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# Physical Planning Trajectories for Disaster Mitigation and Preparedness in Costal and Seismic Regions: Capital Region of Andhra Pradesh, Vijayawada in India

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**Abstract :** India has been traditionally vulnerable to natural disasters such as Floods, droughts, cyclones, earthquakes and landslides. It has become a recurrent phenomenon as observed in last five decades. The survey indicates that about 60% of the landmass is prone to earthquakes of various intensities; over 40 million hectares is prone to floods; about 8% of the total area is prone to cyclones and 68% of the area is susceptible to drought. Climate change is likely to be perceived through 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, hence it is essential and crucial to strengthening our settlements to respond to such calamities. So, the research paper focus is to analyze the effective planning strategy/mechanism to integrate disaster mitigation measures in coastal regions in general and Capital Region of Andhra Pradesh in particular. The basic hypothesis is to govern the appropriate special planning considerations would facilitate to have organized way of protective life and properties from natural disasters. And further to integrate the infrastructure planning with conscious direction would provide an effective mitigations measures. It has been planned and analyzed to Vijayawada city with conscious land use planning with reference to space syntax trajectory in accordance to required social infrastructure such as health facilities, institution areas and recreational and other open spaces. It has been identified that the geographically ideal location with reference to the population densities based on GIS tools the properness strategies can be effectively integrated to protect the life and to save the properties by means of reducing the damage/impact of natural disasters in general earth quake/cyclones or floods in particularly.

**Keywords :** modular, trajectories, social infrastructure, evidence based syntax, drills and equipments, GIS, geographical micro zoning, high resolution satellite image
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