LOCAN - Baria Vung Tau Province - VIETNAM (2005)
Setting up the security of a natural area

Customer: Science and Technology Department of Baria Vung Tau Province.

Location:	Locan Beach
Study period :	2004
Goals :	To stabilise the coastline, to make the beach profile denser and to reshape it; to protect both the ecosystem of the lagoon and the local economic challenges while preserving the natural aspect of the site.
Works realised:	8 STABIPLAGE® perpendicular to the coastline
Period of work:	Summer 2005

At the beginning of the year 2004, Professor CONG, Director of the Science and Technology Department of Baria Vung Tau Province – South Vietnam, called in ESPACE PUR Company to protect and improve the valorisation of Loc An site.

The characteristic of this site is a lagoon system separated from the sea by a sandy line (photo #1) facing marine erosion. In fact, we can see a steady decrease of the line thickness and of the profile height.

The creation of cracks – in addition to submersion incidents (photo #2) – has frequently caused damages and has weakened the ecosystem of the lagoon; thus, this endangered local activities (photo #3): shellfish farming within the lagoon, fishing and tourist development (small resort).

A STABIPLAGE® feasibility study was realised *in-situ* in 2004 by ESPACE PUR that recommended setting up 8 STABIPLAGE® perpendicular to the coast line (to capture sediment). This is a pilot project that will benefit from a scientific follow-up during 13 months.

Technical characteristics of the 8 STABIPLAGE® (photo #4):

Lengh:	50 m
Height:	around 0,80 m (according to the results of STABIPLAGE® assessment study)
Anchoring:	on the whole length, 1m deep
Materials:	Geotextile NT permeable filter, polyester permeable shell

Starting the first month further to the works, the sandy line profile got thicker and its surface wider of about 15 meters (photos # 5 and #6). The natural consolidation (through sediment capture) of the sandy line was activated.

The revalorisation of the sediment stock allowed restoring progressively a better shaped beach and, thus, a beach more able to play the natural role of dissipating the swell energy. The sandy line thus secured, both the ecosystem of the lagoon and local economy will be preserved.

At last, the progressive covering up of the works, by the action of the captured sand, allows maintaining the natural aspect of the site. The natural sediment move is then valorised but not stopped; the issue of erosion is solved instead of being transferred to another place.

This revalorisation enables to assume a boom of Loc An economic development.

The results of the follow up will soon show how to qualify and quantify the precise impact of the works.