GREEN MAPPERS – MAPPING OPEN SPACE IN MADURAI REGION

Introduction:

- Madurai district comprises of 7 taluks namely Madurai North, Madurai South, Melur, Tirumangalam, Usilampatti, Vadippatti and Peraiyur.
- Madurai the cultural capital of Tamil Nadu and the administrative headquarters of Madurai District, is the third largest city in Tamil Nadu and 44th most populated city in India.

Objective:

The district has a total land area of 3710 Km^2 with most of the area being occupied with cultivation, urbanization, forests, mountains, etc. Our aim is to make use of the remaining free land by using them for environmental purposes.

Methodology:

→ Software used: QGIS version 3.16.1- Hannover.
→ Coordinate Reference System (CRS) Used: WGS 84 (EPSG 4326).
→ we have downloaded satellite image of Madurai region from bhuvan. The image is captured by LISS III sensor, one among the three sensors (LISS III, AWiFS and LISS IV) on board in Resourcesat-1 satellite.
→ It is important to have a clear idea about the areas in and around Madurai district. So, we tried to visit as many places as possible to find proper vacant land for our mapping.
→ As a part of data collection, we have visited different places across Madurai district to identify the open space areas. Using a hand-held GPS device, we have collected the latitude and longitude co-ordinates of those open space areas.
→ With the data collected, we imported those open space locations as point features in GIS software.
→ After locating the open areas, the overall boundary of Madurai district along with the 7 taluks are digitized.
→ For further more clarification, we used https://vedas.sac.gov.in/ to check if any cultivated lands are marked in place of vacant lands.
→ After digitization, the final step is to create the Map layout with the specified details like north arrow, legends, scale bar and other necessary information.

Application:

      Afforestation: - The main motive behind this mapping is to make our surroundings green. With vacant land available in various region, we can use them to plant trees or even use them for agricultural activities like vertical farming, etc.

      Other applications include energy conservation methods like wild energy or solar energy, wildlife preservation, community garden,etc.

Reference:

https://bhuvan.nrsc.gov.in/bhuvan/PDF/Resourcesat-1_Handbook.pdf