

A Remote sensing and GIS based method for the risk assessment of coastal erosion in Atlantic Sahara basin (SW of Morocco)

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Abstract

Coastal erosion is an increasing problem for many local authorities and government agencies throughout the world. [1] estimated that at least 70% of the sandy beaches in the world are retreating at a rate of 0.5-1.0 m/year. The assessment and management of the coastal areas is necessary to protect the economical and human activities. In term of the recent technology, the use of decisional support based on GIS applications has been shown to have potential for assessment the coastal erosion in cliffs and sandy areas [2, 3].

The study area is located in northern of Sahara Atlantic (SW of Morocco). It is a vast coastal platform, extending from Akhfinir to Tarfaya city. The coastal degradation by water erosion is a responsible agent of soil production in this region [4].

In the present study, a methodology was developed for the multi-dimensional evaluation of coastal area between Akhfinir and Tarfaya using a set of criteria and based on the combination of remote sensing and Geographical Information Systems GIS methods.

References

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