Morphologic Evolution of Bassac Access Channel (Vietnam)

Financed by: Ministry of Economic Affairs, Belgium

Client: Ministry of Economic Affairs, Belgium

Date: 1997 – 1998

Budget: € 12 500

Location: Vietnam, Bassac River

Partners: Belgan Geological Services

Assignment:

The Bassac River is the most important access to the harbours of the lower Mekong delta (Can tho, My Thoi, Tra Noc, Vietnam and Phnom Penh, Cambodia). Soresma-haecon was awarded the contract in the Research Programme NAT/96-6.2 of the Belgian Geological Service to study the sedimentologic stability of the Bassac access channel.

Scope of Services:

- Analysis of historic records of bathymetric surveys
- Differential Bathymetries
- Morphodynamic evaluation
- Digital Terrain Modelling
- Nautical accessibility

Technical Description:

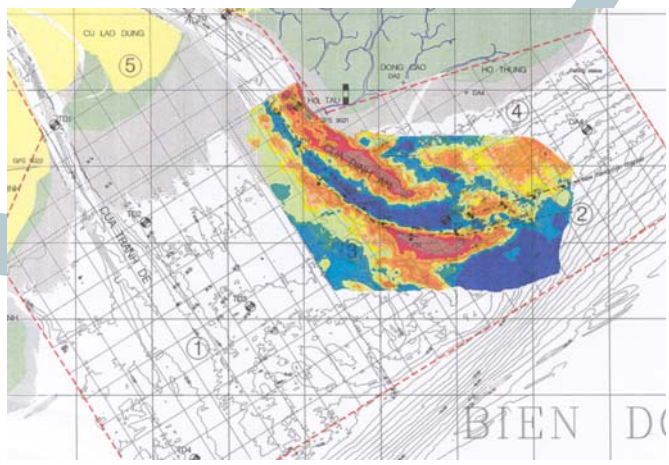
The Bassac River is the most important access to the harbours of the lower Mekong delta (Can tho, My Thoi, Tra Noc, Vietnam and Phnom Penh, Cambodia) in southern Vietnam. In the framework of the Research Programme NAT/96-6.2 (financed by the Belgian Ministry of Economic Affairs) of the Belgian Geological Service the effect of deepening the Bassac access channel on flooding and sediment transport in the lower Mekong delta was studied.

Dredging in the past did not succeed in creating a stable and safe corridor to the inland harbours. The feasibility of the dredging of a deeper access channel was studied using sedimentologic and hydraulic studies.

The complementary research project by the Geological Service aims at gaining a better understanding of morphological changes in the ebb and flood channels. Soresma-haecon contributed to the research by detailed bathymetric research and differential mapping.

The study revealed that morphological changes can be very important on short term (one or two years, or even a few months). On the longer term local and temporal changes are smoothed out over the channel.
Despite the accretion of the foredelta, the main channel lies still in the same area after the studied period of more than thirty years.

Relevant deepening (by dredging) of the shoals appear to be relatively stable in a term of a few years. This suggests that limited maintenance may be sufficient to guarantee the required nautical accessibility access.



Differential map 1996/97 – 1962 (Cua Dinh An)

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