

# CHANGE DETECTION USING LISS 3 DATASET

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## 1 METHODOLOGY USED:

Change Detection is useful in several applications like Land cover changes, Vegetation changes, coastal changes and other cumulative changes and it can be measured through spatial and temporal analysis techniques such as GIS (Geographic Information System) and Remote Sensing along with digital image processing techniques.

### 1.1 Problem Statement

In our problem statement we have taken to analyse the vegetation cover change in the AURANGABAD district of MAHARASTRA through use of LISS3 data provided by GeoPortal of ISRO.

### 1.2 Steps Used:

- We firstly downloaded the LISS3 Remotely sensed data of AURANGABAD district through ISRO'S geoportal BHUVAN in the TILES form
- We have used Open Source Software QGIS to analyse this data and classified the provied data into 3 main classes i.e Vegetation ,Water body,and others(which is usually land area) to study our change detection .
- We have analysed the changes in both Map by counting the number of pixels through its Histogram and represented the area into Piechart,here we can see the changes clearly.We have also shown the changes through map by taking the 'Difference of 2018 map and 2008 map' in QGIS .

## 2 Applications and Uses

- These maps which shows change in various features in Map can be utilised by Government bodies to plan their upcoming schemes

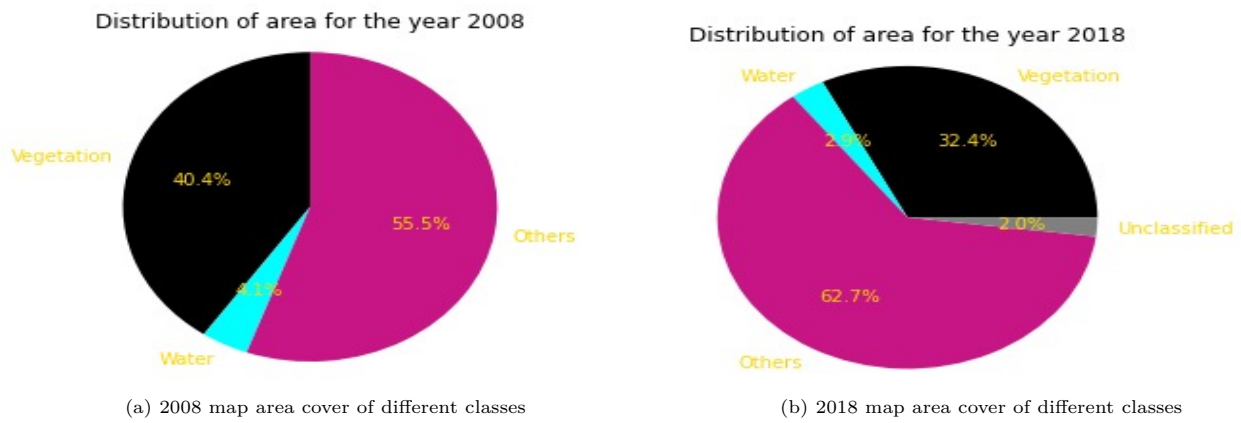


Figure 1: Changes in areas through piecharts in 2008 and 2018 map

- To analyse shrinking of Lakes and Ponds , and lot other applications
- To analyse effect of Urbanisation on vegetation changes.

### 3 Participants:

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