ABSTRACT

Preliminary case study of Flood Susceptibility modeling and Hazard Assessment using Qualitative Map Combination Method in ArcGIS Software of Dili City Area.

Oktoviano Viegas Tilman de Jesus
Geo-Hazard Division
otilman@ipg.tl

The Dili city, where the urbanized areas located is significantly prone to urban Flood occurrences. Flooding is commonly causing significant damages to the areas within the country, in view of the fact, during the rainy season the population of Dili City are continually suffers to the flood occurrences, it has destroyed the basic infrastructures, and affected to the people's lives and casualties. The aims of this study to generate, modeling and mapping the flood susceptibility zone in the area, it is also intends to identify, evaluate, asses the flood hazard occurrences and recommend the probable solutions or mitigation in minimizing the flood occurrences. The method used in generating the Flood Susceptibility Map (FSM) modeling is the Qualitative Map Combination using the Numerical Ranking Analysis in ArcGIS 10.1 software, there are several parameters were combined and analyzed regarding on their triggering factor of importance and influence to the flood. The result of this study can be used by the policy makers, decision makers, planners and other parties to plan and implement an effective system of the flood management within the country, as a basis for future master plan and safe development, and therefore to develop necessary mitigating measures and preparedness plans.

Keywords*: Dili City Flood, ArcGIS, Flood Susceptibility Map Modeling,*