



**IGCP 581** 

**FIRST CIRCULAR** 

# 3<sup>RD</sup> ANNUAL SYMPOSIUM on

# Response of Asian Rivers to Climate Change – Past, Present and Future Scenario"

14 - 16 November, 2012







# **VENUE**

# **National Geophysical Research Institute (NGRI)**

Council of Scientific and Industrial Research (CSIR)
Uppal Road, Hyderabad – 500007, INDIA

#### Convener

Dr. S. Masood Ahmad, NGRI-CSIR (India)

## **Co-Conveners**

Dr. L. P. Singh, Geological Survey of India, Hyderabad (India) Prof. A. C. Narayana, UCESS, University of Hyderabad (India)

#### **PROJECT BACKGROUND [IGCP-581]**

Most of the large rivers in Asia such as the Yangtze River, Yellow River, Indus River, Ganges and Brahmaputra Rivers, Mekong and Red Rivers originate from the Himalayan-Tibet and drain large continental areas that are influenced by monsoon precipitation. Therefore, the origin and nature of these large Asian rivers are highly sensitive to plateau uplift and monsoon evolution. These large drainage basins are also densely populated and socio-economical developments in East and South Asian countries significantly depend on these rivers. A better understanding of the evolution of these river systems, both in recent and geological past, is beneficial not only to our knowledge about Earth dynamics, but also to social sustainability.

Big river systems are an integral and essential part of Earth dynamics. They play significant roles in geomorphology, tectonics (erosion induced uplift and isostatic rebalancing of the crust), and filling of sedimentary basins. Most prominently, they act as the transfer of continental mass (solids and chemical compounds in solution) to the ocean, thus playing major roles in global geochemical cycles. On geological time scale, rivers' evolution involves tectonics (global and regional) and climate. Therefore, study of large river systems may hold the key to understanding of the mechanism of tectonic-climate linkage.

Asia has experienced dramatic changes in both tectonics and climate during the Cenozoic. Uplift of Tibetan Plateau is the most single event that largely shaped the landscape and drainage networks of Asia, and is attributed to have induced Asian monsoon regime and other global climatic events. However, the nature and mechanism of the linkage between each of the tectonic and monsoon evolution events still remains one of the major problems in earth science. For example, uplift of Tibetan Plateau and surrounding ranges enhanced erosion and weathering, a process that has been hypothesized to count for the partial drawdown of CO<sub>2</sub> and global cooling during the Cenozoic. On the other hand, the sedimentary yields of Asian rivers are by far the largest in the world owing to high erosion rate and monsoon precipitation, a process that enhances the carbon burial and causes changes in global carbon reservoir. Therefore, a full understanding of the mechanism of tectonic-climate linkage during the Cenozoic requires a comprehensive study of Asian tectonics, climate and evolution of river systems.

In this project, we plan to conduct a group effort to 1) use sedimentary archives, both onshore and offshore, to trace the evolutionary history of Asian big river systems, 2) correlate continental and marine tectonic and climatic records, in particular, those about the uplift of Tibetan Plateau and monsoonal evolution, and examine their interrelations, 3) study the sediment budget of Asian large rivers, and assess the contribution of erosion, chemical weathering and sedimentation in Asia to global

carbon cycles, and 4) carry out numerical modeling to study the linking mechanism among tectonics, chemical weathering, and monsoon evolution during the Cenozoic. Through these studies, we hope to create a new model on the tectonics and climate linkage in East Asia and their impact on global climate, and elaborate a strategy to test the model by utilizing international sediment sampling programs such as IODP, ICDP, and IMAGES.

#### **IGCP-581 Co-leaders**

- 1. Prof. Hongbo Zheng, School of Earth Sciences and Engineering, Nanjing University, 22 Hankou Road, Nanjing, 210093, China (<a href="mailto:zhenghb@nju.edu.cn">zhenghb@nju.edu.cn</a>)
- Prof. Ryuji Tada, Department of Earth and Planetary Science, University of Tokyo, Science Building #5, 7-3-1 Hongo, Tokyo 113-0033, Japan (ryuji@eps.s.u-tokyo.ac.jp)
- 3. Prof. Peter Clift, Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA 70803, USA (<a href="mailto:pclift@lsu.edu">pclift@lsu.edu</a>)
- Dr. S. Masood Ahmad, National Geophysical Research Institute, Uppal Road, Hyderabad, 500007, India (<u>masoodahmads@ngri.res.in</u>)
   Convener 3<sup>rd</sup> IGCP 581
- 5. Prof. Zheng-Xiang Li, Institute for Geoscience Research, Department of Applied Geology, Curtin University of Technolofy, GPO Box U1987, Perth, WQ 6845, Australia (z.li@curtin.edu.au)

#### **CONFERENCE COORDINATORS**

- Dr. S. Masood Ahmad, Chief Scientist, NGRI, Hyderabad, INDIA
- Dr. L. P. Singh, Senior Geologist, GSI Hyderabad, INDIA
- Mr. Netramani Sagar, Junior Scientist, NGRI, Hyderabad, INDIA

#### **SCIENTIFIC SESSIONS**

# Response of Asian Rivers to Climate Change- Past, Present and Future Scenario

- Geological records of fluvial evolution
- Development of new proxies
- Paleofloods
- Mixing of rivers shelf
- River sustainability
- Marine ecosystem and climate change

- River and Civilization
- Carbon cycle in Asian rivers
- Paleoclimate modelling
- Linkages between Indian and East Asian Monsoon Systems

#### **PATRONS**

- Prof. Samir K. Brahmachari, DG, CSIR, New Delhi
- Prof. M. Shailesh Naik, Secretary, MoES, New Delhi
- Prof. T. Ramasami, Secretary, DST, New Delhi
- Shri A. Sundaramoorthy, Director General, Geological Survey of India

#### SCIENTIFIC ADVISORY COMMITTEE

- Prof. Hongbo Zheng, Nanjing University, China
- Prof. Ryuji Tada, University of Tokyo, Japan
- Prof. Peter Clift, Louisiana State University, USA
- Prof. Zheng-Xiang Li, Curtin University of Technology, Australia
- Prof. Vinod K. Gaur, Indian Institute of Astrophysics, India
- Prof. Harsh K. Gupta, NGRI, Hyderabad
- Prof. S. K. Tandon, University of Delhi, India
- Prof. V. P. Dimri, NGRI, India
- Prof. Mrinal Sen, Director, NGRI
- Prof. V. Rajamani, JNU, Delhi, India
- Prof. A. K. Singhvi, PRL, India
- Prof. R. Ramesh, PRL, India
- Dr. M. Sudhakar, MoES, India
- . Dr. B. Hari Gopal, Head SERC, DST, India
- Mr. Samit Bhattacharya, Dy DG, GSI Hyderabad, India
- Dr. L. P. Singh, GSI Hyderabad, India
- Dr. V. Purnachandra Rao, NIO
- Dr. G. J. Chakrapani, IIT Roorkee, India

#### **LOCAL ORGANIZING COMMITTEE**

Dr. S. Masood Ahmad, NGRI

Mr. Netramani Sagar, NGRI

Dr. D. J. Patil, NGRI

Dr. M. Satyanarayana, NGRI

Mr. T. Vijay Kumar, NGRI

Ms. S. Manju, NGRI

Mr. T. Yellappa, NGRI

Mr. Arvind Kumar, NGRI

Dr. Shakeel Ahmad, NGRI

Dr. D. S. Nagesh, NGRI

Dr. Kirti Srivastava, NGRI

Dr. A. M. Dayal, NGRI

Dr. G. Rama Sheshagiri, NGRI

Dr. L. P. Singh, GSI

Prof. A. C. Narayana, UCESS, UoH

#### **CALL FOR ABSTRACTS**

Abstracts should be e-mailed or arrive by post to Dr. S. Masood Ahmad (masoodahmads@ngri.res.in) by 15<sup>th</sup> August, 2012. Abstract format: MS Word file; title, authors, affiliation (s), e-mail address of corresponding author, main text (A4, 2 pages maximum including figures, less than 1000 words). All abstracts will be published in an abstract volume that will be distributed to all the participants.

#### **WEATHER AND CURRENCY**

The weather in Hyderabad in November is pleasant with mix of sunny and cloudy days. Sometimes (very rare) North-East monsoon showers make the weather a bit cool. November is the starting month of the winter season that lasts till February of the next year. The average minimum and maximum temperatures are 20°C and 32°C respectively. Foreign currency is best exchanged at the airport upon arrival, but can also be done at banks near to the institute.

#### **TRAVEL**

The Rajiv Gandhi International Airport at Hyderabad has services to most of the parts of the globe. For details please visit the site <a href="http://www.hyderabad.aero/traveller.aspx">http://www.hyderabad.aero/traveller.aspx</a>. In case of non-availability of direct flight from Your place of origin to Hyderabad, please Fly to Delhi (Indira Gandhi International airport) from where there are many direct flights to Hyderabad. For details of Delhi airport please visit the site <a href="http://www.newdelhiairport.in/traveller.aspx">http://www.newdelhiairport.in/traveller.aspx</a>. Hyderabad is also connected to all the parts of the country via train lines (<a href="www.indianrail.gov.in">www.indianrail.gov.in</a>). A taxi can be arranged for pick-up (<a href="fiftequested">if requested</a>) upon your arrival at the Hyderabad International Airport or any of the Railway Stations in Hyderabad.

#### **VISAS**

India requires a valid visa for the citizens of most nations. All participants are requested to check with their local consulate regarding current procedures and application process. Letters from the Host Institute (NGRI) in India will be provided to assist participants with their visa applications.

#### **ACCOMMODATION**

All participants will be accommodated in the guest house of CSIR laboratories which are very reasonably priced. Hotels are also available outside the campus and they can be arranged, <u>if requested</u>. The costs range from Rs.2000 to Rs.6000 per night.

#### FINANCIAL ASSISTANCE

Financial assistance is available to partially support a limited number of speakers from developing countries including the host country. Preference will be given to Young students and researchers. Applications for such funding, including the abstracts of the proposed paper and your short CV, should be submitted to Dr. S. Masood Ahmad (3igcp581@gmail.com) latest by 15<sup>th</sup> August 2012.

#### **IMPORTANT DATES**

Second Circular and Reminder : 15<sup>th</sup> June 2012

Registration : 15<sup>th</sup> July 2012 (Early registration at discounted rate)

Abstract submission : 15<sup>th</sup> August 2012
Abstract acceptance notification : 1<sup>st</sup> September 2012
Arrival of Delegates in Hyderabad : 14<sup>th</sup> November 2012

Registration and Icebreaker : 14<sup>th</sup> November 2012 Inaugural / Oral & Poster sessions : 15<sup>th</sup> November 2012 Oral & Poster sessions : 16<sup>th</sup> November 2012 Departure : 17<sup>th</sup> November 2012

#### **REGISTRATION FEES**

EARLY REGISTRATION [BEFORE 15 <sup>TH</sup> JULY 2012]		
	INDIAN (Rs.)	FOREIGN (USD)
Students	500	100
Delegates	2000	250
AFTER 15 <sup>th</sup> JULY 2012		
	INDIAN (Rs.)	FOREIGN (USD)
Students	750	150
Delegates	2500	300

Registration fee includes Abstract volume, Ice breaker ( $14^{th}$  November), working lunch ( $15^{th}$  and  $16^{th}$  November) and Symposium banquet ( $16^{th}$  November)

Please Note: The above mentioned Registration Fees doesn't include Field Excursion at Kathmandu, Nepal. For details about the Field activities please contact Prof. Dr. Subodh Sharma, Department of Environmental Science and Engineering, Kathmandu University, Dhulikhel, NEPAL.

Tel: +977-11661399; Fax: +977-11-661443; E.mail: subodh.sharma@ku.edu.np

# CORRESPONDENCE

Dr. S. Masood Ahmad Convener 3<sup>rd</sup> IGCP 581 **Chief Scientist and Project Leader** 

> Paleoclimate studies Geochemistry Division

National Geophysical Research Institute (CSIR-NGRI)

E.mail: 3igcp581@gmail.com **Tel:** + 91-40-2343 4685 (Office) **FAX:** + 91-40-2717 1564 (COA Office)

#### PASSPORT INFORMATION FOR VISA SUPPORT LETTERS

NAME ON PASSPORT: DATE OF BIRTH: PASSPORT NUMBER: DATE AND COUNTRY OF ISSUE: DATE OF EXPIRY: (Provide passport information for Spouse also, if participating)

(Signature)

# FIELD EXCURSION

# Kathmandu, NEPAL

(19th onwards)

For Field details and Registration Fees, Please contact

# **Prof. Subodh Sharma**

Dept. of Environmental Science and Engineering **Kathmandu University** Dhulikhel, NEPAL Tel: +977-11-661399; Fax: +977-11-661443

E.mail: subodh.sharma@ku.edu.np







#### **REGISTRATION FORM**

## **IGCP 581**

## 3<sup>rd</sup> Annual Symposium on "Response of Asian Rivers to Climate Change - Past, Present and **Future Scenario**

14-16<sup>th</sup> November, 2012, NGRI-CSIR, Hyderabad – 500007 (A.P.), INDIA

Name: Mr/Ms/Dr/Prof:	
Professional / Student:	Institute:
Nationality:	
Passport No:	Valid up to:
Postal Address:	
Telephone:	E.mail:
	Oral / Poster:
	? Yes / No:
·	
	ooms in the CSIR Guest Houses, Bookings strictly on
Accommodation dates: From:	To:
Budget Hotels: 40-100 USD:	
Place:	
Date:	
	(Signature)

Please complete this form and post / fax / email it no later than 15th July 2012 to the Convener 3<sup>rd</sup> IGCP 581.