

LANDSLIDES AND LINEAMENTS

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Abstract

With the heavy excessive daily rainfall (over 500 mm) in May-June 1984 and 1985, a series of landslides have been reported in the Highland and Uplands of Sri Lanka. Field studies of some of the major slides in Moray, Forres, Dalhousie and Laxapana tea plantations around the Moussakella reservoir in the Maskeliya area and in Dartonfield rubber estate, Rubber Research Institute, Agalawatta, in the Kalutara District as well as slides in Hayes tea plantation in Deniyaya in Galle District have been carried out. The results of these studies indicate that in addition to the two obvious causes of the slides viz. excessive daily rainfall (> 500 mm) and their high intensity and the degree of weathering and the fracture density of the rock types, there appears to be some relationships to the local and regional lineaments and also to local tremors-microseismicity. Another factor is the possible geodetic influence of the newly built reservoirs, such as the Moussakella Reservoir and the effect of changes in geodetic levels (bench marks) and the drawdown of the reservoir levels.

The present discussion will highlight these factors, which have not being considered in earlier studies and also will draw attention to the importance of a long term joint research programme with the co-operation of climatologists, geologists, engineers, geophysicists and sociologists.