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**Land use land cover impacts on coastal erosion in krishna-godavari delta front coast, Andhra Pradesh, India-a remote sensing approach**

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The world is facing coastal erosion and inundation of lowlying coastal areas is a major concern in recent years. It is a slow process, but may emerge as a major disaster unless it is not properly mitigated. Besides the impact of global and regional environmental issues, the human induced land use is also contributing area specific coastal erosion. Studied, spatio-temporal changes of land use/land cover in 20 km buffer zone area from the shoreline to inland along the 339 km long coastline of Krishna-Godavari (KG) delta front coastal region to identify coastal erosion hotspots. Analyzed multi-date satellite imagery of Landsat 4 & 5, 7 and 8 TM, ETM, OLI and TIRS sensors of the years 2002, 2011 and 2017 reveals rapid changes in land use/land cover, mangrove deforestation/afforestation, shrimp/aquaculture and coastal erosion. Severe coastal erosion is taking place at Uppada and Konapapapeta coasts whereas accretion is at Vakalapudi coast in Godavari delta coast. The coast near Bandar fort is experiencing erosion in Krishna delta. A degradation of about 28 km<sup>2</sup> of mangroves and coastal erosion of about 6.485 km<sup>2</sup> from 2002 to 2011 along the Krishna-Godavari delta front coast region is observed. Contrary to this, from 2011 to 2018 there is an increase of 93 km<sup>2</sup> of mangroves and an accretion of 6.304 km<sup>2</sup> is experienced. Remedial measures like construction of breakwaters with a distance of 10m inside the sea which is parallel to the existing geotube. In addition, beach nourishment is also suggested to reduce the impact of coastal erosion.

**Biography**

Peddada Jagadeeswara Rao is working as a Professor and Chairman, Board of Studies, Department of Geo-Engineering and Centre for Remote Sensing, College of Engineering (A), Andhra University. He published research articles on groundwater resources, watershed management, solid waste management, HIV/AIDS in reputed national and international journals. Guided 11 research scholars for their Ph.Ds and a consultant on water resources and remote sensing and GIS.

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