

Intisari

Penelitian ini dilakukan di Daerah Ngarai Sianok Kota Bukittinggi Sumatera Barat. Tujuan penelitian ini adalah: (1) mengetahui karakteristik medan untuk menganalisis tingkat bahaya longsor dan agihannya di daerah penelitian, (2) mengetahui tingkat risiko longsor dan agihannya di daerah penelitian. Metode yang digunakan adalah metode survei dengan menggunakan sampel area. Satuan pemetaan yang digunakan adalah satuan medan yang mencerminkan karakteristik medan. Satuan medan disusun berdasarkan bentuklahan, lereng, penggunaan lahan dan tanah. Satuan medan tersebut selanjutnya digunakan sebagai analisis medan untuk penilaian bahaya dan risiko longsor.

Hasil penelitian terhadap 23 satuan medan menunjukkan bahwa sebagian besar daerah penelitian memiliki tingkat bahaya longsor sedang, yaitu: satuan medan lerengkaki gunungapi lereng miring, permukiman, regosol, lerengkaki gunungapi lereng miring, tegalan, regosol, lerengkaki gunungapi lereng miring, kebun campuran, latosol, lereng bawah gunungapi lereng agak curam, kebun campuran, latosol, lereng bawah gunungapi lereng agak curam, permukiman, latosol, lereng tengah gunungapi lereng curam, prasarana fisik, regosol, lereng tengah gunungapi lereng curam, taman, regosol, lereng tengah gunungapi lereng curam, kebun campuran, regosol, lereng bawah gunungapi lereng agak curam, kebun campuran, latosol, lereng atas gunungapi lereng sangat curam, kebun campuran, regosol, lereng bawah gunungapi lereng agak curam, permukiman, regosol, gawir sesar lereng sangat curam, hutan, regosol, teras struktural lereng landai, sawah, regosol, teras struktural lereng miring, sawah, regosol, gawir sesar lereng sangat curam, permukiman, regosol. Tingkat bahaya rendah ditemukan pada tujuh satuan medan yaitu: dataran aluvial gunungapi lereng datar, permukiman, regosol, lerengkaki gunungapi lereng landai, permukiman, regosol, dataran aluvial gunungapi lereng datar, kebun campuran, regosol, lerengkaki gunungapi lereng landai, kebun campuran, latosol, dataran aluvial gunungapi lereng datar, tegalan, regosol, teras struktural lereng landai, hutan, regosol, teras struktural lereng landai, permukiman, regosol.

Tingkat risiko longsor pada daerah penelitian sebagian besar memiliki tingkat risiko rendah, yaitu: satuan medan dataran aluvial gunungapi lereng datar, permukiman, regosol, lerengkaki gunungapi lereng landai, permukiman, regosol, dataran aluvial gunungapi lereng datar, kebun campuran, regosol, lerengkaki gunungapi lereng landai, kebun campuran, latosol, dataran aluvial gunungapi lereng datar, tegalan, regosol, lerengkaki gunungapi lereng miring, kebun campuran, latosol, lerengkaki gunungapi lereng miring, permukiman, regosol, lerengkaki gunungapi lereng miring, tegalan, regosol, lereng bawah gunungapi lereng agak curam, kebun campuran, regosol, lereng bawah gunungapi lereng agak curam, permukiman, regosol, lereng tengah gunungapi lereng curam, taman, regosol, lereng tengah gunungapi lereng curam, kebun campuran, regosol, lereng bawah gunungapi lereng agak curam, kebun campuran, latosol, lereng bawah gunungapi lereng agak curam, permukiman, latosol, lereng atas gunungapi lereng sangat curam, kebun campuran, regosol, lereng tengah gunungapi lereng curam, permukiman, latosol, satuan medan gawir sesar lereng sangat curam, hutan, regosol, teras struktural lereng landai, hutan, regosol, teras struktural lereng landai, sawah, regosol, teras struktural lereng miring, sawah, regosol, teras struktural lereng landai, permukiman, regosol. Satuan medan yang memiliki tingkat risiko sedang dijumpai pada satuan medan gawir sesar lereng sangat curam, permukiman, regosol, dan satuan medan yang memiliki tingkat risiko tinggi dijumpai pada satuan medan lereng tengah gunungapi lereng curam, prasarana fisik, regosol.

Kata kunci: analisis medan, bahaya longsor, risiko longsor

Abstract

This research was conducted in Sianok Canyon Bukittinggi Municipality West Sumatera. The aims of this research are (1) to study terrain characteristics in order to determine the level of landslide hazard and its spatial distribution in the research area, and (2) to determine the level of landslide risk and its spatial distribution in the research area. Survey method using sample area is employed in this research. Terrain analysis employing terrain unit, which is obtained by overlaying land form, slope, land use and soil parameters, is carried out to determine landslide risk and hazard level. This unit is used as mapping unit reflecting terrain characteristic.

Research conducted at 23 terrain units shows that most research areas fall into category medium hazard level, namely volcanic foodslope terrain unit with sloping slope settlement regosol volcanic foodslope with sloping slope rotational farming regosol, volcanic foodslope with sloping slope mixed orchard latosol, volcanic lowerslope with moderately steep slope mixed orchard latosol, volcanic lowerslope with moderately steep slope settlement latosol, volcanic middleslope with steep slope property regosol, volcanic middleslope with steep slope gardening regosol volcanic middleslope with steep slope mixed orchard regosol, volcanic lowerslope with moderately steep slope mixed orchard latosol, volcanic upperslope with very steep slope mixed orchard regosol, volcanic lowerslope with moderately steep slope, settlement latosol, escarpment with very steep slope forestry regosol, structural terrace with gently slope rice field regosol, structural terrace with sloping slope rice field regosol, escarpment with very steep slope settlement regosol. The lowest hazard levels are found in seven terrain units i.e. volcanic alluvial plain with flat slope settlement regosol, volcanic foodslope with gently slope settlement regosol, volcanic alluvial plain with flat slope mixed orchard regosol, volcanic foodslope with gently slope mixed orchard latosol, volcanic alluvial plain with flat slope rotational farming regosol, structural terrace with gently slope forestry regosol, structural terrace with gently slope settlement regosol.

Most of the risk landslide levels in research area fall into low category i.e. volcanic alluvial plain with flat slope settlement regosol, volcanic foodslope with gently slope settlement regosol, volcanic alluvial plain with flat slope mixed orchard regosol, volcanic foodslope with gently slope mixed orchard latosol, volcanic alluvial plain with flat slope rotational farming regosol, volcanic foodslope with sloping slope mixed orchard latosol, volcanic foodslope with sloping slope settlement regosol, volcanic lowerslope with moderately steep slope mixed orchard regosol, volcanic lowerslope with moderately steep slope settlement regosol, volcanic middleslope with steep slope gardening regosol, volcanic middleslope with steep slope mixed orchard latosol, volcanic lowerslope with moderately steep slope mixed orchard latosol, volcanic upperslope with very steep slope mixed orchard regosol, escarpment with very steep slope forestry regosol, structural terrace with gently slope forestry regosol, structural terrace with gently slope rice field regosol, structural terrace with sloping slope rice field regosol, structural terrace with gently slope settlement regosol, volcanic lowerslope with moderately steep slope settlement latosol, and volcanic middleslope with steep slope settlement latosol, Medium risk levels are found at escarpment with very steep slope settlement regosol, and the highest ones are found at volcanic middleslope with steep slope property regosol.

Key word: terrain analysis, landslide hazard, landslide risk