Landslides disaster in Malaysia: an overview

ABSTRACT

Landslide is the movement of mass of rock, debris or earth (soil) down a slope under the influence of gravity. Although Malaysia is not a precipitous country (mountains and hills are less than 25% of the terrain), slope failures/landslides are a frequently happened. From 1993-2011, around 28 major landslides were reported in Malaysia with a total loss of more than 100 lives. Moreover, from 1973-2007, the total economic loss due to landslides in Malaysia was estimated about US $1 billion. Collapsed of the 14-storey block A of the Highland Tower in Ulu Klang, Selangor was the most tragic landslide in Malaysia with 48 deaths.The main factor that caused slopes failure/landslides at numbers site in hillside development in Malaysia are rainfall, storm water activities and poor slope management. Another cause of landslides can be due to the abuse prescriptive methods, inadequate study of past failures, design errors including insufficient site specific ground investigation. Besides, the development of highland or hilly terrain has increased developed and many hills project are in the pipe line. All this factors together contribute to landslide disaster in this country. An impact of landslides in Malaysia has given rise to some environmental and socioeconomic issues such as loss of lives, damaged of properties and infrastructures, psychological pressures among the victims, disputes on land boundaries and also land degradation. Therefore, planning, design, construction and maintenance are very critical to achieve a safe and cost-effective hill-site development.

Keyword: Landslide; Highland Tower; Disaster; Slope failure; Rainfall; Economic loss; Prevention