

Description

We have created the map of Ghaziabad District, the metropolitan city of Uttar Pradesh. First of all we added WMS/MMTS layer for UP using Bhuvan thematic data and saved it in TIFF format. For cropping out the particular area on which we were supposed to work we have used shape file of India and extracted the boundary of Ghaziabad. After this we have extracted the city map by overlapping the boundary. After importing the data of years 2005-2006, 2011-2012 and 2015-2016 from Bhuvan Thematic Services. We created a vectored map from the downloaded raster data using Polygonize feature of QGIS. We analyzed the attribute table of the map of different years. After assiduous planning, we figured out the changed data. For depicting the changes we have used the overlapping technique and added the grid on the map to divide it into several parts. After this step we highlighted different areas using different colors. We have indicated high change with red color, low change with orange and no change with yellow. The main challenge of this project was to use and navigate through QGIS.

Analysis

We have observed the urban changes over the years. The urban growth is clearly visible in the hotspots of NCR region in Ghaziabad District. The urban growth also represents the population increase in those areas since 2005.

Application

LULC plays a major role in area management and change detection. This map can be used to detect the hotspot areas where the maximum change occurred, the areas with low changes and with no change