

FLOOD RISK ASSESSMENT OF SETTLEMENT AND AGRICULTURAL LAND IN GROBOGAN AND PURWODADI SUB DISTRICT, GROBOGAN DISTRICT, CENTRAL JAVA

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ABSTRACT

One of the problems which happens annually is flood. The latest flood which happened on April 2013 drowned several village in Grobogan district and Purwodadi District for two days. Frequent flooding in a long duration could possibly disturb the resident's who are mostly farmers and the residence around Lusi River. This research is done in Grobogan and Purwodadi District, Grobogan Regency, Central Java. The aim of this research is: (1) Knowing the risk of flooding towards the habitation and farming field in Purwodadi and Grobogan District. (2) Knowing the factors which cause flooding in Grobogan and Purwodadi District. (3) Propose direction of flood prevention to minimize the risk impact that could possibly happens.

Methods used in this research is survey method and mapping along with interview, scoring with quantitative descriptive analysis towards every danger level parameter, susceptibility and capacity. Before assessing how big the risk that happens in the surrounding is, research is obliged to know the danger level, susceptibility and existing capacity.

Based on the analysis and evaluation, the causes have been figured out, high level of rainfall, river's capacity is decreasing and backflow between Glugu River and Lusi River. The high level of risk consists of two zones, little risky and quite risky. Zone with a little risky in Grobogan District as follows; the settlement of 102,5748 ha or 35,84 % and farmland covers of 162,1744 ha or 27,25 %, while in Purwodadi district, settlement of 79,6447 ha or 46,16 % and farmland covers of 180,9289 ha or 30,62 %. Zone with a quite risky of Grobogan District as follows: the settlement of 22,6995 ha or 10,21 % and farmland covers of 147,3964 ha or 24,93 %, while in Purwodadi District, settlement of 17,3102 ha or 7,79 % and farmland covers of 100,4565 ha or 17,01 %.

Keywords: Evaluation, Flood, Agricultural Land, Settlement, Risk