

Sea Dynamics and the Factors Affecting Sea Level Fluctuations the Evolution of the Deltas Base in Northern Strait of Hormuz

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Extended abstract

1- Introduction

One of the effective factors in coastal area creation is the sea hydrodynamic and it is considered in all plans related to the beach. In this article, the sea hydrodynamic in Strait of Hormuz and the sea water movements including tide waves and marine movements in the delta bases of the area have been studied. It is considerable that the delta of the area is being threatened and instable and is affected by marine water movements including tide, waves and marine movements. These movements have resulted in instability of this part for human capability in exploitation. Therefore dynamic investigation of the marine water movements on coastal line and then on coastal tide is the goal of this study.

2- Methodology

The study area includes the beach of Strait of Hormuz, bet ween Minab River,

in the east and Shoor River, in the west of Bandar Abas.

In this study, librarian and statistical data have been gathered from available resources, firstly. Marine movements pattern of wind blowing and waves and tide in the studied area and the tide delta of the Bandar Abas station have been analyzed by the most intensive wind blown in eightfold ways in the area.

Furthermore, the wave's condition, tide movements and the obtained moves have been investigated after explaining the figures and coastal processes of the area, especially delta and finally erosion condition including destruction, sediments displacement and sedimentation in the beach line of the area have been analyzed.

3- Discussion

Since the studied beach is a delta one, so their slope is very small. Due to the conditions on the coastal line, tide is more effective.

tide forces are so powerful in Persian Gulf, the water progress resulted from tide in extreme monthly tide conditions reaches to more than one kilometers in a

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day, due to the tide slope and on the other hand the little slope of the delta bases.

It is considered that one of the most important elements of water movement in Persian gulf results from the moved water with less salinity (40-41 PSU) that moves from shallow areas of Arabian beaches in the south of the gulf to Strait of Hormuz and Oman sea.

In the studied area, the general movements in the northern beaches of Strait of Hormuz are often from east to the west in the east coastal lines, it is from the south to the north and causes relative movements of sediments in the coastal line.

In the studied area, the general rivers from the west to the east respectively include: Shour, Jelabi, and Hasanlangi. The rivers movement causes general digression of the water flow to the north, North West and west in the studied area.

4- Conclusion

Based on the studied, the water movements including waves, tide and beach and marine movements play an important role in morphological changes in coastal line in delta bases, among that, the waves play more important role in creation and topography of the beach and two other factors play a complementary and cause role. But in delta bases, the tide affects mostly on coastal line area, because of decreasing the slope less than 0/01.

Keywords: Coastal Geomorphology, Strait of Hormuz, Sea Hydrodynamic, Marine Movements, Delta Base

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