

SUSCEPTIBILITY OF SLOPE INSTABILITY IN AND AROUND AIZAWL

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ABSTRACT

Mizoram, being one of the most landslide prone zones of the country, has always suffered extensive damage to life and property. To evaluate the causes of these landslides, a case study of Aizawl Township has been carried out.

The majority of the landslides in the region are strongly controlled by the natural elements like Climate, physiography and geology. The geology of the region predominantly consists of sandstone and shale of Bhuban Formation of Surma Group. During the rainy season, very heavy rainfall and cloudbursts cause substantial mud flow that leads to the weakening of slope material at the shale –sandstone contacts. As a result, the larger rock masses slide down to create greater havocs.

The situation has further engraved due to the very rapid, unplanned and uncontrolled urbanization. Extensive undermining, vigorous deforestation along the hill slopes, construction of buildings on the weak and unstable zones, improper waste disposals and sanitation in lieu of rapid urbanization, has worsened the situation. In last decade or so, the frequency of landslides has increased multifold in the fast developing townships like Aizawl, Lunglei and Saiha.

In order to lower the score of landslide frequency in the region, preventive measures must be taken on priority basis to provide stability and strength to the slope material. Some important control measures are: construction of retaining walls, concrete foundation and plantation along the slopes.

However, a rational approach towards the sustainable urban growth could provide a control over the frequent landslides in the region.

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