**Methodology**

1. **ISRO data used:**

Resourcesat-1/resourcesat-2 AWIFS data sets from www.bhuvan.nrsc.gov.in

India-state and India-district boundary from the resources for mapathon 2020.

1. **GIS Steps:**

Step 1: Creating layers of satellite data from **AWIFS** sensor.

Step 2: Ortho rectification of satellite data using NDWI.

Step 3: Identification and digitization of water bodies.

Step 4: Preparation of layer for water bodies.

Step 5: Generation of database with boundary and water bodies.

**Applications and uses:**

* Drinking water distribution planning.
* Water distribution plan for irrigation.
* Water bodies formed due to certain water level development projects and inspecting them.
* We can gain control over flood management, watershed management and drought management etc.
* Siting for industries and power generating plants.
* Scientific research.
* Planning for sustainability of water resources.