

## **Introduction of native vegetation on cut slopes as an erosion protection in the Southern Highway, Sri Lanka**

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### **Abstract**

*The landslides which occur due to the soil erosion and the mass movement have become one of the natural hazards faced by Sri Lanka today. The improper human activities and the carelessness have also caused to occur the landslides which affect widely on the loss of human lives, the destruction of property and the environment. Although the hilly area is usually categorized as the landslide prone area, the Southern part of the country has faced the slope failures and the erosion problems time to time. As an erosion/slope protection of slopes using mechanical structures is costly to establish and maintain, biotechnical slope protection is an alternative which is more aesthetically pleasing and cost effective. Hence, in this research, an overall study about the positive impacts of the presence of native vegetation for the slope stability is studied in the manmade slopes of the Southern Highway. Recently, it could be noticed that the importance of the slope stability because of few slope failure in the cut slopes from Kottawa to Dodangoda. This paper explores the effective native vegetation in the cut slopes with different slope angles of the Southern Highway by identification, categorization and studying of the salient features of them according to the soil classification for relevant slope by using both Unified Soil Classification System and US Department of Agriculture. This research recommends suitable native vegetation against soil erosion and subsequent slope failures in cut slopes.*