

2nd International Symposium on Operationalization of Remote Sensing, Enschede, The Netherlands,
16-20 August, 1999

Need for coastal sand dune management in Sri Lanka

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Keywords: coastal sand dune management .

Abstract:

Coastal dunes in the southern part of Sri Lanka act as an important natural barrier against coastal erosion and protect life and property within the coastal zone. They absorb the energy of waves, and more importantly, provide a reservoir of sand to replace the carry off by sever storms. Furthermore, sand dunes also provide an important habitat for a number of plants and animals and have environmental, social and economic significance.

The dune environment is sensitive and vulnerable even to a slight environmental stress. Field investigations revealed that several segments of the existing dune system in the Hambantota coastal area (southern part of Sri Lanka) have been irreversibly damaged due to human activities both by improper design and uses. Two reasons can be identified for the high demand for sand dune lands closer to the main road and the Hambantota urban centre. First, there is a tendency for people to settle closer to coastal areas urban centres in order to use the existing infrastructure facilities. Second, almost all the land where most of the dunes are located belongs to the Government, where long-term lease or temporary occupation licenses can be obtained by paying a minimal fee to the Government. This increases the chances of settlements on sand dunes.

The information collected from focused group discussions with key stakeholders and through a community perception survey confirmed that the removal of sand and landscaping the dunes for housing construction are two major factors for dune degradation. In addition, the linear sand dunes have been cut-down couple of years ago to control floods, which has resulted in the discontinuation of sand dunes. In some cases, the growth of backdunes has been disturbed due to the existence of salterns. Other main causes of sand dune degradation are: unauthorised constructions; trampling and related human activities, especially developing network of paths and tracks across the dunes;

beaching of fishing crafts and drying up of nests; dumping of solid waste. Removal of sand from the dunes for road construction and funeral activities has also been responsible for dune destruction.

The severity of sand dune degradation which in turn threaten the bio-diversity and viability of social and economic significance makes the area one of the high priority sites that require the development of specific management plan. In considering the significance of the prevailing issues, the Special Areas Management Programme has been initiated under the Hambantota Integrated Coastal Zone Management Programme funded by NORAD. In terms of sand dune conservation and protection, there is no single Government or Non-governmental organisation (NGO) at present involved in dune management. However, there are number of local and national level NGOs active in the study area that could get involved with Government organisations and the public to work towards the sound dune management.
