National Report on IHP Related Activities

Chinese National Committee

1. ACTIVITIES UNDERTAKEN IN THE PERIOD September 2004 — June 2006

1.1 Meetings of the Chinese National Committee for IHP

1.1.1 Decision regarding the composition of the Chinese National Committee

Chairperson Ms. Liu Yaming was shifted to another position in year 2005, Mr. Deng Jian, Director-General of Bureau of Hydrology now will take the chairmanship according to the regulation of Chinese National Committee for IHP. The approval procedure is going on.

1.1.2 Status of IHP-VI activities

Some key activities are provided in the following paragraphs. More activities with more themes and focal areas are going on, thus a series of national and international workshops will be held when projects are finalized.

International Hydrological Methodology Symposium was held on 31 October-2 Novemver 2005 in Nanjing. About 200 participants from China, USA, UK, France, Japan, Germany, Australia, Poland, Korea, Thailand, Nepal and Hong Kong SAR attended the symposium. The symposium exchanged the newest achievements on hydrological research, especially digital hydrological methodology, and look forward hydrology Science. 180 papers were received and will be published by UK IAHS press. China-IHP was one of sponsors and Vice-Chairperson of China-IHP also attended the activities.

National Hydrological Regime Workshop was held from 14-15 April 2005 in Hangzhou. 100 participants from each province and related ministries attended the workshop. Mr. E Jingping, Vice minister of Ministry of Water Resources in charge of flood control delivered his congratulation letter. In his letter, national hydrological service function and capacity were proud, some examples related to big floods of Huai River in 2003, some local floods and droughts in 200. Hydrologists played very important roles. The workshop was focused on experiences summary of flood forecasting and hydrological modernization. The technical promotion and progress for enhancing hydrological forecasting in next two year was also highlighted.

China-IHP Chairperson and some members working in hydrological fields attended the meeting with presentation on advanced technologies.

2nd China Water Issues Forum was held from 18-19 December 2005 in Beijing. The forum was organized by IAHS Chinese National Committee and IHP National Committee. About 110 participants from universities, institutions and hydrological organizations attended the forum. The forum focused on research and progress of water problem complexity and uncertainty. IAHS PUBs

^{1.} This report is submitted to the 17th IGC meeting for the IHP at UNESCO Headquarter 2-7 July, 2006.

for International hydrological Decade was discussed as well. Some common understandings were listed: (1) water problems complexity and uncertainty need hydrological experiments and new technology application; (2) New technology and methodology research are key to solve the problems; (3) enhancement of PUB should be related with China water problems. Chinese National Committees of IAHS and IHP co-organized the forum.

Symposium on Water Environment Protection of Yangtze River was held from 18-19 October 2005 in Hefei. 210 participants from 14 provinces and cities in Yangtze River basin participated the symposium. The symposium is a kind of senior officials and experts forum for Yangtze river water protection. Water quality and water pollution control are main themes. Along with economic development, population increasing, water environment has been aggravated. Therefore, to keep a healthy river is common reorganization by the riparian provinces and cities from upper stream and down stream. A proposal of legislation for Yangtze River water Protection to the State Council was approved by Provincial Political Consultancy Committees. China-IHP was invited to present IHP themes and activities.

International workshop of ecosystem rehabilitation and recovery was held from 14-17 November, 2005 in Nanjing, by the state key laboratory of Hydrology, Water Resources and Water Engineering. Some international experts, Prof. Smits and Prof. Hans from the Netherlands, Prof. Anderson from Canada and Dr. Sonja Jähnig from Germany, were invited to present new concepts and technologies on urban water pollution control, healthy ecosystem and recovery, as well as bio-rehabilitation technology for water body etc. The Laboratory is one of Chinese National Committee partners for basic hydrological research.

Healthy Yangtze Expert Workshop was held from 14-15 January 2005 in Wuhan. 30 famous experts jointed the workshop. Coordination between economic development and ecological protection is main issue. With 1.8 million square kilo meters in basin, to maintain a healthy Yangtze is not only related to Yangtze River itself, but also concerned of national social-economic sustainable development. The river basin authority should be a representative of the river. Under the principles of "development in protection and protection in development", flood control, integrated water resources development and water environment protection; water resources management system must be accelerated. Four objectives for four stages are clarified as keeping safety in flood, reasonable water development, maintenance of good eco-system and stability of river state including stable bed. Some measures for healthy Yangtze were proposed. Member of China-IHP attended the workshop.

International workshop on hydrological research methodology was held in Nanjing from 30 Oct – 1 Nov. 2005. There are about 180 papers and 200 participants from 12 countries, including Australia, France, Germany, Japan, Korea, UK and USA etc. Dr. Pierre Hubert, Secretary- General of IAHS, Prof. Vijay P. Singh delivered keynote speeches during the opening ceremony. Some of the papers will be printed in IAHS journal. China National Committee for IHP was one of sponsors. Dr. Liu Heng, Vice Chairperson of the National Committee was invited to attend the workshop.

1.1.3 Decision regarding contribution to/participation in IHP-VII

China IHP National Committee organized an annual meeting on 11 November 2004 in Nanjing. The National Committee Regulation and Secretariat Working Method have been reviewed and approved. A visiting report on 16th Intergovernmental Council meeting in Paris has been delivered to members. National Committee also approved the decision of Chair's meeting in August 2004 and guarantees to work closely with regional national committees for regional cooperation, especially for IHP-VII.

Secretariat members met in Beijing on 12 March 2006 for draft activities arrangement of IHP National Committee. The proposed activities have been discussed and revised. The activities included several workshops, participation of 17th IGC meeting and bilateral cooperation with other countries.

1.2 ACTIVITIES AT NATIONAL LEVEL IN THE FRAMEWORK OF THE IHP

1.2.1 National/local scientific and technical meetings

National Flood Control and Drought Mitigation Meeting was held from 1-2 January 2005 in Nanning. It is an annual meeting organized by National Headquarter for Flood Control and Drought Mitigation. Since flood control and drought mitigation must be based on coordination of each related organizations and agencies at different level, Ministry of Water Resources, Ministry of Land Resources, China Meteorology Agency and provincial flood control and drought mitigation organizations and agencies sent their high and senior officials for the meeting. About 200 participants joint the meeting.

Some members of China-IHP were invited to attend the workshop.

National Meeting of Hydrological Agency Leaders was held from 31 March to 2 April in Kunming. Mr. E Jingpping, Vice Minister and Other high level Officials from related ministries, as well as 100 leaders from provincial level hydrological agencies attended the meeting. The meeting is a two-year regular meeting for summary of hydrological activities and arrangement of action plan for next two years. Some excellent hydrologists and outstanding hydrological organizations, including hydrological stations, were awarded. Chairperson of China-IHP was chairing the meeting.

National Hydrology Symposium was held from 6-8 December, 2004 in Nanjing. About 250 participants attended the symposium. The main theme of symposium is how provide hydrological information service for water resources development, allocation, saving and protection. Four topics were emphasized, including hydrological prediction and forecasting methodologies flood control and management, flood disaster and mitigation, information technology application.

China-IHP was co-organizer and main sponsor for the symposium. Some members of China-IHP presented their achievements.

National technical Standard system workshop was held on 27 April 2006 in Beijing. The system includes some hydrological measurement and monitoring standards which will be issued as the state standard or ministerial standard in the country. Some experts from different ministries joined the discussion on behalf of their ministries.

2nd Young Scientist Forum of China Hydraulic Engineering Society (CHES) was held from 1-3 November 2005 in Xi'an. The forum was organized by Young Scientist Working Committee of CHES and about 300 participants joined the forum. The forum gave a wide field for young scientists and engineers, which included water resources and environment, flood and flood disaster, hydraulic engineering, agricultural water saving, hydro-informatics, rock and soil technology and other water related issues. Some discussions on water-saving orientation society, maintenance of healthy river, and key technologies for important engineering projects were exchanged. A proceeding including 114 papers were distributed in the occasion of the forum.

China-IHP was co-organizer and Vice-Chairperson of China-IHP chaired the opening ceremony.

National Hydro-Informatics Workshop was held from 8-9 November 2005 in Zhengzhou. 120 participants attended the workshop. Mr. Suo Lisheng, Vice Minister of Ministry of Water Resources delivered speech in the opening ceremony. Modernization of water information use and management has been emphasized in past years. It was included in the 11th five-year National Hydro-informatics Management Modernization Planning. Ministry of Water Resource issued a Recommendation for Promoting Hydro-Informatics Modernization. It has been recognized as baseline for advanced technology allocation in hydrology and water resources fields. China-IHP sent members to attend the workshop.

National Symposium on River Ecosystem Rehabilitation Technology was held from 24-25 October 2005 in Hangzhou. Vice Minister of Ministry of Water Resources participated and gave a lecture on Dam and Ecology. Some experiences for river ecosystem rehabilitation were also presented their achievements. TO promote harmony of people and water is one of highlight in Ministry of Water Resources. The rehabilitation of river eco-system pays high attention on natural rehabilitation capacity. Some technologies, standards and criteria from experiences of foreign countries were reviewed and introduced to China since year 2002. 200 participants from river commissions and local organizations attended the symposium. Participants also spend a half day to visit sites at Haining city and Jiashan county in Zhejiang province.

China-IHP briefs the IHP-VII on eco-hydrology and ecosystem rehabilitation in the world.

Workshop of water ecosystem protection and rehabilitation was held on 24 May 2006 in Beijing. Since the Ministry of water resources highlighted ecosystem protection as one of water resources management and protection, the workshop focused on technology standard of ecosystem related to water. It is quite new concept for water experts to deal with integration of society, economy, environment and ecosystem. In the next years, the ecosystem related to water will be put on one of top priorities in this ministry. China National Committee will be involved in some key activities for introducing international development on ecohydrology and related ecosystem protection progressing.

1.2.2 Participation IHP Steering Committees/Working Groups

Dr. Liu Heng, Dr. Chen Yuanfang, Dr. Li Zhijia, Dr. Liang Zhongming and Dr. Xu Zongxue participated in The 12th Regional Steering Committee Meeting for Southeast Asia and the Pacific and The International Conference on Water Sensitive Urban Design – Cities as Catchments from 21 - 26 November 2004 in Adelaide, Australia. They also participated in FRIEND technical sub-committee (TSC) meeting and coordination meeting of HTC during the symposium and promised to closely cooperate with regional counterparts to work on FRIEND projects and other activities. They also presented scientific papers during the symposium.

The 13th Regional Steering Committee Meeting for Southeast Asia and the Pacific and International Symposium on Ecohydrology was held in Bali, Indonesia from 21-26 November 2005. Dr. Liu Heng, on behalf of Chinese National Committee and also as vice Chairperson of Intergovernmental Council Bureau presented country report and 38th IHP bureau meeting achievements. There are about 200 participants, including 3 others from China (Dr. Chen Yuanfang from Hohai University, Dr. Xu Zongxue from Beijing Normal University and Dr. Yu Xiubo from China Science Academy)

As requested by National Committee, Dr. Chen Yuanfang, as a member of FRIEND working group, participated in APFRIEND phase II meeting on the design rainfall and design Flood determination in Kuala Lumpur, Malaysia from the 6th to 7th June 2005. The main activities of the meeting contains : (1) Country reports giving a statement of the techniques that are used in the country, data availability for IFD (intensity—frequency—duration), proposals for the AP FRIEND phase II; (2) Workshop on IFD and Frequency determinations; (3) Discuss on the improvement for RIVER CATALOGUE; (4) A technical visit in the Humid Tropics Hydrology and Water Resources Research Centre of Malaysia.

1.2.3 Research/applied projects supported or sponsored

Chinese Homepage of IHP on Internet has been supported by UNESCO Beijing office and has been updated regularly.

1.2.4 Collaboration with other national and international organization and/or programs

China's delegation including members of IHP national committee members attended 4th World Water Forum in Mexico from 17-22 March, 2006. The participation activities included China, Japan and Korea joint workshop, and also Asian day ceremony, as well as many sessions, especially UNESCO-IHP and WWAP posters. China sends a delegation including 56 experts.

Participation of 33rd General Conference from 9-13 October 2005 in Headquarter of UNESCO. Dr. Liu Heng represented Chinese National Committee participated 3rd committee meeting for Natural Sciences, in where water has been debated and supported by most of member countries.

Participation of The Round Table on Concept and Financial Strategy of UNESCO-IHE on 9 March, 2006 in Headquarter of UNESCO. Sixty delegations from country members attended the meeting, hosted by the Director General, Mr Koïchiro Matsuura. Dr. Liu Heng, Vice Chairman of Chinese National Committee and alumni of UNESCO-IHE was invited to give a short presentation. he stated that his life changed after studying at IHE, personally and professionally. "I discover my personal potential, my view of things expanded and I got more international oriented", expressed Dr Liu Heng. "I am only an example. Many Chinese professionals playing an important role in Chinese water resources have lived the IHE's experience".

Sino-Norway Integrated Water Resources Workshop was held from 11-12 January 2005 in Beijing. Norway Minister of Ministry of Oil and Energy lead a delegation attended the workshop. China Vice Minister of Ministry of Water Resources also attended. Three themes are focused in two may meeting, i.e., Integrated Water Resources Management, Small Hydropower as alternative of

firewood for environment protection, Yellow river estuary protection and river mouth stability. Norway experts paid a visit to 9th water plant.

Sino-European Union River Basin Management Seminar was held from 13-14 October 2005 in Beijing. The seminar is a preliminary for starting a Sino-European Union project on river basin management and enhancing cooperation of Sino-European in water resources field. Participants from China Ministry of Water Resources, Ministry of Commerce and State Environment Protection Agency and River Basin Commissions and universities joined the seminar. European Union sent a delegation especially for the seminar. The main topics for two days discussion are water policy development of European Union, EU Water Framework Directive and its implementation, EU integrated river basin management, cases study (Danube river, Spanish water resources management), public participation, ecosystem issues and China River basin management.

Sino-UK water sector cooperation workshop was held on 23 November 2005 in Beijing. UK water sector association organized this workshop with supporting of China Ministry of Water Resources, UK Embassy in Beijing and UK trade association. About 100 participants from water sectors in Beijing attended the workshop. Some high official related to water from two countries delivered their speeches during the ceremony. UK experiences on water sustainable service were introduced by an expert from UK Ministry of Environment, Food and Rural Affairs. Some companies and institutes from UK, including Wallingford, Parsons Brinkerhoff, Costain, ABB, Halcrow, Simon Hartley etc. also bring their management for Chinese counterparts.

Sino-Dutch Project Seminar on Ecological System and Integrated Water Resources Management of Lancang River Basin was held from 22-23 November 2004 in Kunming. More than 100 participants from China, the Netherlands, USA, Finland and some NGOs participated in the seminar. The project is a pilot project for exploring integrated wetland and water resources management for small river basin. UNESCO-IHE took a leadership and invited many international and domestic organizations to join the research team. The project started from August 2003 and completed in June 2005. Main actions and activities included investigation and researches, such as ecological function, water resources, soil erosion, landslide, river basin management and planning.

The 20th Sino-Japan Bilateral Water Resources Meeting was held in 25 October 2005 in Beijing. A delegation from Japanese Ministry of Civil and Transportation and a delegation from Chinese Ministry of Water Resources exchanged opinions on water resources development, management and utilization. Chinese delegation introduced maintenance of healthy Yangtze River, water-saving orientation society, wetland protection. Japanese delegation presented dam construction issues. The meeting is a routine bilateral activity which has been executed for 20 years.

Sino-Australian Water Resources Workshop was held from 31 January to 1 February 2005 in Canberra, Australia. Vice Minister of Australian Ministry of Agriculture, Fishing and Forestry and Chief Engineer of Chinese Ministry of Water Resources participated the workshop. The workshop focused on water right mechanism, integrated water resources management and pasture water conservancy. The workshop is a part of Sino-Australian cooperation on water resources. Each two year, there is a workshop to be held in China or Australia, respectively.

Workshop on online flood simulation and disaster information distribution system was held on 19 April, 2006 in Beijing. Wallingford software company was invited to presented their new products, including remote control platform and online flood forecasting system based on web technology. It includes information collection system, distributed models. About 50 hydrologists from different level hydrology bureaus attended the workshop. Currently the state flood control system has been developing. Some international famous companies related to water will be invited to introduce their new products.

19th ICID Congress and 56th International Executive Council was held from 15 to 18 September 2005 in Beijing. Mr. Hui Liangyu, Vice Premier of the State Council, attended the opening ceremony. ICID president, Dr. Abudula Keizeru and many minister level officials attended the congress. Vice Minister, Mr. Ze Haohui from Ministry of Water Resources chaired the opning ceremony.

The Congress combined academic activities with topic of food security and environment sustainability. About 1000 participants from 60 countries joined 4 days seminars, field visiting and executive meetings. There are two themes, i.e., one is improvement of water and land management for increasing irrigation efficiency, another is living harmony with floods. Totally 12 sub-themes are parallel organized.

2nd Workshop on Project Sponsored by ADB: China Flood Management Strategy was held on 25 and 26 April 2005 in Beijing. A framework of flood management and action plan for China was proposed and debated. Some experts from the Netherlands, Japan and USA also joined the workshop and presented their newest achievement. Some representatives from ministries related to flood control and provincial participants joined the workshop as well. The project was started-up in October 2004 and will be completed in one year.

Workshop of ADB TA China Flood Management Strategy Project was held on 5 December 2005 in Beijing. The project was launched in October 2004 and also supported by China's several ministries. The final report will be updated and used by relative authorities for changing from flood control to flood management. Some of IHP Chinese National Committee members were invited as consultants during the implementation of the project.

Integrated transboundary water resource management workshop was held on 14 February, 2006 in Beijing. The workshop is sponsored by Sweden International Development Agency (SIDA). Through the workshop and followed training activities in South Africa and Sweden, the participants understood operational principles, coordination experiences and capacity building for transboundary water management. One participant from IHP National Committee Secretariat was trained.

Community-Based Approaches to Flood Management was held from 3-5 April 2006 in Dakar Bangladesh. About 40 international participants, including one participant from China's Bureau of Hydrology, attended the workshop.

China- Germany joint workshop of hydraulic engineering impact on environment and ecology was held from 1-6 March 2006 in Hubei province. 50 domestic experts from 18 institutions and 17 German experts from 9 German research institutes participated in the workshop. 4 experts from Japan, Italy and USA was also invited to present their newest research outcomes.

The workshop was focusing on large scale hydraulic engineering, especially such as Three-Gorges Project(TGP), impact on environment, ecosystem and social-economy etc. A team including China-Germany experts will continue their research in TGP area. The recent investigation and research will include the field of contribution of rainfall on sedimentation, nutrition and developing some models. Scholar exchange and training plan were also proposed. China National Committee

will trace the joint activities, and one of CNC-member from Yangtze River Commission will be involved in the investigation.

Symposium of Water and soil conservancy and sustainable development in small river basins was held from 20-21 November 2005 in Beijing. The symposium focused on sustainable development in small river basins, and covered several themes including technology, concepts, experiences, effects and development progress. Some innovation development ideas and countermeasure were proposed to central authorities. Representatives from Ministry of Water Resources, China Science Academy, World Bank, UK DfID and other 150 participants attended the symposium. CNC representative also participated in the first day discussion, because CNC would like to enhance hydrology roles in small river development, especially in the western part of the country.

International workshop on China water right system initiation was held on 6 December 2005 in Beijing. The workshop was co-organized by China Ministry of Water Resources and Japan International Cooperation Agency (JICA). The main purposes of the workshop are to learn international experiences of water right, water market, to exchange achievements of recent researches in China and to prepare a proposal for authorities to initiate a China water right system. The final results were examined and proved during 8-9 June 2006 in Beijing. The cooperation between China's Ministry of Water Resources and JICA has been sustaining about 20 years since early 1980s. The water right system will be initiated and established in China.

China-Dutch water resources management innovation workshop was held from 18-19 May 2006 in Shanghai. China's Ministry of Water Resources, The Netherlands' Ministry of Transportation Infrastructure and Water Management co-organized the workshop. There are about 210 participants including 90 from Netherlands. The workshop was focused on river training and river basin management. It is one of activities under the framework of China-Dutch cooperation. Some bilateral agreements were signed during the workshop. Several IHP Chinese National Committee members were invited to present their achievements.

1.2.5 Other initiatives

1.3 EDUCATION AND TRAINING COURSE

1.3.1 Contribution to IHP courses

International training and research center for hydrology, water resources and water environment (ITRCHWE) continued the training course on River Basin Sustainable Water Resources Management. Vice-Chair Person of China-IHP had a lecture on Integrated Water Resources Management on 16 September, 2005.

UNIDO Hangzhou Regional Center (HRC) for small hydropower, also named as rural small hydropower research institute, enhanced their activities under IHP framework. Two training courses for developing countries are organized in Hangzhou, China annually.

1.3.2 Organization of specific courses

Training course for leaders of hydrological stations was organized from 9-16 November in

Nanjing. The course provided advanced technologies for hydrological observation. It is also refreshed for those leaders who working in hydrological stations. China-IHP gave technical support, especially new development of international hydrological programme.

1.3.3 Participation in IHP courses

Each year about 20 participants were sent to UNESCO-IHE with academic recommendation from China-IHP.

1.4 PUBLICATION

1.5 PARTICIPATION IN INTERNATIONAL SCIENTIFIC MEETINGS

1.5.1 Meeting hosted by the country

2nd Yellow River Forum was held from 18 to 21 October 2005 in Zhengzhou. About 800 participants including 300 international participants from 50 countries attended the forum. The His royal highness orange prince William Alexander also attended the forum. 6 themes and 12 sessions were arranged for specific topics. The themes included maintenance of healthy river, hydraulics and non-structure measures, water environment and ecology protection, trans-basin water transfer and water allocation, water right/price and water market as well as specific sessions, such as UNESCO-IHE alumni session. The forum became a well-known action and will take place each two years in cities along Yellow River.

UNESCO-IHE session was chaired by Vice-Chairperson of China-IHP.

Workshop on Dam Safety Monitoring and Management was held from 1-3 November 2005 in Xi'an. The workshop was organized by Ministry of Water Resources with support of World Bank. Mr. Liu Ning, Chief Engineer of Ministry of Water Resources attended the workshop and delivered a speech. About 150 participants, including 20 international participants, participated in the workshop. Participants shared experiences on dam safety monitoring and management in their countries and organizations, as well as discussed dam management technology, legislation and institution, sedimentation management etc. ice Chairperson of China-IHP attended the workshop.

1.5.2 Participation in meetings abroad

Ms Liu Jingnan from Nanjing Hydraulic Research Institute participated in the "International Training Course on Hydrological Droughts and Low Flows" was organized in Regional Humid Tropics Hydrology and Water Resources Centre (HTC), Kuala Lumpur, Malaysia, 26-30 September 2005.

1.6 OTHER ACTIVITIES AT A REGIONAL LEVEL

1.6.1 Institutional relations / co-operation

To enhance relationship with IAHS at national level, Asian Water Resources Association (AWRA) at regional level, as well as WMO, IAEA, UN-ESCAP at UN system level would be highly concentrated. To cooperate with national committees for hydrological and water resources

research in Southeast Asia and the Pacific are key fields.

1.6.2 Completed and ongoing scientific projects

FRIEND projects for flood/low flow forecasting/predictions in Southeast-Asian group work.

2. FUTURE ACTIVITIES

2.1 ACTIVITIES PLANNED TO UNTIL DECEMBER 2007

The National Committee will continue and pay high attention for regional cooperation under IHP framework. WWAP and WWDR are key issues at present, it s supposed that some of China basins will be included in the next versions of WWDR.

2.2 ACTIVITIES FORESEEN FOR 2008-2009

More projects related to IHP-VI themes will be supported by Ministry of Water Resources though IHP national Committee. IHP National will continue to encourage scientific and technical symposia and workshops. Meanwhile, some initiatives for IHP-VII themes will be encouraged and arranged by the National Committee. Cooperation among the Southeast Asia and the Pacific will be top priority.

2.3 ACTIVITIES ENVISAGED FOR THE LONG TERM

China IHP National Committee will make more contributions to IHP, especially, may host RSC meeting/workshops or join co-team fro regional cooperation. In the phase IHP-VII, some working groups will be established for more cooperation activities.