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## **Hazard Mapping and Vulnerability Analysis in Northern Tamil Nadu Coastal Region, India: A Geoinformtics Approach**

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The Northern Coastal Tamil Nadu lies between the Pulicat Lake in the north and the Palar river in the south, on the eastern coast of Tamil Nadu, India. The study area consists of beaches, agriculture, estuaries and important tourism centers. Geomorphologically the area has a wide coastal plain characterised by strandlines, lagoon, estuaries, creek, barred dunes, spits, beach terraces, mangroves, salt marsh. More than 40 per cent of rainfall is received from North East Monsoon period (October-December).

Hazards mapping and Vulnerability analysis provides information on risk areas with maps that indicate which areas are most susceptible to hazards. Hazard maps assist the decision makers with determining which areas are susceptible to individual hazards, multiple hazards that have been identified. Identification of vulnerabilities will help the local people and government and other authorities in Emergency Management Planning.

The present paper deals with GIS based Hazard Mapping and Vulnerability Analysis for Northern Coastal Zone, Tamil Nadu, India. The resource survey has been conducted to assess the physical resources and related socioeconomic attributes of the study area. GIS mapping approach has therefore been used to study each unit of land in the coastal zone for identification of highest-risk areas to develop a risk-prioritization for better Planning.