

- Land use/land cover change analysis using geospatial technology in Mathura district, Uttar Pradesh, India

AIP Conference Proceedings **2454**, 050033
(2022); <https://doi.org/10.1063/5.0078446>

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ABSTRACT

Land-use change is a significant issue of worldwide environmental change. Land use is the alteration in the different features of the land, which isn't really just the modification in land cover but also changes in intensity and management. The example of land use isn't uniform; however, it changes here and there and from time to time. For prosperous environmental management and sustainable water management strategies, it is important for explaining the dynamics of land use and land cover (LULC). The study emphasized changes in LULC models of the Mathura district over the period 2014 to 2018, using Remote Sensing techniques and Geographic Information Systems (GIS). Land use and Land cover results of the Mathura District have been tabulated for interpretation. The period of the analysis is from 2014 to 2018. Satellite imageries have been classified into an optimum number of classes to predict the changes in the study area. The satellite data have been classified into the following classes include Sparse vegetation, Cropland, Barren land, Settlement and Waterbodies. A drastic change has occurred in the cropland and Sparse vegetation of the study area. The results of the changing pattern show that the urban region has been extended from 234.45 km² to 332.16 km² and

developed land decay to 1051.61 km² and 681.77 km² by 2018. The current situation is explaining the urban extension, which is moving towards the west and south of the study area. However, future urban development is relied upon to ascend in the southern and eastern parts of the Mathura district with the equilibrium of environmental and anthropogenic path. Since the investigation zone is a social and cultural holy site, equalization must be found in building up a city as well as in saving the common habitat and keeping up the social relic.