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TITLE: Impacts of Coastal Erosion, Anthropogenic Activities and their Management on Tourism and Coastal Ecosystems: A Study with Reference to Karnataka Coast, India

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ABSTRACT:

Coastal zone is the focus of expansion and diversification of economic activity. Beaches are most vital part of coastal zone and have become synonymous with tourism and prediction of sea-level rise. Coastal / beach tourism forms one of the most important segments of a tropical country like India. Some of the beaches along Karnataka coast are under threat of erosion as it is true worldwide. Beach / shoreline changes are estimated through regular beach profiles and coastal processes and littoral environmental parameters were measured / recorded during each field survey all along the coast of Karnataka. When coastal erosion takes place, seawalls are constructed using hard rocks as erosion management tools. But they are complicating the erosion problem either by intensifying it or by shifting erosional sites towards adjacent areas. In some cases they have been destroyed by storm waves and degraded recreational beaches. They also pose a severe threat for shore-based fishing activity. Apart from this, Sand bags, Gabion retaining walls, Geo-textile reefs and berms also have been and being tried at severely eroding beaches ? Ullal-Kotepura - but in vein. Beach nourishment too was done at these beaches but not successful. Jetties constructed at river mouths or tidal inlets act as barriers for longshore drift in the near shore. Sand accumulates on the up-drift side of jetties and the shoreline advances, while, sand gets drifted away on the down-drift side and shoreline retreats. Breakwaters are built in order to protect approach channels and harbour areas from the storm waves also act as dams for longshore drift and lead to erosion on the down-drift side as in the case of jetties. At present, coastal protection schemes when compared to other public works projects have provoked relatively little opposition from environmentalists. But the days are not too far when greater opposition from that corner can be expected if similar unplanned, haphazard seawall construction is continued. Thinking about impacts of large-scale engineering structures on aesthetic and amenity aspects of beaches has been started by those who make use of them for recreation. In addition to various tools applied for beach management with examples on recent local and regional case studies, this chapter deals with beach challenges, such as coastal erosion, legal / illegal sand mining, tourist development, urban growth, pollution, impact of vented dams and coastal policy and management. Importance of dunes, threats faced by them and their management are also addressed in this chapter.

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