

Estimation of Inundation Risk Index for Providing Flood Risk Information

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As rainfall and heavy rainfall have occur frequently in the rainy season every year, not only the property damage caused by flooding but also the loss of life has occurred.

Looking at the flood damage trend, the damage caused by the rivers flood has been dominant in the past, but recently it has been shifted to the form of inland flood due to heavy rainfall and local storm.

Currently, the Korea Meteorological Administration (KMA) issues warning of heavy rain and storm warning on the basis of 6 hours and 12 hours. However, these warnings are not appropriate in urban areas where flood damage occurs in a short time. In addition, since these factors do not include factors related to inundation and disaster in the area, these criteria alone can not effectively cope with flood damage. In this regard, the Japan Meteorological Agency has introduced the Inundation Risk Index, which is highly correlated with occurrence of flooding damage, in order to cope with flood damage. The Inundation Risk Index is a new indicator of the risk associated with the occurrence of flood damage.

In this study, we calculated the Inundation Risk Index for the Jungnang-cheon watershed and compared it with the history of flood damage in the past. Based on these results, we examined the applicability and applicability of the Inundation Risk Index.

Keywords : Inundation Risk Index, warning of heavy rain, Radar rainfall, inland flood