

Development of Rainfall Runoff Forecasting System for Efficient Water Resources Management in Korea

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The Rainfall Runoff Forecasting System (RRFS) was developed to conduct effectively the rainfall runoff analyses with the prediction technology for the real-time or short-term (< 10days) water demand and supply by using meteorological-forecasting data. As base technologies for this, it needs to develop the water information management technology to acquire and manage immediately the amount of water demand (the amount of intake), the real-time water balance analysis technology to optimize the water distribution and supply in a basin, and the continuous runoff prediction technology to predict the long- and short-term streamflow with meteorological information. In addition, by introducing the Ensemble Streamflow Prediction (ESP) which is a stochastic streamflow prediction technique to consider the uncertainty of the long-term rainfall prediction in the decision-making process to establish water distribution plans, the decision-making process including the risk level can be carried out.