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Sediment Dynamics Of The Coast Of Gabes

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Tunisia is located at the junction of the Western Mediterranean and the Eastern Mediterranean, opens abouts 1300 kms of coastline spread over the northern and eastern limits. The Tunisian coast extends from the Tunisian-Algerian border up to the furrow Tripolitan. The Gulf of Gabes, southern coast, occupies the greater part of the eastern Tunisian coast. It is characterized by extensive continental shelf and shallow slope. Our interest focuses on the southern coast of the Gulf of Gabes (South-East of Tunisia), which extends about 20 km, from the city of Gabes to the estuary of the river Ferd, is a sandy coast microtidal. The coast consists of a succession of sand spits sheltering lagoons crossed by tidal channels. To understand the sediment dynamics of the sandy coast and identify the processes behind the formation and evolution of sand spits, it was based on the Coastal Modeling System (C.M.S), to determine the hydrodynamic processes set games in this part of the Gulf of Gabes. Thus, the evolution of the sand spits is controlled by two main currents longshore drift. These currents are in opposite directions namely SE-NW and NW-SE direction, following the directions alternating swells. To complement these results and have an overall idea about sediment dynamics at the studied coast, it was necessary to estimate the rate of sediment transited through the longshore drift currents. To do this, we have adopted a quantitative approach using empirical formulas, such as formula C.E.R.C and the L.C.H.F. Through this study, we have shown that sediment dynamics at the south coast of Gabes, is controlled mainly by two longshore drift currents that transiting fine sediments along the coast and responsible for formation and development of sand spits. Keywords: Sandy coast, sediment dynamics, longshore drift.