D19 CAUSES OF LANDSLIDES AND SOME SHORT TERM REMEDIES TO MINIMIZE DAMAGES

Kapila Dahanayake
Earth Sciences Division
Institute of Fundamental Studies, Hantana, Kandy

During the last few years landslides have caused extensive damage to life and property particularly in the Central highland regions of Sri Lanka. On-the-spot studies at several landslides (e.g. Patulpana in Ratnapura, Sinhapitiya in Gampola, Pitakanda in Matale and Katayapatana in Nuwara Eliya districts reveal that unusual precipitation of the order of 1000 to 1500mm accumulated over a period of less than a week has been primarily responsible for triggering many landslides. Geological field observations show that hilly terrains with slopes of more than 25 degrees underlain by folded metasedimentary rocks characterized by closely spaced fracture systems and feldspar-

rich weak lithology are susceptible for sliding. Gullies and streams associated with the foliation planes and fracture planes percolate groundwater into the rocks thereby rendering them to failure as a result of increased pore pressure, kaolinization and resultant lubrication of the fracture and foliation planes.

It was noted that man was responsible for some landslides. Some of the damage caused to life and property could have been avoided if there had been a public awareness of the processes that lead to landslides. Thus a programme in which the poeple of landslide prone terrains are educated about (i) causes of landslides (ii) monitoring and prevention of the less dangerous slides is recommended.

References

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