GEOTECHNICAL ENGINEERING
Product: TERRAMESH & RENO MATTRESS

Problem
The slope along the jeep tracks in Tentera Udara Diraja Malaysia (TUDM) Subang has been standing at a slope angle of about 50° for many years. However, recent development at the adjacent construction site has resulted in the surface runoff to be channelled through the slope toe to a small pond nearby. This surface runoff has caused scouring of the slope toe and reduction of soil shear strength of the slope. The slope eventually slipped after a heavy rainfall in December 2003.

Solution
Jabatan Kerja Raya (JKR) Cawangan Keselamatan which is based in the camp was instructed to come out with a system that can reinstate the slope in the shortest period of time and able to sustain the hydraulic loading from the surface runoff. Maccaferri gabions were initially selected by JKR as the 5m high retaining structure for repairing the slope. However, Terramesh was counter proposed to JKR because it can provide similar benefit (i.e. ease and speed of construction, ability to sustain hydraulic loading, flexibility, etc.) at a lower cost compared to gabions. Finally, a 5m Terramesh MSE Wall with 2m wide Reno Mattress apron was accepted and constructed.

The Contractor - Perniagaan Global Lawar, which never construct any Terramesh Wall, was awarded the contract. Being a service oriented company; Maccaferri engineers have visited the site during the construction to guide the Contractor in building the Terramesh wall. With technical guidance, the contractor managed to complete the 30m long wall (150 m²) within 3 weeks successfully.