

EROSION CONTROL AT LEUWIKERIS DAM - PACKAGE 1 CIAMIS, WEST JAVA, INDONESIA

Slope Protection

Problem

A cut slope at Leuwikeris Dam Project (Ciamis - Jawa Barat) needed to be protected from erosion potential. The cut slope which was mainly composed of fine-grained soil required protection from erosion created by rain and surface water flow. The selection of the right solution was necessary in order to prevent failure by the presence of water. Erosion Control System by Maccaferri was selected considering its ability to drain water and allow the growth of vegetation.

Solution

An Erosion Control System made of a combination between HDPE geomat and double-twisted wire mesh panel with longitudinal high tensile strength steel cables called Macmat HS was installed on the cut slope. An array of mulching contained of seeds was then applied onto the Macmat HS to bring vegetation. The vegetation shall bring the nature back as rehabilitation. For some areas, Soil Nailing was added as additional reinforcement for local stability.

Available in rolls, Macmat HS has an easy installation procedure with the support of a T-shape deformed bar to hold the mesh onto the cut slope.

Maccaferri Erosion Control System shall grant some advantages such as:

Easy and Quick Installation ; Allows drainage on the surface of the slope ; Allows vegetation as rehabilitation ; Capable for combination with Soil Nailing ; Suitable for steep slopes.

Client: PT. PP (Persero) Tbk.

Designer / Consultant: PT. Maccaferri Indonesia

Contractor: PT. PP (Persero) Tbk.

Products used (Qty.)

- MacMat HS 12,000 sqm

Date of construction: 01/2018 - 04/2018



Condition of existing soil



Overview of Installed Macmat HS



Application of Mulching on Macmat HS



Soil Nailing application on Macmat HS



Condition of Installed Macmat HS in March 2019



Condition of Installed Macmat HS in March 2019