

## Impact Assessment of Tropical Cyclone Hudhud on Visakhapatnam, Andhra Pradesh

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**Abstract :** Tropical cyclones are some of the most damaging events. They occur in yearly cycles and affect the coastal population with three dangerous effects: heavy rain, strong wind and storm surge. In order to estimate the area and the population affected by a cyclone, all the three types of physical impacts must be taken into account. Storm surge is an abnormal rise of water above the astronomical tides, generated by strong winds and drop in the atmospheric pressure. The main aim of the study is to identify the impact by comparing three different months data. The technique used here is NDVI classification technique for change detection and other techniques like storm surge modelling for finding the tide height. Current study emphasize on recent very severe cyclonic storm Hud Hud of category 3 hurricane which had developed on 8 October 2014 and hit the coast on 12 October 2014 which caused significant changes on land and coast of Visakhapatnam, Andhra Pradesh. In the present study, we have used Remote Sensing and GIS tools for investigating and quantifying the changes in vegetation and settlement.

**Keywords :** inundation map, NDVI map, storm tide map, track map

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