

ABSTRACT

FAUZI RAMADHOAN (4315062017). Zoning Rate Vulnerability of flood in Jakarta. Thesis, Jakarta: Department of Geography, Faculty of Social Sciences, State University of Jakarta, July 2011

The purpose of this study was to determine what areas and which have a high level of vulnerability to flooding events in Jakarta, and the extent of the influence of the East Flood Canal to the extent of flood vulnerability areas of Jakarta, the data used to use secondary data that was obtained from different agencies. The data obtained by the landforms, drainage, slope, land use, rainfall, river water discharge and high tide.

The method used is the overlay method with software Arc Gis 10. From the secondary data have been obtained do tiered weighted scoring, so that each parameter has the scores and weights, then do scoring total by summing the values of all parameters. The score used include scores density drainage, landform, slope and land cover. Then to determine the level of flood vulnerability also used the method of map overlays large flood events in Jakarta in 1996, 2002, and 2007.

The result of overlay and analyze spatial map Jakarta floods insecurity found that Jakarta area extents are very prone to flooding is 54,6 km² (8.6% of DKI Jakarta), prone to high of 229,72/sq mi (36.3% of DKI Jakarta), prone to being of 313,23/sq mi (49.6% of DKI Jakarta), prone to low 33,05 Km² (5.5% of DKI Jakarta), and the area is prone not only 0,61 Km² (0,1% of Jakarta). Furthermore the results of a large flood area vulnerability overlay in 1996, 2002 and 2007 in Jakarta shows that the area has always been a great flood occurred since 1996, covering an area of 58,14 km² or 9.38% of the total area of Jakarta, and the area experienced a large flood recurrence twice since 1996 of 48,47 km² or extensive 7,68% of the total of DKI Jakarta, and the only one experiencing major flooding events since 1996, covering an area of 390,19 km² or 61,86% of the total area of Jakarta. Then after the flood vulnerability map of Jakarta in the analysis with a catchment area covering the East Flood Canal watershed Cakung & Sunter, found changes in the level of flood areas, namely: to the level of vulnerability "extremely vulnerable" decreased to 10.86 km², ie 1.72% of the total area of Jakarta. While the areas with the indicator "quite vulnerable" rose to 76.03 km², which is 12.05% of the total area of Jakarta. Whereas areas with high levels of vulnerability "vulnerable" decreased to 260.63 km², ie 41.32% of the total area of Jakarta. Then after the overlay with a map of land use found that 107.20 km² or 74.27% of the flood-prone areas are residential areas.