

**ANTIBUND SEA EROSION PROTECTION, SHELL HAZIRA
HAZIRA, GUJARAT, INDIA****Slope Protection****Problem**

Hazira port is situated 120 miles of Mumbai and therefore intended to compete with it, assist and relieve congestion in Mumbai for cargoes transported between Mumbai and New Delhi. This port was nominated as a 'green field' site to be developed through private sector participation.

Dredging International company was dealing with the deepening and maintenance programs of the river fairway and major reclamation projects. During October 2003 to May 2004 the company carried out the civil engineering and bund works at Hazira port in Surat, Gujarat. The dredging and reclamation works involved 8.3 million cubic meter of dredging. The bunds were built using geo-bags and they were needed to be protected from sea erosion.

Solution

The contractor has suggested the use of gabion mattress as an apron protection work for the bunds which is one of the most practical and viable solutions.

Maccaferri has supplied Zinc + PVC coated box gabions of Size 2m x 1m x 0.6m and 2m x 1m x 1m. The gabion mattresses were laid along the sea shore to protect the geo-bags from getting eroded due to sea water. The Gabion mesh type was 10x12, with wire diameter 2.7/3.7 mm, with selvedge wire diameter of 3.4 mm / 4.4 mm.

Advantages of Gabion:

- Flexibility.
- Monolithicity.
- Permeability.
- Cost effectiveness.
- Easy to construct.
- Eco friendly.

Client: Hazira Port Pvt Ltd

Contractor: Dredging International

Products used (Qty.)

- Gabion	2X1X1-7000 no &2X1X0.6-2500 no
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Date of construction: 10/2003 - 05/2004



Photo 1: During construction



Photo 2: During construction



Photo 3: During construction



Photo 4: During construction

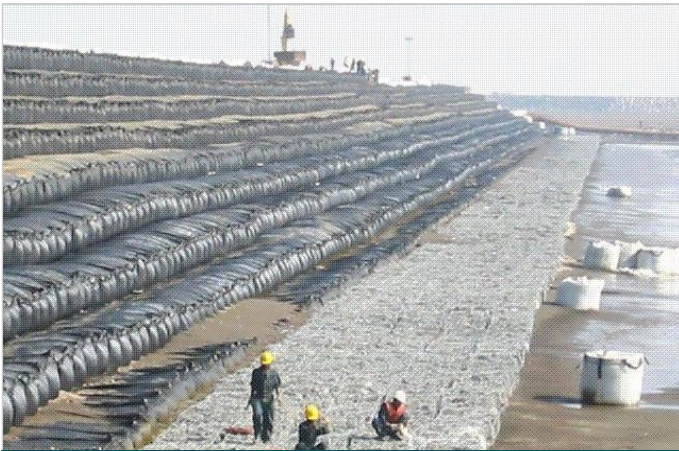


Photo 5: During construction