydropower development.

The Forum has 8 sessions, namely “Climate Change and Countermeasures”, “Water Resources and Management”, “Hydropower, Renewable Energy and Dam Safety”, “Water and Environment”, “Flood Management and Drought Mitigation”, “Water and Soil Conservation”, and “Water Issues During and After Earthquake”. Participants from different countries had heated discussions on the key issues relating to global water resources and hydropower development.

The High-level International Forum on Water Resources and Hydropower provided an important platform for experts, scholars, enterprise managers, as well as representatives of international organizations to share their thoughts and experiences, and the Forum is a grand meeting that may enhance the international cooperation and all-round development of Chinese water resources and hydropower cause. (Source: IWHR)

Mr. Luis BERGA, President of the International Commission on Large Dams (ICOLD)

Mr. Nobuyuki TAMAI, President of International Association of Hydraulic Engineering and Research (IAHR)

Mr. Desmond WALLING, President of World Association for Sedimentation and Erosion Research (WASER)

Ms. Letitia A. OBENG, Chair of Global Water Partnership (GWP)

Mr. Refaat ABDEL-MALEK, President of the International Hydropower Association (IHA)

Summary SeKT- symposium “Sediment contact tests – Reference conditions, control sediments, toxicity thresholds”(Nov. 13-14, 2008, Germany)

An international symposium on sediment contact tests was held at the Federal Institute of Hydrology (BfG) to round off the SeKT joint research project, which has been funded by the German Federal Ministry of Education and Research (BMBF) during the last three years. The symposium focused on the outcome of the SeKT Project regarding the applicability of a sediment contact test battery as tool for the assessment of sediment quality in relation to four general topics: ecotoxicological science, method standardisation, water management and environmental monitoring. The results of the SeKT Project were presented by the coordinator (Ute Feiler, BfG), covering all major topics, such as (1) the definition of reference conditions and control sediments, (2) the variability of the test results influenced by natural sediment properties, (3) the definition of realistic

toxicity thresholds, (4) the applicability of the sediment contact tests at various types of sediments, and (5) the development of a toxicity classification system for sediments by using a reasonable combination of sediment contact tests within a test battery that contributes to an ecotoxicological assessment concept. Additionally, a number of international speakers, stakeholders and scientists, were invited to highlight aspects of the relevance of sediment contact tests in the context of environmental risk assessment and the EU WFD.

Block 1: Sediment Contact Tests and Science (Chair: Sebastian Höss, Henner Hollert)
Keynote: Jussi Kukkonen (University of Jonsue, Finland): Evaluation of Bioavailability and Toxicity of Chemicals in Sediments.
Jaap Postma (Ecofide, The Netherlands): Developments in the Dutch triad approach to improve the knowledge on sediment toxicity.
Sebastian Höss (Institute of Biodiversity - Network, Germany): Sediment Contact Tests as part of a holistic approach: Part Nematodes.
Henner Hollert (RWTH Aachen University, Germany): Sediment Contact Tests as part of a holistic approach: Part Fish.

Block 2: Sediment Contact Tests and Standardization (Chair: Ute Feiler, Georg Reifferscheid)
Keynote: Hans-Jürgen Pluta (Federal Environmental Agency, Germany): Benefit from standardization, regulatory and scientific requirements, procedures and participations.
Thomas Knacker (ECT Oekotoxikologie GmbH, Germany): Standardization according to OECD rules:
Sediment toxicity test with Lumbriculus variegates.
Juha Lappalainen (Aboatox, Finland) Standardization according to ISO rules: Flash test.

Block 3: Sediment Contact Tests and Management (Chair Werner Manz)
Keynote: Ulrich Förstner (Technical University of Hamburg-Harburg, Germany) SeKT and river basin management: Focus on in-situ sediment remediation.
Axel Netzband (Hamburg Port Authority, Germany): Sediment assessment from a user's perspective. Martin Keller (BfG, Germany/IKSR): The ICPR sediment management plan for contaminated sediments.

Block 4: Sediment Contact Tests and Monitoring (Chair Henner Hollert, Sebastian Höss)
Keynote: Mario Carere (National Institute of Health, Italy): Chemical monitoring activity in the context of the Water Framework Directive.
Eric de Deckere (University of Antwerpen, Belgium): Integrated sediment assessment in Flanders; From surveillance to investigative monitoring.
Maria J. Belzunce Segarra (AZTI-Tecnalia, Spain): A proposal for including an integrated sediments evaluation in the European Framework Directive.
Mathias Ricking (FU Berlin, Germany): Implementation of sediments/SPM in the WFD 2009.
Piet den Besten (Rijkswaterstaat, The Netherlands): Sediment quality assessment in The Netherlands: linking science to policy.
Christophe Mouvet (BRGM, France): Hazards linked to dredged sediments – a French perspective.

Major topics of the discussion were:

Robust, representative and reliable bio-test systems are needed for better assessment of sediments and dredged materials as pointed out by the stakeholders (after Block 1-3). Standardisation of the sediment contact tests is desirable. The definition of reference conditions as in the SeKT Project is a valuable contribution to an improvement in the interpretation and reliability of sediment contact tests. A test battery, as presented in the SeKT Project, can help in balancing costs and benefits of sediment management.

Contributions from several European countries were presented, reflecting the different ways of river monitoring in Europe. Different approaches for investigative monitoring studies of polluted sediments within the WFD (e.g. TRIAD, WOE, TIE, ms-PAF) were proposed and controversially discussed. Besides the derivation of environmental quality standards for chemical monitoring in waters, the elaboration of a methodology for the setting of EQSs for sediment and biota was pointed out.

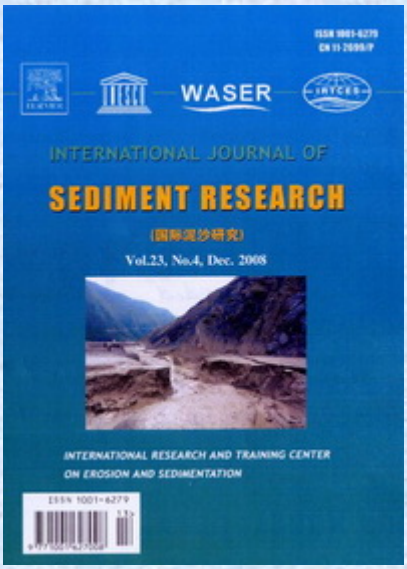
The need of sediment quality guidelines for ERA, ecosystem-based approaches for management of sediments (i.e. dredged material) and remediation technologies were in the focus of many contributions.

The proceedings of the symposium will be published (in English) in a BfG-publication series "*Veranstaltungen*". For more information, please contact Ute Feiler (feiler@bafg.de; http://sekt.bafg.de).

(Source: www.SedNet.org)

PUBLICATION

Papers Published in Issue 4, Volume 21, 2008, International Journal of Sediment Research



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Technical Papers

Predictability of sediment transport in the Yellow River using selected transport formulas
Baosheng WU, D. S. van MAREN, and Lingyun LI

GSTARS computer models and their applications, Part II: Applications
Francisco J. M. SIMÕES and Chih Ted YANG

One-dimensional numerical simulation of non-uniform sediment transport under unsteady flows
Hongwei FANG, Minghong CHEN, and Qianhai CHEN

Measurements of coupled fluid and sediment motion over mobile sand dunes in a laboratory flume
Daniel G. WREN and Roger A. KUHNLE

Sediment pollution and its effect on fish through food chain in the Yangtze River
Yujun YI, Zhaoyin WANG, Kang ZHANG, Guoan YU, and Xuehua DUAN

A 2D finite volume model for bebris flow and its application to events occurred in the eastern Pyrenees
V. MEDINA, A. BATEMAN and M. HÜRLIMANN

Assessment of the role of slit as a safety valve in failure of levees
C. S. P. OJHA, V. P. SINGH and D. D. ADRIAN

Assessing dominant factors affecting soil erosion using a portable rainfall simulator
J. VAHABI and D. NIKKAMI

Characteristics of energy dissipation in hyperconcentrated flows
An-ping SHU, Qing-quan LIU, Yu-jun YI, and Zhi-dong ZHANG

Technical Notes

Temporal and spatial distribution of dam failure events in China
X. Y. HE, Z. Y. WANG, and J. C. HUANG

Papers published in Vol. 23, No. 1-3, 2008

Publications in ISI Information System

- Technical Guidelines for Environmental Dredging of Contaminated Sediments (Palermo, M. R. et al.)
- MSc Thesis: COMPUTER-BASED INSTRUCTION FOR ENGINEERING EDUCATION IN THE DEVELOPING WORLD (B. G. Singley)
- UNESCO-IHP-International Sediment Initiative: Sediment in the Nile River System (Abdalla Abdelsalam Ahmed)
- PhD Thesis: Fully coupled 1D model of mobile-bed alluvial hydraulics: application to silt transport in the Lower Yellow River (N. Huybrechts)
- Avalanches, landslides and quake lakes induced by the Wenchuan Earthquake on May 12, 2008 (Wang, Z.Y)
- Final Report of the 18th session of the IHP Intergovernmental Council (Paris, 9 - 13 June 2008)

More ……
(http://www.irtces.org/isi/info.asp)

COMING EVENTS

3rd International Conference on Estuaries & Coasts (September 14-16, 2009)

Date: September 14-16, 2009
Conference Venue : Tohoku University, Sendai, Japan.
Summary: After great success of ICEC2003 (Hangzhou, China) and ICEC2006 (Guangzhou, China), ICEC2009 will be held in Sendai, Japan, co-organized by Department of Civil Engineering, Tohoku University and the International Research and Training Center on Erosion and Sedimentation (IRTCES). You are invited to attend the conference to exchange our knowledge and experiences related to estuarine and coastal issues.
Conference Topics:

- Estuarine and Coastal Processes
- Estuarine Eco-Environment and Its Protection
- Maintenance and Management of Waterways in Estuaries and Harbors
- Research Technologies for Estuarine Engineering

URL: http://donko.civil.tohoku.ac.jp/icec2009/index.html
Contacts:
LOC Chairman Professor Hitoshi Tanaka
Department of Civil Engineering
Tohoku University
6-6-06 Aoba, Sendai 980-8579, Japan.
Phone & Fax : (+81)-22-795-7451
e-mail: tanaka@tsunami2.civil.tohoku.ac.jp
LOC Secretary Assoc. Professor Makoto Umeda
Department of Civil Engineering
Tohoku University
6-6-06 Aoba, Sendai 980-8579, Japan.
Phone & Fax : (+81)-22-795-7452
e-mail: umeda@kasen1.civil.tohoku.ac.jp

Workshop on 'Sediment problems and sediment management in Asian river basins'

Date: 06-12 September, 2009
Venue: Hyderabad, India
Introduction: Sediment problems are assuming increasing importance in many areas of the world. These problems relate to the adverse effects of sediment in both water resource development and river management and to the wider environmental impact of sediment in degrading aquatic ecosystems. Changing sediment fluxes can also have important implications for nutrient inputs to freshwater and coastal ecosystems and for the stability of channels and floodplains and river deltas. With their high sediment fluxes and the sensitivity of these fluxes to climate change and to land use change and other human impacts, such as dam construction and river regulation, Asian river basins currently face many sediment-related problems. There is a need for improved understanding of these problems and the sediment budgets of river basins and for the development of effective management strategies. This workshop, organised in collaboration with UNESCO ISI and WASER, will seek to review the nature and extent of sediment problems in Asian River Basins and current progress towards developing effective sediment management strategies. Topics to be addressed will include the present and future impacts of climate change, the interaction of different factors causing changing sediment fluxes, sediment management strategies and their effectiveness, and the development of sediment monitoring networks to support effective sediment management.
Convener: Des Walling (UK), d.e.walling@exeter.ac.uk
Co-conveners: Jim Bogen (Norway)
Chunghong Hu (China)
Anil Mishra (UNESCO)
S.C. Rai (India)
Manfred Spreafico (Switzerland)
URL: http://www.appliedhydrology.org/iahs/

Global Change-Challenges for Soil Management

Date: May 27- 30, 2009
Venue: Tara Mountain/Serbia
Background: Soil, like air and water, is essential to support life on earth. Over 90 % of all human food and livestock feed are produced from the land and from on soils which vary in quality and extent. Of the earth's 13 million hectares of ice free-land surface, only 3 % is covered with highly productive soils, just 6% with moderate productive, and 13 % with slightly productive soils. The remaining 78% of the land has limitations that inhibit the sustainable cultivation of its soils and sometimes even limit grazing. However, it is in such marginal lands that most land and soil degradation occurs (Hurni et al, 1996). It is from this context that we launch this International Conference of the World Association of Soil and Water Conservation (WASWC) with the hope that, together, our Association will discover new and better ways of counteracting the effects of land degradation and building more secure and self-sustainable patterns of agricultural land husbandry.
Initiated by: World Association of Soil and Water Conservation – WASWC; Faculty of Forestry, Belgrade University, Serbia
Organized jointly with: World Association for Sedimentation and Erosion Research - (WASER); European Society of Soil Conservation (ESSC)
Convened in line with the objectives of: International Sediment Initiative (ISI – UNESCO)
Conference topics: Topic 1: Global Change and Soil Degradation; Topic 2: Water Management; Topic 3: Soil Erosion, Sediment Transport and Sedimentation Processes; Topic 4: Erosion and Torrent Control in Environmental Change; Topic 5: Desertification; Topic 6: Socio – Economic, Legal and Institutional Aspects of Soil and Water Conservation; Topic 7: Implementing Global/Regional Projects; Topic 8: Work of Younger Scholars;
Contacts to Conference Organizers: Prof. Dr. Miodrag Zlatic - E-mail: miodrag.zla@sbb.rs ; mizlatic@yahoo.com

33rd IAHR CONGRESS

Co-located with the 19th CANADIAN HYDROTECHNCIAL CONFERENCE and Co-sponsored by the Canadian Society for Civil Engineering
Date: August 10-14, 2009
Venue: Vancouver, British Columbia, Canada
WELCOME: On behalf of the entire local organizing committee and IAHR council members, we invite you to join us in Vancouver, British Columbia for an event you will not want to miss! We take great pleasure in announcing the 33rd IAHR Biennial Congress, August 10-14, 2009. Themed "Water Engineering for a Sustainable Environment," the Congress focuses on the central roles of hydraulic engineering and hydroinformatics in water engineering for a sustainable environment, and how these roles link to broader aspects of environment sustainability in

watershed and coastal settings. By 2009, it will have been 12 years since an IAHR Biennial Congress was held in North America. The last North American venue was San Francisco, in 1997. That Congress was well received and attracted approximately 1,000 registrants. The North American hydraulics community is extensively represented in IAHR's membership (some 15-20% of the total) and looks forward to once again welcoming international colleagues to an IAHR Congress at an attractive North American location.
Several organizations with broad representation from the North American water engineering community – namely EWRI-ASCE, COPRI-ASCE, UBC, and CSCE – are collaborating with IAHR to organize the 33RD IAHR Congress and the co-located 19th Canadian Hydrotechnical Conference.

CONGRESS TOPICS:

- Topic A. Advances in the Fundamentals of Water Science and Engineering
- Topic B. Water Engineering in Support of Built Environments
- Topic C. Water Engineering for the Protection and Enhancement of Natural Watershed and Aquifer Environments
- Topic D. Water Engineering for Sustainable Coastal and Offshore Environments (Built and Natural)
- Topic E. Advances in Hydroinformatics for Integrated Watershed and Coast Management

URL: http://content.asce.org/conferences/iahr09/

CONTACTS:

Congress Manager & overall conference administration: Stacey Ann P. Gardiner, CMP, Congress Manager, E-mail: IAHRConferenceManager@asce.org
Paper Management Services & questions: Sheana Singletary, Program Administrator, E-mail: ssingletary@asce.org

5th International Conference on Asian and Pacific Coasts (Singapore, 13-16 October, 2009)

Date: 13-16 October, 2009
Venue: Nanyang Technological University (NTU), Singapore
Organizer: Maritime Research Centre,NTU,Singapore
DHI-NTU Centre, Singapore
Introduction: The fifth Asian and Pacific Coastal Engineering Conference (APACE 2009) will be held on the campus of Nanyang Technological University (NTU), Singapore, in September 2009. This conference will be jointly organized by the Chinese Ocean Engineering Society, the Coastal Engineering Committee of Japan Society of Civil Engineers, the Korean Society of Coastal and Ocean Engineers, and the Maritime Research Center at Nanyang Technological University, Singapore.
The aim of APAC (Asian and Pacific Coastal Engineering Conferences) is to promote technological progress and activities, information exchange and cooperation. It is also a platform for engineers and researchers to keep abreast of the scientific and technological advance in development of coastal, port, and ocean engineering and other related fields.
The previous four highly successful conferences were held in the following countries:
The First Asian and Pacific Coastal Engineering Conference (APACE 2001) was held in Dalian, China, 2001.
The Second International Conference on Asian and Pacific Coasts (APAC 2003) was held in Chiba, Japan, 2004.
The Third International Conference on Asian and Pacific Coasts (APAC 2005) was held in Seogwipo, Jeju Island, Korea, 2005.
The Fourth International Conference on Asian and Pacific Coasts (APAC 2007) was held in Nanjing, China, 2007.

Themes

Coastal oceanography and meteorology (waves, currents, tides, tsunami, etc.)
Coastal sedimentary processes and their control measures
Design and investigation of coastal and harbour structures
Reclamation
Coastal environmental problems and marine ecology
Coastal zone management and planning
Coastal fishery problems and resource management
Shallow water flow
Global environmental problems
Remote sensing / laboratory and field measurement techniques
Miscellaneous coastal problems

Contact: secretary@apac2009.org
URL: www.apac2009.org

More Coming Events in ISI Website

- 4th Int. Symposium on Contaminated Sediments: Sustainable Management and Remediation (Ireland, June 30-July 3, 2009)
- Session on 'The influence of dams on sediment regimes and implications for management' (April 19-24 2009, Viena, Austria)

More ……
(http://www.irtces.org/isi/)

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Editor: Dr. LIU Cheng
ISI Technical Secretariat
IRTCES under auspices of UNESCO
P.O. Box 366, 20 Chegongzhuang West Rd.
Beijing, 100044, China
Fax: +86-10-68411174
E-mail: chliu@iwhr.com
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The ISI Newsletter is sent quarterly to ISI-Steering Committee members and interested experts. Please send your contributions to the Chairman of ISI SC at manfred.spreafico@bafu.admin.ch or ISI technical Secretariat at chliu@iwhr.com .

UNESCO – ISI Steering Committee members
in the 6th ISI Steering Committee Meeting (Beijing, China, 2008)

Dear friends,

Thank you very much for your support to UNESCO – IHP – International Sediment Initiative (ISI) in the past one year, and look forward to more successful collaboration in the coming years!

On the occasions of the Christmas and New Year, wish you and your family a

Merry Christmas and a Very Happy New Year!!!

UNESCO: Dr. Andras Szollosi-Nagy

ISI Technical Secretariat (IRTCES): Prof. HU Chunhong

UNESCO ISI Website: http://www.irtces.org/isi/