

## Geographic Information System and Ecotourism Sites Identification of Jamui District, Bihar, India

**Authors :** Anshu Anshu

**Abstract :** In the red corridor famed for the Left Wing Extremism, lies small district of Jamui in Bihar, India. The district lies at 24°20' N latitude and 86°13' E longitude, covering an area of 3,122.8 km<sup>2</sup>. The undulating topography, with widespread forests provides pristine environment for invigorating experience of tourists. Natural landscape in form of forests, wildlife, rivers, and cultural landscape dotted with historical and religious places is highly purposive for tourism. The study is primarily related to the identification of potential ecotourism sites, using Geographic Information System. Data preparation, analysis and finally identification of ecotourism sites is done. Secondary data used is Survey of India Topographical Sheets with R.F.1:50,000 covering the area of Jamui district. District Census Handbook, Census of India, 2011; ERDAS Imagine and Arc View is used for digitization and the creation of DEM's (Digital Elevation Model) of the district, depicting the relief and topography and generate thematic maps. The thematic maps have been refined using the geo-processing tools. Buffer technique has been used for the accessibility analysis. Finally, all the maps, including the Buffer maps were overlaid to find out the areas which have potential for the development of ecotourism sites in the Jamui district. Spatial data - relief, slopes, settlements, transport network and forests of Jamui District were marked and identified, followed by Buffer Analysis that was used to find out the accessibility of features like roads, railway stations to the sites available for the development of ecotourism destinations. Buffer analysis is also carried out to get the spatial proximity of major river banks, lakes, and dam sites to be selected for promoting sustainable ecotourism. Overlay Analysis is conducted using the geo-processing tools. Digital Terrain Model (DEM) generated and relevant themes like roads, forest areas and settlements were draped on the DEM to make an assessment of the topography and other land uses of district to delineate potential zones of ecotourism development. Development of ecotourism in Jamui faces several challenges. The district lies in the portion of Bihar that is part of 'red corridor' of India. The hills and dense forests are the prominent hideouts and training ground for the extremists. It is well known that any kind of political instability, war, acts of violence directly influence the travel propensity and hinders all kind of non-essential travels to these areas. The development of ecotourism in the district can bring change and overall growth in this area with communities getting more involved in economically sustainable activities. It is a known fact that poverty and social exclusion are the main force that pushes people, resorting towards violence. All over the world tourism has been used as a tool to eradicate poverty and generate good will among people. Tourism, in sustainable form should be promoted in the district to integrate local communities in the development process and to distribute fruits of development with equity.

**Keywords :** buffer analysis, digital elevation model, ecotourism, red corridor

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