Wilayah rawan longsor di Kota Jayapura = Region of landslide susceptibility in Jayapura City

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Abstrak

[ABSTRAK
Kota Jayapura merupakan salah satu wilayah yang berada di utara pulau Papua dan berhadapan langsung dengan lempeng pasifik, sehingga berpotensi terhadap bencana geologi, salah satunya adalah longsor, walaupun demikian tidak hanya dipengaruhi oleh pergerakan lempeng pasifik tetapi juga dari kondisi kemiringan lereng di Kota Jayapura yang bervariasi dari dataran rendah (0-8%) sampai perbukitan (>45%), sehingga untuk kajian ini kemiringan lereng serta sesar dan juga kondisi kegempaan yang sewaktu-waktu terjadi karena kota Jayapura berada pada wilayah rawan gempa maka sangatlah berpotensi terhadap longsor yang dipengaruhi oleh kegempaan dan adanya sesar. Penelitian ini bertujuan untuk memetakan wilayah rawan dan risiko longsor di Kota Jayapura dengan menggunakan dua model pendugaan, pertama adalah Model Pendugaan Longsor Direktorat Vulkanologi dan Mitigasi Bencana Geologi dengan paramater curah hujan, geologi, jenis tanah, lereng dan penggunaan lahan; kedua adalah Model Pendugaan Kombinasi (Puslittanak tahun 2004 dan Shabi, H. et. al tahun 2012) dengan parameter kemiringan lereng, curah hujan, geologi, jenis tanah, jarak sesar dan kerapatan vegetasi. Hasil penelitian dengan menggunakan olahan Sistem Informasi Geografis (SIG) serta validasi lapangan menujukkan bahwa dari total luas wilayah kajian ada perbedaan luas wilayah rawan longsor dengan klasifikasi tinggi, yang mana model pendugaan pertama menghasilkan luas wilayah rawan longsor tinggi sebesar 16.780 Ha, sementara itu model kedua sebesar 2.184 Ha. Kedua model tersebut divalidasi dengan data di lapangan dan data kejadian longsor, menunjukkan bahwa model kedua lebih sesuai dengan kondisi lapangan dan representatif untuk mengindentifikasi rawan longsor di Kota Jayapura, sehingga dapat disimpulkan bahwa model tersebut dapat digunakan lebih lanjut untuk keperluan mitigasi.
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ABSTRACT
Jayapura city is one area in the north of the island of Papua and dealing directly with the Pacific plate, so the potential for geological disasters, one of which is a landslide, however is not only affected by the influence of the Pacific plate movement but also of the condition of the slope in the city of Jayapura varies from lowlands (0-8%) to the hills (> 45%), so that for the assessment of slope and seismic faults and also the condition that at any time there because the city of Jayapura located in earthquake region then it has the potential to landslides which affected by seismicity and the

presence of faults. This study aims to map landslide susceptibility areas and risk in Jayapura by using two prediction models, the first is the Model Estimation of landslide Directorate of Volcanology and Geological Hazard Mitigation with parameters rainfall, geology, soil type, slope and land use; The second is a combination Estimation Model (Puslittanak 2004 and Shabi, H. et. al in 2012) with the parameters slope, rainfall, geology, soil type, fault distance and density of vegetation. Processed research results using Geographic Information System (GIS) and field validation showed that of the total study area there are vast differences in landslide-prone areas with higher classification, which first prediction models to produce high landslide prone area of 16,780 hectares, while the second model of 2,184 Ha. Both models are validated with field data and landslide occurrence data, showing that both models are better suited to field conditions and to identify landslide prone representative in Jayapura, so that it can be concluded that the model can be used further for mitigation purposes.;Jayapura city is one area in the north of the island of Papua and dealing directly with
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