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ABSTRACTS

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Slope Susceptibility and Instability in Aizawl Township

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Mizoram is one of the most landslide prone zones of the country, and has always suffered extensive damage to life and property. The present work is an attempt to evaluate the causes of these landslides, in and around Aizawl Township, Mizoram.

Majority of the landslides in this region, are controlled by the natural elements like Climate, physiography and geology. The prominent Tertiary geology of the region consists of sandstone and shale of Bhuban Formation of Surma Group. Being situated in one of the heaviest rainfall zones of the country, the frequency of landslide and mud flows, increases multifold, during the monsoon and post monsoon period, in this region. The weakening of slope material at the shale –sandstone contacts, is induced by block failure, slope disequilibrium, reduction in cohesive strength etc. As a result, the larger rock masses slide down to create greater havoc.

Human activities such as very rapid, unplanned and uncontrolled urbanization are no less responsible to engrave the problem of landslides further. Extensive and destructive undermining, large scale deforestation along the hill slopes, construction of buildings on the weak and unstable zones, improper waste disposals and sanitation in lieu of rapid urbanization and last but not the least the practice of “*jhoom*” (burning forests), has worsened the situation. In last two decades, the frequency of landslides has increased many

times in the fast developing townships like Aizawl, Lunglei and Saiha, thereby, clearly indicating the role of human activities in destabilizing the slopes.

With a prime motive to reduce the score of landslide frequency in the region, preventive measures must be taken on high priority basis to provide stability and strength to the slope material. Some important suggested control measures are: construction of retaining walls, concrete foundation and plantation along the slopes, reduce forest cutting and burning, regulate surface runoff.

A rational approach towards the sustainable urban growth alone, can provide a check & control over the frequency of landslides in the region, and in turn can save human lives.