

SARI

“Geologi dan Analisis Zonasi Kerentanan Gerakan Tanah dengan Pendekatan Statistik *Weight of Evidence* Daerah Paninggaran dan Sekitarnya, Kecamatan Paninggaran, Kabupaten Pekalongan, Jawa Tengah”

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Lokasi penelitian berada di daerah Paninggaran dan sekitarnya yang secara administratif termasuk dalam wilayah Kecamatan Paninggaran, Kabupaten Pekalongan, Provinsi Jawa Tengah. Daerah penelitian meliputi 9 desa, yaitu Desa Paninggaran, Desa Domiyang, Desa Lomeneng, Desa Sawangan, Desa Krandegan, Desa Tenogo, Desa Tanggeran, Desa Bedagung, dan Desa Lambanggalun. Pada daerah Paninggaran terdapat potensi bencana geologi berupa gerakan tanah. Bencana ini dikontrol oleh beberapa faktor seperti litologi, kemiringan lereng, tata guna lahan, jarak dari sungai, curah hujan, arah lereng, jenis tanah, kurvatur dan kerapatan sungai. Metode WOE (*Weight of Evidence*) digunakan dalam menentukan jenis parameter yang berpengaruh pada kejadian gerakan tanah berdasarkan kejadian gerakan tanah yang telah terjadi. Dalam validasinya metode *Weight of Evidence* akan memperhatikan kurva AUC (*Area Under Curve*) dalam penentuan tingkat akurasi pemodelan. Berdasarkan hasil penelitian dikelompokkan menjadi empat zona kerentanan gerakan tanah, Zona Kerentanan Sangat Rendah, Zona Kerentanan Rendah, Zona Kerentanan Menengah, dan Zona Kerentanan Tinggi.

Kata Kunci: Gerakan Tanah, GIS, Paninggaran, Pekalongan, *Weight of Evidence*.

ABSTRACT

“Geology and Landslide Zonation Analysis with Statistical Approach Weight of Evidence Paninggaran and Surrounding, Paninggaran District, Pekalongan Regency, Central Java”

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This research is located in Paninggaran and surrounding, Paninggaran district, Pekalongan, Central Java. The research location are including nine village, Paninggaran village, Domiyang village, Lomeneng village, Sawangan village, Krandegan village, Tenogo village, Tanggeran village, Bedagung, and Lambanggalun village. Paninggaran and around also have negative potent like landslide, This landslides are controlled by some factor including lithology, slope rate, landuse, stream distance, raindrop rate, slope direction, soil type, curvature and stream density. The method that used is WOE (Weight of Evidence), this method are used to determine the parameter that influence the landslide occurrence based on the latest landslide occurrence data. In the validation, This method will observe AUC curve (Area Under Curve) to determine accuration of the data model. Based on the result, the location were classified as four zonation, Very Low-Vulnerability Zone, Low-Vulnerability Zone, Medium-Vulnerability Zone, and High-Vulnerability Zone.

Keywords: GIS, Landslide Vulnerability, Paninggaran, Pekalongan, Weight of Evidence.