

**KHA-SAT RIVERBANK PROTECTION
TASALA DISTRICT, NAKORNSRITHAMARAT PROVINCE, THAILAND**

Slope Protection

Problem

Kha-sat is a man made water channel with 120 degree curve. The curve of the river causes severe erosion at the river embankment. As water flows, the curve of the river increases with time due to the hydraulic action. The client was looking for a solution to protect the river bank using locally available material to reduce the cost. A durable structure is required considering the velocity of the river at that location and at the same time the structure must be flexible to accommodate the curve of the channel.

Solution

Maccaferri proposal of using combination of gabion and reno mattress as erosion protection system was accepted by the client because rocks which are locally available can be used. The design was done by marine department with assistance from Maccaferri technical team. The structure consist of 4 m width Galmac coated Reno Mattress which will be installed at the slope at an angle of 1V:1.5H. The structure also includes 2 m height Galmac coated gabion at the toe of the reno mattress as toe protection against scouring. Total length of 300 m was improved using this method. Galmac coated wire mesh was proposed to give additional life span to the gabion box in aquatic condition.

Client: MARINE DEPARTMENT (MD)

Designer / Consultant: NA

Contractor: MANA-PANIT LIMITED PARTNERSHIP

Products used (Qty.)

- Gabion 924 m3
- Reno Mattress 2,156 m2

Date of construction: 01/2008 - 08/2008



After construction (August 2008)



After construction (January 2008)