

CHINA

National Report on IHP Related Activities

for

24rd UNESCO IHP Regional Steering Committee (RSC) Meeting
for Southeast Asia and the Pacific (SEAP)

Contribution to IHP-VIII (2014-2021)

24-26 October 2016

Ulan Bator , Mongolia

Chinese National Committee for the IHP

1. ACTIVITIES UNDERTAKEN IN THE PERIOD OF OCT 2015 – SEPT 2016

1.1 Meetings of the Chinese National Committee for IHP

1.1.1 Decision regarding the composition of the Chinese National Committee

The current IHP national committee consists of 29 distinguished water experts who are active in hydrology and water resources work in China. Where, Mr.Cai Jianyuan is appointed as the new Chairman of the China National Committee for IHP, following with the retirement of the formal Chair Mr.Deng Jian in early October 2016. There was no other particularly decisions been made during the past one year.

1.1.2 Status of IHP-VIII activities

Since 2016, IHP has been moved to its VIII-phase with focus of water security. Correspondingly, IHP China national committee has arranged projects and activities in all themes and almost all focal points of IHP-VIII through national committee members and working groups around the country. Several activities are provided in the following paragraphs.

1.2 Activities at national level in the framework of the IHP

1.2.1 National/local scientific and technical meetings

(1) Annual Hydrological Working Conference, April 8, 2016, in Jiaozhou, China



Organized by the Bureau of Hydrology, MWR, the annual working Conference was held to review the work of 2015 and the “Twelfth Five-Year Plan”, and to make arrangement of 2016 work plan and the "Thirteenth Five-year Plan" for the hydrological work. The Bureau of Hydrology of MWR, Bureau of Hydrology at all levels of China including provincial level and river basin level, as well as HoHai University took part in the meeting.

Vice minister of water resources, Mr.Liu Ning, made a summary of the work in the past “Twelfth Five-Year Plan”, announced the overall objective of the hydrology development for the “Thirteenth Five-Year Plan”, and promoted the development of National hydrological strategy, including the hydrological service management system to meet water conservancy requirements and national social economic development needs, construction of hydrological information service system to promote the ecological protection needs, and optimization of the hydrometric network to enhance the ability of hydrological monitoring and forecasting, in order to promote the overall hydrological services capacity, for a more efficient and sustainable social development.

(2) The 4rd forum of hydroinformatics and digital water of China, 24 March 2016, in Wuhan, China

Aiming to promote the implementation and development of hydroinformatics and digital water, the forum was jointly organized by the China International Water Ecological Security Committee Secretariat, Neijing Wote Consulting Co. Ltd, Journal of Heilongjiang Hydraulic Engineering etc. Within the theme of “System construction of hydroinformatics at Internet+ Age”, the forum provided a platform for exchange and communication on Integration and sharing information of urban flood control and environmental friendly city development, flood control and drought relief, Soil moisture and groundwater monitoring, rational allocation and efficient utilization of agricultural water resources, as well as intelligent water conservancy census, Information resources development and utilization through Internet Cloud Computing and big data..



(3) International Association of Hydrological Sciences, China National Committee Academic Conference , September 23, 2016, in Nanjing, China

On September 23, 2016, the International Association of Hydrological Sciences, China National Committee (CNC-IAHS) academic conference was held in Nanjing, China. Content of the conference based on IAHS focused on the water system tracing and dating, the changing environment of hydrology and water resources forecasting, hydrological science and environmental change in social system and its interaction, urban hydrological uncertainty analysis and academic exchanges. The general assembly of IAHS arranged more than 100 times academic reports in total, providing an active platform for the communication and exchange, to promote the integration of domestic hydrological science. More than 200 experts and scholars attended the meeting.

(4) Establishment of the China Water Resources Strategic Research Association and the 3rd conference of the Global Water Partnership Chinese committee, March 22, 2016, Beijing, China

Minister of water resources Mr.Chen Lei attended the opening ceremony of the general assembly of the 3rd conference of the Global Water Partnership Chinese committee and delivered a speech. He stressed that the Chinese Committee of the global water partnership has carried out a lot of fruitful work since its inception in 2000, on research activities, idea spreading between partners, and deepening and expanding international exchanges of water. He pointed out that the Chinese water resources strategy research association needs to accurately grasp the major decisions and arrangements of the Central Committee and the new policy on water conservancy, the association should play a "think tank" and "Thought library" role, and write a new chapter in the research of water resources strategy China, to provide support to accelerate the reform and development of water resources for a well-off society.



On behalf of the global water partner headquarters, Ms.Angela Clausen, senior network official for Global water partner, delivered a speech. She expressed his appreciation for China's achievements in the comprehensive management of water resources. She pointed out that Chinese is with their great determination and wisdom to solve water problems, such as the implementation of the stringent water management system, carrying out river protection and ecological restoration, strengthening flood and drought management, properly dealing with water, energy and food ties, and actively promoting the environmental friendly urban development. These are the effective way to deal with the challenges of water. She believes that China's Water Resources Strategy Research Association and the global water partnership China Committee will open a new chapter in the development and play a more important role to promote the comprehensive management of water resources and promote sustainable development.

The General Assembly adopted the "China Water Resources Strategy Research Association", and elected the first China Water Resources Strategic Research Council. The national water security strategy research forum was hold thereafter.

(5) The 2015 annual academic meeting of the China Water Conservancy Society, October 26th 2016, in Nanjing, China

The three days annual meeting on water safety and water technology was launched on 26th October in Nanjing China. Chairman of the China Water Conservancy Association Mr.Hu Siyi

presided over the opening ceremony. Mr.Xu Ming, vice governor of the Jiangsu Province and Xu Mr.Hui HoHai, president of the HoHai University delivered speech. Vice minister of water resources Mr.Zhou Xuewen made a presentation entitled "13th Five-Year planning" on the development of water conservancy reform. The conference was hold in 5 sub-venues (including an international venue) respectively. Topics of drinking water safety, interbasin water diversion project operation, groundwater, and dredging and sludge treatment were intensively discussed. More than 600 people including representatives of the members of the scientific research personnel, as well as participants from Canada, Australia, the United Kingdom, Korea, Japan and other foreign Associations attended the meeting.

(6) South-South cooperation water management experience exchange meeting, June 22, 2016, in Beijing, China

The Ministry of water resources of China and the Asian Development Bank (ADB) jointly held the water management experience exchange meeting for South-South cooperation in Beijing. Participants from 10 member countries of Mongolia, Pakistan, Tajikistan, Uzbekistan, Bangladesh, Nepal, Kampuchea, Indonesia, Thailand, Vietnam were invited to the meeting. The meeting focused on the issues of water conservancy and technology achievements, water policy and water management system, flood control and drought mitigation, water ecological planning and environmental protection and restoration, and application of series of Chinese technical standards. In-depth discussion, idea exchange and experience in related field from participants were made throughout the meeting.

(7) China Japan South Korea water management policy innovation youth expert seminar, 3 June 2015, Beijing, China

The seminar themes the implementation of the 2030 water development agenda to promote sustainable use of water resources. More than 40 water conservancy experts from research institutions and related enterprises From China, Japan, South Korea and water authorities participated the meeting. During the meeting, Young experts from Japan, South Korea and China had warm discussion around three themes "water conservancy and efficiency management policy", "coping with frequent extreme weather under the flood control and drought relief work", "the era of big data smart water conservancy technology development and application". 13 keynote speeches were delivered on different sessions, and main problems facing in the water were promoted. Examples of the application of innovated technology on agricultural water, recycled water, groundwater management and monitoring management system in Japan and South Korea were presented. Discussions were made on the common concerns of the impact of climate change on water resources. The Conference laid a good foundation for the young people from three countries further deepening trilateral cooperation in water conservancy.



(8) National Symposium on Application of new technologies for hydrological monitoring, 25 November 2015, in Nanjing, China

The National Symposium on new technologies applied in hydrological monitoring was jointly organized by the China National Committee of the Ministry of Water Resources and the international hydrological program (IHP). Mr. Ni Weixin, deputy director of Bureau of Hydrology of Ministry of Water Resources and other 5 experts were invited to the conference. 36 authors and experts presented special reports on new technologies and new products for hydrological monitoring. This meeting was aimed to provide multi vendor communication platform in the field of hydrological monitoring for research institutes and professionals. It is targeted to promote the application of new technology and new equipment and new products on hydrological monitoring.

(9) Symposium on variation of hydrological processes and water resources regulation, June 18~19, 2016, Nanjing, China

This seminar is jointly organized by Nanjing Hydraulic Research Institute and the University of Illinois, Urbana-Champaign. More than 80 experts from Tsinghua University, Wuhan University, South China University of science and technology, Chinese academy, Chinese IWHR as well as others attended the seminar.

During the seminar, 7 experts including Professor Cai Ximing of University of Illinois, Urbana-Champaign, professor Liu Guowei of Nanjing Hydraulic Research Institute presented their work. Topics of the seminar includes the hydrology and water resources research, hydrosphere evolution, runoff formation, eco-hydrological coupling and so on. Scientists shared their experiences and research achievements, which made a seminar a wonderful success.

(10) The 3rd meeting of the Third Academic Committee of the State Key Laboratory of hydrology, water resources and hydraulic engineering, 12 December 2015, Nanjing, China



The 3rd meeting of the Third Academic Committee of the State Key Laboratory of hydrology, water resources and hydraulic engineering was held in Nanjing on 12th December 2015. More than 10 high level academicians and experts led by director of the academic committee Mr.Wang Hao, attended the meeting. Mr.Xu Hui, President of Hohai University and Dr.Zhang Jianyun, president of the Nanjing Hydraulic Research Institute, delivered the keynote speeches.

Consensus for the laboratory were achieved through the meeting that, a leading role in the science and industry must be played by the key laboratory, integrated research direction on the key technology of National key research projects should be collaboratively innovated, the field base and experiment platform should be strengthened, and the training and in-depth international cooperation should be strengthened to enhance the international influence of the laboratory.

(11) The 3rd Sino-American Forum on energy, water resources, climate and air pollution Sustainable Development, January 21~22,2016, Beijing, China

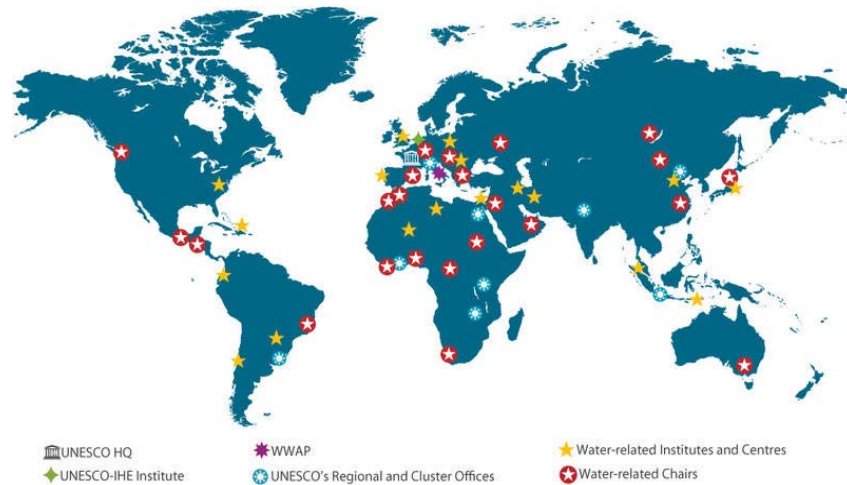
The Forum was hosted by Peking University. National Natural Science Foundation of China, National Science Foundation of the United States, and Beijing Science and Engineering new Technology Innovation Center co-hosted the Forum. The conference aims to promote the academic exchanges in the fields of energy, water, environment and others between China and the United States, and to explore the cooperative research projects as well as to identify the key issues of the researches. Topics of the Forum include the urbanization and the challenges in energy, climate, water resources and air quality, affect on oil and gas development for water and air; combustion effect on air quality and climate change; and sustainable development of water resources and management.

1.2.2 Participation IHP Steering Committees/Working Groups

(1) The 22nd session of the Intergovernmental Council of the United Nations Educational, scientific and Cultural Organization (UNESCO) International Hydrological Programme (IHP), 12 to 17 June 2016, Paris, France

The 22nd session of the Intergovernmental Council of UNESCO-IHP was held in Paris On June 12th - 17th, 2015. Chinese delegation with 11 representatives led by Mr. Ni Weixin, deputy director of the Bureau of hydrology of Ministry of Water Resources, attended the session. During

the session, the delegation participated in the 12th Kovacs Release jointly organized by IAHS and UNESCO IHP. The delegation also attended the side meetings, such as the forum of international flood 2016-2022 strategic planning, hydro-ecological forum, urban water and climate change adaptation strategic, (International Initiative on Water Quality (IIWQ), responding to the challenges of Sustainable Development Goals (SDGs), etc. Achievements were gained through the in-depth communication and discussion with the UNESCO-IHP Secretariats and representatives from various countries. The delegation also had a brief meeting with water quality data center of the German Bureau of hydrology on 16th, June.



The Council was kicked off in the morning of June 13th and wrapped up in the afternoon of June 17th, 2016. Chairman of the board of directors of the new term (2016 ~ 2018) and the 4 vice presidents were elected during the meeting. Various activities related reports, including those from Mr. David Korenfeld Federman, the outgoing Chairman, and the director-general of the UNESCO, were delivered. The Council approved the agenda of the meeting and the Council's working plan, discussed the report on UNESCO's mechanism changes, Extra budgetary activities related to the international hydrological programme, report of the finance committee of the international hydrological programme, 50 years anniversary of the International Hydrological Programme and the implementation plan, and UNESCO-IHP water in family plan etc. A number of resolutions were approved through the Council.

1.2.3 Research/applied projects supported or sponsored

The website of the Chinese National Committee for IHP has been supported by UNESCO Beijing office. It is updated regularly for distributing information to the public. Announcement of web-based training courses, international conferences as well as information of research projects, are shared with professionals national-wide on the website. Details can be found through the official web: <http://www.chinaihp.org>.

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

(1) China and Netherlands signed the memorandum of understanding on cooperation in the field of water resources, September. 2016

On September 26th, Mr.Chen Lei, Chinese water resources minister and Ms.Schultz van Hagen, Holland infrastructure and environment minister, attended the Sino-Dutch water management seminar to renew the memorandum of understanding on cooperation in the field of water resources, and both delivered speeches,. André Driessen from the Embassy of the Kingdom of the Netherlands in China attended the ceremony. Before the seminar, Mr.Chen Lei held talks with Ms.Schulz Varnhagen. The two sides reviewed the achievements gained throughout Sino-Dutch water cooperation, and exchanged the view of strengthening cooperation in the field of water resources. During the seminar, a total of 14 Dutch government officials and water experts presented their ideas on water policy, flood risk management, environmental friendly urban construction, protection of water resources and water ecological restoration and other issues. Nearly 120 delegates from Chinese local water conservancy department, river basin agencies, research institutes and enterprises attended the seminar.



(3) The Sino-French third phase cooperation on Water Resources Integrated Management of the Haihe River Basin, March 1, 2016, Tianjing, China

In order to further deepening and promoting the bilateral pragmatic cooperation in the field of water resources development, the steering committee of China and France water cooperation held the third stage meeting of the integrated management of water resources in Haihe River Basin in Tianjin on March 1st. The two countries signed a cooperation agreement for the third stage of Sino-French comprehensive management of water resources in Haihe River Basin.

According to the agreement between the two sides, China and French will implement the third phase cooperation in watershed management from 2016 to 2018. The third stage cooperation will focus on technical development, including the field of regional groundwater protection and restoration, early warning and disposal of algae, persistent monitoring of organic pollutant, water environmental protection and ecological restoration as well as other project cooperation. At the same time, the two sides will further promote the capability to build up regular training mechanism and carry out trainings in both China and France. The work on “Chuanhe river basin planning”, "Technical guide of Sino French water resources management planning", "Implementation plan on water resources and ecological restoration for Zhouhe river basin (2016 - 2020)", will be carried out and further extended to the Luanhe River Basins. The two sides will also actively explore possibility of the establishment of a science experimental base for lake water

ecology and environment in northern China.

1.3 Education and training course

1.3.1 Organization of specific training courses

(1) Ministerial Seminar on water resources management and development planning for the developing countries 2015, October 19-25, 2015, Hangzhou, China

The Ministry of Commerce and the Ministry of water resources of China jointly hosted the ministerial seminar on water resources management and development planning for developing countries in Hangzhou in October 19th - 25th, 2015. The Nanjing Hydraulic Research Institute undertook the Seminar. Mr.Jiao Yong, vice Minister of water resources, attended the opening ceremony and dressed the keynote speech "new opportunities, mutual benefit and win-win cooperation and development". The speech focused on the aspects of basic water situation, China water conservancy development and management achievements, and future water conservancy reforms in China, and answered questions on river sedimentation and water conservancy project operation mechanism, flood control and warning technology, and so on. Dr.Zhang Jianyun, academician of the Chinese Academy of Engineering, president of the Nanjing Hydraulic Research Institute, presided over the opening ceremony. 21 senior officials and Ministers responsible for water resources management and development from 9 countries of Afghanistan, Ecuador, Ethiopia, Egypt, Garner, Panama, Malawi, Uganda, Zimbabwe participated in the week-long seminar.

(2) 2015 international training course on geological disaster prevention and control technology, November 2015, Wuhan, China

The Yangtze River committee held the "2015 international training course of geological disaster prevention and control technology" in Wuhan. The training course was hosted by the Ministry of water resources of China. 7 experts were invited to carry out a 10 days training lectures on geological disaster prevention and control technology. Participants from 5 countries of the Mekong River basin and Nepal attended the training. Visit to Three Gorges project, Hunan Chaling County flash flood monitoring and warning system, Liuyang flash flood and disaster prevention platform, were arranged during the training.

Members from the Burma disaster relief and immigration department, the Laos Ministry of natural resources and environment, the Thailand Ministry of natural resources and environment, the Kampuchea water conservancy and meteorological department, the Vietnam National Mekong River Commission and the Nepal forestry and soil and water conservation department, participated in the training. Mr.Ma Jianhua, chief engineer, deputy director of the Yangtze River committee, attended the graduation ceremony and issued certificates of completion of the training course for the participants.



(3) International Training for climate change adaptation and water resources management, October 16, 2015, Beijing, China



International training for climate change adaptation and water resources management co-organized by the Yellow River Water Conservancy Commission and Tsinghua University Asia Pacific Water Safety Research Center was launched on October 16, 2015 in Beijing. Officials from water conservancy, environmental resources and other government departments of 11 countries in Southeast Asia attended the Training. Mr.Sun Fu, Coordinator of the Asia Pacific Water Security Research Center, introduced the Chinese experience on urban water resources comprehensive management, and demonstrated its implication in Beijing city as an example. Members of the training group had a warm discussion based on the Chinese experience and their owns. During the event, the training group also visited the environmental friendly energy-saving building and college public research platform, and part of the laboratory built through the cooperation between China and Italy.

(4) Training seminar on design and construction of automatic hydrological data acquisition and forecasting system for developing countries, April 19th, 2016, Changsha, China

Sponsored by the Ministry of Commerce, Chinese Zhongnan Engineering Corporation Limited hosted “the 2016 training seminar on “design and construction of automatic hydrological data acquisition and forecasting system for developing countries” in Changsha city in China on April 19th. Officials from 36 developing countries including Afghanistan, Laos and Albania attended the seminar.

The seminar aims at promoting friendly exchanges between China and other developing countries, expanding economic and technological cooperation in the field of hydrological forecast and water resources management to better protect the environment and promote the harmony between human and nature for sustainable development. Chinese hydrologists introduced the development of water resources utilization, design and construction of the automatic hydrological data acquisition and forecasting system and its application, and in-situ flow monitoring technology in China. Participants carried out discussions and exchanged the ideas on the hydrological development and technology. During the seminar, two separate site visits to Changsha hydrological station and Hainan Daguangba Hydropower Project were well organized. Participants had a deep impression and comprehensive understanding of the current situation and development prospects of China's water conservancy. The seminar also provided an opportunity to exchange and learn experiences from each other.

1.3.2 Participation in IHP courses

No observation of how many have actually participated in (or have received) the distance learning via web-courses. But the web-based distance learning notices received from UNESCO Jakarta office have been widely distributed through IHP China website and emails from IHP China secretariat.

1.4 Participation in meetings abroad

(1) Participate in the Stockholm International Water Week, August 30, 2016, Sweden

On August 30th, during the Stockholm international water week, the Asia Pacific Center for water safety research of Tsinghua University, the Asian Development Bank (ADB), the International Water Management Institute (IWMI), University of Oxford, the World Wildlife Fund (WWF), co-sponsored the release conference of “2016 Asian Water Development Outlook” (AWDO).

Mr.Bambang Susantono, deputy governor of ADB, in charge of knowledge management and sustainable development, delivered a keynote speech at the conference. He introduced the main research results of the report. Mr.Ravi Narayanan, Chairman of the Asia Pacific Forum Management Committee, chaired the discussion.

AWDO is co-sponsored by the ADB and the Asia Pacific Water Forum and regularly published to the public. It is aimed to evaluate national and regional water security situation in the Asia Pacific region, to provide suggestions for policy decision-makers and investors. "2016 Asian Water Development Outlook" is the third edition of the series, where the first two editions were published in 2007 and 2013, respectively. The Asia Pacific Center for water safety research of Tsinghua University joined the work on AWDO report. Experts from the Asian Water Development Program, the Global Water Partnership, the International Institute for Applied

Systems Analysis and other institutions have also made important contribution to the report.

(2) Participate in the Singapore International Water Week activities, July 2016, Singapore

Invited by the Singapore Public Utilities Board & Singapore International Water Week Organizing Committee, the Ministry of Water Resources of China sent a delegation to Singapore to participate in the "seventh Singapore International Water Week" and carry out water resources project related activities from July 9th to 13th. The delegation was led by Ms.Chen Qin, deputy director of the Yangtze River Water Committee. A total number of 11 people from the Yellow River Water Resources Committee, the Pearl River Water Conservancy Commission, Songliao river water resources committee, as well as the Ministry of water resources development research center participated in the activities.

Together with the Chair of World Water Council, executive director of the association of Australia water service and other guests, Ms.Chen Qin attended the water summit during the activities and discussed the "role" in government administration and coordination of urban water resources adaptive planning. She also introduced the Chinese strict water resources management policy as well as the comprehensive water resources management experiences. Mr.Liu Hui, deputy director of the Yangtze river water environment monitoring center, contributed in by presenting the topic "building green ecological corridor, maintaining the healthy Yangtze River". The delegation also submitted 4 posters of "seasonal rivers and ecological protection and restoration technology", "Research on groundwater environment health warning method", "Application of chlorophyll a fluorescence of six kinds of toxic substances the toxicity assessment", "Outlook on seawater using in China" during the activities.

2 FUTURE ACTIVITIES

For IHP China, the National Committee will continue to actively promote the related work in comply with the framework of IHP, key activities planned to until December2016 will be as follows:

- (1) Reorganize the Chinese national committee for IHP with new members and replacement of several positions of the committee including the chairperson and secretariat etc.
- (2) Continue to pay high attention for the regional (and international) cooperation under IHP framework and to encourage cross-cutting cooperation with other international programmes.
- (3) Contribute to the implementation of IHP VIII strategic plan, particularly in the field of integrated river basin management, environmental and ecological sustainability of river basins. These activities also require strong convener-ship from UNESCO-IHP at global level or regional level.

Projects related to IHP-VIII themes will be continuously supported by the Ministry of Water Resources though IHP Chinese national Committee in next year. IHP China will try to focus on work of national planning on hydrometric network planning and development, hydrological monitoring technique renovation, flood forecasting system updating, and participate in integrated water resources management, national rural drinking water planning, multiple reservoir operation and optimization, particularly to promote the basin-wide integrated water resources management at national scale.

IHP China will continue to encourage scientific and technical symposia and workshops. Cooperation among the Southeast Asia and the Pacific will be top priority.