

## **An International Conference on DELTAS (Bangladesh venue):**

### **Deltaic Gateways – Linking Source to Sink**

**Dates:**

**January 6–13, 2008**

**Local Host:**

**Geological Survey of Bangladesh**

**Organizers:**



IGCP-475 DeltaMAP: <http://unit.aist.go.jp/igg/rg/cug-rg/ADP.html>

APN Mega-deltas: <http://www.megadelta.ecnu.edu.cn>

—— **Call for Abstracts** ——

—— **Registration application form** ——

#### **Project Background:**

River deltas are one of the most significant coastal morphological features and depositional systems. Most of the sediment delivered to the oceans by rivers has been deposited in the coastal zones, where it has built numerous deltas. These delta systems are significant not only for helping sedimentary and marine geologists understand modern processes and ancient rocks, but also for their human populations, port and City infrastructures, and natural and living resources. The Asian coast has many large and distinct river deltas, which have abundant resources and products and sustain a huge human population. These delta systems receive approximately 75% of the worldwide sediment discharge from the land to the oceans and collectively compose the largest depocenter on Earth. On the other hand, these deltaic environments are vulnerable to numerous and frequent geo-hazards, such as tsunamis, typhoon storms, monsoon floods, droughts, and sea-level rise, and recently they have been subject to anthropogenic impacts from engineering projects, urbanization, and land-use changes.

International Geoscience Programme (IGCP) Project 475, *Deltas in the Monsoon Asia–Pacific Region (DeltaMAP)*, has been organizing international conference on deltas annually. First meeting was held in Bangkok and Ayutthaya on January 15–20, 2004 in conjunction

with 5th International Conference on Asian Marine Geology partially, and 2nd meeting was held in Ho Chi Minh City on January 9-16, 2005. Both meetings were co-organized with APN project Mega-Deltas of Asia (2003-2004: PI, Zhongyuan Chen). CCOP DelSEA project also co-organized 2<sup>nd</sup> meeting and 3<sup>rd</sup> meetings held in Brunei on January 13-19, 2006. Through the first three meetings, more than 300 participants have joined from 22 countries, and a regional capacity of networks has been established. Participants from various fields exchanged scientific ideas and new findings and discussed scientific issues and cooperation during the conference. Each meeting report can be found at web pages of IGCP-475 and APN Mega-deltas given on the Circular cover page.

Under the painstaking effort made by all involved participants, we have also been successful in obtaining a new APN funded project (2-years: 2007-2009). The project theme is Asian Mega-deltas: Monsoon circulation in relation to deltaic coastal hazards and future mitigation – millennial to seanal demensions. We are thus combining the Asian Megadeltas' conference through Bangladesh venue like the previous pattern, and do hope this provides you all respective delta coast scientists a forum to deepen our exchange on the project goals.

### **Meeting Introduction:**

The fourth meeting will be held in Bangladesh, on the Ganges-Brahmaputra river delta, from January 6–13, 2008. It was scheduled in 2007 originally and postponed to 2008 by political unrest. The meeting will begin at the Razmoni Isha Kha hotel in Dhaka, the capital city of Bangladesh, and will continue at the Jamuna Resort near the banks of the Brahmaputra River (note: this reach of the river in Bangladesh is called the Jamuna). Field excursions will include a one-day visit to the large channel bars, locally called chars, within the Brahmaputra braidbelt. Our post meeting field trip will involve an overnight boat trip into the Sundarbans, the world's large mangrove forest, a UNESCO International Heritage Site. Together, the Ganges and Brahmaputra rivers tie the Amazon for the world's largest sediment discharge at about 1 billion tones per year. The delta itself links the world's highest mountains and plateau, the Himalaya and Tibet, with the largest sedimentary deposit, the deep-sea Bengal Fan. The entire dispersal system is characterized by coupled feedbacks among the regions monsoon climate, collisional tectonics, and active sediment erosion and transport. Many of these characteristics are also shared with other mega-river-deltas of the Himalayan/Tibetan region, including the Indus, Irrawaddy, Mekong, Yangtze, and Yellow, all of which comprise the world's highest and largest sedimentary source area and sediment dispersal system. As but one example of these systems, the Ganges-Brahmaputra is an outstanding natural laboratory of global significance, and Bangladesh provides a green and gracious host for our meeting. We welcome your participation and abstract submission and are looking forward to discussing with you during the technical sessions and field excursions.

### **Project Descriptions:**

#### IGCP-475: Deltas in the Monsoon Asia–Pacific Region (DeltaMAP)

International Geoscience Programme (IGCP) Project 475 is to run for five years until 2008. The IGCP has been a joint endeavor of UNESCO (United Nations Educational, Scientific and Cultural Organization) and IUGS (International Union of Geological Sciences) since 1972. The general objectives of IGCP-475 DeltaMAP are to significantly improve our understanding of Asian river deltas by **1)** synthesizing recent research results; **2)** bridging the traditional gaps between terrestrial, coastal, and marine research; and **3)** identifying the major needs and goals of future research. Furthermore, in pursuing these goals, we expect significant advances in fundamental research on monsoon-driven sediment-dispersal systems.

*APN Mega-deltas: Monsoon Circulation in relation to Deltaic-Coastal Hazards and Future Mitigation – Millennial to Seasonal Dimensions*

This APN-funded project is a continuation of our previous APN program, *Mega-deltas of Asia: Conceptual Model and its Application to Future Delta Vulnerability*, completed successfully in 2003-2004. The new project will focus on monsoon circulation in relation to hazard mitigation on deltaic-coastal regions. Specifically, the study will coordinate regional climatological databases with the process-response model developed in our previous mega-delta project. The main objectives are: 1) to organize the current knowledgebase on monsoon circulation affecting the region's megadeltas. This will be based on the integration of large databases existing for various delta systems; 2) to understand the role of monsoonal impact on delta-coastal landform change. This will particularly focus on: a) hydromorphological observation and modelling, in order to establish a high resolution database at millennial to seasonal dimension; b) comparison among all mega-deltas to identify similarity and distinctions in monsoon circulation; c) geohazard assessment and future mitigation, closely linked with policy-modification and coastal conservation; and 3) to upgrade the regional capacity for geo-hazard assessment and the design of sustainable-development scenarios for all the mega-delta systems, particularly given ongoing and predicted changes to the earthscape from natural and human influences.

**IGCP-475 DeltaMAP leaders:**

Co-PIs: Steven Goodbred, Jr.: Vanderbilt University, Earth & Environmental Sciences,  
Nashville, TN 37235-1805, USA; [steven.goodbred@vanderbilt.edu](mailto:steven.goodbred@vanderbilt.edu)

Yoshiki Saito: IGG, Geological Survey of Japan/AIST, Tsukuba, Japan;  
[yoshiki.saito@aist.go.jp](mailto:yoshiki.saito@aist.go.jp)

**APN Asian Mega-deltas leaders:**

PI: Zhongyuan Chen; East China Normal University, Shanghai 200062, China.  
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## **An International Conference on DELTAS (Bangladesh venue):**

### **Deltaic Gateways – Linking Source to Sink**

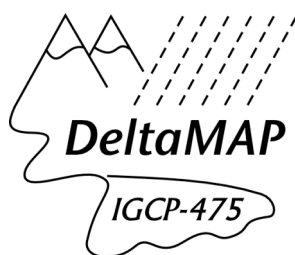
**January 6-13, 2008**

**Local host: Geological Survey of Bangladesh**

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**With field excursions to the Brahmaputra River braidbelt  
and Sundarbans mangrove delta plain**

### **Call for Abstracts and Registration**



The focus of the 4th annual meeting of *IGCP-475 DeltaMAP* is delta as sedimentary and geochemical gateways linking fluxes from a vast source area to sinks on the continental margin and deep sea. This combines with the 1<sup>st</sup> APN meeting that aims at the monsoonal function on delta coast morphological change. Sessions will be organized around traditional subjects of sedimentary facies and processes, stratigraphy and sequence development, indicators of monsoonal circulation on different time scales, geochemical fluxes and transformations. In addition, there will be special sessions focused on broader source-to-sink linkages and on the threat of deltaic geohazards to human populations in the region, particularly arsenic-contaminated groundwater, cyclone storm surges, earthquakes and tsunamis. We welcome your participation and abstract submission.

#### **Organizers/Sponsors**

UNESCO/IUGS, IGCP-475, *DeltaMAP* (4th Annual Meeting):

<http://unit.aist.go.jp/igg/rg/cug-rg/ADP.html>

Asia Pacific Networks – Asia Megadelta project (1<sup>st</sup> meeting)

<http://www.megadelta.ecnu.edu.cn>

Geological Survey of Bangladesh (GSB)

University of Rajshahi: <http://www.ru.ac.bd/gmn/geology&mining.html>

Dhaka University: <http://www.univdhaka.edu/department/index.php?bodyid=GLG>

IGG, Geological Survey of Japan/AIST: <http://unit.aist.go.jp/igg/en/index.html>

SE&E Asia Regional IPO Node of IGBP-LOICZ-II: <http://www.loicz.org/>

World Deltas Network (WDN): <http://www.wv2bw.org/Members/jjk/wdn/>

#### **Local Organizing Committee**

Ms. Afia Akhtar, Director General, Geological Survey of Bangladesh

Prof. Md Badrul Islam, Rajshahi University

Mr. Sirajur Rahman Khan, Director, Geological Survey of Bangladesh

## **Venue and Schedule, January 2008**

- 6th: Arrival and registration at Razmoni Isha Kha hotel, Dhaka
- 7th: Inauguration, Technical session, and Banquet in Dhaka
- 8th: Field excursion to Brahmaputra braidbelt and transfer to Jamuna Resort
- 9th: Conference technical sessions at Jamuna Resort
- 10th: AM technical session, PM departure for delta plain excursion and transfer to boat
- 11th-12th: Overnight boat trip to Sundarbans and Bengal coastline; return Dhaka
- 13th: Departure

## **Sessions**

Scientific sessions consist of several 30 minute keynote talks plus 15-minute oral presentations and posters. Specific sessions and technical program to be announced.

## **Official Language**

English is official language of the conference.

## **Call for Abstracts**

Abstracts should be e-mailed or arrive by post to Yoshiki Saito, <yoshiki.saito@aist.go.jp>) by **October 1, 2007**. Abstract format: MS Word file; title, authors, affiliation(s), e-mail address of corresponding author, main text (A4, 1 page including figures, less than 500 words). All abstracts will be published in an abstract volume that will be distributed to all participants.

## **Field Excursion**

Field excursions will include a one-day visit to the large channel bars, locally called chars, within the Brahmaputra braidbelt. The 5-m relief of these bars with 1-m scale cross-bedding, cut-and-fill features, and massive scours were first immortalized in Jim Coleman's 110-page seminal publication, *Brahmaputra River: Channel Processes and Sedimentation*, published in *Sedimentary Geology* in 1969. As the meeting will take place during the dry season, the low-flow stage leaves much of the 5-10 km wide braidbelt exposed and available for study. Fluvial bedforms, bars and channel structures of all sorts can be found, with some surfaces locally reworked by dry-season aeolian activity. Some of the chars are also semi-stable (lasting decades), and after becoming vegetated they typically support populations of 'nomadic' farmers, grazing cattle, and small villages that are seasonally displaced during high-flow stages. As across most of Bangladesh, the Brahmaputra chars present a dynamic and fascinating geological system that interfaces strongly with local human populations and culture.

Following the technical session and business meeting, our post-conference field trip will take us to the Ganges lower delta plain for an overnight boat trip into the Sundarbans, the world's large mangrove forest and a UNESCO International Heritage Site. Home to over 500 Bengal tigers, spotted deer, and saltwater crocodiles, the Sundarbans is the last remaining area of pristine deltaic coastal plain in South Asia. Most of the Sundarbans coastal reach was deposited by the Ganges river and is on the order of a few thousand years old. Much of the Sundarbans is a 'dry' mangrove system that is flooded only during the summer southwest monsoon, when onshore winds force 1-1.5 m of regional sea-level set up. At the coast, we will visit a chenier plain and hike to a remote eroding beach face on the Bay of Bengal. A second stop will be to a forestry outpost with elevated boardwalks through the mangrove forest. On the way back to Dhaka we will drill in a peat basin (>40 m) using local hand-operated techniques by tubewell drillers, affording us to reconstruct the stratigraphic history of the system on site. We will also carry a hand-auger to investigate the late Holocene deltaplain facies.

## **Weather and Currency**

The weather in Bangladesh in January is typically dry and sunny, although occasional cold fronts can bring cool, damp conditions (about 5°C below normal). Typical temperatures in January are 20-24°C for the daily high and 10-15°C for the daily low.

The currency in Bangladesh is Taka (1 US\$ = ca. 65 Tk). Foreign currency is best exchanged at the airport upon arrive, but can also be done at the conference hotel and some local banks.

## **Health Requirements**

Please consult travel agents in your own country to obtain up-to-date information on recommended immunizations and other health precautions.

## **Travel Arrangements**

Biman is the national airline of Bangladesh and has direct flights to several regional locations. There are also direct flights to Dhaka from London (British Air), Bangkok (Thai Air), Kuala Lumpur (Malaysian Air), Singapore (Singapore Air), Dubai (Emirates), Hong Kong (Dragon Air), as well as others routes via Pakistan, India, and the Middle East.

## **Visas**

Bangladesh 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. Generally visas are not difficult to obtain for Bangladesh, but rules change regularly. Letters from the local host and home institute in Bangladesh will be provided to assist participants with their visa application.

## **Accommodations**

All accommodations are included in the registration fee, which is set up as an inclusive package based on single or double occupancy (single available in Dhaka and Jamuna only; accommodations on Sundarbans excursion are double/quad). All hotels, most meals, and food and lodging on both excursions will be included in the registration fee. At Dhaka, accommodation will be made at Razmoni Isha Kha hotel. At the Brahmaputra venue we will stay at the Jamuna Resort, although a slightly less expensive option can be taken at the nearby Elenga Resort. Accommodations for the Sundarbans excursion will be on the ship, including meals, with double and quad occupancies available.

## **Hotel Contact Information**

Rhazmoni Isha Kha: VIP Road, Kakrail, Dhaka: email: [razmoni@bdcom.com](mailto:razmoni@bdcom.com)

Jamuna Resort: web: <http://www.jamunaresort.com>

Elenga Resort (alternate housing at Brahmaputra):

web: [http://www.ipsslgroup.com/about\\_us.htm](http://www.ipsslgroup.com/about_us.htm)

## **Registration Fee**

Full Registration fee includes abstract volume, field excursions, accommodations, and lunches and dinners from January 6-12.

### **Cost:**

- Full Package: US\$600 single room; US\$500 shared; US\$450 shared & Elenga Resort option.
- Spouses may participate in the meeting and excursions at a cost of US\$400.
- Technical Sessions Only: US\$150, includes abstract volume, three lunches and dinners on January 6-10.
- Local participants: Cost is to be announced, but all efforts will be made to keep this at a nominal fee (<US\$20), includes abstract volume, three lunches and dinners on January 7-

10, but they have to bear the accommodation cost at Brahmaputra venue Jamuna Resort/Elenga Resort or other local hotel by themselves .

### **Advanced Payments**

All prices are quoted in US dollars. Payment should be made by telegraphic transfer to arrive by November 1st, 2007. Further information will be provided in the Second Circular.

### **Financial Assistance**

IGCP-475 funds will be available to partially support a limited number of speakers from developing countries including host country. In the past we had been able to support about 15 participants. Preference will be given to younger scientists who present a paper at the conference. Such funds will be provided cash-in-hand to receipts during the conference. **Applications for such funding, including the abstracts of the proposed paper and your short CV, should be submitted to Steve Goodbred <[steven.goodbred@vanderbilt.edu](mailto:steven.goodbred@vanderbilt.edu)> and Yoshiki Saito <[yoshiki.saito@aist.go.jp](mailto:yoshiki.saito@aist.go.jp)>, **by September 15, 2007.****

*NOTE:* This support will cover the full package Registration Fee and local incidentals. The earlier deadline is required to give IGCP headquarters, Paris, sufficient time to approve the funding, which is recipient specific. Also note that *additional funds for air travel are not possible* due to the limited funding available through IGCP programs. However, some countries have a national IGCP fund to support attendance by their scientists and graduate students at IGCP conferences. Potential delegates should ascertain whether their national IGCP Committee distributes travel grants.

In addition, APN funding will invite more than 15 scientists from all unique Asian megadeltas, and from other pacific regions. Local administrators and policy-makers will be also invited during the conference. For querying details, please email Dr. Zhongyuan Chen at: [Z.Chen@ecnu.edu.cn](mailto:Z.Chen@ecnu.edu.cn)

### **Key dates:**

**September 15, 2007;** Application of financial support

**October 1, 2007;** Registration form and abstract submission.

**Please send both to Yoshiki Saito by e-mail <[yoshiki.saito@aist.go.jp](mailto:yoshiki.saito@aist.go.jp)>**

**November 1, 2007;** Advanced payment of the registration fee (more information to follow)

All correspondence and special requests should be directed to:

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E-mail: [steven.goodbred@vanderbilt.edu](mailto:steven.goodbred@vanderbilt.edu)

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University of Rajshahi  
Department of Geology and Mining  
Rajshahi 6205, Bangladesh  
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[hellobadrul@yahoo.com](mailto:hellobadrul@yahoo.com)

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Segun Bagicha, Dhaka, Bangladesh  
Email: [romu.gsb@gmail.com](mailto:romu.gsb@gmail.com)

**Registration Form**

Please return this form by e-mail in the body of the message or with attachment to <[yoshiki.saito@aist.go.jp](mailto:yoshiki.saito@aist.go.jp)>, by fax to +81-29 861 3747, or by post (Yoshiki Saito, Geological Survey of Japan/AIST, Central 7, Higashi 1-1-1, Tsukuba, 305-8567, Japan).

If you do not receive any response showing receipt from Yoshiki Saito, please contact him.

**Deadline: October 1, 2007 (firm)**

**International Conference on DELTAS:  
4<sup>th</sup> Annual Meeting of IGCP-475 *DeltaMAP*  
Geological Survey of Bangladesh**

Surname \_\_\_\_\_ Given Name \_\_\_\_\_

Prefix (select one) Prof./Dr./Mr./Mrs./Miss \* Male [ ] Female [ ]

Address \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

**Presentation:**

Type of presentation: [ ] Oral [ ] Poster [ ] Either

Title of poster or oral presentation: \_\_\_\_\_

Abstract enclosed\* Yes [ ] No [ ]

Do you intend to submit a manuscript for inclusion in conference proceedings? Yes [ ] No [ ]

**Passport information for required for visa support letter:**

Name on passport: \_\_\_\_\_

Passport Number: \_\_\_\_\_

Country of Issue: \_\_\_\_\_

Date of Birth: \_\_\_\_\_

Date of Issue: \_\_\_\_\_

Date of Expiry: \_\_\_\_\_

(Provide passport information for spouse also, if participating. )

**Conference Package Choice**

- [ ] Full Package, single occupancy US\$600
- [ ] Full Package, double occupancy US\$500
- [ ] Full Package, double with Elenga Resort option US\$450
- [ ] Full Package, accompanying spouse US\$400
- [ ] Meeting Package, meals, sessions, no excursions US\$150
- [ ] Local Package, technical sessions only TBA

- For participants wishing to share a room with twin beds with another conference participant, please name your roommate, if known [name: \_\_\_\_\_], or are you willing to have your roommate assigned by the organizers? Yes [ ] No [ ]
- Check-in date: January \_\_\_\_\_, Check-out date: January \_\_\_\_\_
- Special requests (dietary restrictions, wheelchair access, etc.): \_\_\_\_\_