

Abstract

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Potential Impacts of Natural Hazards on the Egyptian North Western Coast

Coastal zones are important issues in the international debate on the environment & sustainable development. The coastal zone generally consists of the interface between land & sea in such an equation where marine space & resources are as important as terrestrial ones. The coastal zone has become the major site for extensive & diverse economic activities. Many of the coastal developing countries depend heavily on the scarce coastal resources for their economic growth. Rapid urbanization & economic development spawn complex resource-use conflicts & environmental degradation problems in the coastal zone. Since the northern coastal zone of Egypt is a highly dynamic system, most natural events show a wide range of variation through time in the use of energy & materials of environmental processes. Traditionally, natural hazards have been viewed in an ecological framework this distinguishes between natural events & their interpretation as natural hazards (or resources). This paper provides basic spatial data covering the coastal zone extends from west Alexandria to El Salum sector east & 60 Kilometer landward (south) along the North Western Egyptian Mediterranean Sea from year 1984 to year 2003. Thematic layers of relevant factual maps on scale 1:100.000 are provided. The study includes identification of the causative processes & their rates to the dynamic aspects involving time-lapse, sequential coverage of spatial data & their impacts (or risk) of the ever-increasing human activities. Also, as the remote sensing techniques allow for zooming-in for details, later comprehensive studies of critical sites (hot-spots) & sectors would be possible. In fact, the coastal areas provide scientists with an equaled opportunity for the study of active processes. The coastal processes & the resultant movement of shoreline material up & down the beach the socioeconomic parameters along the coast over the sea-land interaction, the development activities, i.e. tourism & climatic conditions - all these, & many other processes, operate at a speed which renders observation, measurement & analysis a far more feasible task. In the light of this, the application of the concept of dynamic equilibrium would seem to be more justified in the coastal field than in certain others. Coastal features such as shoreline changes, sedimentation, & even some cliffs are without doubt the product of currently acting processes, & their forms really seem to represent a changing condition of balance between several controlling factors (aspect, climate conditions, nearshore processes, tides, dunes movement, & so on). Yet even in coastal geomorphology important examples of 'in-equilibrium' are often found.