

## **Recent Development of Water Resources Management of a Basin in Japan**

Tsugihiko Watanabe

*Center for Water Cycle, Marine Environment and Disaster Management, Kumamoto University, Japan*

E-mail: nabe@kumamoto-u.ac.jp

*Keywords: water cycle, water resources management, basin management, risk management*

### **Abstract**

Appropriate development and management of water resources is the basis of life and production in a basin, and for that purpose sound conservation and management of hydrological cycle is required. This is a fundamental requirement for environmental conservation in a basin and related areas and coasts as well as sustainable use of lake water resources in the basin.

In Japan, the "Basic Act on Water Cycle" was promulgated in 2014, which is a comprehensive and integrated promotion of measures concerning water circulation, including groundwater, in order to maintain and restore sound water circulation in the basin, further develop and stabilize economy and society and people's lives. In the main river systems, the "risk management type" basic plan for water resource development has been advanced from 2017, based on the reduction in tightness of demand and supply of water resources, and the increase in the necessity of measures against climate change and disaster, etc.

In this paper, the development and management of water cycle management and water resource development and management in Japan are discussed, reviewing the recent establishment of the "Basic Act on Water Cycle" and the introduction of the "risk management type" of the "Water Resources Development Basic Plan". These are expected to be recognized in the future as a process for the integrated water resources management. In general, the legal framework, the collaboration and consensus formation, and the management methods are recognized as three basic conditions for integrated water resources management. While, in Japan, the legal framework has advanced with a certain degree, it is to be required to develop the framework for collaboration and consensus building among stakeholders, and to develop an effective and serviceable management method or instrument.