**Objective-** Watershed Mapping and river network analysis

Data Preparation- ( ISRO Data )

1. Cartosat 8 Dem data of Prayagraj is taken from <https://bhuvan.nrsc.gov.in/>
2. Prayagraj Shapefile Taken from <http://data.gov.in/>

**Methodology-**

1. First 4 dem tiles were taken and merged in Qgis.
2. Then, PRS was set at WGS 84/ UTM Zone 43N
3. Then the fill operator from SAGA is used to fill up the depression in the image.
4. After that, Strahler Order from SAGA is used to get river network frames
5. To get only main streams from the Strahler order Raster Calculation was used .

Strahler Order >= 9

1. Then for better visibility of the background of the watershed was made transparent.

**Analysis-**

The **main aim of watershed management** is to conserve the soil, plant, and water resources of a catchment while benefiting humanity. All environmental, social, and economic concerns are combined to treat **watersheds** in an integrated manner.

It emphasises scientific soil and water conservation in order to increase the biomass production.

**Advantages**:

(i) The main aim is to develop primary resources of land and water.

(ii) To produce secondary resources of plants and animals for use in a manner which will ecological imbalance.