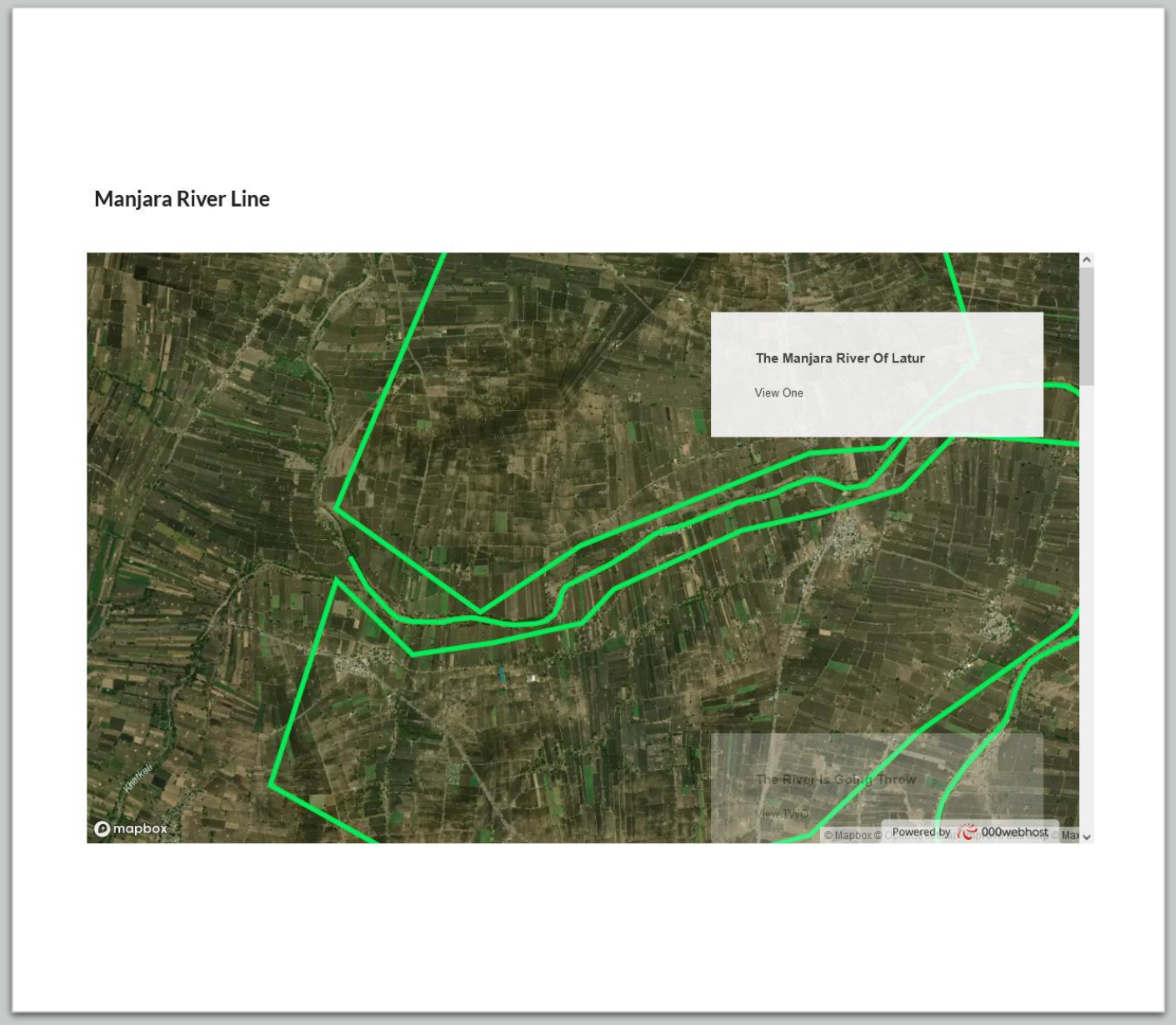
Dashboards for River Rejuvenation Projects

Nitesh Sabne

Mapbox API

Manjara River Line

- Started using Mapbox
- Studied commands
- Hosted website with database
- Created basic dashboard view to observe river line
- Used Javascript APIs to create maps and views



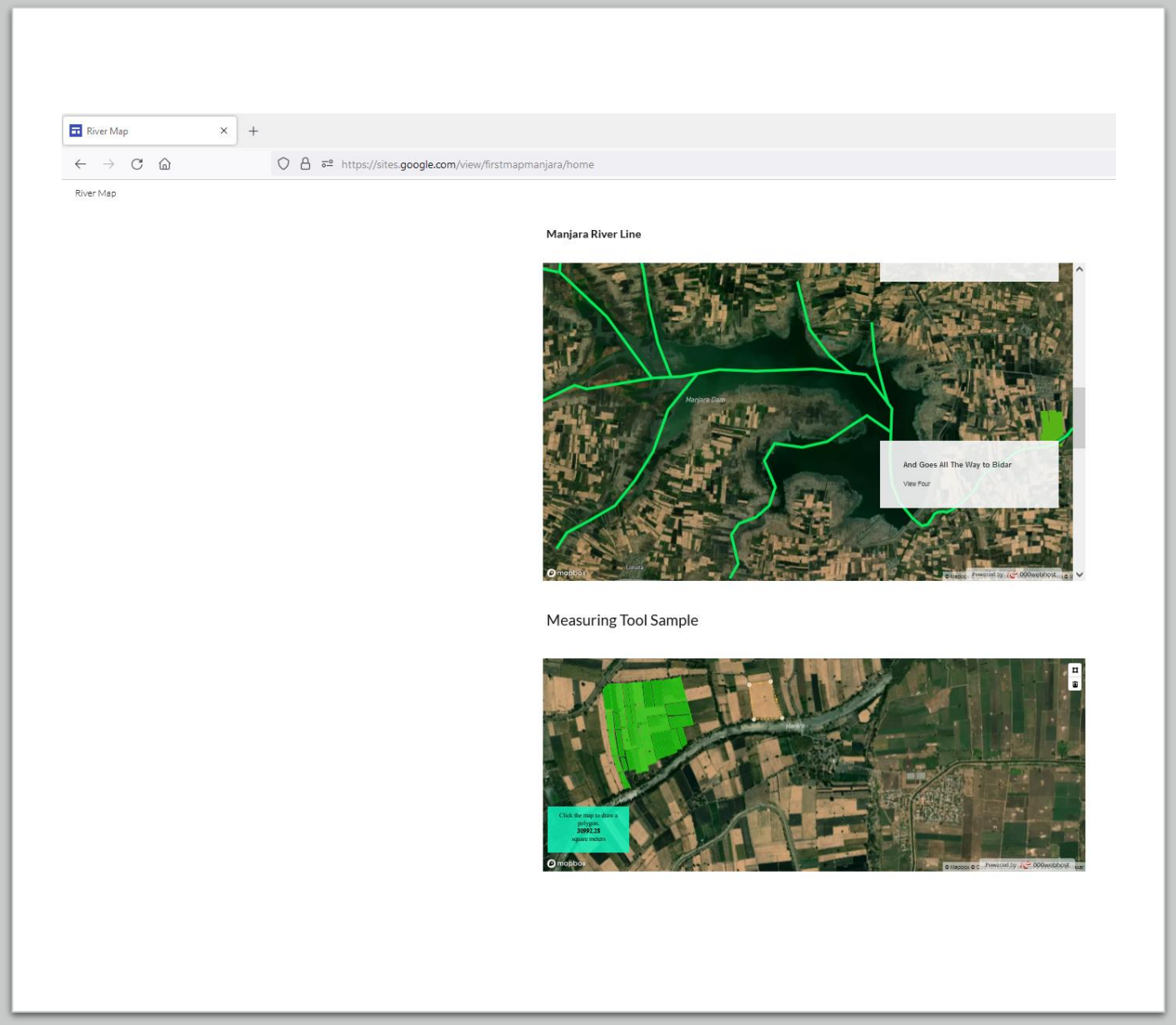
Area Measurement View

- Mapped sample agricultural land in the Manjara River Basin
- Create an area measurement view for mapped agricultural land

Measuring Tool Sample

Website

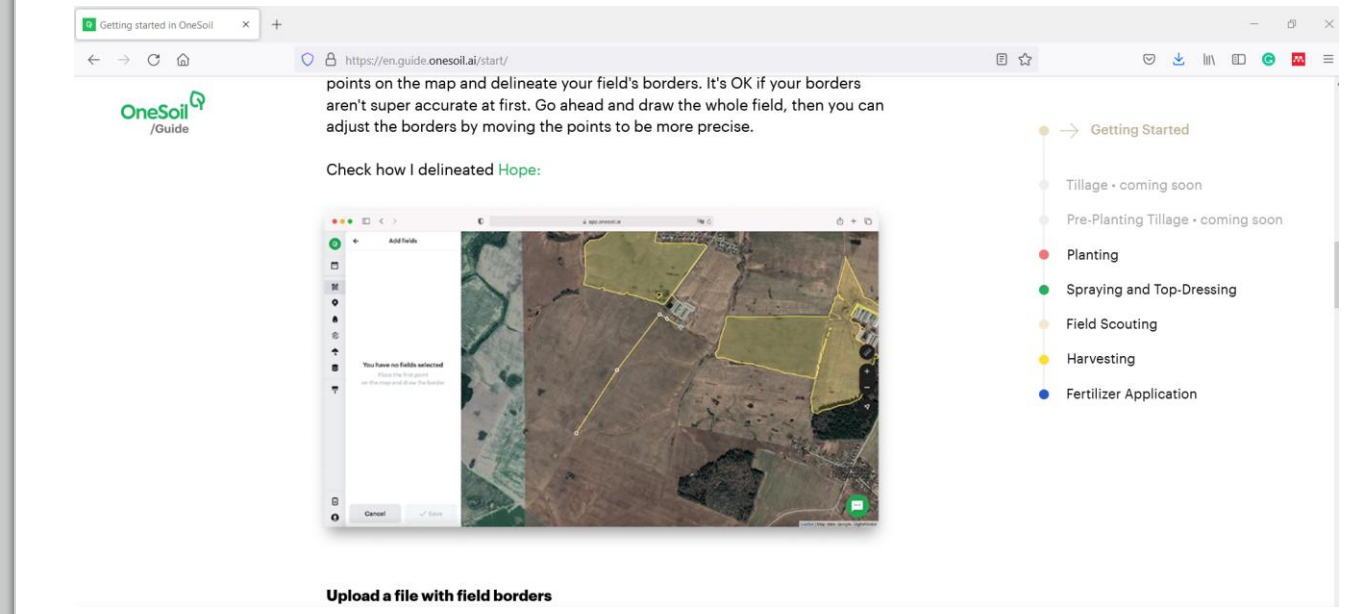
- https://sites.google.com/view/firstmapmanjara/home
- Created website and added both the view for testing
- Publish website



Study of Current Dashboards

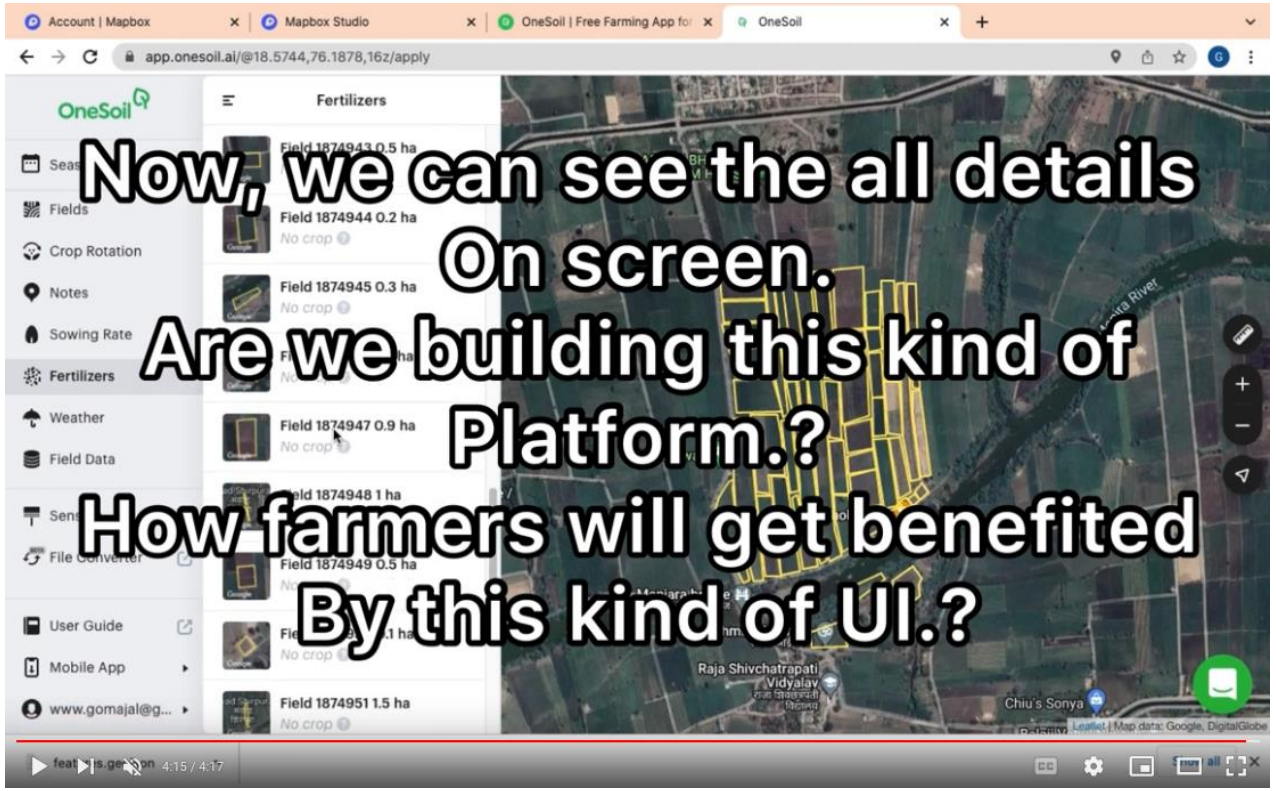
Onesoil

- Searched for AI and ML platforms used for agricultural mapping
- Found Onesoil made using mapbox



Onesoil

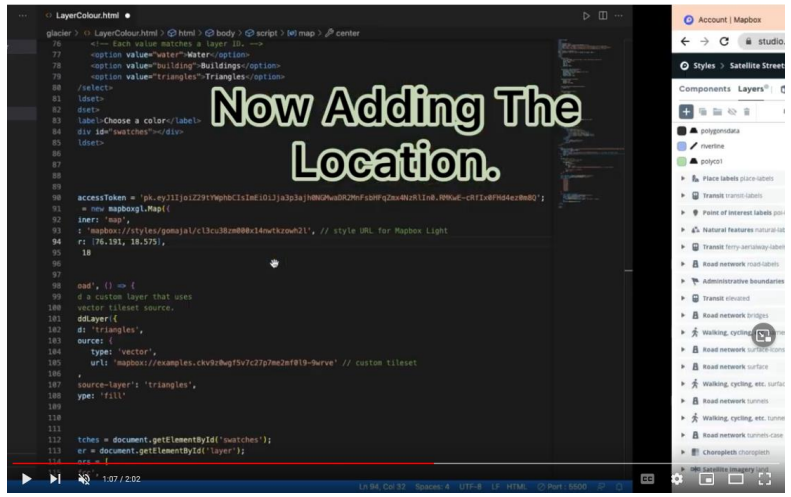
- Studies the onesoil platform
- Tried onesoil for manjara river agi land data
- Created Explanation Video
- https://www.youtube.com/watch?v=U16JeevDU3g

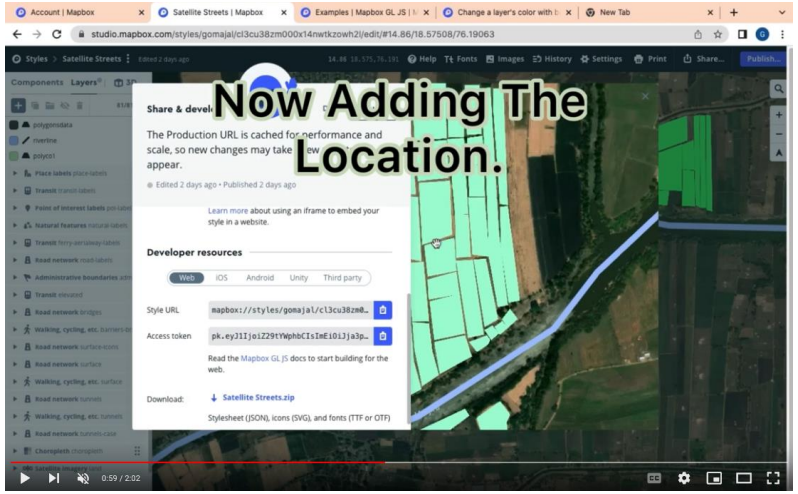


Dashboarding Function

The Polygons Colour Change Problem.

- Worked on changing colors of agri polygons based on status
- Did multiple itteraions with Javascript code
- Created Video of the work - https://www.youtube.com/watch?v=qIzdiHu6LJI&t=2s
- Sample Code on Github - https://github.com/NiteshSabne/gomajalriverline

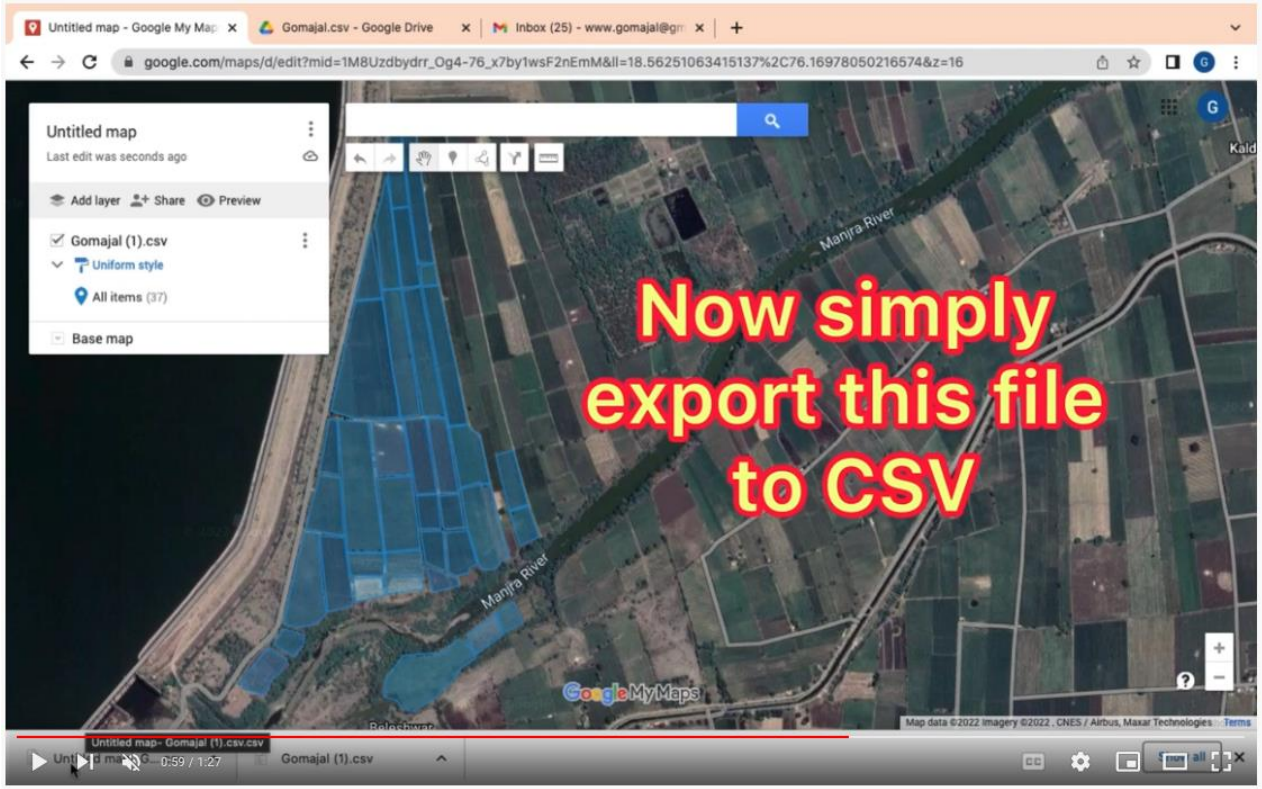




Mapping Activity Management

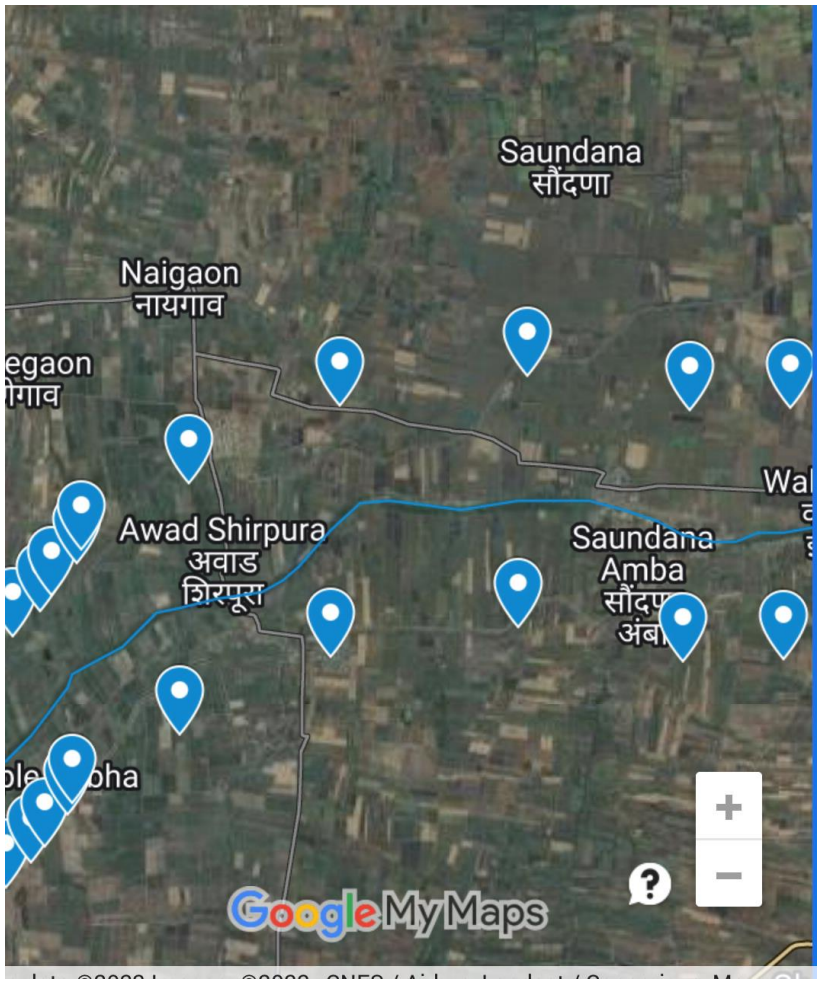
Managing Coordinating Agri Polygon Drawing Work

- Created mechanism to handle polygon drawing by multiple people
- Video - https://www.youtube.com/watch?v=FHgSt49WCdk



River line 1 Km on both sides of river

Written code to automatically draw river line 1 km on both side of center line



River line 1 Km on both sides of river

- Arranged Python code that import excel and output csv code that can be imported in the google earth and mymaps

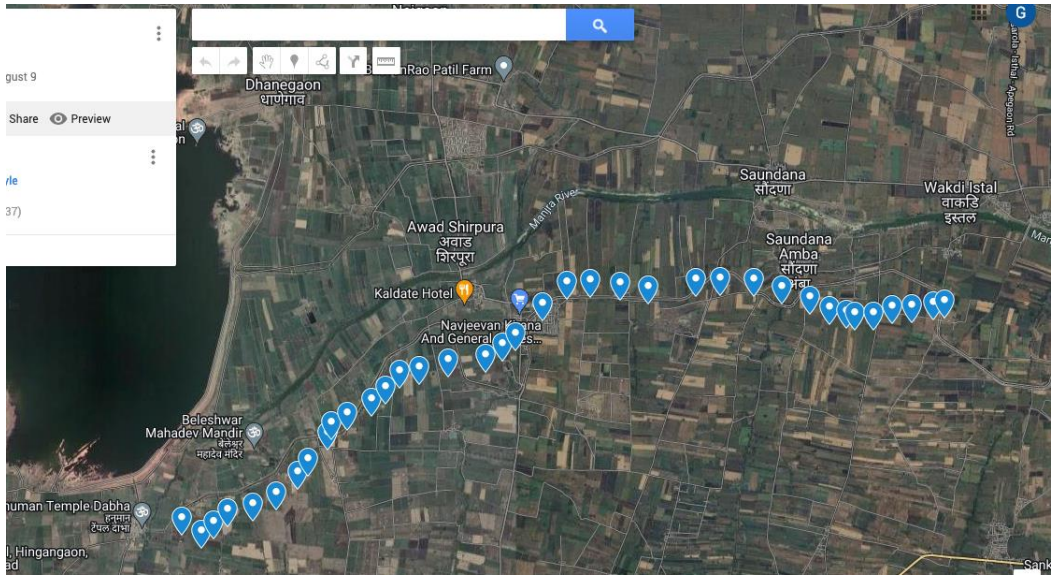
```python
import pandas as pd

df = pd.DataFrame()
df1 = pd.DataFrame()

df = pd.read_excel("dummy5.xlsx", usecols=['Longi','Lati'])

x= -1

for index, row in df.iterrows():
    Longi = row['Longi']
    Lati = row['Lati']
    print(Longi)
    print(Lati)

    NewLongi = Longi - 0.0001455
    NewLati = Lati - 0.0090232

    x = x+1
    temptext2 = f"point{x}"

    # TempDict = {"Longitude":NewLongi, "Latitude":NewLati}
    # print(TempDict)

    temptext = f"POINT ({NewLongi} {NewLati})"
    # temptext1 = temptext
    print(temptext)
    TempDict = {"WKT": temptext, "name": temptext2}
    print(TempDict)

    df1 = df1.append(TempDict, ignore_index=True)

df1.to_csv('final2.csv', index=False)
```

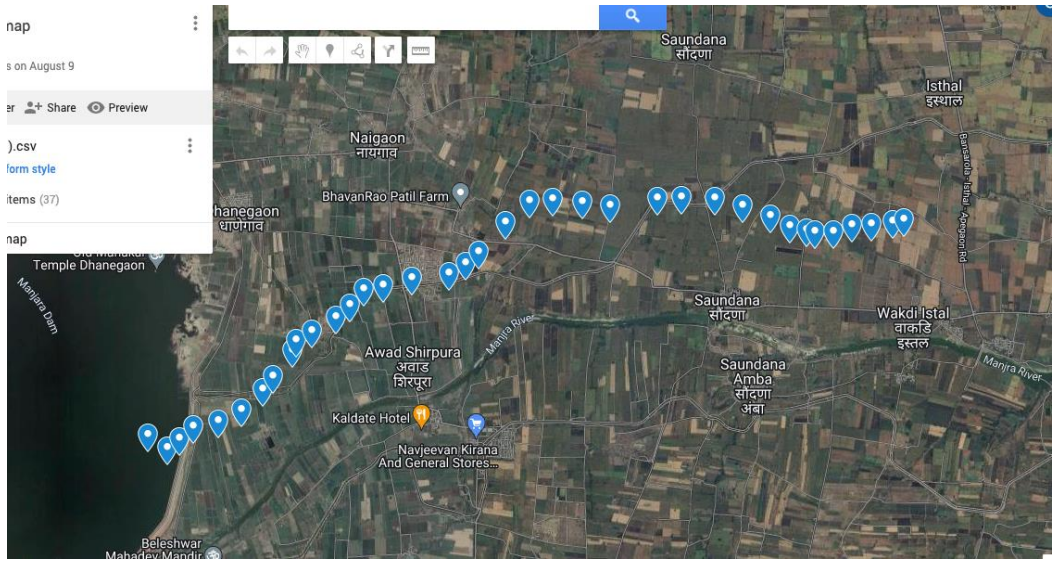
script_sub_1.py 1 KB

```python
import pandas as pd

df = pd.DataFrame()
df1 = pd.DataFrame()

df = pd.read_excel("dummy5.xlsx", usecols=['Longi','Lati'])

x= -1

for index, row in df.iterrows():
    Longi = row['Longi']
    Lati = row['Lati']
    print(Longi)
    print(Lati)

    NewLongi = Longi + 0.0004438
    NewLati = Lati + 0.0090194

    x = x+1
    temptext2 = f"point{x}"

    # TempDict = {"Longitude":NewLongi, "Latitude":NewLati}
    # print(TempDict)

    temptext = f"POINT ({NewLongi} {NewLati})"
    # temptext1 = temptext
    print(temptext)
    TempDict = {"WKT": temptext, "name": temptext2}
    print(TempDict)

    df1 = df1.append(TempDict, ignore_index=True)

df1.to_csv('final.csv', index=False)
```

script_add.py 1 KB

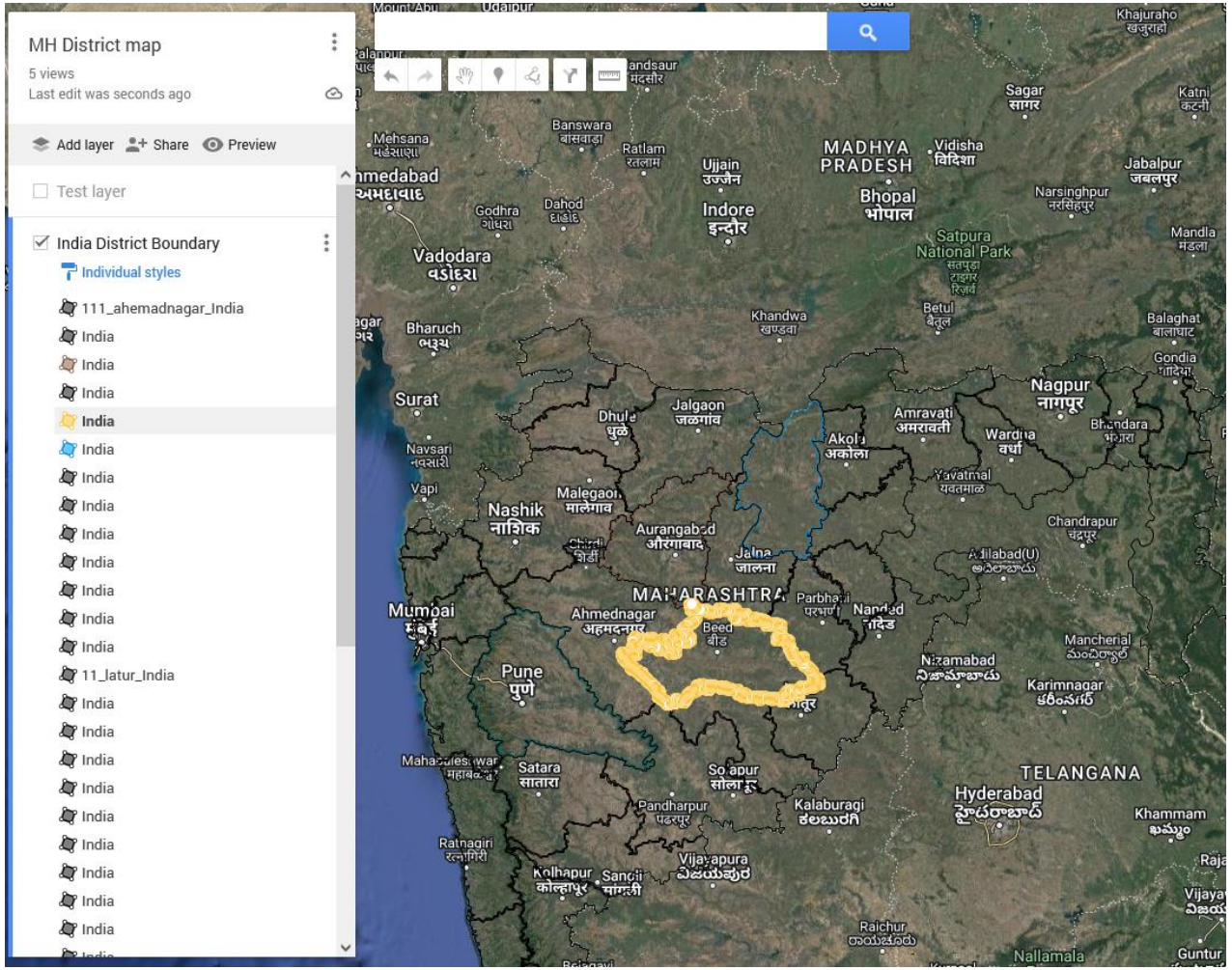
River line 1 Km on both sides of river





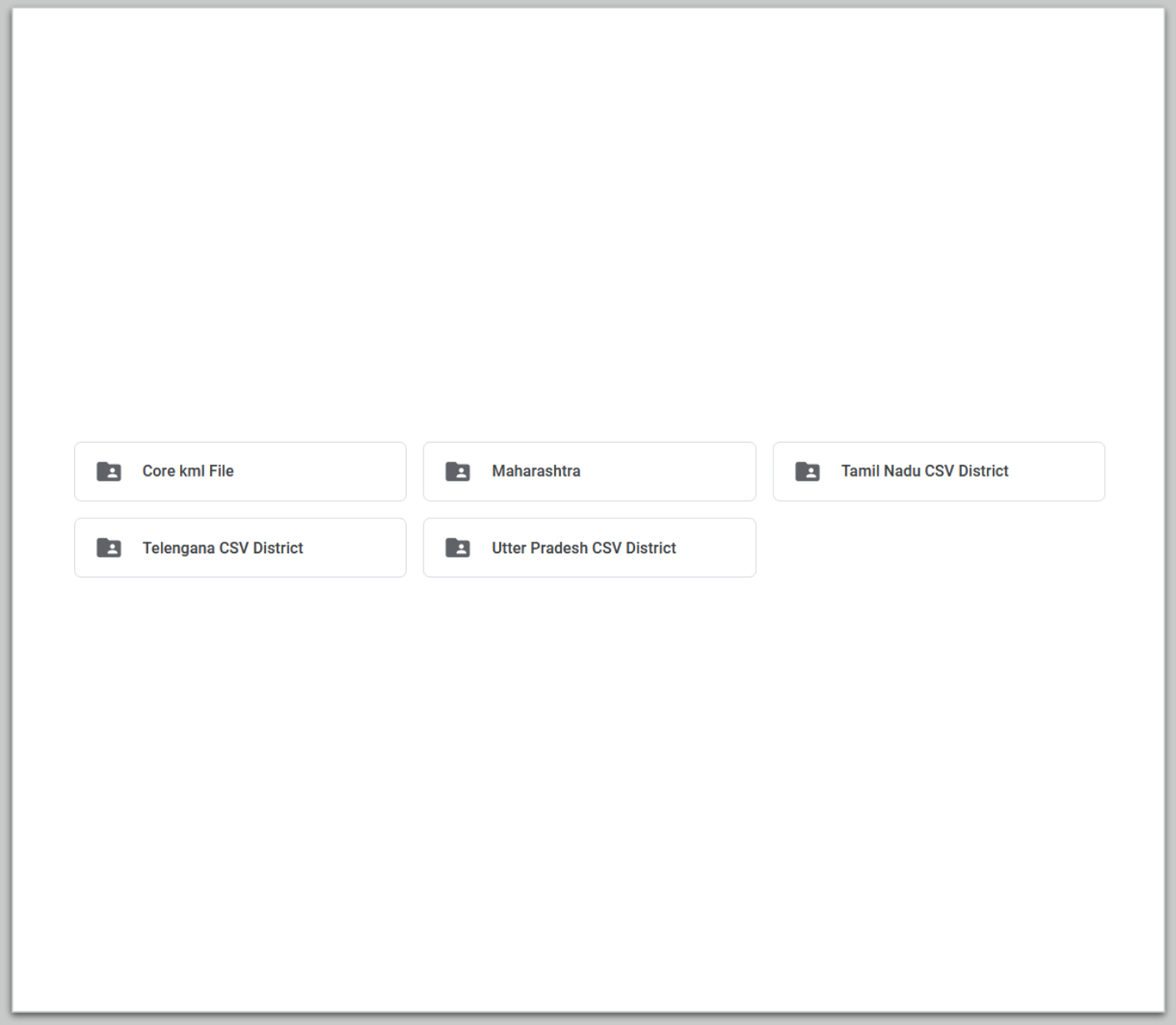
Managing and Coordinating District Mapping

- Created District Boundary maps of districts using opensource data
- Separated data for students mapping activities
- Created district data of states such as Maharashtra, Tamil Nadu, Telangana and Uttar Pradesh



Managing and Coordinating District Mapping

- Continuing District Map Extraction




Thank You