

# Mechanism of Evolution of Coastal Sandy Bodies from the Mouth of The Comoé River to Grand Bassam, Lower Ivory Coast, West Africa

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## ABSTRACT

The mouth of the Comoé River, a transition area between marine, lagoon and river environments, makes it a dynamic environment. It is moreover this dynamism and the spatio-temporal distribution of the sandy bodies in this particular coastal zone that has been the subject of this work. It emerges from this study carried out using library data (physical and digital) and software that the dynamism of the sandy bodies of the mouth was not uniform over time. In fact, before the opening of the Vridi canal, the high flow of water at the outlet of the grau prevented the accumulation of coarse particles there. But the digging of the port structure will reduce the water flow in the Grand-Bassam estuary, which will cause the accumulation of sandy bodies at the mouth. The successive series of clogging and opening of the mouth will not be without consequence on the dynamism of the sandy bodies in this zone. Indeed, before the opening, the granulometry of the deposits is much finer and consists essentially of fine mud and sand, but after the opening, the tidal current which becomes more important will drag the fine mud and sand into the sea and leave uncovered a much coarser sandy facies.

In general, this study showed that the movements of sand are dominated by a fattening on the erosion in the surroundings of the mouth, while one notes the opposite in the more remote environments.

**Keywords:** Tidal current, Clogging, Mouth, Foreshore, Grau, Grand-Bassam, Mechanism of evolution.

