



TK Road, Deemagiri, Mizoram, India

Client	PWD Mizoram
Consultant	Sheladia Associates
Main contractor	Contractor-ABCI Infra
Gripple Terra-Lock™ System	TL100-A3, GMAT C-350, TLP2
Application	Slope Stability

At Chainage 0+650 along T K Road, the existing slope had failed during the previous monsoon. There is a graveyard which exists at the top of the slope and this posed as a challenge in terms of space available to stabilise the slope. As an immediate measure of stabilisation, the authorities provided a toe wall of random rubble masonry at the base of the slope and a 2 m Gabion Wall was further constructed over the random rubble masonry wall. But during the monsoon, part of the slope had failed and suitable measures were required to protect the slope from further failure.

Gripple was first approached by the consultant to provide a solution which would accommodate in the limited space available to stabilise the slope, heavy rainfall and for the nature of the soil onsite. After a Gripple Engineer visited the site to carry out an initial survey, they provided the consultant with a design recommendation. Slope stability analysis identified potential failure planes and Gripple Terra-Lock™ system was selected for 21 m (vertical height) at inclination of nearly 50 degree for slope protection.

Gripple's Terra-Lock™ system is a time and labour saving method of geotechnical engineering for erosion control, soil retention and slope reinforcement. The composite system including, erosion control mat, Terra-Lock anchors and the TL pins are an innovative method to stabilise the slope and create sustainable and durable green structures. The GMAT-C-350 is a long lasting environment friendly erosion control mat which provides an effective erosion control surface and vegetative root reinforcement layer, while TL100-A3 anchors are designed to provide drive efficiency, maximum load capacity and vegetation establishment through perforations.

1000 sqm has been covered with Gripple's Terra-Lock™ system, and installation on this project was completed in 8-10 working days.

