

Risk Indicators of Massive Removal Phenomena According to the Mora - Vahrson Method, Applied in Pitalito and Campoalegre Municipalities

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Abstract : The massive removal phenomena have been one of the most frequent natural disasters in the world, causing thousands of deaths, victims, damage to homes and diseases. In Pitalito, and Campoalegre department of Huila municipalities - Colombia, disasters have occurred due to various events such as high rainfall, earthquakes; it has caused landslides, floods, among others, affected the economy, the community, and transportation. For this reason, a study was carried out on the area's most prone to suffer these phenomena to take preventive measures in favor of the protection of the population, the resources of management, and the planning of civil works. For the proposed object, the Mora-Varshon method was used, which allows classifying the degree of susceptibility to landslides in which the areas are found. Also, various factors or parameters were evaluated such as the soil moisture, lithology, slope, seismicity, and rain, each of these indicators were obtained using information from IDEAM, Servicio Geologico Colombiano (SGC) and using geographic information for geoprocessing in the Arcgis software to realize a mapping to indicate the susceptibility to landslides, classifying the areas of the municipalities such as very low, low, medium, moderate, high or very high.

Keywords : geographic information system, landslide, mass removal phenomena, Mora-Varshon method

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