

***Development of a GIS-Based Website for Mapping Flood-Prone Areas in
Kedungbanteng Village***

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ABSTRACT

Flooding is one of the natural disasters that frequently occurs in Indonesia, including in Sidoarjo Regency. Kedungbanteng Village, located in Tanggulangin District, is one of the areas prone to flooding, especially during the rainy season. The low geographical conditions and inadequate drainage system are the main causes of flooding in the area. However, until now, the community still has difficulty obtaining information about flood-prone locations easily and clearly. This study aims to develop a Geographic Information System (GIS)-based website to map flood-prone areas in Kedungbanteng Village. The research methods used include needs analysis, system design and planning, testing and implementation processes, website usage assistance, and system evaluation. The developed website is able to display information on flood-prone locations in the form of digital maps visually and interactively. The results of this study are expected to help the community and related parties identify areas with flood potential and support disaster mitigation and preparedness efforts.

Keywords: *Geographic Information System (GIS), Website, Flood, Mapping, Disaster Mitigation, Sidoarjo Regency*