

## **Global water system hotspots in the Asian region: mega cities and dams**

### *Background*

The Global Water System Project (GWSP, a joint project supported by IGBP, WCRP, DIVERSITAS, IHDP)--Asia meeting was held on August 29-31 in Kyoto focusing on three themes from the GWSP Scientific Framework: 1 Magnitude and Mechanism of Changes, 2 Linkage and Feedbacks, and 3 Resilience and Adaptation, and three key issues were identified: 1 Mega Cities 2 Dams, irrigation and diversions, and 3 Land use/cover change regarding their tremendous impacts on regional and global water balance and nutrient transfers. Accordingly, three working groups (WG) were constituted under the umbrella of GWSP-Asia Network to work on new proposals and capacity building, e.g., website construction, database creation. It was also proposed to organize a workshop or 2<sup>nd</sup> GWSP-Asia Network Meeting on the issues of mega cities (WG1) and dams (WG2).

### *Objective of the workshop*

The purpose of the workshop is to bring together scientists, policy makers and municipal administrators to address water problems of mega cities and that of dams in Asia with a global perspective based on a hotspot study area approach. **One goal** of the workshop is to summarize existing state of knowledge on current cumulate impacts of mega cities and that of dams in Asia. A **second goal** is to set and launch a research agenda for mega cities and dams in Asia: what opportunities exist, outline proposals for addressing them, and indicate how they could be implemented. The workshop participants would be mainly national representatives plus some experts to lead discussions on crosscutting issues. About 30 participants are expected to attend the workshop.

### *Hotspot study area*

- 1 Mega cities in the coastal zone: the Pearl River basin (including Hong Kong, Guangzhou, Shenzhen etc.); Shanghai; Beijing; Bangkok 10 million population; Jakarta 8 million; Manila; Calcutta; Dhaka; Karachi; Tokyo; Osaka etc.
- 2 Dams in the semi-arid and arid zones in Asia, especially in China and India

### *Topics*

- 1 Water supply security in Asian mega cities
- 2 Virtual water trade related to mega cities in Asia
- 3 Potential benefits and cumulative impacts of dams and water transfer projects in Asia
- 4 Database and network on mega cities, dams and relevant land use/cover change in Asia
- 5 Strategy and national policies of water governance in Asia
- 6 Comparison of mega cities and dams: development stage and water problems, future scenarios for mega city and dam development in Asia
- 7 Change of physical, chemical and biological processes related to Asian mega cities and dams, and their implications for the global water system.

### *Organizing committee*

Jianyao CHEN, Zhongshan (Sun Yat-sen) University (China)

Makoto TANIGUCHI, Research Institute for Humanity and Nature (Japan)

Sharad Kumar JAIN, National Institute of Hydrology (India)

Advisors for the organizing committee:

Changming LIU—Chinese Academy of Sciences

Eric T. CRASWELL-GWSP-IPO (International Project Office)

### *Proceedings*

Proceedings, both in hard copy format and on CD-ROM, are proposed to be published after the workshop while the database or its framework is to be uploaded to the website of GWSP-Asia Network:

<http://www.chikyu.ac.jp/USE/GWSP/GWSPasia.htm>

GWSP website: <http://www.gwsp.org/>

and the website of Department of Water Resources and Environment, Zhongshan (Sun Yat-sen) University: <http://cwre.sysu.edu.cn/>

*Schedule:* June 8-11, 2006

June 8-9: Plenary meeting for presentation

June 10: Capacity building on Database, research agenda and proposal

June 11: excursion to Zhuhai Experimental Station

*Language:* English

*Deadline for abstract:* March 1, 2006

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### *Sponsors*



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We are contacting some other international organization for possible funds.