

Ethiopia's Landslide Retaining Structure Design and Stability Analysis

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ABSTRACT

Ethiopia's almost mountainous, hilly, and highlands are frequently afflicted by landslides; numerous landslides have been reported in the last 30 years, triggered by heavy rainfall, such as earth slides, earth flows, and rockfalls, resulting in the loss of many human lives, damage to many houses, and loss of agricultural lands. Recently, landslides triggered by unusually heavy rain occurred in Dessie, in the south Wollo region of Ethiopia, causing a massive mass of soil to slide downward and closing the existing Kombolcha to Dessie Road. The primary goal of this paper is to design and analyse a reinforced concrete cantilever retaining wall to support a massive mass of soil. The detailed investigation in this research paper is carried out using experimental methods, while the design and analysis are carried out using the conventional method.

Keywords: *Landslides, Earth, Retaining wall, Slope, Design*