

**PRACHUAP KHIRI KHAN BAY PROTECTION**  
**PRACHUAP KHIRI KHAN, PRACHUAP KHIRI KHAN PROVINCE, THAILAND**

Revetment Protection

**Problem**

When there is an erosion process that does not affect the global stability creating superficial instability, then revetment is the suggested solution. The choice of the most suitable type of revetment must be done on basis of a comparison between the acting forces and serviceability limits of the material used.

A shore stabilisation may involve the construction of a retaining structure that should not only affect natural filtration between the sea and the shore, but must also guarantee the required support.

**Solution**

For several years, systems using double twisted wire mesh have been performed successfully in civil engineering applications. This is due to their peculiar characteristics, namely:

- Reinforcement - Gabion & Reno Mattresses are homogeneous monolithic structures designed to resist all forces exerted.
- Flexibility - Gabions and Reno Mattresses can resist unexpected or localized stresses due to large settlements.
- Permeability - Gabions and Reno Mattresses are filled with stones. Their structure can naturally drain water thereby reducing the risk of building of pore water pressure behind/underneath.
- Durability • Ease of installation - Gabions and Reno Mattresses do not require specialized labour.
- Ease of maintenance - Maintenance works are very limited.
- Environmental friendliness - Gabions and Reno Mattresses blend into the natural environment allowing vegetation to grow spontaneously.

In this case a combined solution, PVC Gabion wall together with PVC Reno Mattresses, was chosen.

The Gabion wall height is 3m.

The productivity rate for this project was 10 m3 per man per day .

The following products were used:

PVC Gabion 2x1x0.5m 50 m3 PVC Gabion 2x1x1m 4,584 m3

PVC Reno Mattress 6x2x0.3m 5,448 m2

**Client:** Public Works Department

**Designer / Consultant:** NA

**Contractor:** Kui Buri Service

**Products used (Qty.)**

- Gabion 4,630 m3
- Reno Mattress 5,448 m2

**Date of construction:** 03/2007 - 03/2007



During construction (1)



During construction (2)



During construction (3)



Before construction (1)



Before construction (2)