

# Map Description and Analysis

## Introduction:

The increasing greed and need for humans are changing the land use scenario continuously. The Land Use Land Cover of any region depict major land use such as urbanization, agriculture, barren Land, river, water bodies, and forest area. The Lucknow region was considered to monitor change in land use. That's why I choose the LULC of the Lucknow region. Here I examined the extension of the urbanization and deforestation of this region.

## Methodology:

Resourcesat2 LISS-III (24m) Data was used and downloaded from Bhuvan. This data is received from Linear Imaging and self-scanning sensor (LISS) which operates in three bands in VNIR and one band in SWIR with 24-meter spatial resolution and swath of 141Km. Data range from the month of February to March 2013 and February 2018. After extraction data by mask layer and average 15 signature file for all type land cover such as agriculture, urban and barren land etc. has been created and combined for same type of signature files. Maximum likelihood classification applied with the help of signature file. LULC of the Lucknow region done using this method.

## Result:

Land use and Land Cover classification was done with the help of maximum likelihood classification. I examined here extension of urbanization from 14.99% in 2013 to 17.56% in 2018 and forestation decreases from 23.19% in 2013 to 12.74% in 2018 (Figure 1). Data reflect major change in forestation, its area reduced very rapid rate. Maximum change in LULC for agriculture which is increases 18.56% and forest about 10.5% decreases (Figure 2).

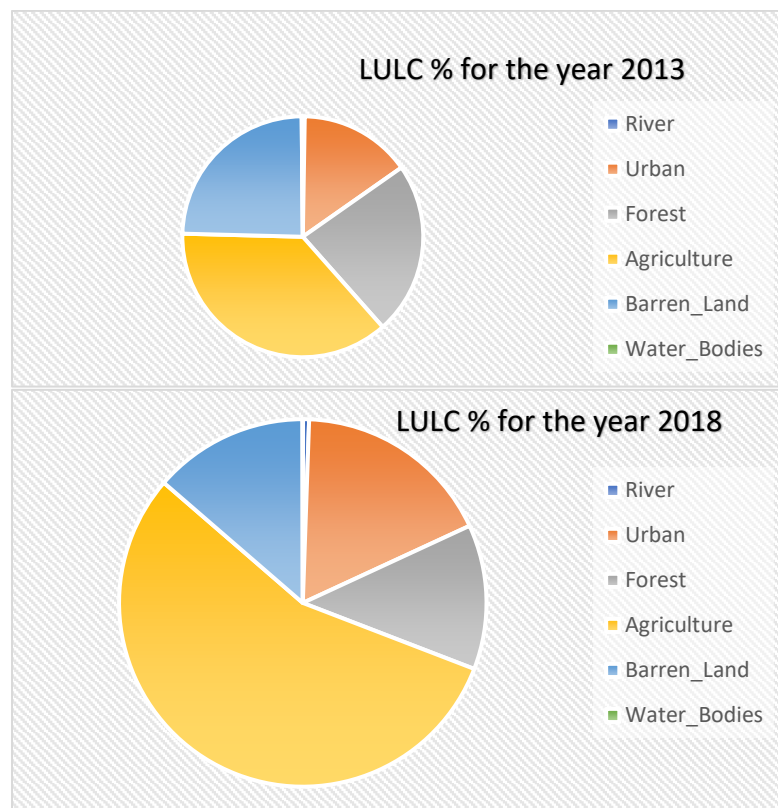


Figure (1): LULC % for the Year 2013 and 2018

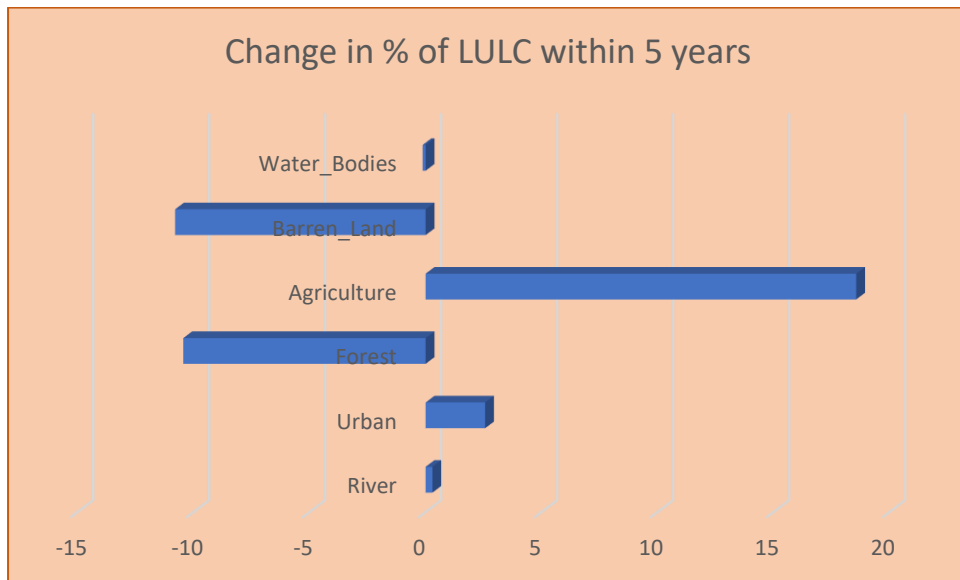


Figure (2): change in percentage of LULC within 5 years

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