



## CASE STUDY

# China: From national water information system to water network

GWP China was involved in providing technical support to the National Water Information System (NWIS), which brought together river basin management agencies, provincial administrators, and construction teams, involving 19,000 water users and 43,000 online monitoring stations. Following its impact, GWP China Chair, Mdm CAI, delivered China's National Water Network Strategy in mid-2021, which mobilised water financing for a range of projects, securing 110 billion euros for investment in water development, initiating 62 new water-related programmes, repairing 99,000 water supply projects in rural areas. Safe drinking water was provided for 42.63 million farmers.

## **Background**

Prior to implementation of the NWIS, each water sector at provincial/municipal levels monitored water information in their administrative range. Water-related departments at the provincial level collected information and reported to the Ministry of Water Resources, responsible for water monitoring, which took a long time and the data was not real time.

In the former data management system the information was collected by group or individual users. It was short of efficiency and accuracy. The new data management tool fixes those bugs and optimizes water governance towards dynamization and precision. Ahead of piloting the NWIS, local authorities set up their separate monitoring devices, totaling 2000 spots for monitoring water consumption.

The integrated monitoring system is expected to assist the central government to make comprehensive water-related decisions after acknowledging water information at actual time, replacing manual operation in a lengthy collection and ensuring water data in efficiency.

From 2021 to 2025, China is implementing the 14th five-year strategy, which includes a number of water targets such as water disaster control system, water allocation plan, sustainability of rivers/lakes, digitalization of water network and update of water pricing scheme. The current disparity between the western and eastern regions, the rich and the poor, and cities and the countryside is still vast, which demands the 14th five-year strategy to be more elaborate and fully consider the interests of all people, narrowing down the gap.

## **Actions taken**

Initiated in 2012 and led by Prof Yunzhong Jiang, regional coordinator of GWP China, the NWIS project took six years in implementation and another two years (2019-2020) in monitoring the results. GWP China has assisted the Ministry of Water Resources in the

National Water Resources Monitoring Capacity Building Project (2012-2014 and 2016-2018).

MSP plays a fundamental role in the programme that works out outcomes from joint efforts of water sector, river basin management agencies, provinces (autonomous regions, municipalities) and construction departments, involving 19,000 water users and 43,000 online monitoring stations. The system is monitoring 1/2 of the total water consumption. In the system, it has 620 water quality online monitoring stations to protect 630 surface and drinking water sources, and 501 inter-provincial rivers.

After completing the final phase of the NWIS Project, the Ministry of Water Resources of China (MWR) organized the programme outcome session on September 28, 2020 in Beijing. The workshop gathered experts from the department of finance, water management, planning, budget, audit, and the General Office to review influence and outcomes of the said programme.

In addition to the remarkable impacts of implementing the national water information system, in June 2021, GWP China Chair, Qihua CAI, Senior Member of the highest National Committee, delivered her report on "the value of setting up the national wide water network in the promotion of the 14th five-year plan and a new development pattern".

## **Outcomes**

With the support of GWP China, the development of the National Water Information System brought together river basin management agencies, provincial administrators, and construction teams, covering 19,000 water users and 43,000 online monitoring stations. It inspired the effective implementation of the National Water Network Development Strategy in mid-2021. This strategy successfully facilitated water financing for a range of projects in 2021. It worked to secure 757.6 billion yuan (110 billion euros) for investment in water development, initiated 62 new water-related programmes, upgraded 67 projects, and completed 146 programmes. Rural areas were a particular focus of the strategy, with investment resulting in the repair and maintenance of 99,000 water supply projects. Safe drinking water was provided for 42.63 million farmers.

The project has completed various construction tasks in accordance with the "National Water Resources Monitoring Capacity Building Project Implementation Plan" and achieved the construction goals, the overall trial operation is stable. The quality of the results meets the relevant technical specifications requirements, passed third-party software testing, information system security level protection evaluation and third-party technical appraisal, and agreed to pass the final inspection.

## **Lessons Learned**

The approaches of IWRM and multi-stakeholder partnership played a fundamental role in the programme that produced outcomes from joint efforts of water sector, river basin management agencies, provinces (autonomous regions, municipalities) and construction departments.

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**Supporting Materials**

[CPPCC Committee Member Qihua CAI: Promote National Water Network Progress](#)

[CPPCC National Session on the 14th Five-Year Plan](#)

**Related IWRM Tools**

[Multi-Stakeholder Partnerships](#)

[Information Gathering and Sharing Networks](#)

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