Abstract

Case study of a major landslide that took place on Banda Branch Canal of Tilari Project in South – Western Maharashtra has been presented in this paper. Location for this landslide is in Sindhudurga District and just about 7 km at South-East of Sawantwadi, having Latitude--- N 15° 48′ 11″ and Longitude--- E 73° 52′ 9″. Geologically this region has metamorphic gneissic rocks, which are weathered near the surface due to highly oxidizing and
humid climatic conditions, developing lithomarge clays and lateritic soil regolith. Loose cohesive soil matrix becomes soft and loses strength due to surface and subsurface flows during heavy precipitation. Regolithic mass of overburden became heavy, lost support / interlocking and slumped along the hill slope. This region lies in zone III as per map of seismic zones for our country. Therefore minute seismic event may act as triggering factor leading to slope instability. Study and analysis of this Slumping, by field observation, along with the general remedial measure that may mitigate the problems due to interruption in Canal flow, has been discussed in present paper. Thus the aim of this study is to interpret the observations for sorting out probable factors, which caused the slumping movement. This paper also includes few suggestions about preventive / remedial measures from geo- technical and geological points of view.

References

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Study and Analysis of Causative Factors of Slumping for Designing the Preventive Measures: A Case Study in South Konkan, India


Index Terms

Computer Science
Geo-Technical

Keywords
Slump  Slip Circle  Plastic Outflows  Upwarpment  Back Analysis