



ChemTech

International Journal of ChemTech Research

CODEN(USA): IJCRGG, ISSN: 0974-4290, ISSN(Online):2455-9555
Vol.11 No.06, pp334-343,2018

Assessment and Analysis of Coastal Vulnerability to Sea level rise of Nagapattinam- Vedaranniyam coast using Geospatial Technology

C.T.Anuradha*

Assisitant Professor (Sr.Grade), MepcoSchlenk Engineering College, Sivakasi, India

Abstract:Coastal zones currently have the highest concentration of population, industries and many major cities. The ongoing rapid expansions of economic and industrial activities along the coast the coastal zone indicate that this trend will accelerate in the near future. But at the same time one of the major areas of concern for coastal zone administrators and planners had been the determination of physical responses of the coastal zone to anticipate Sea level rise, Flooding and Storm surges. As, prediction of shoreline retreat and land loss rates are very critical to the planning of future Coastal zone management strategies, assessing the destruction and carrying out rehabilitation measures. The aim of this study is in assessing the coastal vulnerability for Nagapattinam- Vedaranniyam coast since the area is affected more due to Tsunami and different cyclones using Remote Sensing and GIS tools. Six various terrain and physical parameters such as Geomorphology, Land use/Land cover, coastal slope, Offshore bathymetry, shoreline change (1970-2015), mean Tidal height has been considered to calculate the Coastal Vulnerability Index(CVI) based on USGS classification and they show significant variations all along the coastal tract. Based on the CVI values calculated for the study area the coast is classified as five classes of vulnerability viz., very low, low, moderate, high, very high. Strong concept of GIS is used for over lying of individual layers and getting the integrated vulnerability map. The present study can be used as important tool for disaster management due to sea level rise for future development.

Keywords:Sea Level Rise; Coastal Vulnerability; GIS; Climate Change.

C.T.Anuradha /International Journal of ChemTech Research, 2018,11(06): 334-343.

DOI= <http://dx.doi.org/10.20902/IJCTR.2018.110642>
