

**IDENTIFICATION OF FLOOD PRONE AREAS AND PREDICTION OF
POTENTIAL RISKS TO POPULATION.
A Case study in Semarang City, Central Java Province, Indonesia.**

A.B.Suriadi M Arsjad

*Researcher on Geomatic Research Division of
National Coordinating Agency for Surveys and Mapping*

*Jl Raya Jakarta Bogor Km 46, Cibinong, Indonesia.
Email: budiman6109@gmail.com*

KEY WORDS: flood prone, potential risks, remote sensing, GIS.

ABSTRACT: Floods are natural disasters that occur most commonly in Indonesia. Almost all major cities in Indonesia prone to flooding, either due to poor drainage and overflow from the river. In some places also of flooding due to tides (tidal flooding). Semarang is a city that is always flooded every year. Mapping of flood prone areas have often done, but map about the flood risk prediction is still very rare. This map is actually very important not only to calculate the losses and the estimated costs to be issued, but also useful for insurance companies that are in the business the risk of management. Remote sensing and GIS is a tool that can be used in estimating the risk of quantitatively. Remote sensing is used to estimate the flood-prone areas, and identify the location of settlements, the spatial distribution of natural resources and man-made resources that are economically exposed to the risk. While GIS is used to integrate statistical data to spatial data, so that it can carried out quantitative calculations of the risk of flooding.