

PENGARUH JENIS PENUTUP LAHAN SEBAGAI AKIBAT DARI AKTIVITAS MANUSIA DALAM MEMANFAATKAN LAHAN TERHADAP KEJADIAN LONGSOR DI DAS KODIL

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INTISARI

Tujuan dari penelitian ini adalah: (1) mengetahui karakteristik fisik lahan yang berpengaruh terhadap kejadian longsor di DAS Kodil; (2) mengetahui jenis penutup lahan yang berpengaruh terhadap longsor di DAS Kodil; (3) mengetahui karakteristik fisik lahan pada jenis penutup lahan yang berpengaruh terhadap longsor di DAS Kodil; dan (4) menghasilkan rekomendasi arahan pengelolaan lahan berdasarkan karakteristik penutup lahan dalam kaitannya dengan kejadian longsor di DAS Kodil.

Metode penelitian yang digunakan dalam penelitian ini dibagi menjadi beberapa tahapan yaitu: (1) membangun hirarki klasifikasi bentuklahan; (2) interpretasi bentuklahan dengan data DEM dan citra optis untuk mengetahui karakteristik fisik lahan DAS Kodil; (3) interpretasi penutup lahan dengan citra optis berdasarkan standar klasifikasi SNI; (4) membangun kunci interpretasi longsor dengan data DEM dan citra optis; (5) inventarisasi longsor DAS Kodil dengan metode interpretasi citra dan survei lapangan; dan (6) analisis statistik deskriptif untuk mengetahui hubungan antara longsor dengan karakteristik lahan dan penutup lahan.

Hasil penelitian menunjukkan bahwa (1) karakteristik fisik lahan yang berpengaruh terhadap kejadian longsor di DAS Kodil adalah lereng dengan kemiringan 8° - 35° (agak curam-curam) serta terdapat pada morfoaransemen lereng tengah dan lereng bawah perbukitan; (2) jenis penutup lahan yang paling banyak terjadi longsor adalah kebun campuran dengan sawah berada pada lereng kakinya; (3) kombinasi antara kebun campuran yang berada pada lereng tengah dan lereng bawah serta memiliki sudut kemiringan lereng 8° - 35° dan terdapat sawah di kaki lerengnya menghasilkan area-area di DAS Kodil yang secara alami rawan terjadi longsor; dan (4) Area rawan longsor berdasarkan karakteristik fisik lahan dan jenis penutup lahan direkomendasikan menjadi area prioritas pengawasan, sebagai upaya pencegahan dan mitigasi bencana longsor di DAS Kodil.

Kata Kunci: Bentuklahan, Penutup Lahan, Longsor, Kerawanan

THE INFLUENCE OF LAND COVER TYPES AS THE RESULT OF HUMAN ACTIVITY IN LAND UTILITY TOWARD LANDSLIDE PHENOMENON IN KODIL WATERSHED

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ABSTRACT

The purposes of this research are: (1) understanding the land physical characteristic that influence toward landslide phenomenon in Kodil watershed. (2) understanding the types of land cover that influence toward landslide phenomenon in Kodil watershed. (3) understanding the land physical characteristic on the land cover that influence toward landslide phenomenon in kodil watershed. (4) resulting the recommendation of land management based on land cover characteristic in the correlation between landslide phenomenon in kodil watershed.

Methodologies were used in this research are divided into some parts, there are: (1) developed the hierarchy classification system for landform; (2) interpretation of landform used Digital Elevation Model (DEM) and optic imagery to known the land physical characteristics in Kodil watershed; 3) interpretation of land cover used optic imagery based on national standar of land cover classification in Indonesia (SNI); 4) developed the interpretation keys for landslide phenomenon using DEM and optic imagery; (5) inventory of landslide areas in Kodil watershed used imagery interpretation method and field survey; and (6) used descriptive statistical analysis to known the correlation between landslide, land characteristic and land cover.

The result of this research shows that (1) the land physical characteristics that influence toward landslide phenomenon was slope with degree as 80-350 (moderately steep-steep) and can be found on morfoarrangement middle slope and bottom slope at hills; (2) the land cover types that most widely influence in landslide was mixed garden with paddy fields at the foot slope; (3) the combination between mixed garden located on middle slope and bottom slope with slope degree in 8⁰-35⁰ and also there are paddy fields at the foot slope resulted areas in Kodil watershed that naturally vulnerable of landslide; and (4) The vulnerable areas of landslide based on land physical characteristics and the land cover types are recommended as the priority area for controlling, as the effort to prevent and disaster mitigation of landslide in Kodil watershed.

Keywords: landform, land cover, landslide, vulnerable area of landslide.