IDENTIFICATION AND FLOOD WATER CAPACITY VOLUME CALCULATION

Wiweka

Remote Sensing Application Centre
Indonesian National Institute of Aeronautics and Space
Jl. Kalisari 8, Jakarta 13710, Indonesia, wiweka@lapan.go.id

Abstract *: Floods caused by the change of green open space into residential areas such as construction, buildings, and roads, so be reduced infiltration of rainwater and water pooled in the streets. Another factor is the drainage system that does not work and does not form a network, and it is not optimal due to silting of reservoirs due to sedimentation, excessive land subsidence due to excessive exploitation of ground creating yet done basins and normalization in all rivers. Characteristic color when the flood water rising and overflowing rivers discharge is dark brown water. Stakeholders expect the output results of the detection and monitoring of flood inundation is widespread (km2 / ha), the flood elevation (m), flow velocity (m / s, km / h), which washed away materials (rocks, trees, other hard objects), sediment mud (m, cm), duration of inundation (hours, days, weeks), and frequency of occurrence. In this study, associated with the ability of remote sensing data, the output will be generated from the processing of flood water is class and flood water volume. Processing method used is an optimization method for the detection of flooding index by adding turbidity factor, calculate the area of flooding, combines contour data to calculate the volume of the flood.*

Keywords : *flood water, image, optimization, volume, height*