Geophysical Research Abstracts
Vol. 18, EGU2016-11246, 2016
EGU General Assembly 2016

Development of Integrated Flood Analysis System for Improving Flood Mitigation Capabilities in Korea

Young-Il Moon (1) and Jong-suk Kim ()

(1) Korea, Republic Of (ymoon@uos.ac.kr), (2) Korea, Republic Of (jongsuk@uos.ac.kr)

Recently, the needs of people are growing for a more safety life and secure homeland from unexpected natural disasters. Flood damages have been recorded every year and those damages are greater than the annual average of 2 trillion won since 2000 in Korea. It has been increased in casualties and property damages due to flooding caused by hydrometeorlogical extremes according to climate change. Although the importance of flooding situation is emerging rapidly, studies related to development of integrated management system for reducing floods are insufficient in Korea. In addition, it is difficult to effectively reduce floods without developing integrated operation system taking into account of sewage pipe network configuration with the river level. Since the floods result in increasing damages to infrastructure, as well as life and property, structural and non-structural measures should be urgently established in order to effectively reduce the flood. Therefore, in this study, we developed an integrated flood analysis system that systematized technology to quantify flood risk and flood forecasting for supporting synthetic decision-making through real-time monitoring and prediction on flash rain or short-term rainfall by using radar and satellite information in Korea.

Keywords: Flooding, Integrated flood analysis system, Rainfall forecasting, Korea

Acknowledgments
This work was carried out with the support of "Cooperative Research Program for Agriculture Science & Technology Development (Project No. PJ011686022015)" Rural Development Administration, Republic of Korea