



**NATIONAL REPORT ON IHP RELATED ACTIVITIES
IN REPUBLIC OF KOREA
In the period of OCTOBER 2015 – NOVEMBER 2017**

**Korean National Committee
for
The International Hydrological Programme
Republic of Korea**

Abstract

Since the beginning of the eighth phase of IHP, the Korean National Committee for the IHP(IHP-KNC) has been and being paid its efforts to achieve the objectives set by UNESCO for this phase of IHP and the key focal area's projects have been and being executed in Korean river basins and in the field of hydrology and water resources in Korea. Research projects supported by the Government in the framework of the IHP in the period of June 2014 – May 2016 have been executed according to the implementation plan of IHP-VIII phase.

Particularly, in this year, the IHP-KNC finally established a UNESCO Category II Water Centre, the International Centre for Water Security and Sustainable Management(i-WSSM) at the K-water Institute, Republic of Korea which was unanimously endorsed in the 20th Session of the Intergovernmental Council of the IHP and approved by the General Conference in 2013.

The IHP-KNC will actively continue and participate in the Asian Pacific FRIEND/HELP projects to complete with successful results and also will execute a HELP river basin project in collaboration with other Asia Pacific HELP projects and UNESCO international cooperative studies. Furthermore, a series of international symposiums and workshops have been and will be organized during this period as the VIII activities of IHP-KNC and contributed to the 7th World Water Forum held in Daegu-Gyeongbuk, Republic of Korea in 2015.

1. ACTIVITIES UNDERTAKEN IN THE PERIOD OCTOBER 2015 – NOVEMBER 2017

1.1 Meetings of the IHP National Committee

1.1.1 Decisions Regarding the Composition of the IHP National Committee

Korea as a participant in the program, then appointed within its Ministry of Construction a IHD National Committee(later, IHP National committee), which undertook pioneer hydrologic surveys of selected representative basins in three major river systems during the program period, and embarked in 1975 on a 6-year International Hydrological Programme (IHP) project as the first step toward an extension of surveys of domestic river basins in order to fulfill its responsibilities in the world's consolidated efforts to cope with the water problem.

After the completion of the first phase of IHP in 1980, the second phase of IHP project(1981~1983), the third phase of IHP project(1984~1989), the fourth phase of IHP project(1990~1995), the fifth phase of IHP project(1996~2001), the sixth phase of IHP project(2002~2007), the seventh phase of IHP project(2008-2013) and eighth phase of IHP project(2014-2021) followed for the continuation of representative basin studies, the adoption of new techniques of water resources development and water quality control, the hydrological evaluation of urbanization and variations of watershed including sustainable development in a changing environment, hydrology and water resources development in a vulnerable environment, water interactions of systems at risk and social challenges and water dependencies of systems under stress and societal responses, and education and water security with responses to local, regional and global challenges.

From the beginning of the New Millennium through the year of 2010, the Korean National Committee for the IHP was reorganized and strengthened to fulfill the IHP activities more effectively and actively. Particularly, the Korean National Committee for the IHP has been reorganized to include more members from various water organizations in Korea under the supplement of the legal background in the beginning of 2011.

All members of the Committee were from every part of water related organizations in the country and executive functions are carried out within the Water Resources Bureau, Ministry of Land, Infrastructure and Transport.

Decisions regarding most of IHP related activities are made by this committee which is held regularly and on request in special occasion.

1.1.2 Status of IHP-VIII activities

As the completion of the seventh phase of IHP(2008-2013) the Korean National Committee for the IHP has executed most of the implementation plan of IHP-VII during the period(2008-2013), and initiated and undertook the core programme's Themes and Focal Areas from the beginning of the eighth phase of IHP(2014-2021) according to its implementation plan and projects.

During this period of the eighth phase of IHP, the Korean National Committee for the IHP has been paid its efforts to achieve the objectives set by UNESCO for this phase of IHP and the following projects have been and being executed in Korean river basins and in the field of hydrology and water resources in Korea;

- (1) Water related disasters and hydrological change
- (2) Groundwater in a changing environment
- (3) Addressing water scarcity and quality
- (4) Water and human settlements of the future
- (5) Ecohydrology, engineering harmony for a sustainable world
- (6) Water education, key for water security
- (7) FRIEND and HELP basin studies

1.2 Activities at national level in the framework of the IHP

1.2.1 National / local scientific and technical meetings

Annual regular or many special scientific and technical meetings in the framework of the IHP were held in collaboration with International Hydrologic Environmental Society(IHES), Korea Water Resources Association(KWRA), Korean Society of Civil Engineers(KSCE), ICOLD Korean National Committee (KNCOLD), IWRA Korea Geographic Committee(IWRA-KGC), Korea Federation of Water Science and Engineering Societies(KFWSES), Korea Water Resources Corporation(K-Water), and other water-related organizations in Korea. In those meetings, national/local hydrologic issues and water resources problems were dealt with special solution measures and their results were published in the form of scientific or technical reports and papers.

1.2.2 Participation in IHP Regional Steering Committees / Working Groups

- Republic of Korea was one of most active member countries in IHP Regional Steering Committee's activities for Southeast Asia and the Pacific.
- Republic of Korea's delegates actively participated in the IHP Regional Steering Committee, Workshop and Working Group meetings held in the period of 2014-2017.
- Republic of Korea IHP National Committee contributed to the 7th World Water Forum held in Daegu-Gyeongbuk, Republic of Korea under the name of IHP RSC activities.

1.2.3 Research / applied projects supported or sponsored

- Research projects supported by the Government in the framework of the IHP in the period of 2015~2017 have been executed according to the IHP Themes and Focal Areas.
- Some other research or applied projects were also supported or sponsored by the Government and other water-related organizations such as Korea Water Resources Corporation(The K-water) during this period.

- The following projects have been and are being implemented for the Asia Pacific FRIEND in the representative river basins chosen as the Korean Asia Pacific FRIEND, and a Korean HELP basin(Kumho river) which is one of the International HELP basins;
 - Basic hydrologic analyses and data collection
 - Comparative regional flow regimes analyses
 - Rainfall models and design storm
 - Flood models and design flood
 - FRIEND river basins studies
 - Asia Pacific HELP(AP-HELP) river basin studies with UNESCO international joint cooperative studies

1.2.4 Collaboration with other national and international organizations / or programmes

The Korean National Committee for the IHP is functioning in the execution of IHP activities in collaboration with the following national and international organizations/or programmes; Korea Water Resources Corporation(K-Water); Korea Water Resources Association(KWRA); Korean Society of Civil Engineers(KSCE); Korean Society of Agricultural Engineers(KSAE); Korean Meteorological Society(KMS); ICOLD Korean National Committee(KNCOLD); IWRA Korean Geographic Committee; International Hydrologic Environmental Society(IHES); Korea Federation of Water Science and Engineering Societies(KFWSES); Korea Institute of Construction Technology(KICT); Korean Universities Hydrology and Water Resources Programmes.

1.3 Educational and training courses

1.3.1 Contribution to IHP courses

The Korean National Committee for the IHP is contributing to the Korean Universities hydrology and water resources courses in the framework of the IHP in which graduate students and engineers are mostly involved with IHP projects and also educated or trained through the formal courses.

1.3.2 Organization of specific courses

Special workshops and seminars in the field of hydrology and water resources are annually organized by the Korean National Committee for the IHP in collaboration with above mentioned organizations in 1.2.4. In these specific courses, special topics are dealt with practical application in river basins.

1.3.3 Participation in IHP courses

The Korean National Committee for the IHP has actively been participating in IHP courses which were held in Asia-Pacific regions such as Japan, China and Malaysia by sending highly qualified hydrologists or proper candidates.

1.4 Cooperation with the international /regional water centres under auspices of UNESCO

- The Korean National Committee for the IHP contributed to the establishment of a UNESCO Category II Water Centre, the International Centre for Water Security and Sustainable Management(*i*-WSSM) at the K-water Institute, Republic of Korea which was unanimously endorsed by all member states in the 20th Session of the Intergovernmental Council of the IHP and approved by the General Conference in 2013.
- The Korean National Committee for the IHP has been collaborating very actively with other UNESCO Category II Centres such as ICHARM in Japan, Humid Tropic Centre in Malaysia and Asia Pacific Ecohydrology Centre in Indonesia.

1.5 Publications

- The Korean National Committee for the IHP is publishing IHP Annual Research Report in the form of Government Publication since 1975.
- These reports are distributed to all water-related organizations and IHP-KNC members and research results are published on the journals of academic societies or organizations.
- Some other technical reports, proceedings of scientific meetings and specific course's materials are also published by the IHP-KNC.

1.6 Participation in international scientific meetings

- Meetings hosted by the country

The following IHP meetings were hosted and organized by the IHP-KNC and IHES

- In the 7th World Water Forum, the IHP-KNC arranged and contributed to more involvement of the IHP communities in processes and activities of the 7th World Water Forum which was held in Daegu-Gyeongbuk, Republic of Korea on 12-17 April, 2015.
- UNESCO-IHES International Water Planning Experts Workshop was held in Daegu, Republic of Korea on 25-26 April, 2017.

- Participation in meetings abroad

The Korean National Committee for the IHP actively participated in the IHP Inter-Governmental Council meeting as well as the regional IHP meetings such as Meetings of IHP Regional Steering Committee for Southeast Asia and the Pacific, Asia Pacific FRIEND Project and its workshops, Asia Pacific HELP project and its workshops, working Group meetings and etc.

2. FUTURE ACTIVITIES

- IHP-KNC will actively continue and participate in the Asian Pacific FRIEND/HELP projects to complete with successful results for the Southeast Asia and the Pacific and also will execute a HELP river basin project in collaboration with other Asia Pacific HELP projects and UNESCO international cooperative studies.
- The following international symposiums and workshops have been and will be organized during 2015-2017 as the IHP -VIII activities of IHP-KNC.
 - Korean Workshops of AP-HELP during 2015-2017.
 - 2016 IHES International Workshop on AP HELP and Sustainable Water Management and Planning, Daegu, Republic of Korea.
 - UNESCO-IHES International Water Planning Experts Workshop was held in Daegu, Republic of Korea.