

## ABSTRACT

During the last few decades, landslides occurred with increasing frequency in the slopes of the hill country by causing severe damages to life and property. Badulla district is taken as one of the most landslide affected area in Sri Lanka. Human activities add a new and very significant dimension to Initiation, Growth and Devastating potential of landslides in the rapidly developing hill country.

The study area consist Landslide prone 4 square Km's area in Viharagala G.S. Division within Badulla district. The study was initiated with a desk-study of State-of-Nature maps which represent the situation in the year 1994 and the field investigation was conducted to examine the state of the location in year 2006. Those two distinct state maps were analyzed by using spatial data interpreting methods. The modern GIS software was used to carryout these tasks, that provides an excellent tools to correlate the data spatially and generate and analyze maps & other forms of thematic information.

The spatial analysis results were showed that, from the year 1994 to 2004, people moreover moved and settled in landslide potential areas and the observations were revealed that, the people encroaching the land towards the steeper slopes by applying unprotected deep cuts, land fillings and land degradation practices. Analysis results revealed that the poorly managed Estate Plantations are highly contributed to occurring Landslides as because of poor soil conservation practices. Due to these, the acceleration of Landslides hazards and related other environmental degradation is prominent. Even during this period from 1994 to 2006, adverse land-use practices have been rapidly increased. Land Stability Analysis results were indicated that the moderate stabilized areas in 1994 were transformed to low & medium stabilize lands. The conclusion stated that the incidence of Landslides and potential slope failures has a direct link with human involvement. Although to reduce or mitigate the hazard of landslides, educating the villagers, on the issues such as the human influence in creating landslides and the good practice of land use, is a must.