

STUDY ON THE IMPELEMENTATION STRATEGY FOR INTEGRATED WATER RESOURCES MANAGEMENT IN REPUBLIC OF KOREA

SUNG KIM¹, KYU-CHEOUL SHIM², HAK-SOO KIM³ and SUNG-HACK LEE⁴

¹Director, Sustainable Water Resources Research Center, KICT,
2311 Daehwa-dong Ilsan-gu Koyang, Kyonggi-do, 411-712, Korea
(Tel: +82-31-910-0602, Fax: +82-31-910-0698, e-mail: skim@kict.re.kr)

²Research Fellow, Sustainable Water Resources Research Center, KICT,
2311 Daehwa-dong Ilsan-gu, Koyang, Kyonggi-do, 411-712, Korea
(Tel: +82-31-910-0699, Fax: +82-31-910-0698, e-mail: skcpj@kict.re.kr)

³Researcher, Sustainable Water Resources Research Center, KICT,
2311 Daehwa-dong Ilsan-gu Koyang, Kyonggi-do, 411-712, Korea
(Tel: +82-31-910-0519, Fax: +82-31-910-0698, e-mail: energykim@kict.re.kr)

⁴Researcher, Sustainable Water Resources Research Center, KICT,
2311 Daehwa-dong Ilsan-gu Koyang, Kyonggi-do, 411-712, Korea
(Tel: +82-31-910-0519, Fax: +82-31-910-0698, e-mail: hacktan@kict.re.kr)

The main water issue that we are facing today could be identified to find an efficient management satisfying the need of human and environment simultaneously. The best way to overcome the crisis in water management is to use water more efficiently through the development of water management technology in Korea. The Integrated Water Resources Management (IWRM) is considered as an alternative to meet this need.

To implement the IWRM efficiently, a target oriented approach for coexistence of human beings and ecosystems is needed. To realize this purpose, various tools must be developed in an Integrated Water Resources Management System (IWRMS). These tools could be integrated by an Integrated Modeling Framework (IMF) to simulate the composite phenomenon of river basin constraining ecological, cultural, and social conditions. It also needs the development of the Water Resources Knowledge Management System (WRKMS) to provide various information and knowledge in decision making processes and system configurations.

To this end, the establishment of Task Force Team for IWRM is planned as a strategy to reflect conflicting factors in formulating the IWRM Methodology. Also, the development of an IMF is planned to provide a tool for developing a model which enables the analysis of each basin through the formation of an IMF. Along with, a plan to construct a WRKMS which integrate and manage databases of water resources knowledge is formulated in order to provide wide-ranged knowledge and information on water resources in carrying out IWRM.

Keywords: Integrated Water Resources Management (IWRM); Integrated Water Resources Management System (IWRMS); Task Force Team (TFT); Integrated Modeling Framework (IMF); Water Resources Knowledge Management System (WRKMS)