

Assessment of indigenous plants for live pole applications in slope stability of Malaysia

ABSTRACT

Woody vegetations or live poles are using to reinforce the slope of residual tropical soil at different tropical sites to improve stability of slopes as they provide an immediate shear strength enhancement and modify the saturated soil water regime (mechanical and hydrological effects). This study initially describes the requirement for suitable live poles in tropical regions utilizing indigenous woody species and potential candidates. Then, the growths of eleven different indigenous plants (exhumation and examination) were monitored in different times. The effects of different fertilizers and soil suction were carried out and examined in two selected plants from the first step as well. The results showed that two live poles each of *Hibiscus tiliaceus* (Ht) and *Dillenia suffruticosa* (Ds) met the requirements for field test trials.

Keyword: Live pole; Potential plants; Shallow failure; Slope stabilization; Tropical region