STUDY ON THE DEVELOPMENT OFORECAST AND ALERT BASED ONSATELLITES

The purpose of this study is to make a flood forecasting system which utilizes satellite-based rainfall data for developing countries. At first, we made some validation of satellite-based rainfall data compared with ground-based rainfall data. Because of underestimation of satellite-based rainfall value, we developed a modification method of satellite data. And we have developed a concise flood-runoff analysis system as a toolkit for supporting the effort of local engineers to start flood forecasting. This system implements interfaces to input not only ground-based but satellite-based rainfall data, GIS functions to construct flood-runoff models, a default runoff analysis model, and interfaces to display output results. We hope that this system will be useful for the immediate and efficient implementation of flood forecasting and warning systems in developing countries.