

# **Geo-environmental problems in the coastal zone of the Persian Gulf, Iran**

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The Khuzestan, Bushehr and Hormozgan provinces are situated in the coastal zone of the Persian Gulf. In spite of the existence of high commercial potential, including oil and natural gas fields, sustainable development shows no promising trend in these provinces due to undesirable geo-environmental conditions.

The study area consists of vast and flat terrain, limited by the foothills of the Zagros Mountain from the north.

Geologically, the coastal plain is mainly consisted of sand, silt, and mud, meanwhile the unconsolidated sand, marl with gypsum (Miocene-Pliocene), intruded by some salt domes in few places, are cropped out in the north. High erodibility of these sediments make them prone to rapid erosion and scouring. As a result the Karoon river, which flows within the study area, has a high solid load.

The climatic condition in the study area is hot and sub-humid. Humidity rises up to 100 percent in summer time.

Swamp and lagoon are widespread along the border line of Iran and Iraq in the west where is not suitable for land-use planning. High level groundwater, which may be a cause for water and soil pollutions, high salinity of water, flooding, earthquake and rising gases are other environmental problems in urban planning and sustainable development in the coastal plain of the Persian Gulf.