

Physical Planning Strategies for Disaster Mitigation and Preparedness in Coastal Region of Andhra Pradesh, India

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Abstract : India is prone to natural disasters such as Floods, droughts, cyclones, earthquakes and landslides frequently due to its geographical considerations. It has become a persistent phenomenon as observed in last ten decades. The recent survey indicates that about 60% of the landmass is prone to earthquakes of various intensities with reference to Richard scale, over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is vulnerable to drought. Climate change is likely to be perceived through the experience of extreme weather events. There is growing societal concern about climate change, given the potential impacts of associated natural hazards such as cyclones, flooding, earthquakes, landslides etc. The recent natural calamities such as Cyclone Hudhud had crossed the land at Northern cost of AP, Vishakapatnam on 12 Oct'2014 with a wind speed ranging between 175 - 200 kmph and the records show that the tidal waves were reached to the height of 14mts and above; and it alarms us to have critical focus on planning issues so as to find appropriate solutions. The existing condition is effective in terms of institutional set up along with responsive management mechanism of disaster mitigation but considerations at settlement planning level to allow mitigation operations are not adequate. This paper deals to understand the response to climate change will possibly happen through adaptation to climate hazards and essential to work out an appropriate mechanism and disaster receptive settlement planning for responding to natural (and climate-related) calamities particularly to cyclones and floods. The statistics indicate that 40 million hectares flood prone (5% of area), and 1853 kmts of cyclone prone coastal length in India so it is essential and crucial to have appropriate physical planning considerations to improve preparedness and to operate mitigation measures effectively to minimize the loss and damage. Vijayawada capital region which is susceptible to cyclonic and floods has been studied with respect to trajectory analysis to work out risk vulnerability and to integrated disaster mitigation physical planning considerations.

Keywords : meta analysis, vulnerability index, physical planning, trajectories

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