

GEOLOGICAL-GEOTECHNICAL CHARACTERISTICS AND RISK EVALUATION OF CONJUNTO TAQUARIL, BELO HORIZONTE, MINAS GERAIS, BRAZIL.

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The Conjunto Taquaril, Belo Horizonte, Minas Gerais, reflects a common hazardous situation among the slums in large urban centers of Brasil. The occupation is disorderly and the houses are jerry-built along the slopes over different geological-geotechnical materials with low resistance at failure. This study aimed to contribute to mitigation and prevention of geological hazards in Conjunto Taquaril. They were produced detailed geological and risk maps, scaled 1:8.000 and 1:2.000, respectively. A series of geological-geotechnical units were described and evaluated, totalizing 10 units for the area. The rock masses was geotechnically classified according to the Rock Mass Rating System and the general condition of them are bad or very bad. The geological risk map was built up by zoning units considering the following criteria: morphology, geological-geotechnical characteristics, slope gradient, activities of man and the hazards associated. The most common hazards are landslides, creep, flows and floods. Over 50% of the area was evaluated as high to imminent risk. The area is naturally affected by landslides according to geological, structural and climatic factors, inducing plane and wedge slides. Increasingly man intervention has changed this scenery. Topography is being modified and heaps of garbage and waste material from constructions are daily thrown along the slopes and drainages. Nowadays, circular landslides prevail on these man-made deposits. Mitigation measures are possible but great efforts will be needed.