

Case Study

Project: **Sonaisali Groynes**
 Location: **Sonaisali, Fiji**
 Client: **Sonaisali Island Resort**
 Contractor: **Foreshore Constructions**
 Date: **April 1998**



ELCOROCK®

The beach area in front of the Sonaisali Island Resort on the island of Fiji was being severely eroded and the resort owners decided to implement a beach protection strategy. This included the construction of a 50m groyne to contain the sand in front of the resort.

ELCOROCK® sand filled geotextile tubes were used to form the groynes. The groyne consisted of 3 1.2m Ø tubes placed in a pyramid shape i.e. two on the base and the third stacked on top.

The tubes were filled using a 150mm (6") pump and took approximately 2 ½ hours each to fill.

The tubes were manufactured from 1200g/m² Polyester staple fibre non-woven needle punched geotextile. This robust geotextile allows the tube to deform to uneven base conditions and provides the necessary friction angle when stacking tubes.

The tubes were covered with grout-injected matras to protect them from vandalism and accidental damage.



Installation of 2 base tubes

The project has resulted in significant widening of the beach frontage to the resort and withstood its first cyclone attack in January 2000.



Significant beach widening



After the cyclone – March 2000

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