

**PEMETAAN LOKASI RAWAN BENCANA BANJIR
BERBASIS SISTEM INFORMASI GEOGRAFIS
DI KECAMATAN BABAT KABUPATEN LAMONGAN**

Oleh

Fauzi Hariri, NIM 2254013015

**Sarjana Terapan Teknologi Rekayasa Penginderaan Jauh, Jurusan Geografi,
Fakultas Hukum dan Ilmu Sosial, Universitas Pendidikan Ganesha**

ABSTRAK

Kecamatan Babat merupakan satu dari sekian wilayah di Kabupaten Lamongan yang cukup sering terdampak banjir oleh sebab itu penelitian ini bertujuan memetakan lokasi kerawanan banjir di Kecamatan Babat, Kabupaten Lamongan, dengan metode skoring dan overlay berbasis Sistem Informasi Geografis (SIG). Enam parameter digunakan, yaitu curah hujan, kemiringan lereng, jenis tanah, penggunaan lahan, ketinggian tempat, dan buffer sungai. Hasil analisis menunjukkan empat kelas kerawanan, yaitu tidak rawan, cukup rawan, rawan, dan sangat rawan. Kelas sangat rawan mendominasi dengan luas $\pm 2.850,10$ ha (44,18%), diikuti kelas rawan $\pm 2.697,93$ ha (41,79%), cukup rawan $\pm 802,75$ ha (12,44%), dan tidak rawan $\pm 107,62$ ha (1,59%). Faktor dominan penyebab banjir adalah topografi datar, tanah alluvial, curah hujan tinggi, serta kedekatan dengan Sungai Bengawan Solo. Peta kerawanan ini diharapkan menjadi acuan bagi pemerintah daerah dalam perencanaan tata ruang dan strategi mitigasi banjir.

Kata-Kata Kunci: SIG, overlay, kerawanan banjir, Kecamatan Babat.

"Mapping of Flood Hazard-Prone Areas Based on Geographic Information Systems in Babat District, Lamongan Regency"

By

Fauzi Hariri, NIM 2254013015

Applied Bachelor of Remote Sensing

Engineering Technology, Department of

Geography, Faculty of Law and Social Sciences,

Ganesha University of Education

ABSTRACT

Babat District is one of the areas in Lamongan Regency that is quite frequently affected by flooding. Therefore, this study aims to map flood-prone areas in Babat District, Lamongan Regency, using a scoring and overlay method based on Geographic Information Systems (GIS). Six parameters were used, namely rainfall, slope gradient, soil type, land use, altitude, and river buffer. The analysis results show four vulnerability classes, namely not vulnerable, moderately vulnerable, vulnerable, and very vulnerable. The very vulnerable class dominates with an area of $\pm 2,850.10$ ha (44.18%), followed by the vulnerable class of $\pm 2,697.93$ ha (41.79%), moderately vulnerable ± 802.75 ha (12.44%), and not vulnerable ± 107.62 ha (1.59%). The dominant factors causing flooding are flat topography, alluvial soil, high rainfall, and proximity to the Bengawan Solo River. This vulnerability map is expected to be a reference for local governments in spatial planning and flood mitigation strategies.

Keywords: GIS, overlay, flood vulnerability, Babat District.