



MACCAFERRI

INDONESIA

## Slope Protection for Toll Road Project

### CIPULARANG, WEST JAVA - INDONESIA

**Client** : PT Jasa Marga (Persero)

**Consultant** : PT Delta Tama Waja

**Contractor** : PT Waskita Karya & PT Adi Karya

**Quantity** : 5000m<sup>2</sup> Enkamat Rockfall Netting  
1500m<sup>2</sup> Enkamat Coir Blanket Netting

#### General

Construction work of toll road which connecting 2 existing toll road, namely Jakarta-Cikampek toll road with Padaleunyi (Padalarang-Cileunyi) toll road was done in a very short time (only 1 year for about 41 Km). This new toll road was namely Cipularang. The construction process began from Sadang until Padalarang. This work included to a complicated and difficult job, not only because of the implementation technique, but also the impact of the toll road to the condition and environmental balanced not very simple.

The major problem in technical is the variety condition of existing soil, namely there are some active fault and some other are expansive soil. Another problem which also challenging is the nature condition that have a lot of valleys.

The slope with the worse quality of existing soil now has been failure along the toll road. There are 2 solution from Maccaferri for this problem based on the existing soil types. For the silty sand that blended with boulder rock from volcanic eruption, Maccaferri have Enkamat Rockfall Netting. With this product, the boulder can be protect by rockfall netting and the soil erosion (because of water or wind) protect by enkamat. For the montmorillonite clay which has been fissured, Maccaferri have Enkamat Coir Blanket Netting. This product can protect the slope well.



Existing



Solution



After 1 month

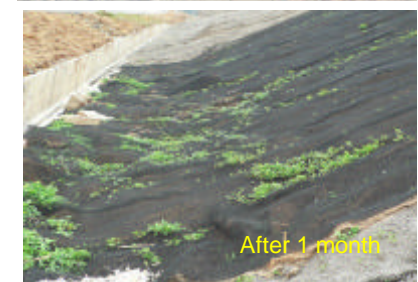
Enkamat Rockfall Netting



Existing



Solution



After 1 month

Enkamat Coir Blanket Netting