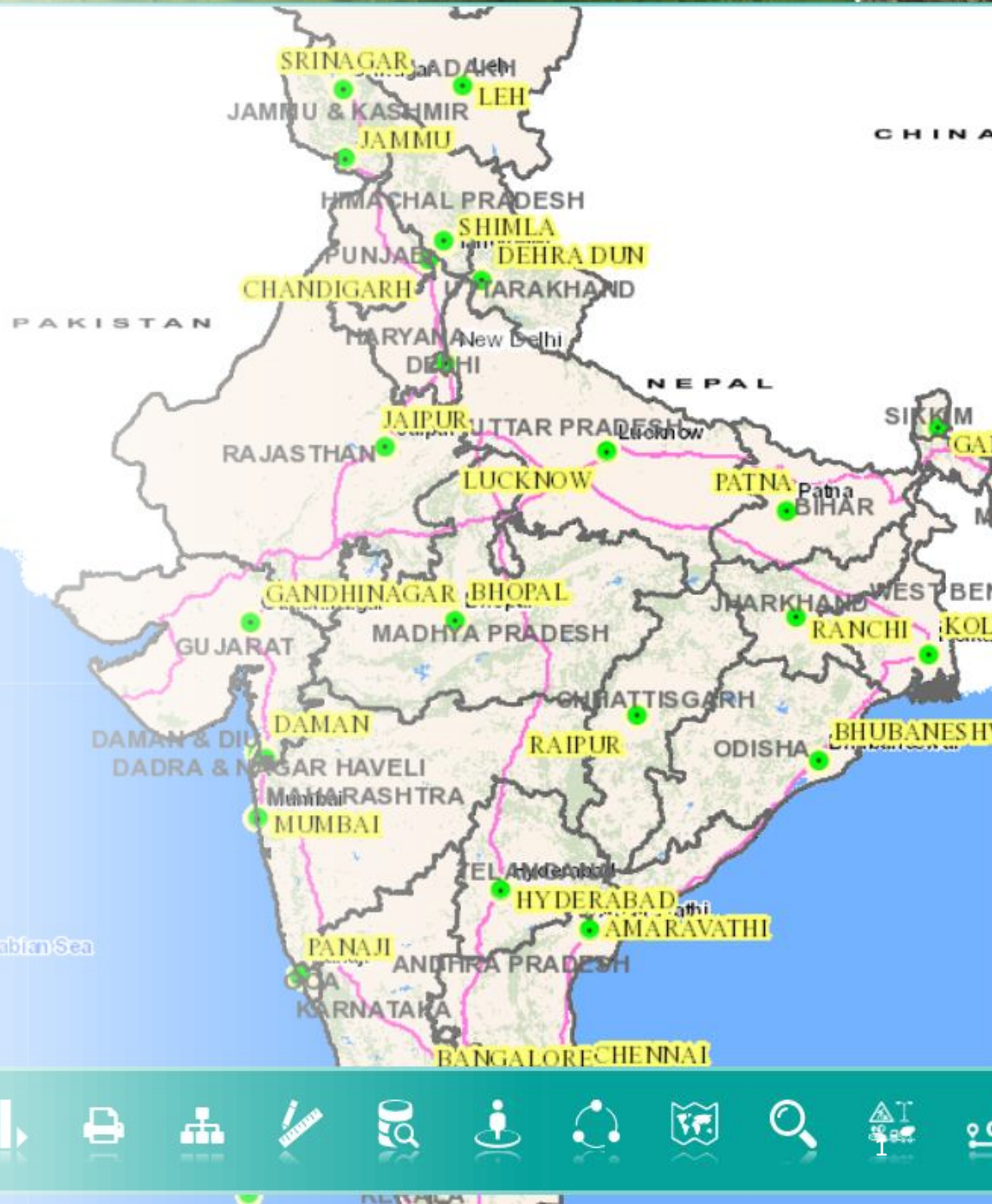
Digital India
Power To Empower

GramManchitra Application



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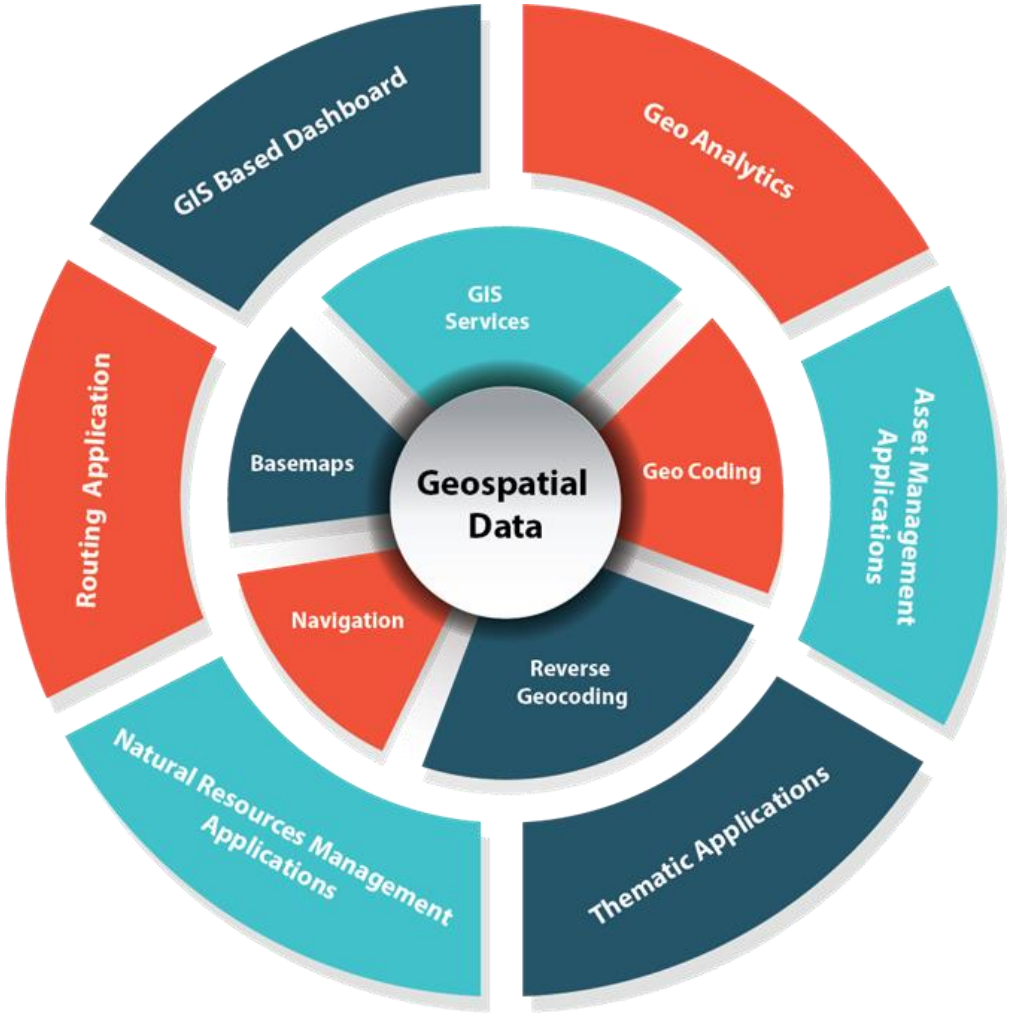
एनआईसी
National Informatics Centre

Geo-Spatial Framework

API Based Integration

- All India Basemap which is uniform and serve the navigation needs of citizen touching all villages/ habitations of India
- POI database of Govt. assets
- Provide Geo coding/ Reverse Geo coding services
- Provide a GIS framework for data update for any Govt. department on demand
- Navigation services for nearest Govt. locations



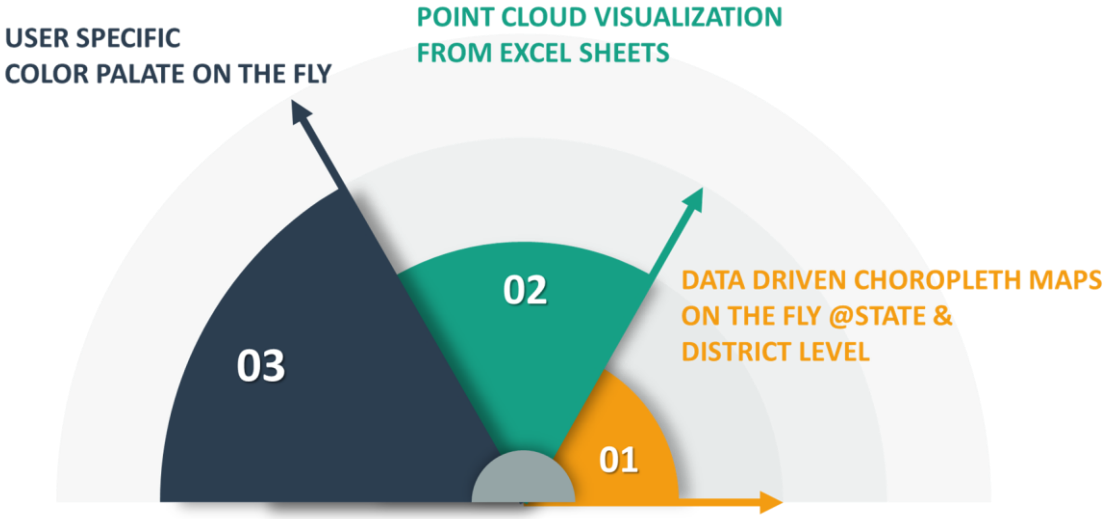
National Portal

State Portal

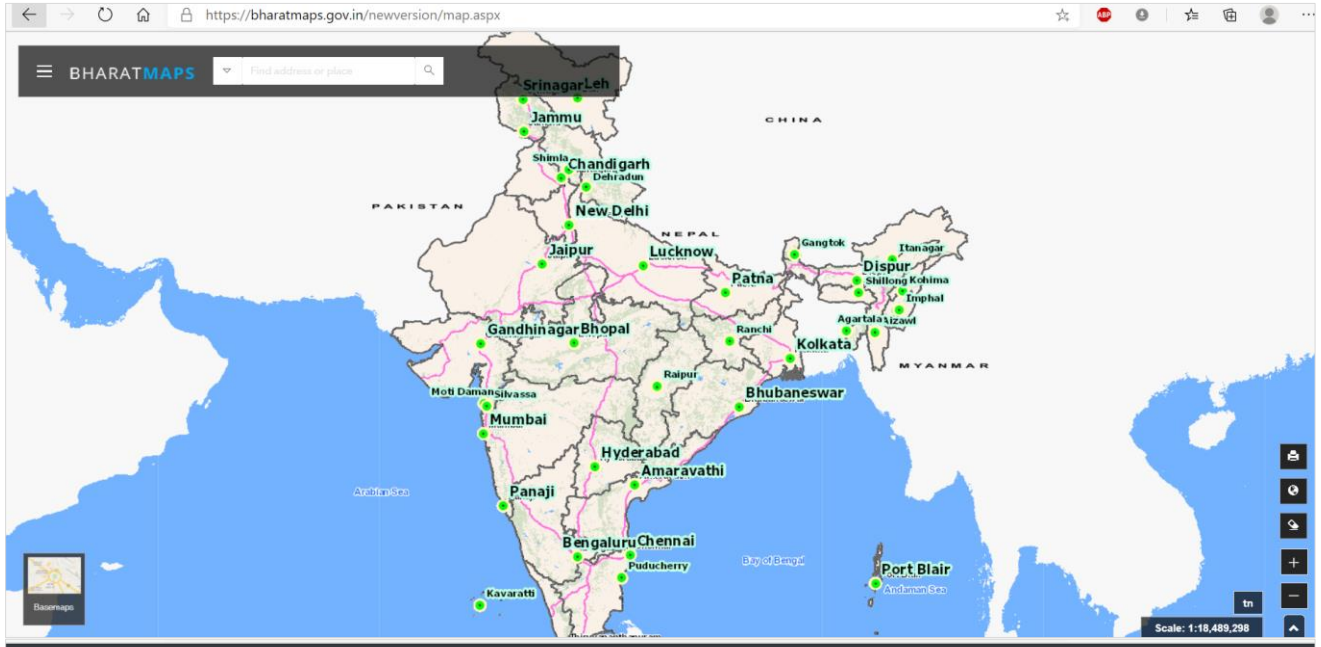
Map Service Sharing

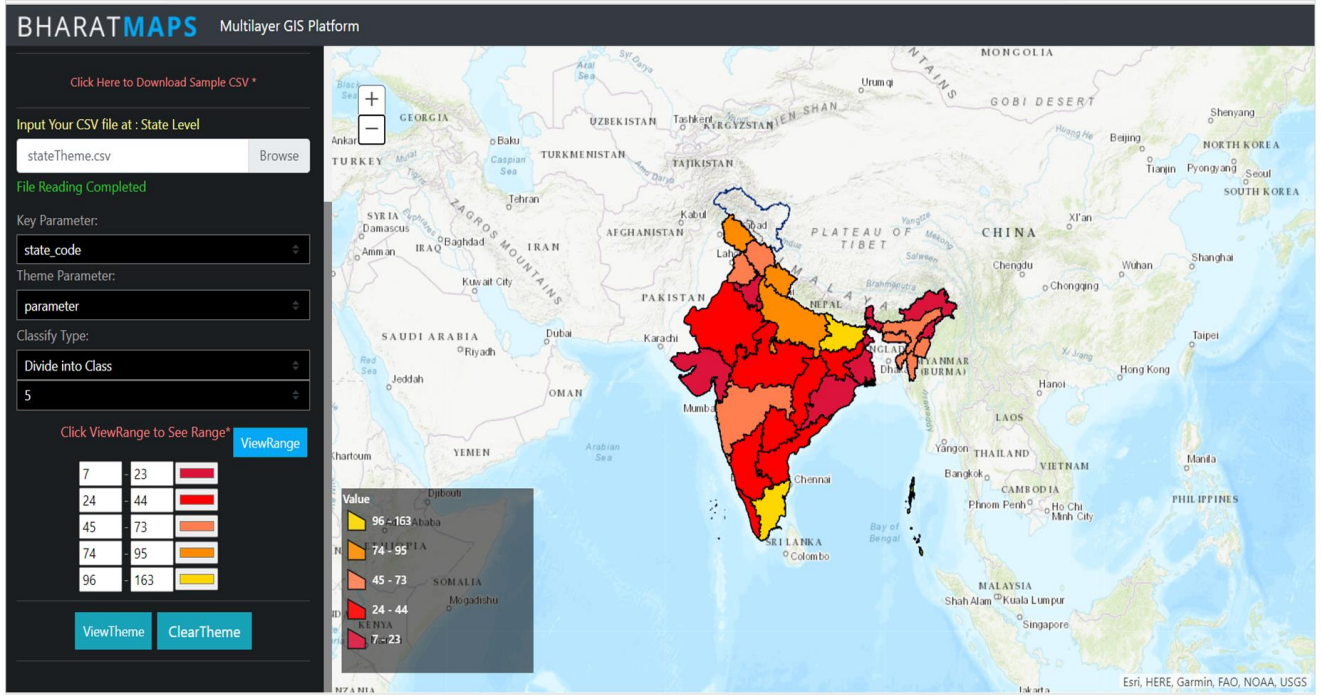
Bharat Maps

Bharat Maps is a Multi-layered GIS platform/web service comprising of seamless country wide base maps, satellite images and hybrid maps aligned as per the global geo-spatial standards, It is an essential component of Digital India program to ensure easy, effective and economical governance.



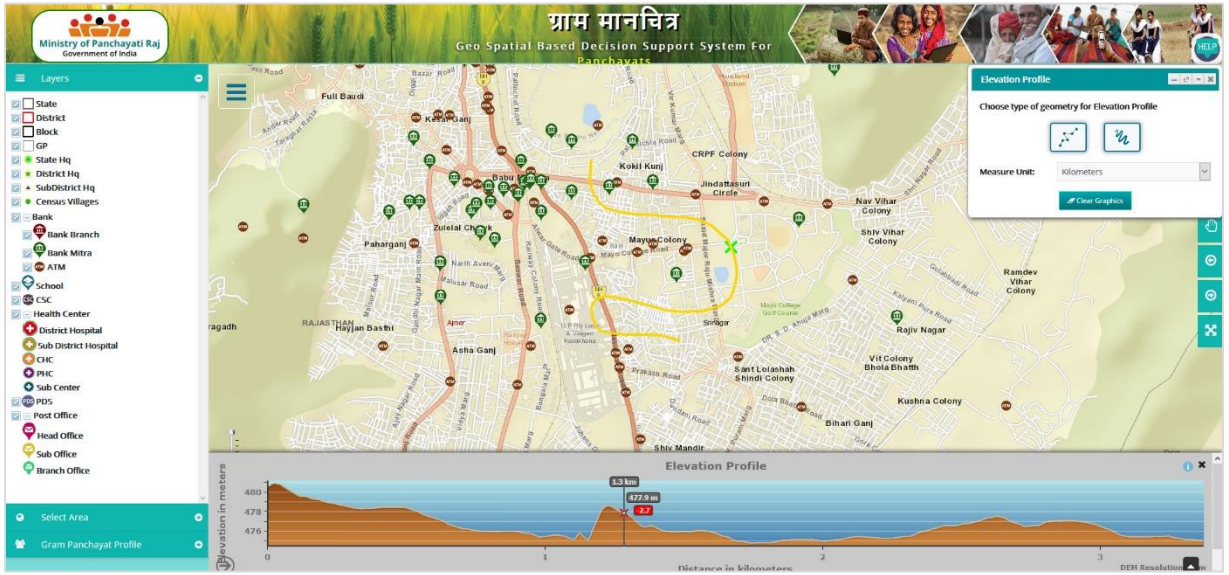
Mobile Friendly Application

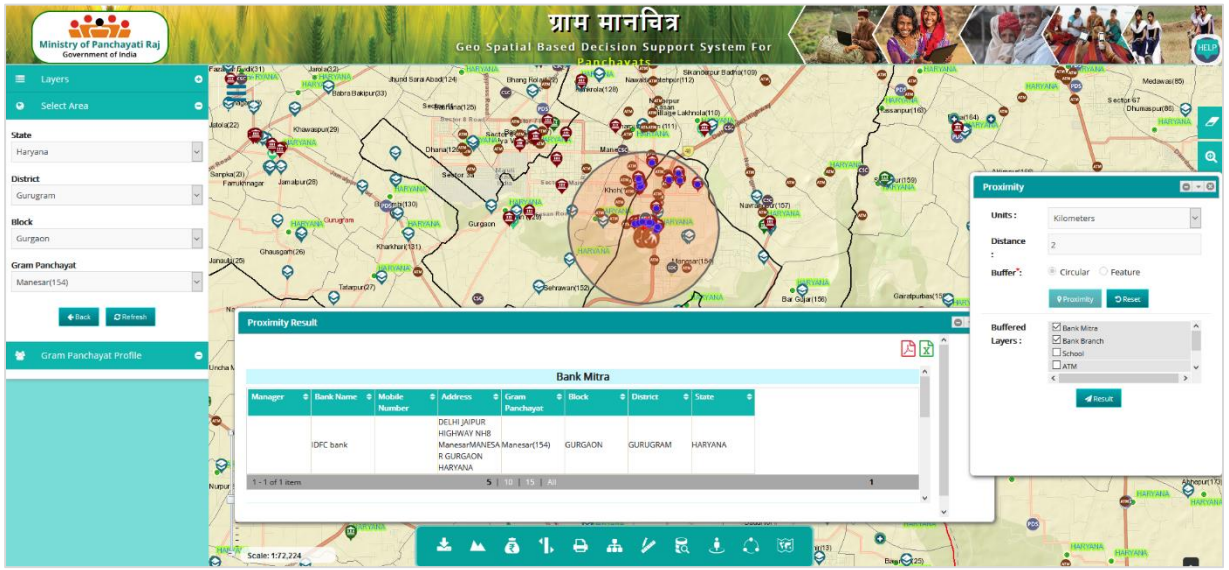




GRAM PANCHAYAT FRAMEWORK

- Unified Geo Spatial Platform for Gram Panchayats covering 29 sectors; providing a decision support system for Gram Panchayat Development Plan (GPDP).
- Linking relevant data along with geographic data to ascertain objectivity in the planning process.
- Spatial analysis tools provisioned of identification suitable site for creation of new amenities/ development work like school, Anganwadi centre etc.
- “Real time“ tracking of progress of work undertaken under different schemes. Work status displayed in different colors along with geotagged photos of assets on the map.
- Gram Panchayat profile with details of Sarpanch, Functionaries, Panchayat office address, demographic data etc. are available.





Spatial Datasets

- State Boundaries
- District Boundaries
- Block Boundaries
- GP Boundaries
- State HQ
- District HQ
- Sub-district HQ
- Census Villages
- Bank
  - Bank Branch
  - Bank Mitra
  - ATM
- CSC
- Health Centre
  - District Hospital
  - Sub district Hospital
- PHC
- Sub Center
- PDS
- Post Office
  - Head Office
  - Sub Office
  - Branch Office
- School
- Work Status
- 2017-2018
  - Work yet to start
  - Work in Progress
  - Work completed
  - Work Suspended
- Skill Development Center
- Drinking Water Resources
- MGNREGA Works

Spatial Datasets - Proposed

Polygon Layer (Svamitva Dataset)

- Parcel Boundary of Owner
- Transport - Road Network
- Water Bodies
- Boundary

Line Layer (Svamitva Dataset)

- Road Network
- Railway Line

Point Layer (Svamitva Dataset)

- Landmark
- Wells
- Assets

Rural Electrical Assets

- Sub-Station
- Transformers
- Electrical Poles

Contd.,

Waste Management Assets

- Landfill Locations
- TSDF Locations

Natural Resources

- Landuse/Landcover
- Lithological
- Geomorphological
- Forest Cover

Imagery

- Drone Images (SOI)
- Realtime Satellite Images (NRSC - BHUVAN)

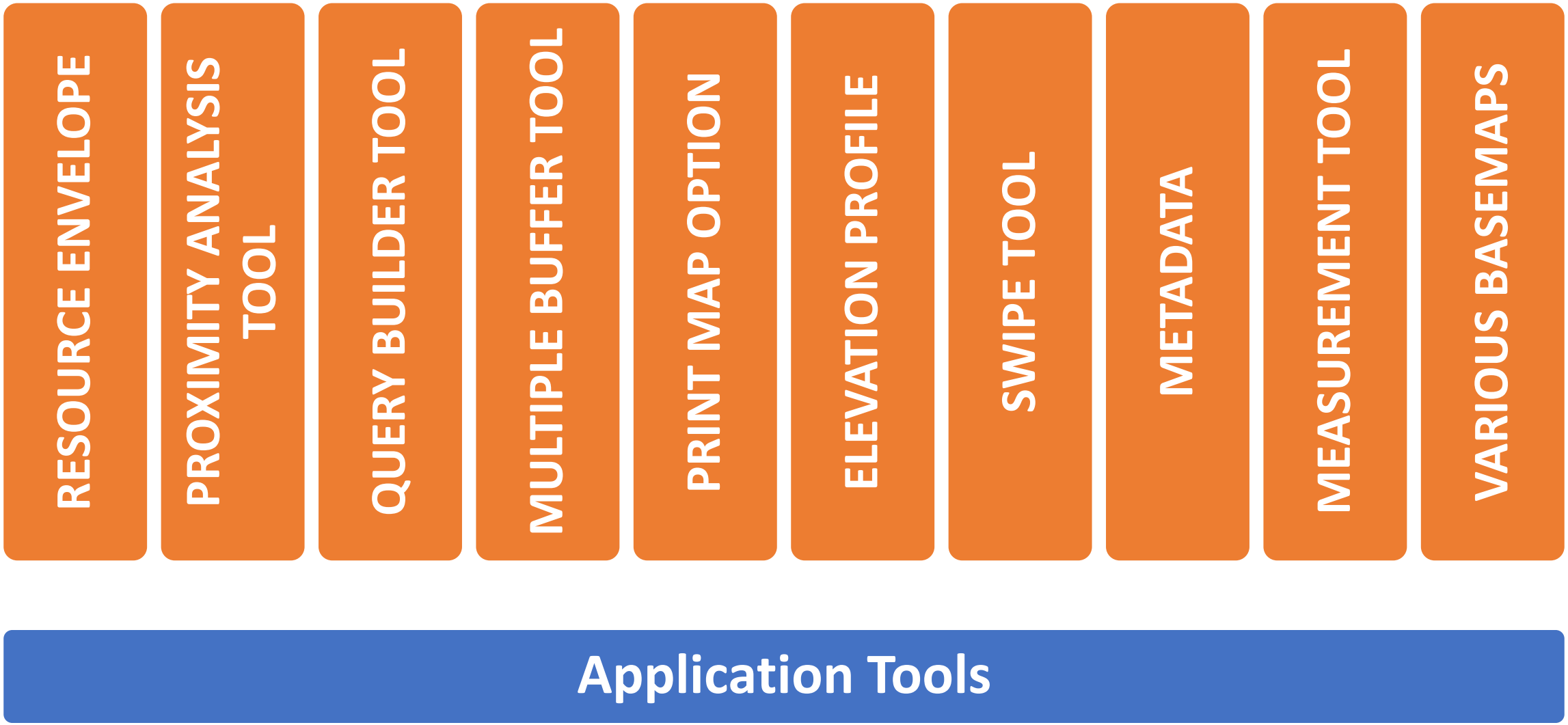
Elevation Models

- Digital Elevation Model
- Digital Surface Model

Planning Indices

- Rainfall Information
- Bhuvan Services

SPATIAL PLANNING TOOLS

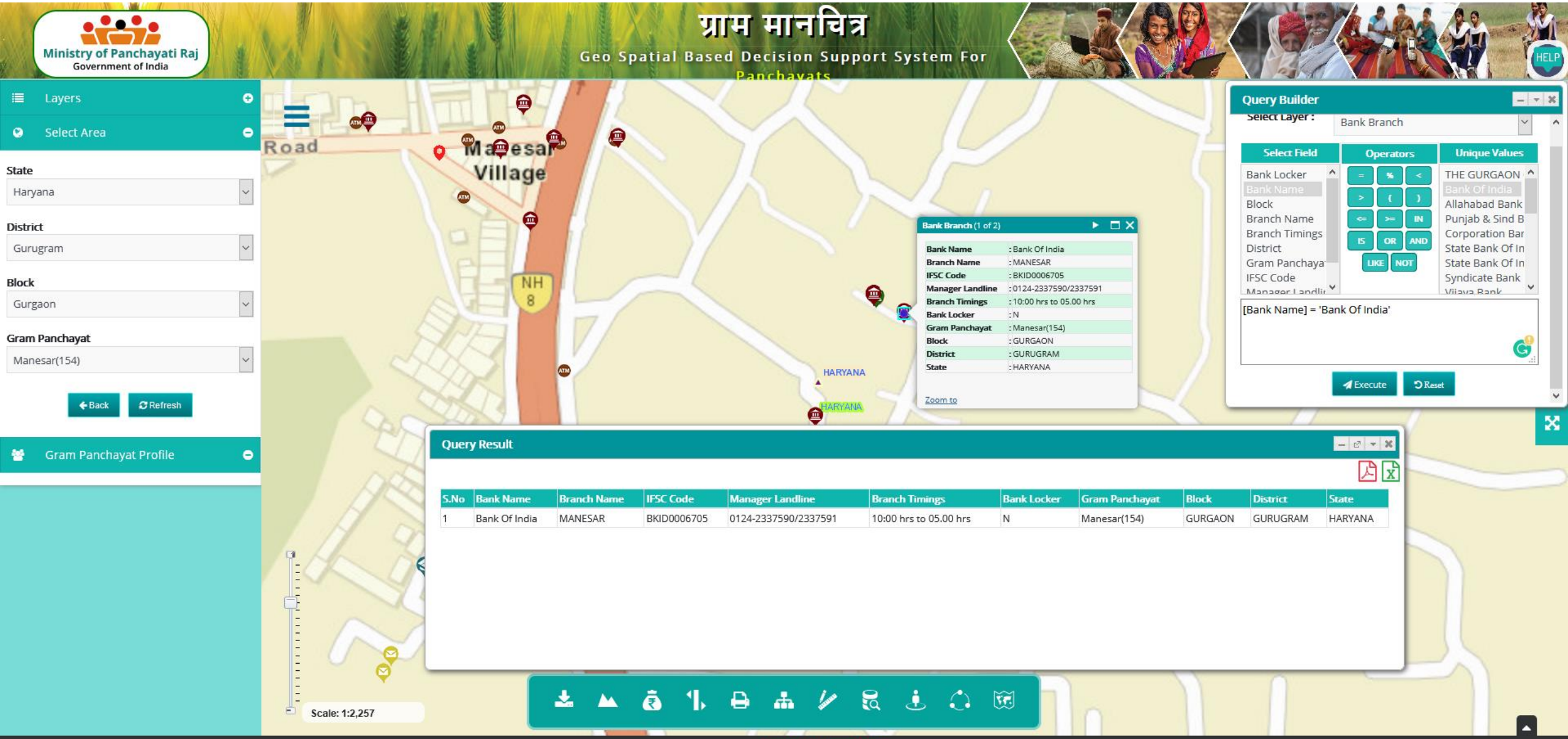


Application Functionalities

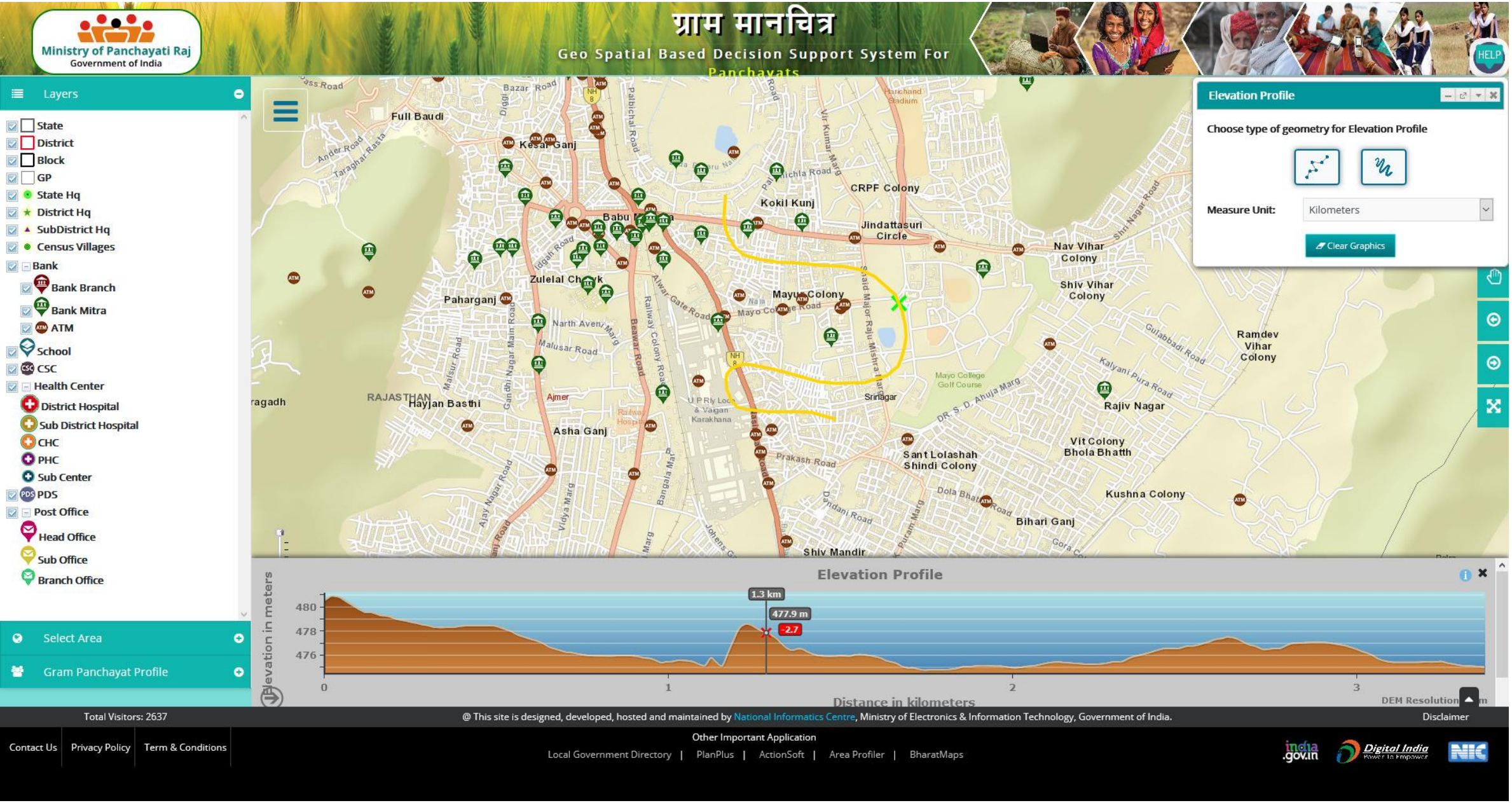
Resource Envelop

Proximity Tool

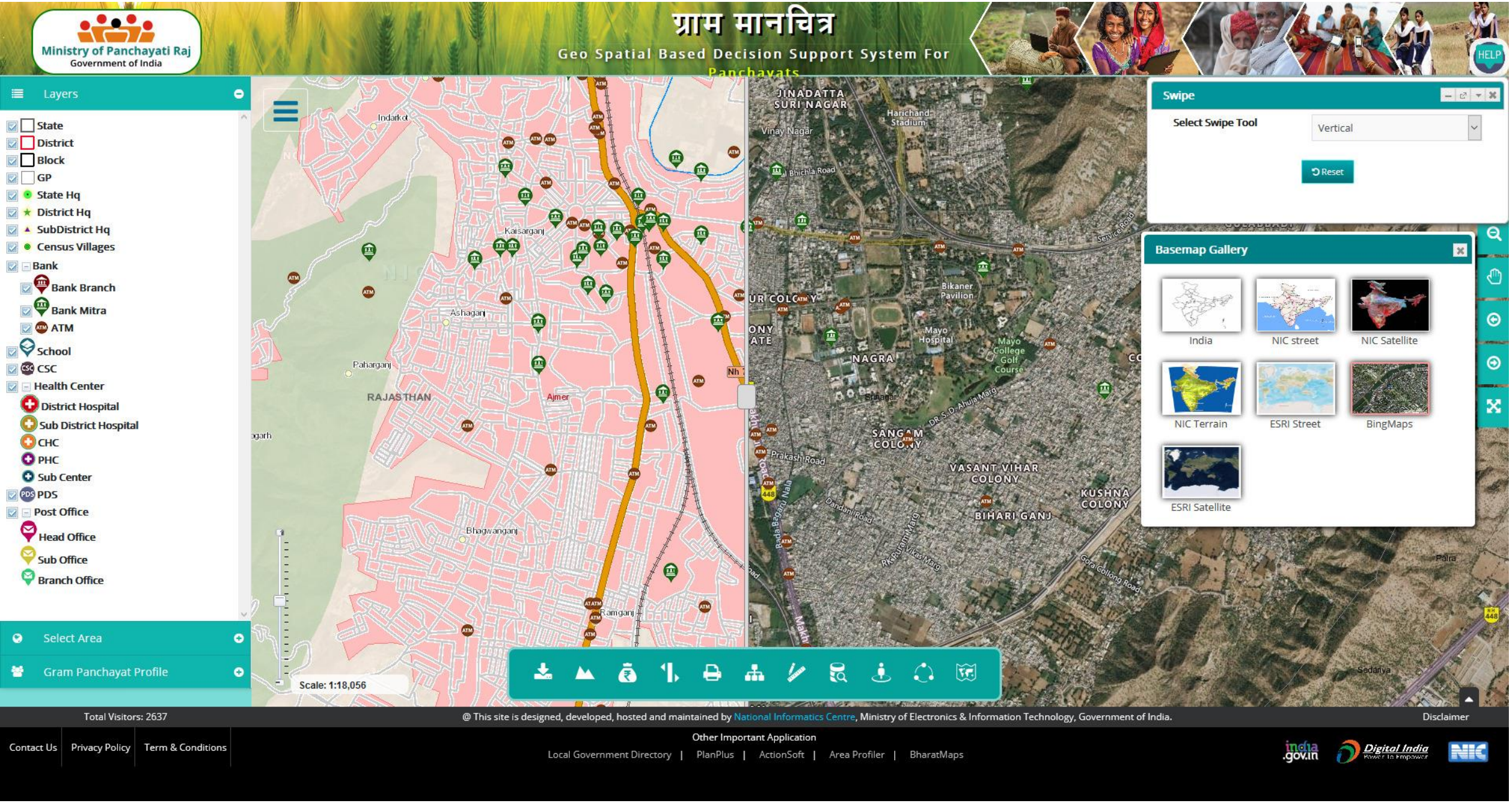
Query Builder



Elevation Profile



Swipe Tool


Ministry of Panchayati Raj
Government of India
ग्राम मानचित्र
Geo Spatial Based Decision Support System For
Panchayats
HELP
Layers
State
District
Block
GP
State Hq
District Hq
SubDistrict Hq
Census Villages
Bank
Bank Branch
Bank Mitra
ATM
School
CSC
Health Center
District Hospital
Sub District Hospital
CHC
PHC
Sub Center
PDS
Post Office
Head Office
Sub Office
Branch Office
Select Area
Gram Panchayat Profile
Indarkot
Kaisarganj
Ashaganj
Paharganj
RAJASTHAN
Ajmer
Bhagwanganj
Ramganj
Scale: 1:18,056
Swipe
Select Swipe Tool
Vertical
Reset
Basemap Gallery
India
NIC street
NIC Satellite
NIC Terrain
ESRI Street
BingMaps
ESRI Satellite
JINADATTA SURI NAGAR
Vinay Nagar
Harichand Stadium
Bikaner Pavilion
Mayo Hospital
Mayo College Golf Course
NAGRA
SANGAM COLONY
VASANT VIHAR COLONY
KUSHNA COLONY
BIHARI GANJ
Service Road
Prakash Road
Dandani Road
RK Puram Marg
Gora Gollong Road
Pahra
Sedariya
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NIC

Basemaps

Ministry of Panchayati Raj
Government of India
ग्राम मानचित्र
Geo Spatial Based Decision Support System For Panchayats
HELP
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Block
GP
State Hq
District Hq
SubDistrict Hq
Census Villages
Bank
Bank Branch
Bank Mitra
ATM
School
CSC
Health Center
District Hospital
Sub District Hospital
CHC
PHC
Sub Center
PDS
Post Office
Head Office
Sub Office
Branch Office
Select Area
Gram Panchayat Profile
Basemap Gallery
India
NIC street
NIC Satellite
NIC Terrain
ESRI Street
BingMaps
ESRI Satellite
Scale: 1:18,489,298
Total Visitors: 2649
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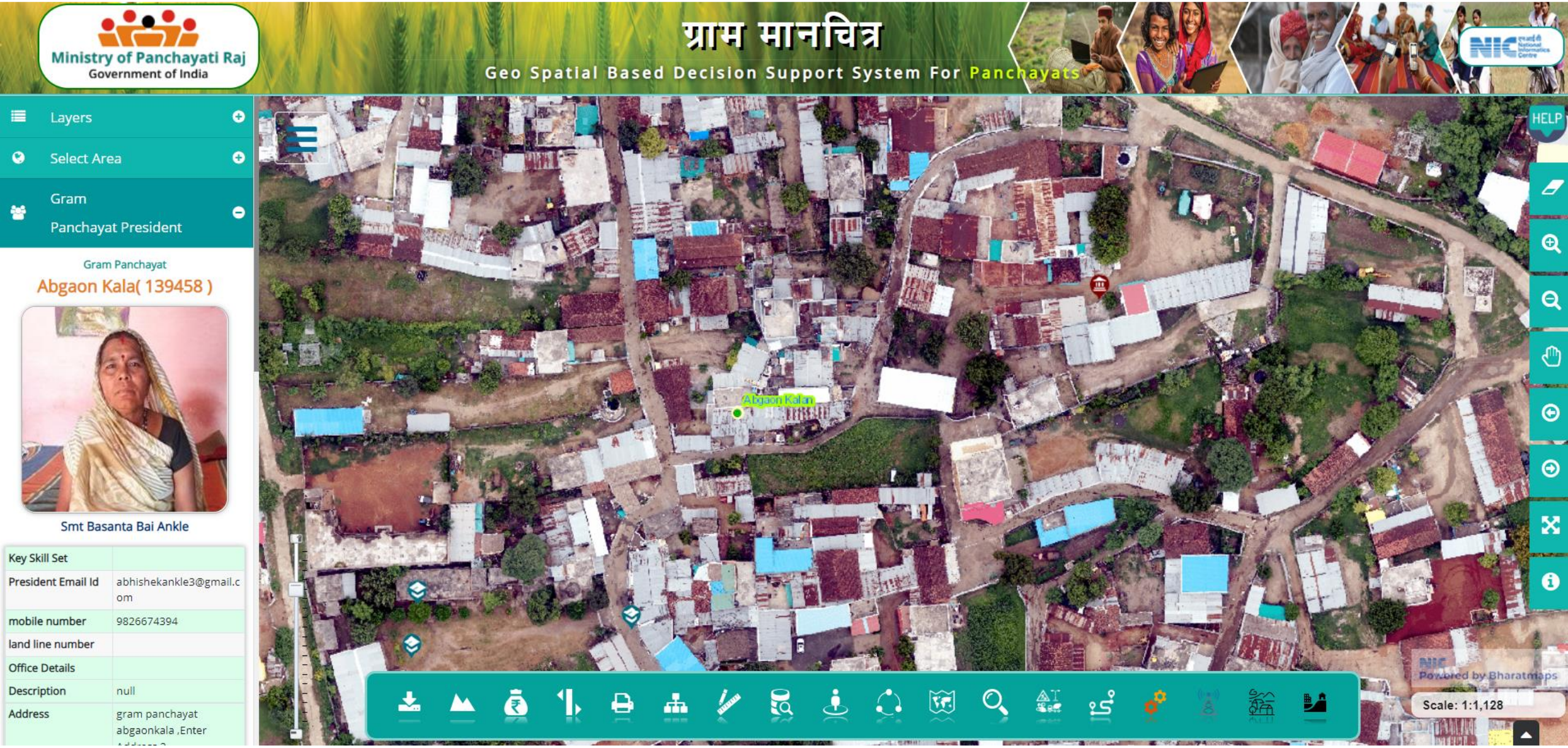
SVAMITVA Drone Data Integration



Street Light Analysis

- This application is aimed to address the requirement of planning for streetlight laying for any village in gram panchayat.
- The planner has facility to select various lamp types that can be used to light the street of the selected area of interest. for example)High Pressure Mercury Vapor Lamp) High Pressure sodium Vapor lamp) Low Pressure Sodium Vapor Lamp) Light Emitting Diode etc.
- Use can select the measuring units that he is comfortable with based on which planning could be performed. this is similar to a normal surveyor performing the survey of the area, before the lighting could be done.
- Based on the type of lamp selected for lighting, the light coverage is calculated automatically, and number of light pole required are provided to the planner.

Road Analysis Tool

- This tool helps the administrators/planners/decision makers to calculate the cost of the construction of any road based on its length, width, thickness and type.
- The tool provides the facility to measure the length and width spatially as well as providing these parameters manually through key-board.
- The user has to select the type of road from the list provided.
- Once the cost per unit is given it calculates the cost of the construction for that road which helps the user for budget estimation, fund allocation, planning, etc.

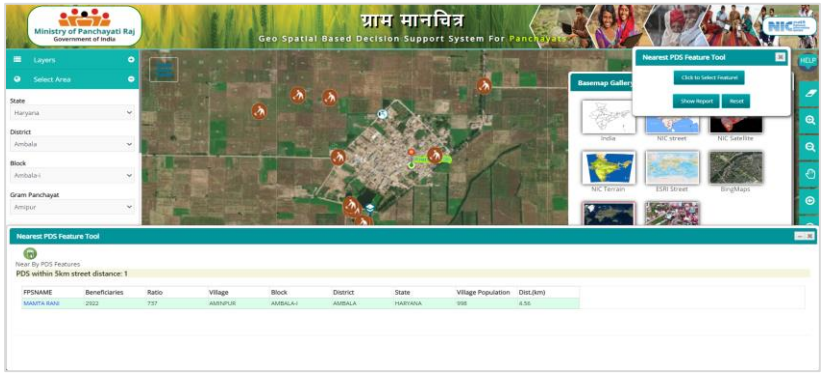
Drainage Analysis Tool

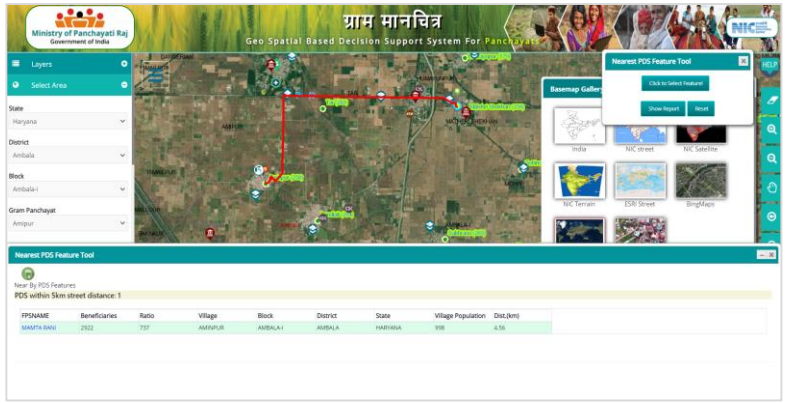
- This tool is developed to help the user to calculate the cost of a proposed drainage network.
- The user needs to select the pipe type from the list already provided. Then the path of the drainage network has to be defined spatially so that the tool uses the elevation profile feature of the application to calculate the differential elevation between the consecutive points.
- It can calculate the trenching/digging cost, number of pipes required, pipe cost and at the end the total cost for the network excluding the construction material cost.

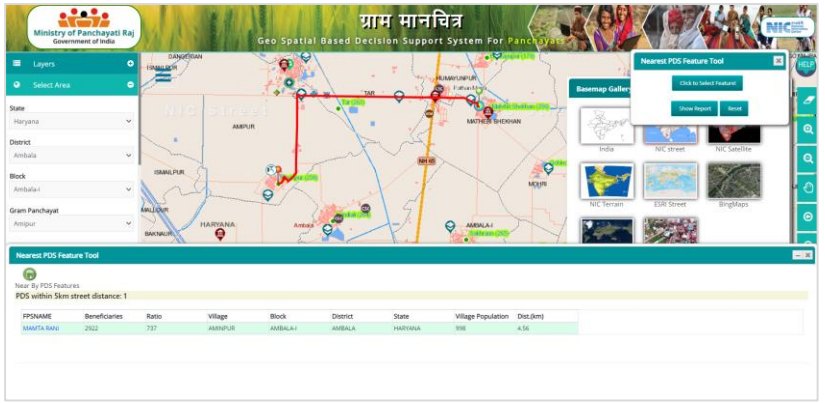
PDS Locator Tool

- This tool is developed to help the user visualize nearest Fair price shop
- The tool provides the village population and distance from the census village to reach the fair price shop
- The basemap functionality allows the user to visualize under various terrain types
- The SVAMITVA drone image provides the near real-time locational intelligence

AMIPUR GRAMPANCHAYAT (AMBALA, HARYANA)



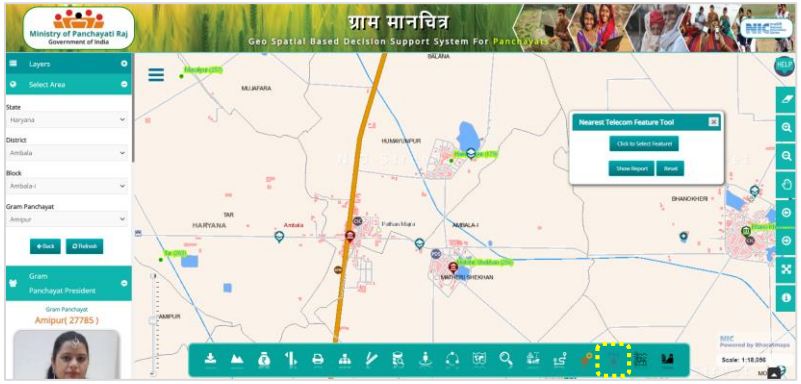


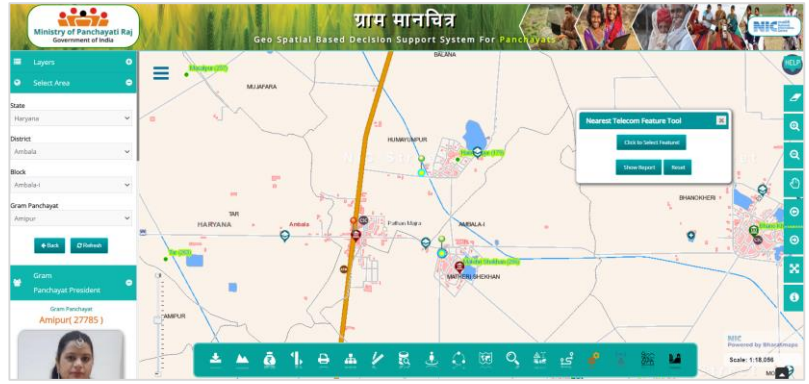


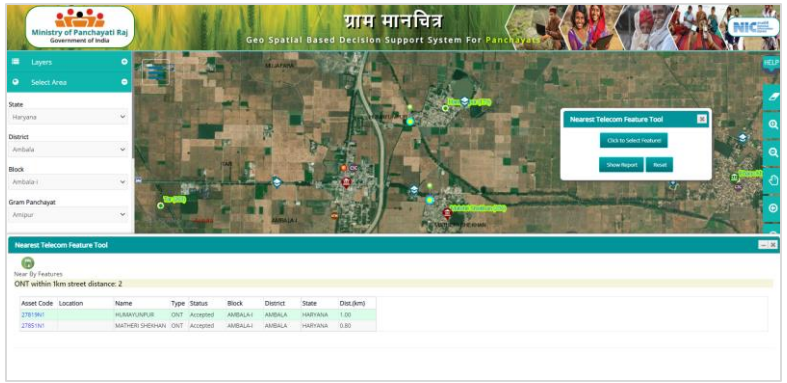
Nearest Telecom Asset

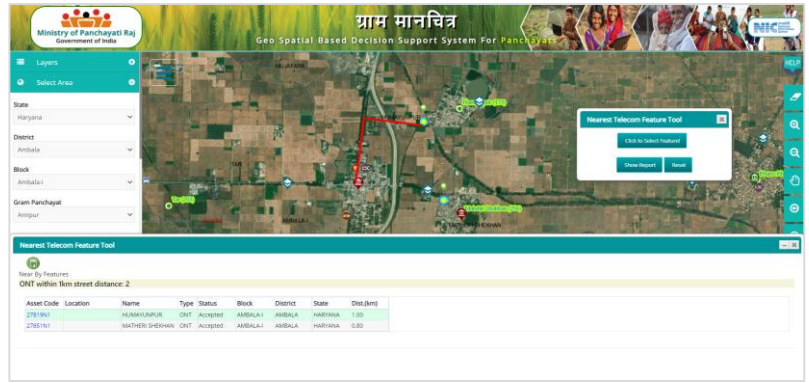
- This tool is developed to help the user to provide the feasibility of providing telecom / internet connectivity
- Scenario
  - We have a Bank Branch as shown, which need to be provided with Telecom / Internet connectivity
  - The tool allows to select the Bank Branch
  - The Report tab shows the nearest telecom intercept device
  - It provides multiple nearest devices which can be approached for testing the feasibility
  - Select one of the device to visualize the track for navigation along with road distance

AMIPUR GRAMPANCHAYAT (AMBALA, HARYANA)





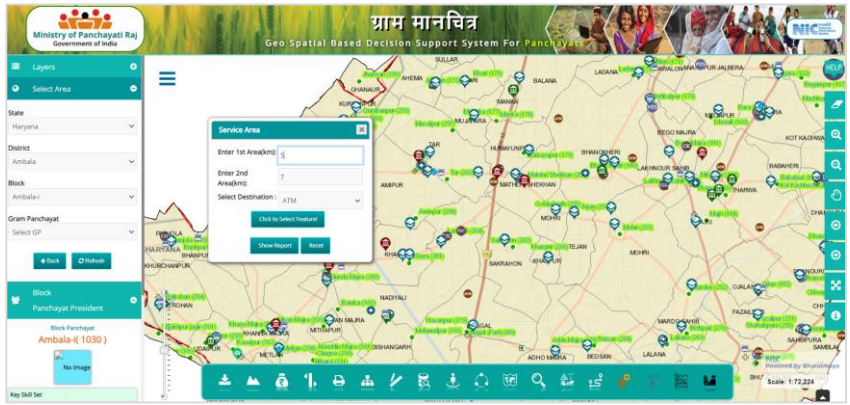


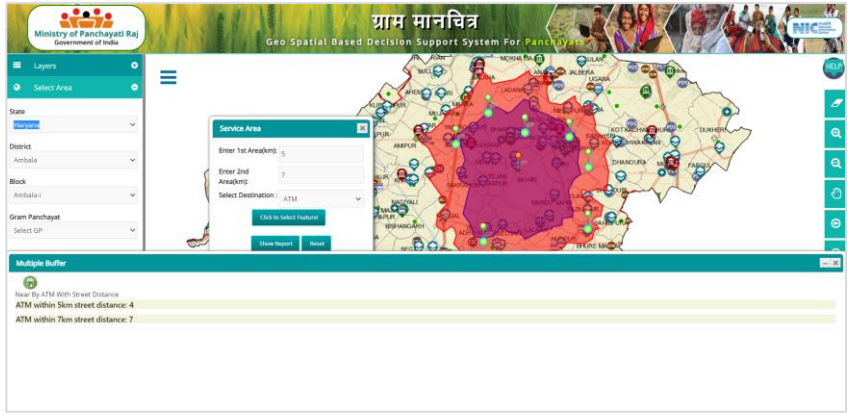


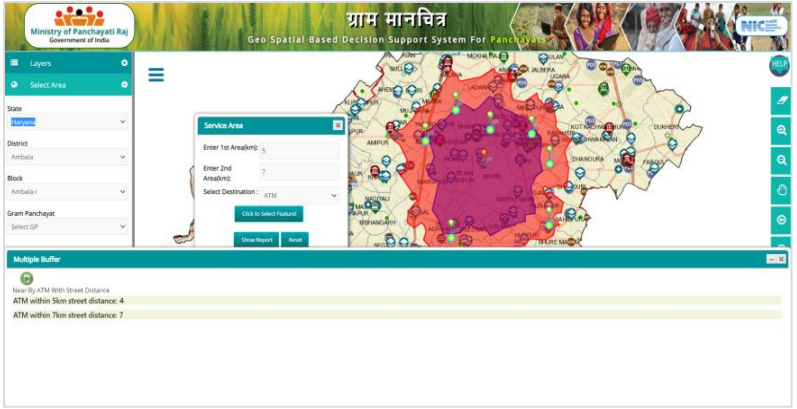
Service Area Tool

MOHRI VILLAGE (AMBALA, HARYANA)

- This tool is developed to help the user search for nearby assets from the selected nearby census village
- Scenario:
  - Select the icon to invoke the service area tool
  - Provide two areas based on requirement
  - Select the asset that we plan to avail service for example ATM, Schools etc.
  - Select any census village
  - The tool automatically highlights the selected assets
  - The show report button provides a list of selected assets in tabular view for navigation



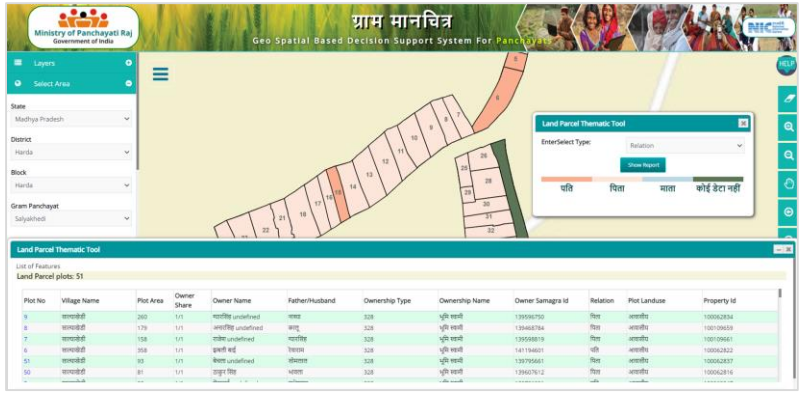




SVAMITVA Data Analytics

- This tool is developed to help the user visualize the property parcels based on various parameters captured by state departments during drone survey
- The major parameters captured and available for visualization are as follows:
  - Ownership of Land
  - Landuse of Land under study
  - Religion of Landowner
- The tool also includes the property card associated with the land with following information:
  - Owner Land Type
  - Land Area (SQ Meters)
  - Owner Name
  - Father Name
  - Landuse etc.

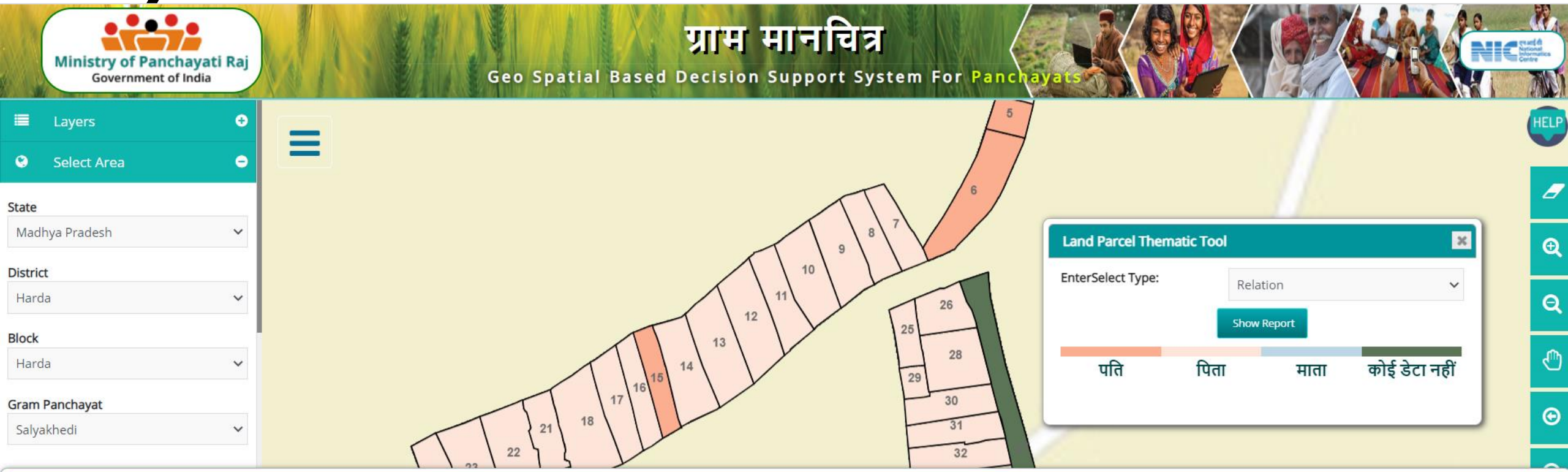
SALYAKHEDI VILLAGE



Analytics – Land Parcel based (Ownership)

Note: The Numbers displayed on parcels are the property parcel numbers

Analytics – Land Parcel based (Relation)



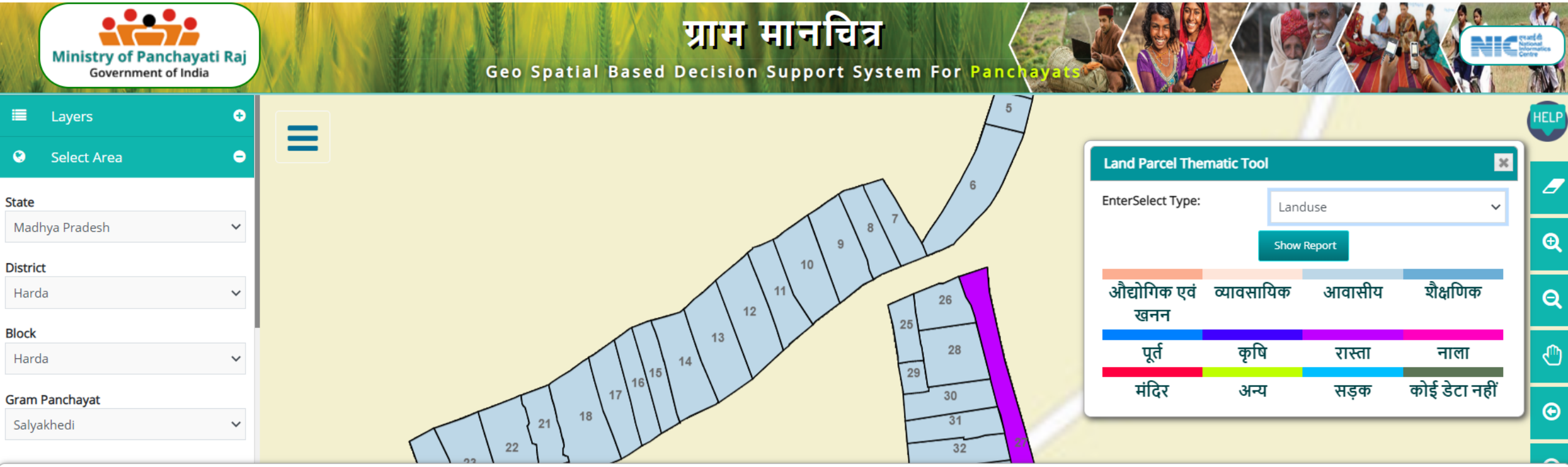
Land Parcel Thematic Tool

List of Features

Land Parcel plots: 51

Plot No	Village Name	Plot Area	Owner Share	Owner Name	Father/Husband	Ownership Type	Ownership Name	Owner Samagra Id	Relation	Plot Landuse	Property Id
9	साल्याखेडी	260	1/1	ग्यारसिंह undefined	नास्या	328	भूमि स्वामी	139596750	पिता	आवासीय	100062834
8	साल्याखेडी	179	1/1	अनारसिंह undefined	कालू	328	भूमि स्वामी	139468784	पिता	आवासीय	100109659
7	साल्याखेडी	158	1/1	राजेश undefined	ग्यारसिंह	328	भूमि स्वामी	139598819	पिता	आवासीय	100109661
6	साल्याखेडी	358	1/1	झबली बाई	रेवाराम	328	भूमि स्वामी	141194601	पति	आवासीय	100062822
51	साल्याखेडी	93	1/1	बेचला undefined	सोमलाल	328	भूमि स्वामी	139795661	पिता	आवासीय	100062837
50	साल्याखेडी	81	1/1	ठाकुर सिंह	भावला	328	भूमि स्वामी	139607612	पिता	आवासीय	100062816

Analytics – Land Parcel based (Landuse)



Land Parcel Thematic Tool

List of Features

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Analytics – Land Parcel based (Property Card)

PMGSY Facilities

THANK
YOU
GRACIAS
ARIGATO
SHUKURIA
DANKSCHEEN
BÏYAN
SHUKRIA
TINGKI
YAQHANYELAY
TASHAKKUR ATU
SUKSAMA
EKHMET
MEHRBANI
GRAZIE
MAAKE
KOMAPSUMNIDA
GOZAIMASHITA
EFCHARISTO
PALDIES
JUSPAXAR
BOLZÏN
MERCI