



**Under the patronage of  
H.E. The President of Sudan**

**International Sediment Initiative Conference (ISIC)**

**November 27-30, 2006**

**Organized by**

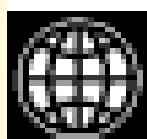
**UNESCO Chair in Water Resources, Khartoum, Sudan**

**First announcement**

**Sponsored by**



- Ministry of Finance and National Economy-Sudan
- UNESCO- IHP Secretariat
- UNESCO Cairo Office.
- NTEAP-NBI.
- To be completed.



## Background

The continuing landform development occurring on the earth's surface necessarily implies the production and subsequent distribution of sediments. Sediment is the end product of erosion or wearing away of the land surface by the action of water, wind, ice, and gravity. Sedimentation process causes great problems worldwide by raising the cost of operation and maintenance and complicating the design of water structures. The problems linked to sediment create difficulties in managing water systems. Consequently, there is a need for clear understanding on how to improve the watershed management, soil loss tolerances and hence formulation of appropriate soil conservation strategies. .

Natural geologic erosion takes place slowly over centuries or millennia. Whereas erosion that occurs as a result of human activities may take place much faster. Therefore, it is important to understand the role of each when studying sediment transport. About 1% of the world's water storage capacity is lost every year through sediment deposition in reservoirs. Many of the large international rivers such as: the river Nile, the yellow river, and Mississippi carry huge amount of sediment. The Fraser River in Canada carries an average of 20 million tones of sediment each year, the Nile River carries an amount that exceeds 140 million tones annually and the yellow river in China carries an annual amount of sediment that is several times more than that of the Nile River.



Sediment has various detrimental effects which include: degradation of water quality by pollutants, degradation of catchments, hampering of navigation, reduction of fisheries and aquatic habitat, deforestation and a forestation, reduction of energy production, more agricultural problems, increased water supply problems etc. Therefore, sedimentation has its implications on the water systems, ecosystem, environment, and the socio-economic conditions of the people.

The conference will form a platform to discuss sediment management for sustainable development. Many researches, studies, and theories have been developed to deal with sediment however; there is no consensus and standardization on how to deal with many of the sediment problems and their impacts yet. So this conference is an opportunity to invite worldwide relevant institutes, agencies and individuals to come up with an initiative to deal with sediment. Such sediment initiative is expected to help international communities achieve practical outputs through partnership, pooling resources, focusing science, coordinating efforts, sharing information and experiences, and generating a broad basis of support. Besides, it helps build the capacity of the human and institutions involved and enhance their role in sediment management.

## Objectives

The specific objectives of this conference are summarized as follows:

- Review the available techniques and technology in the field of sediment; monitoring, assessment, management, capacity building, research – etc.
- Develop guidelines for a code of practice in the sediment field.
- Come up with an international setup to deal with sediment issues.
- Look for a financing mechanism for research and capacity building on sediment related issues.
- Assess the impact of sediment on water resources, environment and socio-economy.
- Create an opportunity for experts and scientists and institutes to exchange ideas and experiences.

# Themes



## Sediment Sources and Causes

- Soil erosion losses and sediment yield from watershed
- Bank and bed-erosion
- Land use practices and soil conservation

## Sediment Transport

- Role of the topography and soil types.
- Resistance of flow and density current
- River morphology and regime
- Bed load and suspended loads

## Sediment Deposition and Scour

- Réservoir
- Irrigation canal system
- Hydraulic structure
- Navigation
- Estuaires

## Sediment Data Collection Techniques

- Remote sensing and GIS
- Samplers (Bed and Suspended loads)
- Data quality and reliability.



## Sediment Modeling

- Physical models: theories and techniques.
- Mathematical model: approaches and applications.
- Data requirements for modeling.
- Evaluation of the available sediment models.

## Sediment Impact on the Environment

- Water quality.
- Soil degradation and aggradations.
- Ecosystem.

## Sediment Impact on the Socio-economic conditions

- Poverty
- Pollution
- Conflicts
- Displacement and migration

## Sediment Management and Mitigation

- Sediment monitoring
- Sediment control
- Mitigation measures

## Sediment Initiative

- Setup of work group
- Develop work plan
- Identification of programs and projects
- Delineation of regions and sub-regions to facilitate the plan implementation



## Venue & Location

The Conference will be held at the Friendship Hall, Khartoum, Sudan. The Hall is situated at the confluence of the two main tributaries of the Nile River: the Blue Nile and the White Nile. In November, the temperature in Khartoum is moderate, and it is sunny. So the weather is pleasant and delightful.

## General Invitation and call for papers

The International Sediment Initiative Conference will be held in November, 27-30, 2006 in Khartoum, a city on the confluence of the Blue and White Nile. We sincerely invite you to attend this great event and we hope that the good suggestions and strategies that will be generously provided by the experts world help in formulating a comprehensive sediment initiative that would maintain the healthy life of the rivers of the world.

Please prepare your paper using word 97, 2000 or XP. Paper length should not exceed 12 pages in A4 size with font size 12. Papers should arrive the Secretariat before the deadline so that it can be included in the Conference proceeding.

## Official Language

The Conference Working Language is English, however, simultaneous translation will be provided in Arabic and French.



## Special sessions

Special sessions will be organized for international organizations, sponsors and co-sponsors. Detailed Information about the special sessions will be given in the second announcement.

## Poster and exhibition

An exhibition will be organized during the Conference. Companies, organizations and individuals willing to exhibit their products and corresponding pictures please e-mail the Secretariat directly and specify your area, and poster requirements.

## Dead Lines

First Announcement calls for papers	May, 2005
Abstracts	30, July, 2005
Notification of acceptance	15, September, 2005
Second announcement	30, October, 2005
Submission of full paper	31, March, 2006
Notification of paper acceptance	31, June, 2006
Conference will be held on	27-30, November 2006

## Fellowship

Some funding will be available to cover the basic expenses of some participants with accepted papers.

## Registration fees

Registration fee is 200 \$ per participant paid in cash at the Conference venue. Please fill in the registration form and return it to the Conference Secretariat.

Students participants fees is 100 \$.

## Contacts

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## **S**OCIAL PROGRAM

A social program of events will be organized for participants and their accompanying persons, which will include tours and entertainment evening with Sudanese folk songs.



# Social program



Preliminary Registration Form

**The 1<sup>st</sup> International Sediment Initiative Conference (ISIC)**

November 27-30, 2006

UNESCO Chair in Water Resources, Khartoum, Sudan

Surname: -----

Organization / Company: -----

Job Title: -----

Postal address: -----

City / Town: -----

Country: -----

Work Telephone: -----

Home Telephone: -----

Cell Phone: -----

E-mail: ----- Fax: -----

- ☐ Please include me in the ISIC 2006 mailing list.
- ☐ I plan to attend ISIC 2006.
- ☐ I am interested in presenting a paper / poster.
- ☐ I wish only to attend.

Proposed title of your paper(s) / poster:

1- -----

2- -----

Please fax or email your registration details to:

Conference Secretariat

UCWR, Khartoum, Sudan

Fax: (+249 183) 797758

Email: [isic\\_2006@yahoo.com](mailto:isic_2006@yahoo.com)  
[unesco\\_cwr@yahoo.com](mailto:unesco_cwr@yahoo.com)

