

BRIDGE AND RIVERBANK PROTECTION AT KOK RIVER MAELALOS DISTRICT, CHIANGRAI PROVINCE, THAILAND

Slope Protection

Problem

A bridge was constructed across 50 m width of Kok river at the northern part of Thailand. Strong current from the river could cause severe damage to the bridge if it is not protected properly. The bridge abutment which is located at the river bank must be protected from erosion. The surrounding area at the bottom of the bridge pillar must also be protected to prevent under ground scouring.

Solution

The Department of Rural Road (DRR) with the assistance from Maccaferri technical team came up with erosion protection system using Maccaferri gabion and reno mattress. The combination of Maccaferri reno mattress and Maccaferri non woven geotextile was installed at the bridge abutment and also along the river bank as erosion protection. Gabion was installed at the toe of the riverbank as toe protection against scouring. Due to the 1V:1.75H slope, a proper securing was provided to the reno mattress to prevent sliding of the structure.

Client: DEPARTMENT OF RURAL ROAD (DOR), THAILAND

Designer / Consultant: NA

Contractor: S.CHIANGRAI CO., LTD.

Products used (Qty.)

- Gabion	648 m ³
- Reno Mattress	2,828 m ²

Date of construction: 10/2007 - 01/2008



Before construction (October 2007)



Durin construction (November 2007)



During construction (December 2007)



After construction (January 2008)



After construction (January 2008)