



INTISARI

Penelitian ini bertujuan untuk menganalisis kerawanan seismik di Distrik Sorong dan merumuskan strategi penataan ruang Distrik Sorong berdasarkan kerawanan seismik. Kerawanan seismik pada penelitian ini diperoleh melalui pengukuran mikrotremor. Data mikrotremor dianalisis menggunakan metode HVSR. Hasil penelitian menunjukkan bahwa nilai kerawanan seismik Distrik Sorong berubah mengikuti satuan batuan dan satuan bentuklahan. Kerawanan seismik tinggi berada pada satuan bentuklahan Dataran *Alluvial* yang tersusun dari material lepas berumur Kuartar. Kerawanan seismik rendah berada pada satuan bentuklahan Kompleks Perbukitan Struktural yang tersusun dari material padu berumur Miosen Atas hingga Silur Devon.

Nilai kerawanan seismik yang diperoleh digunakan pula sebagai input dalam perumusan strategi penataan ruang Distrik Sorong. Perumusan strategi penataan ruang Distrik Sorong dilakukan melalui tiga tahapan, yaitu (1) pengklasifikasian nilai kerawanan kedalam tingkat kerawanan seismik, (2) penentuan tipologi wilayah serta (3) wawancara mendalam. Strategi penataan ruang Distrik Sorong disesuaikan dengan tipologi wilayah yang ada. Strategi penataan ruang untuk wilayah potensial dilakukan melalui pemberlakuan zonasi ruang yang diijinkan dan diijinkan terbatas serta pemberian insentif berupa keringanan pajak dan kemudahan perizinan. Strategi penataan ruang yang sedikit berbeda diterapkan pada wilayah limitasi berupa peraturan zonasi ruang yang diijinkan bersyarat dan dilarang dimanfaatkan, penguatan konstruksi bangunan, pemberian sanksi dan disinsentif serta peningkatan koordinasi pengawasan pemanfaatan ruang.

Kata kunci: Kerawanan seismik, HVSR, Mikrotremor, Strategi, Penataan ruang



ABSTRACT

The purpose of this study is to analyze the seismic susceptibility in Sorong district and to formulate the spatial planning strategies based on the seismic susceptibility itself. The seismic susceptibility was obtained from the microtremor data which were analyzed using HVSR. The results showed that the value of the seismic susceptibility of Sorong District changed following the landform units and lithologi. High seismic susceptibility is in the Alluvial Plain landform units which are composed of loose material aged from Quaternary period. Low seismic susceptibility is on Structural Hills Complex landform unit composed of solid material aged from Upper Miocene to Silurian Devonian period.

Furthermore, the seismic susceptibility values also used as an input in formulating the spatial planning in Sorong District. The formulation is obtained through three stages, (1) classifying the susceptibilities value into the seismic susceptibility, (2) determining the typology area, which resulted two areas, the potential and limitation, and (3) conducting indepth interview. Spatial planning strategy for the potential area i.e. the seismically secure area conducted through the implementation of two different zoning; the allowable and the limited allowable zoning as well as the provision of incentives such as tax breaks and ease of licensing. A slightly different spatial planning strategy applied to the unsecure area which is a region prone to seismic in the form of a conditional space permitted and prohibited utilized, strengthening the buildings construction, sanctions and disincentives as well as increased coordination of monitoring space utilization.

Keywords: seismic susceptibility, HVSR, microtremor, strategies, spatial planning