# User Manual for the

# GIS Management Module

# of

# SBM-U 2.0

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**SBM Urban 2.0, MoHUA**

**Document Revision History**

| Date | Document Version | Document Revision Comments |
|---|---|---|
| 02-08-2021 | 1.0 | First version of the document |
| 27-08-2021 | 1.1 | Second version of this document |
| 06-09-2021 | 1.2 | Third Version of this document |
| 01-12-2021 | 1.4 | Fourth version of this user manual |

# Contents

## AUDIENCE & PURPOSE OF THE DOCUMENT

Swachh Bharat Mission Urban Portal is a very ambitious project under Swachh Bharat Mission. The purpose of this document to help the different types of users make them familiar about the types of users available and how they can upload, view, edit, approve, and reject the facility within the assigned area.

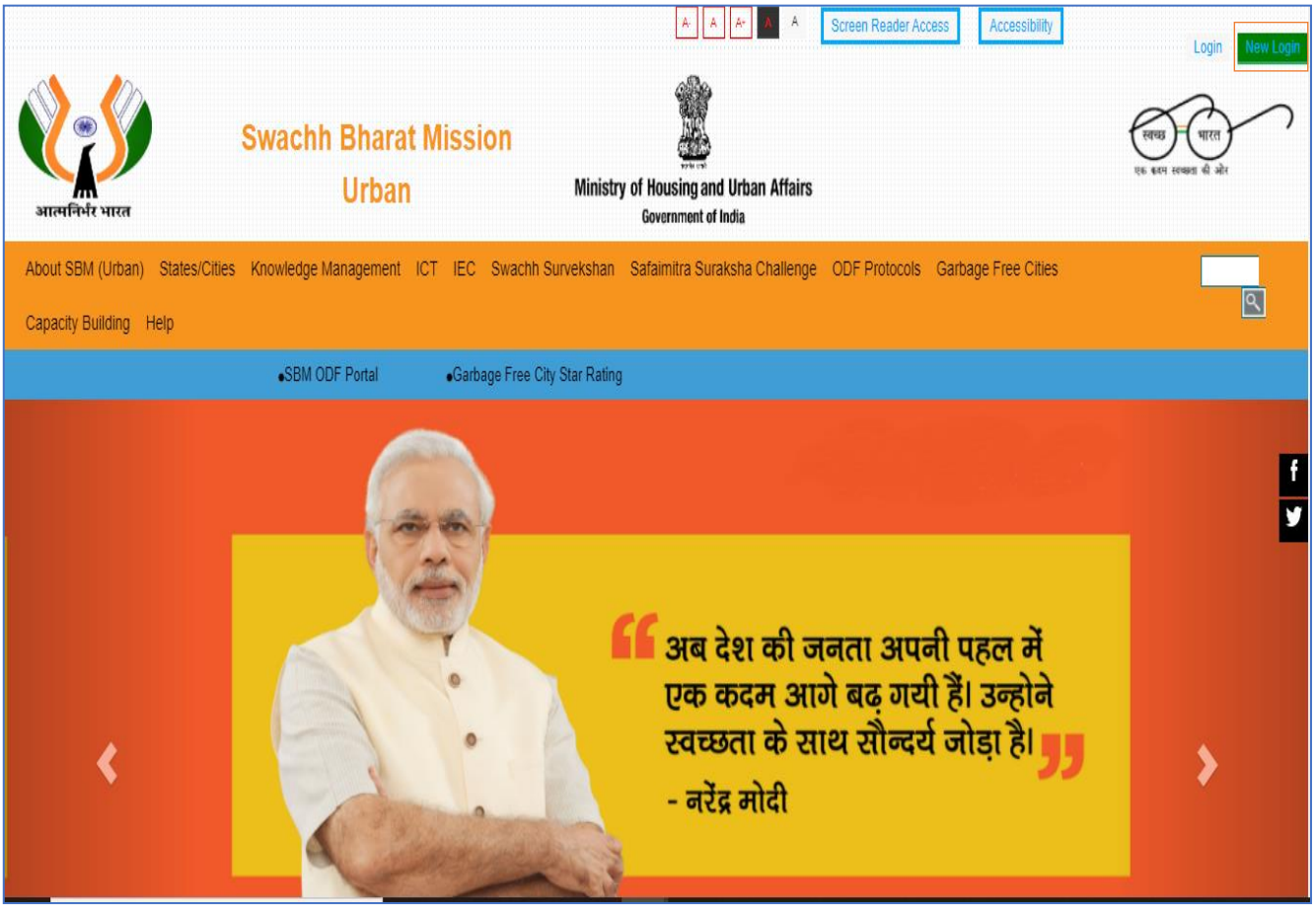
## GLOSSARY

| Terms / Acronyms / Abbreviations | Description |
|---|---|
| SBMUP | Swachh Bharat Mission Urban Portal |
| GIS | Geographic Information System |
| | |
| | |

# GETTING STARTED WITH LOGIN FUNCTIONALITY

## 1.1 INTRODUCTION

Swachh Bharat Mission Urban Portal will help ministry to centralize the complete GIS database in a single platform for different types of users. Users are allowed based on the authorization to view, upload, accept or reject the facility etc. of ULB Boundary, Ward Boundary and Area Boundary. This will enable the government in quick decision making and to provide better facilities to the local people.

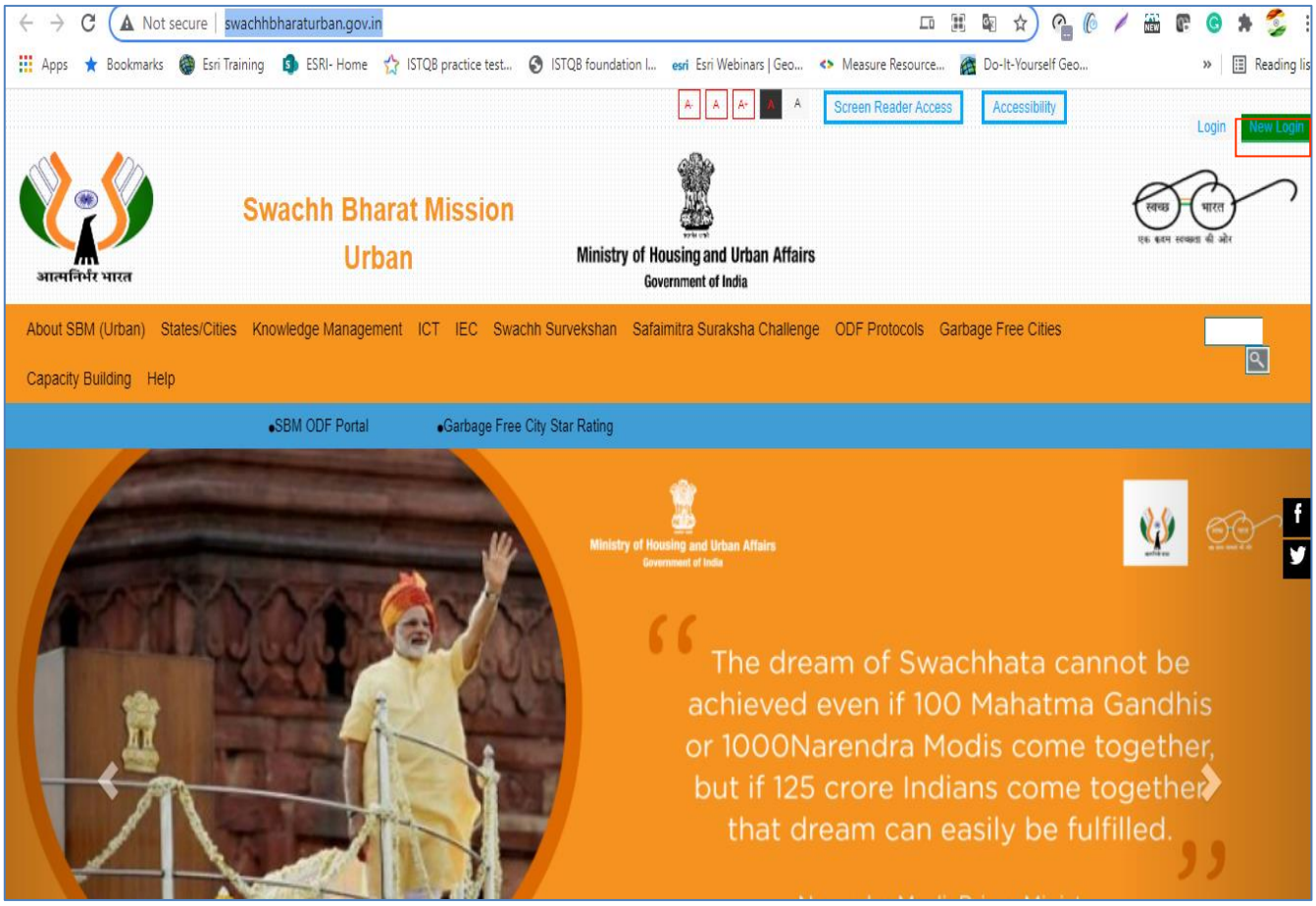


## 1.2 STEPS TO LOGIN HOME PAGE

User can open Swath Baharat Mission Urban page and can be redirected to ‘Swachh Bharat Mission Urban’ sign-in page

**Steps to perform**

1. Open the link on machine using local browser e.g., Chrome, ‘http://swachhbharaturban.gov.in/’




2. Click on the New Login button on the application.
3. User should be redirected to the new admin login page, ‘https://admin.sbmurban.org/u/login’

User can login to the GIS based application using valid user credentials. There are two different levels of ULB users.

- **Nodal Officer**
- **GIS Operator**

# INTRODUCTION ABOUT GIS TOOLS

There are some common GIS map tools available to navigate on map for detailed information. User can click on these tools to perform the specific task on map.

## 1.3 LEFT SIDE MENU ON MAP

### 1.3.1 ZOOM IN

Select on Zoom In icon on view ribbon to zoom in at a fixed amount. Also, you can use mouse scroll to achieve zoom in

### 1.3.2 ZOOM OUT

Select on Zoom Out icon on view ribbon to zoom out. Also, you can use mouse scroll to achieve zoom out

### 1.3.3 DEFAULT MAP EXTENT

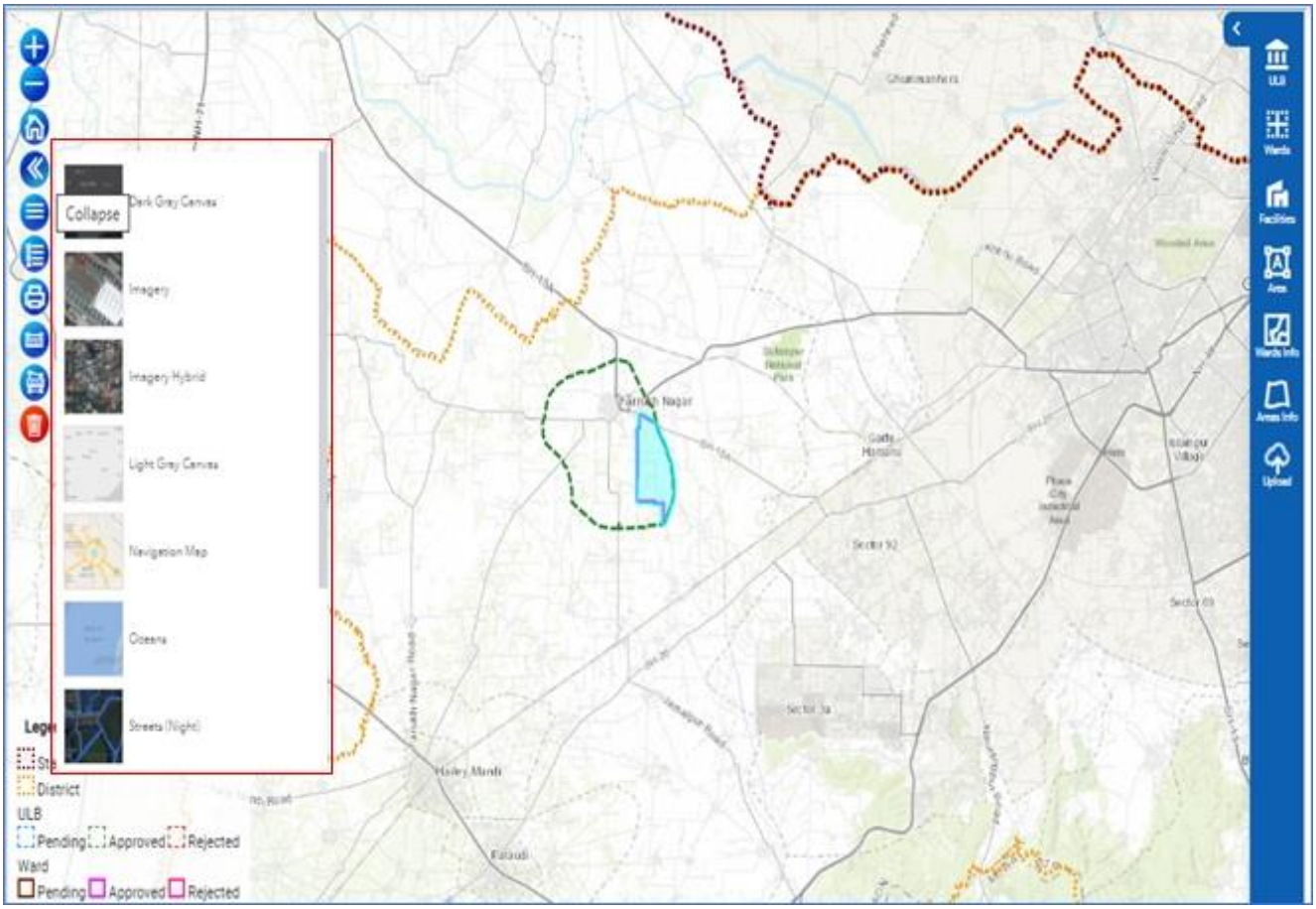
Clicking on this icon will zoom in or zoom out to the default map extent (or landing scale). This will be helpful in situations when user zoom in or zoom out too much and not able to view map layers. Default map view should vary based on user credentials.

### 1.3.4 BASEMAP GALLERY

The Basemap Gallery icon presents a gallery of basemaps and allows to select one from the gallery as the basemap for the application.

**Steps to perform**

1. Click Basemap Gallery icon from the application.
2. Choose any one of the basemap from the available basemaps in the gallery. The selected basemap will be added to the application.



### 1.3.5 LAYER LIST

The Layer List icon provides a list of operational layers in the map display along and their symbols with the option that allows user to turn on or off the individual layers. Each layer in this list has a check box that allows user to control its visibility.

**Steps to perform**

1. Click Layer List icon from the application.

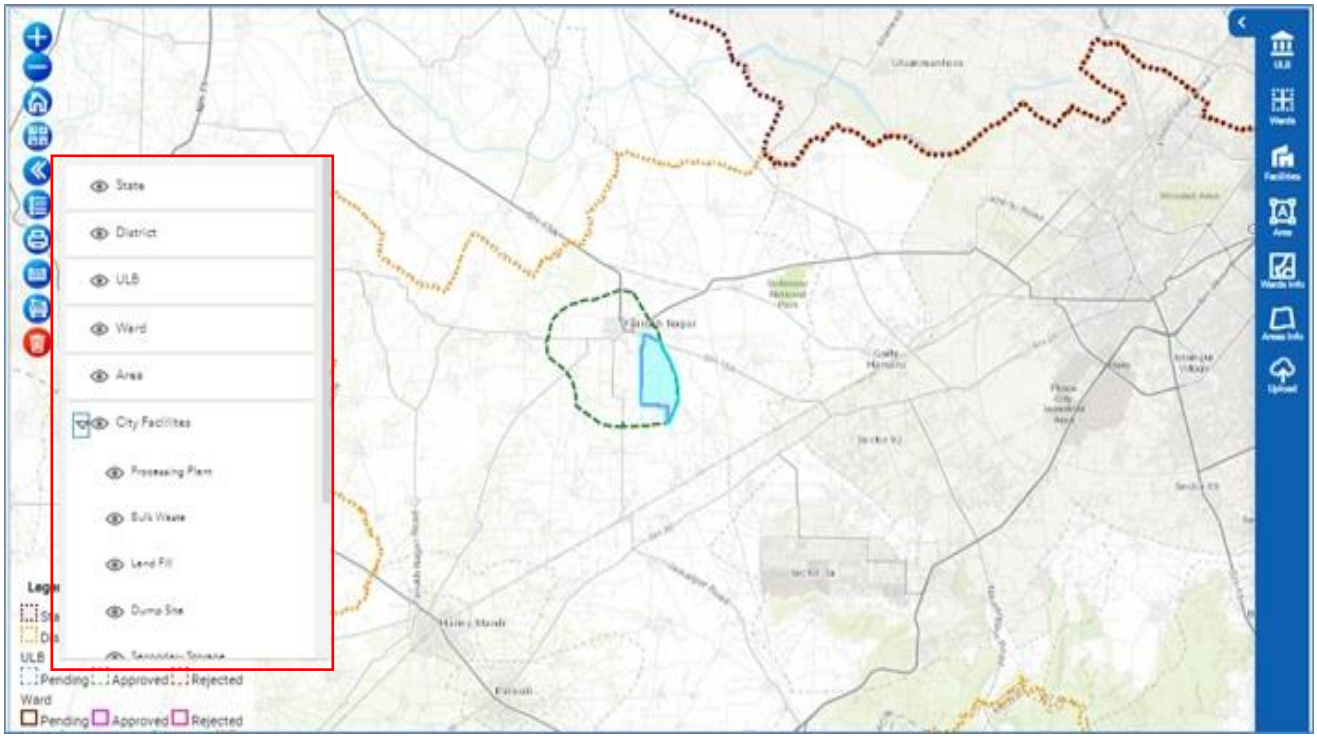
   The user can view the list of layers available in the map. User can turn them on and off by selecting the checkbox available.

### 1.3.6 LEGEND

Legend tool provides the meaning for the symbols used to represent features on the map.

**Steps to perform**

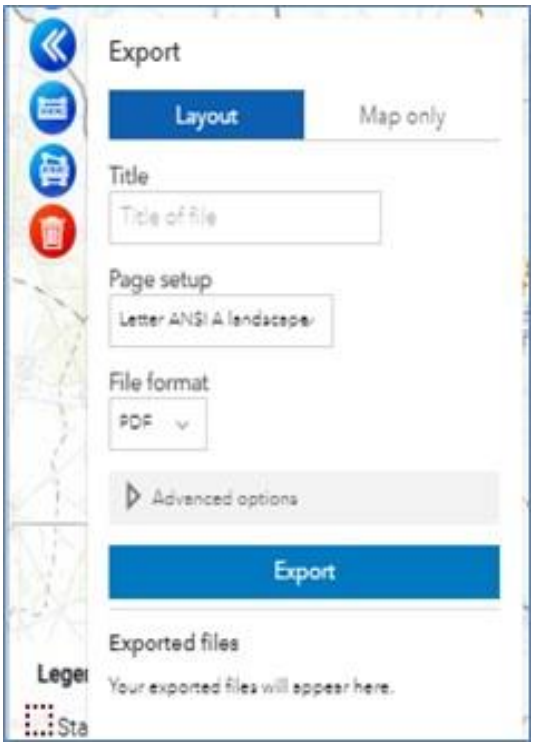
1. Click the Legend icon from the application.
2. For the styled shapes and symbols given on the map, the legend widget will describe what they depict.



***Note**: The legend changes dynamically as per the scale of the map.*

### 1.3.7 PRINT MAP

This module exports user required features and maps of the defined area of interest within the map. The user can download the data in various formats like PDF, JPG, and GIF etc.

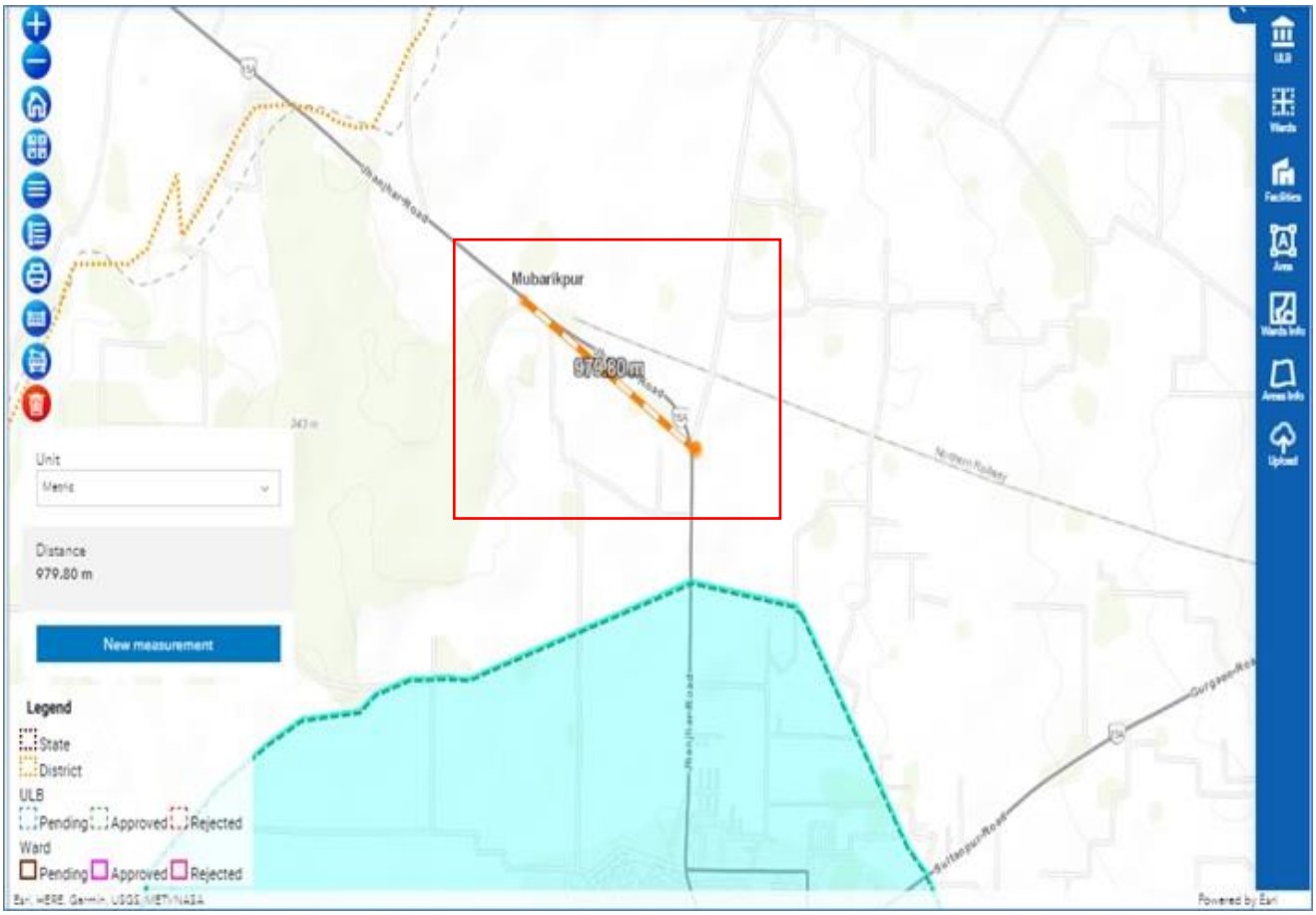



### 1.3.8 DISTANCE MEASUREMENT TOOL

The Distance Measurement tool can be used to calculate the drawn line to measure the distance for the selected location on map respectively.

**Steps to perform**

1. Click Distance Measurement icon from the application.
2. Click on the map at the starting point. Move the cursor to the end point/ next point. Repeat until end point. Double click to finish. User should be able to view the measurement distance on map.

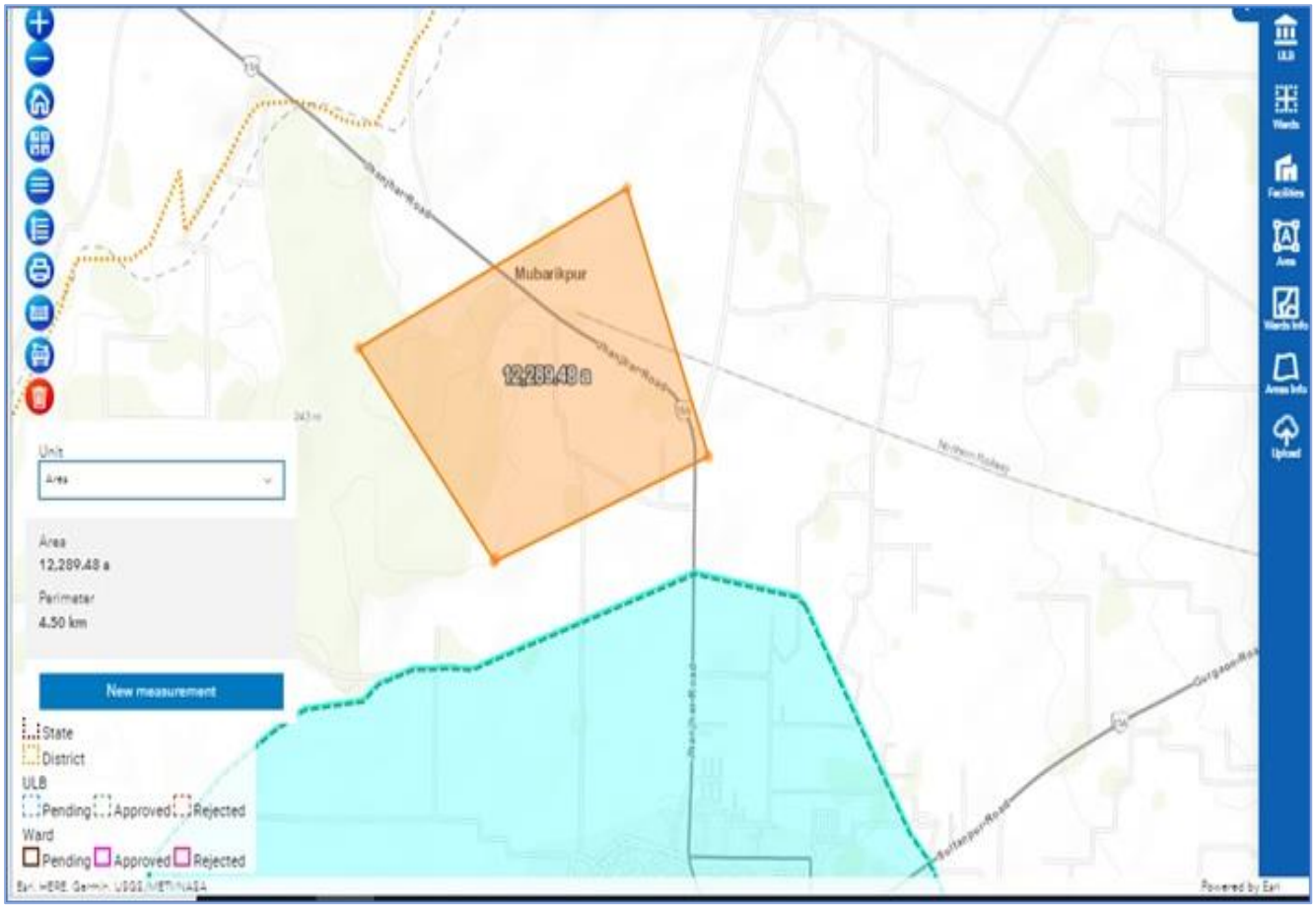



### 1.3.9 AREA MEASUREMENT TOOL

The Area Measurement tool can be used to calculate the area for the selected location on map respectively.

**Steps to perform**

1. Click Area Measurement icon from the application.
2. Click on the map at the starting point. Move the cursor to the end point/ next point. Repeat until end point. Double click to finish. User should be able to view the measurement area on map.




### 1.3.10 CLEAR MEASUREMENT

Clear Measurement tool clear the temporary graphics from the map in the current session. User can click on the tool and all the measurement graphics should get clear from the map.

## 1.4 RIGHT SIDE MENU ON MAP

Left side menu on map are customized GIS Tools specific to the application to view the ULB boundary, Wards Status, Area Information and City Facilities. Authorized user can click on any of the tools are perform the specific task.


### 1.4.1 ULB


In this tool user can view the ULB status as approved, pending or rejected for the authorized ULB Boundary details. Status can be viewed by all types of users.

### 1.4.2 WARDS


This tool helps user to the Wards status as approved, pending or rejected for the authorized ULB Boundary details. Status can be viewed by all types of users.

### 1.4.3 AREA


This tool helps user to view area boundary details and its status as approved, pending or rejected for the authorized user.

### 1.4.4 FACILITIES


User can view the city wise details as Bulk Waste, Dump Site, Land Fill, Processing Plants, River Ghat, for selected ULB boundary etc. with count information.

### 1.4.5 WARDS INFO


This tool helps to single file upload for Ward Boundary Status. User can select the single ward file and upload it on map.

### 1.4.6 AREAS INFO


This tool helps to single file upload for Area Boundary Status. User can select the single Area file and upload it on map.

### 1.4.7 UPLOAD


This tool helps to upload single file upload for ULB boundary and ward bulk upload boundary by clicking in this icon.

### 1.4.8 FACILITY UPLOAD

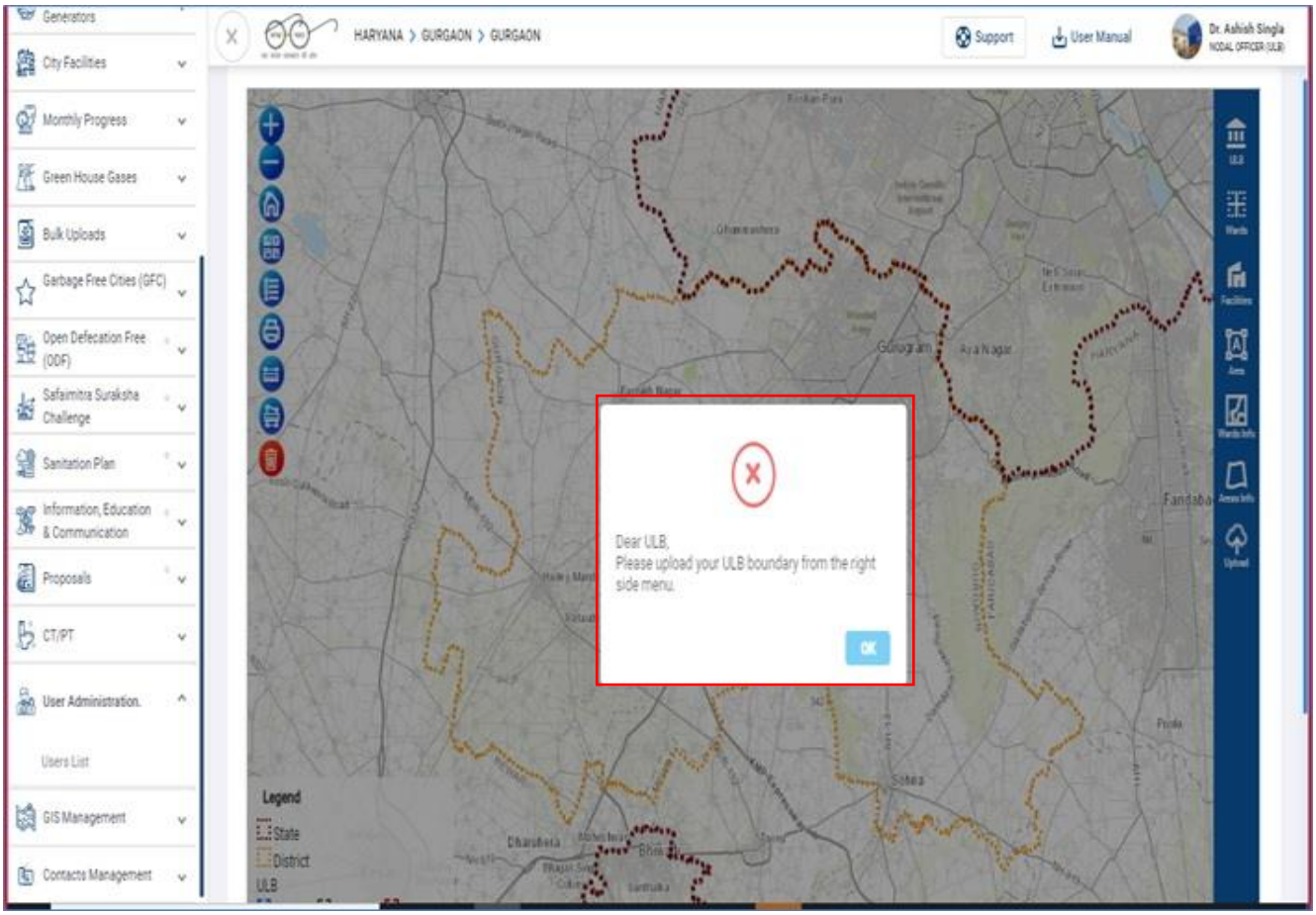

Users click on Facility Upload button, Upload City Facilities (Bulk) window gets open. If data is available in defined format e.g., shape, kml or GeoJSON nodal officer or GIS operator can directly upload bulk facility for the single facility e.g., Bulk Waste from SBM web portal. If the data is not available in the defined format, GIS operator can upload the data one by one for each facility using mobile app available on google play store.

### 1.4.9 HELP


User can download the help document by clicking on Help document icon. Detailed information about the application is available in this section.

## NODAL OFFICER

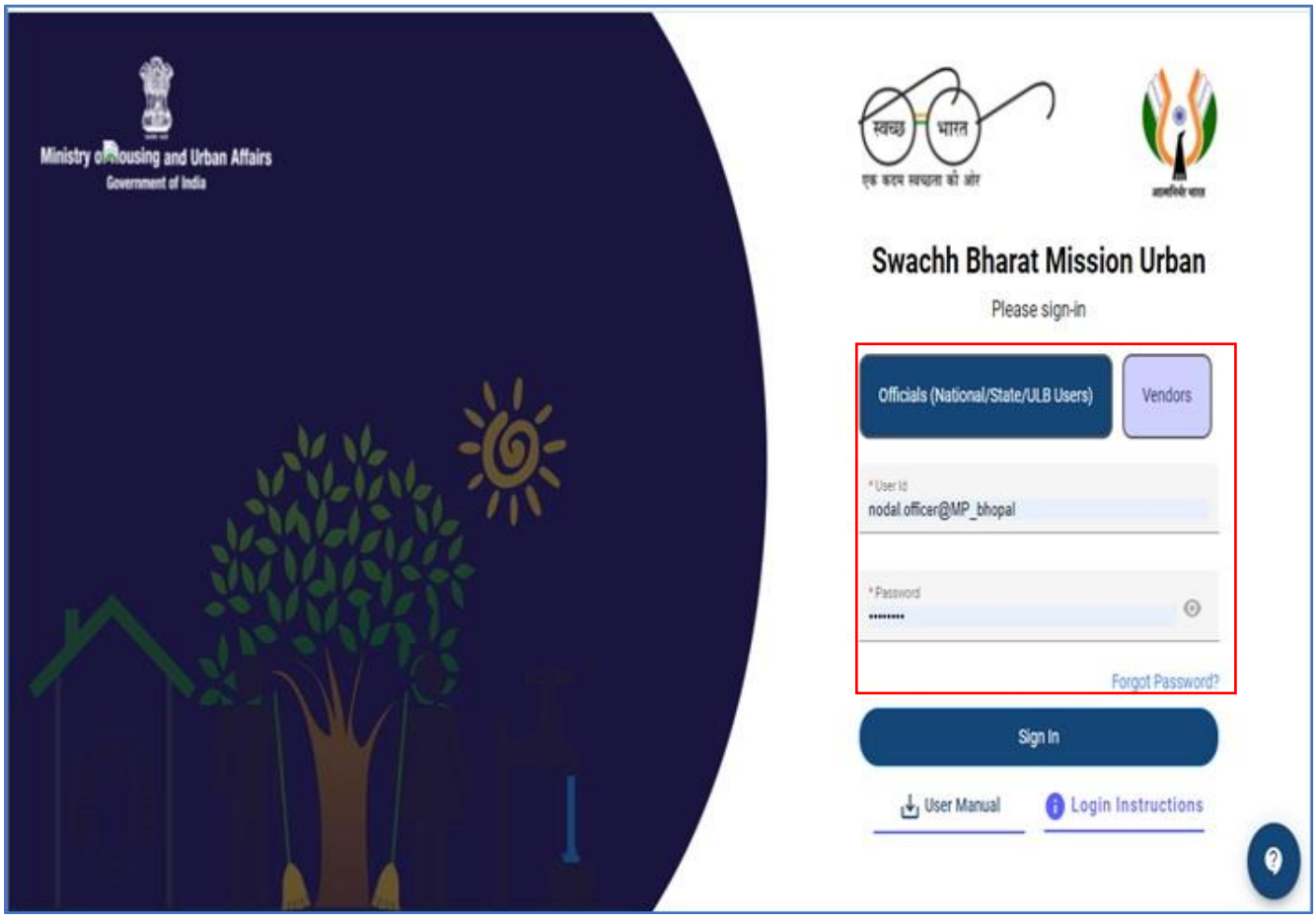
ULB Nodal officer is a commissioner user, authorized to view the data uploaded by the ULB user, authorized commissioner user can approve or reject the request and the updated status can be viewed and power to upload ULB and ward again. Nodal Office user can also perform the task done by an GIS operator and allowed to edit boundary and attributes for the authorized area. Nodal officer can create ULB boundaries or allow GIS operator to create the ULB boundaries. By default, when Nodal officer will successfully login to the application, user should get a message,' Dear ULB, please upload your ULB boundary from the right-side menu.' Nodal officer can upload the boundary from his / her own login id, or it can allow the GIS operator to upload the ULB boundary. Steps to upload the ULB Boundary are mentioned in the section 11 of the same document for reference.



## 1.5 LOGIN AS NODAL OFFICER

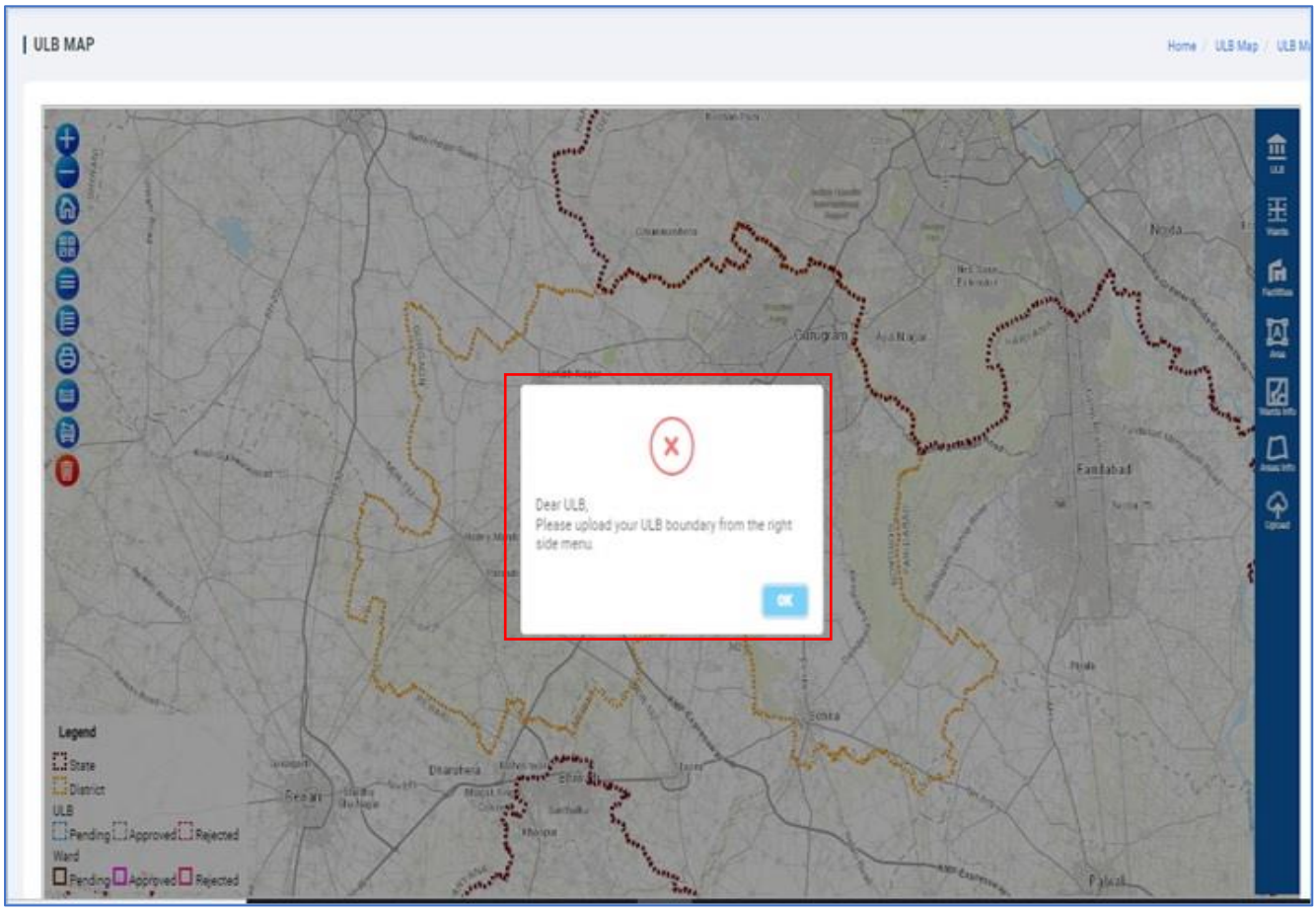
**Steps Performed by Nodal Officer to validate data submitted by GIS Operator**

1. Login as authorized Nodal officer login credentials.



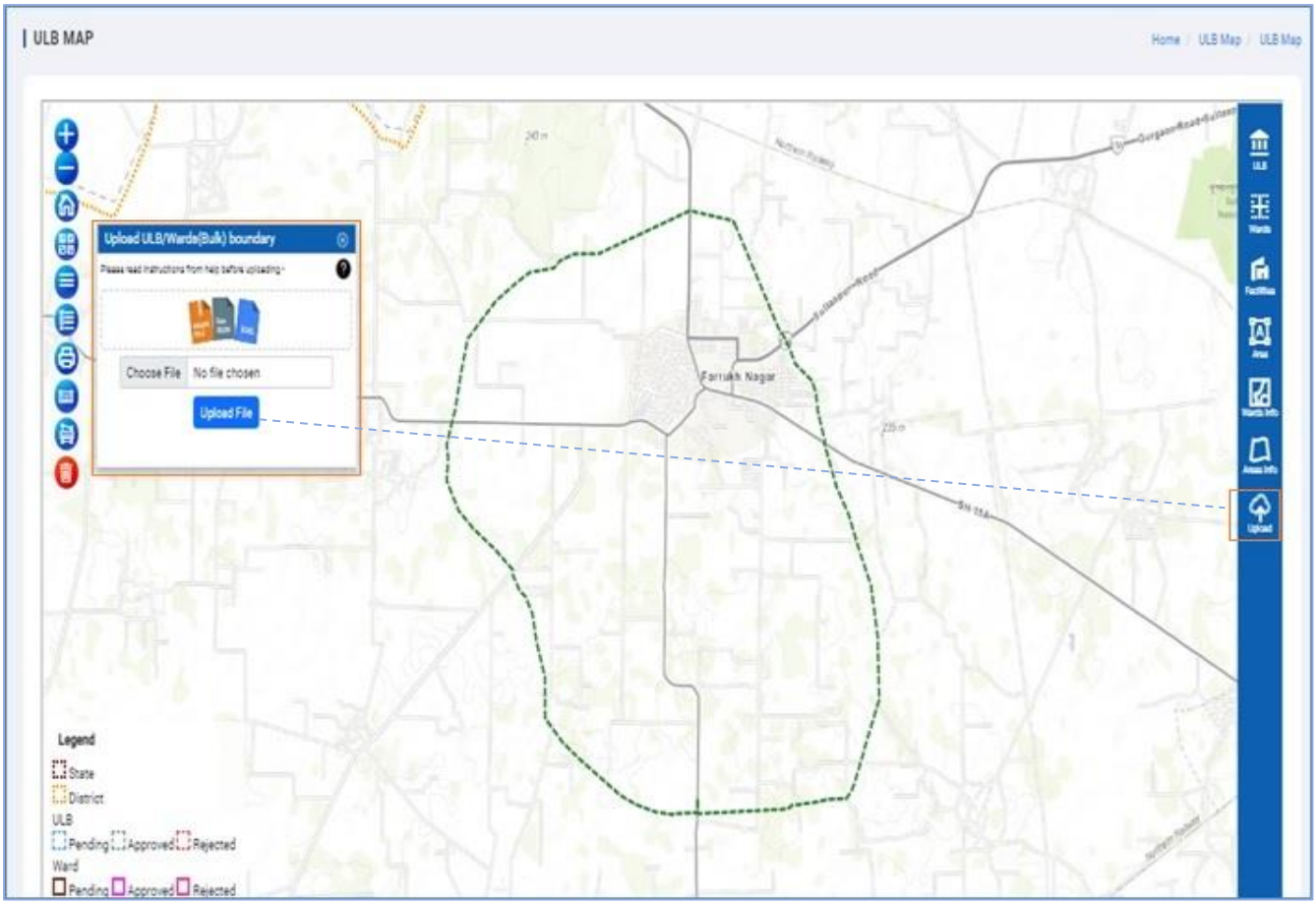

## 1.6 NODAL OFFICER- UPLOAD ULB / WARDS (BULK) BOUNDARY

ULB Boundary is a single file upload, Nodal officer can upload the ULB boundary in one time using the option ‘Upload ULB/Ward (Bulk) boundary. ULB boundary can only be uploaded if it falls under the selected district boundary. Nodal officer can also upload the bulk ward using the same steps. The prerequisite to upload the ward boundary is, for all the wards respective ULB boundary should be already uploaded.



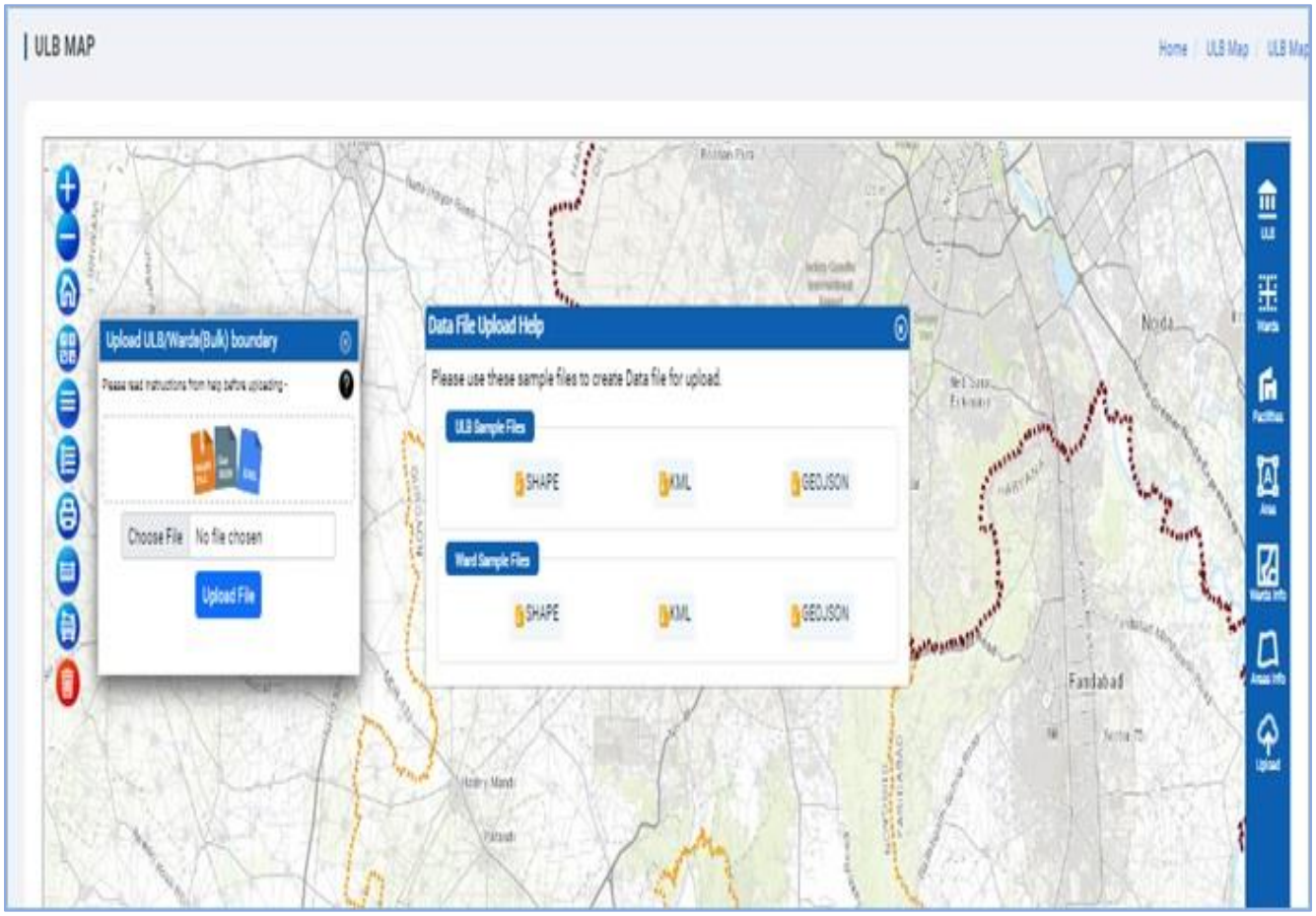

**Steps to perform**

1. Nodal officer can upload the ULB Boundary by clicking on ‘Upload ULB / Wards (Bulk) Boundary.’

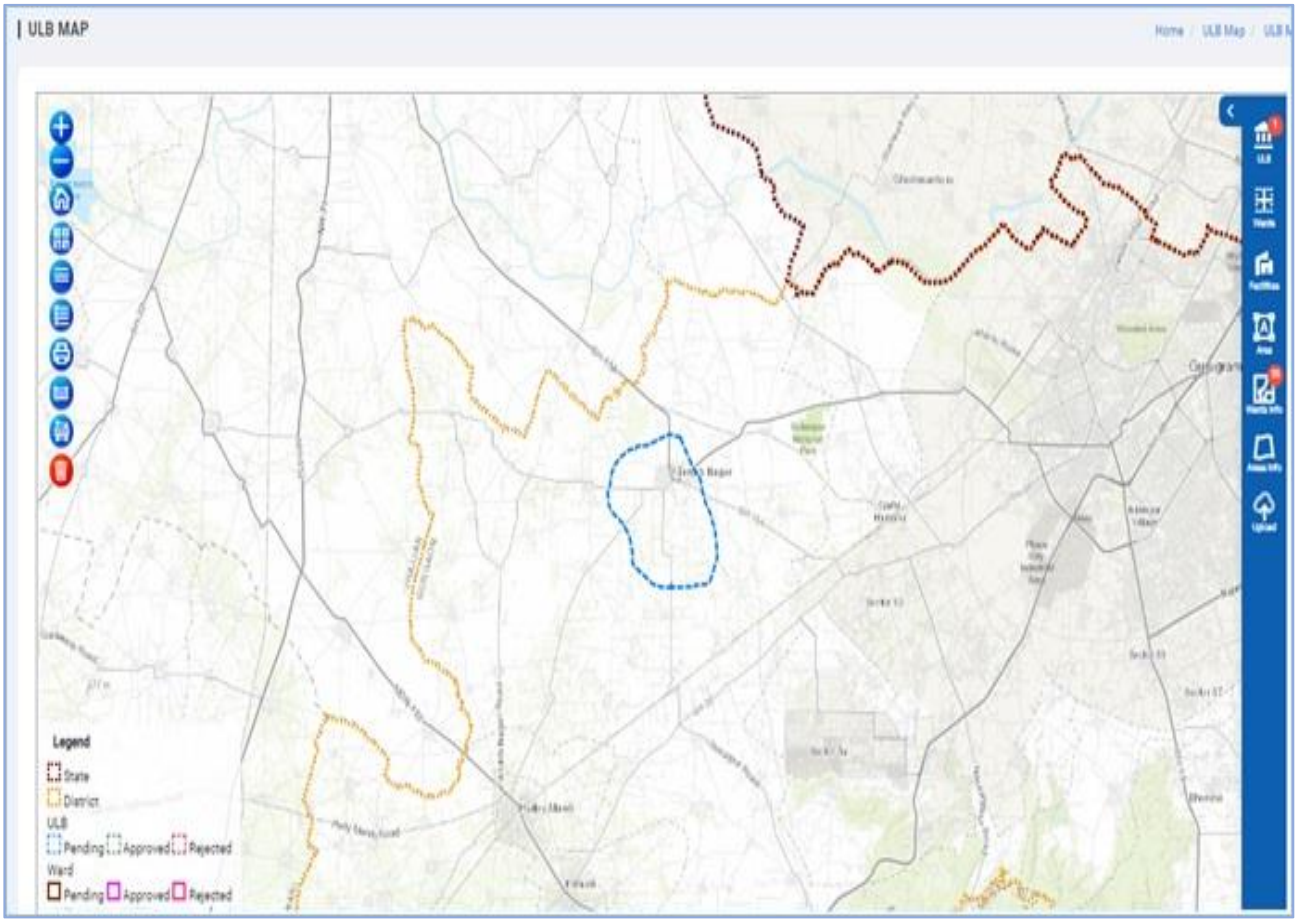



2. ‘Upload ULB / Wards (Bulk) Boundary window gets open.
3. Download the sample format and upload the file in that format only. ULB user can upload the data in the downloaded sample format only. To upload the ULB/Ward /Area boundaries using KML, GeoJSON and Shape file format with respective validation while adding the same.
4. Click on upload button on (Upload ULB / Wards (Bulk) boundary.
5. Click on ‘Choose File’ and choose the file from your local browser.
6. User can view the file name in Upload ULB/Wards (Bulk)boundary.

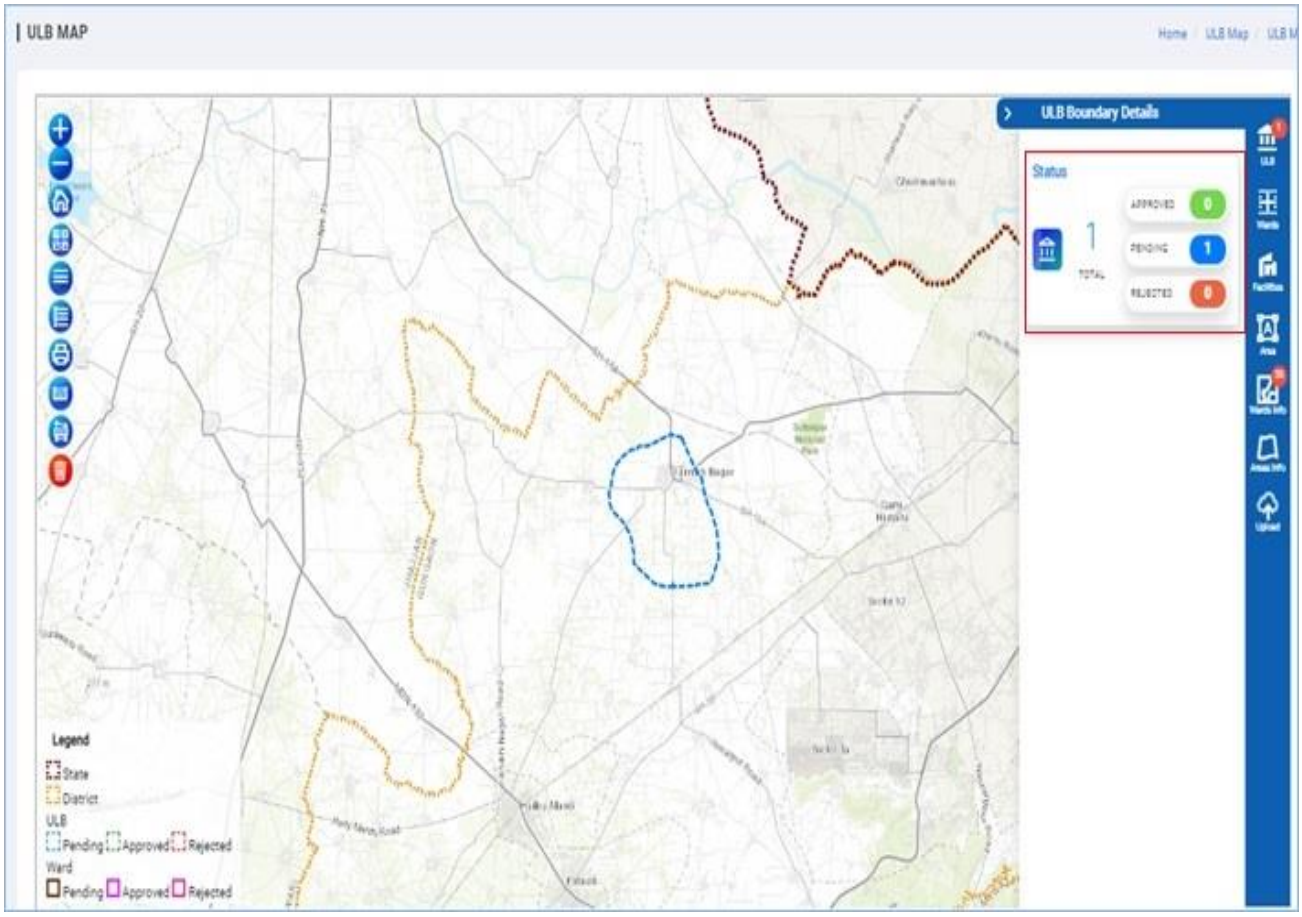

7. User can view the file name in Upload ULB/Wards (Bulk)boundary.



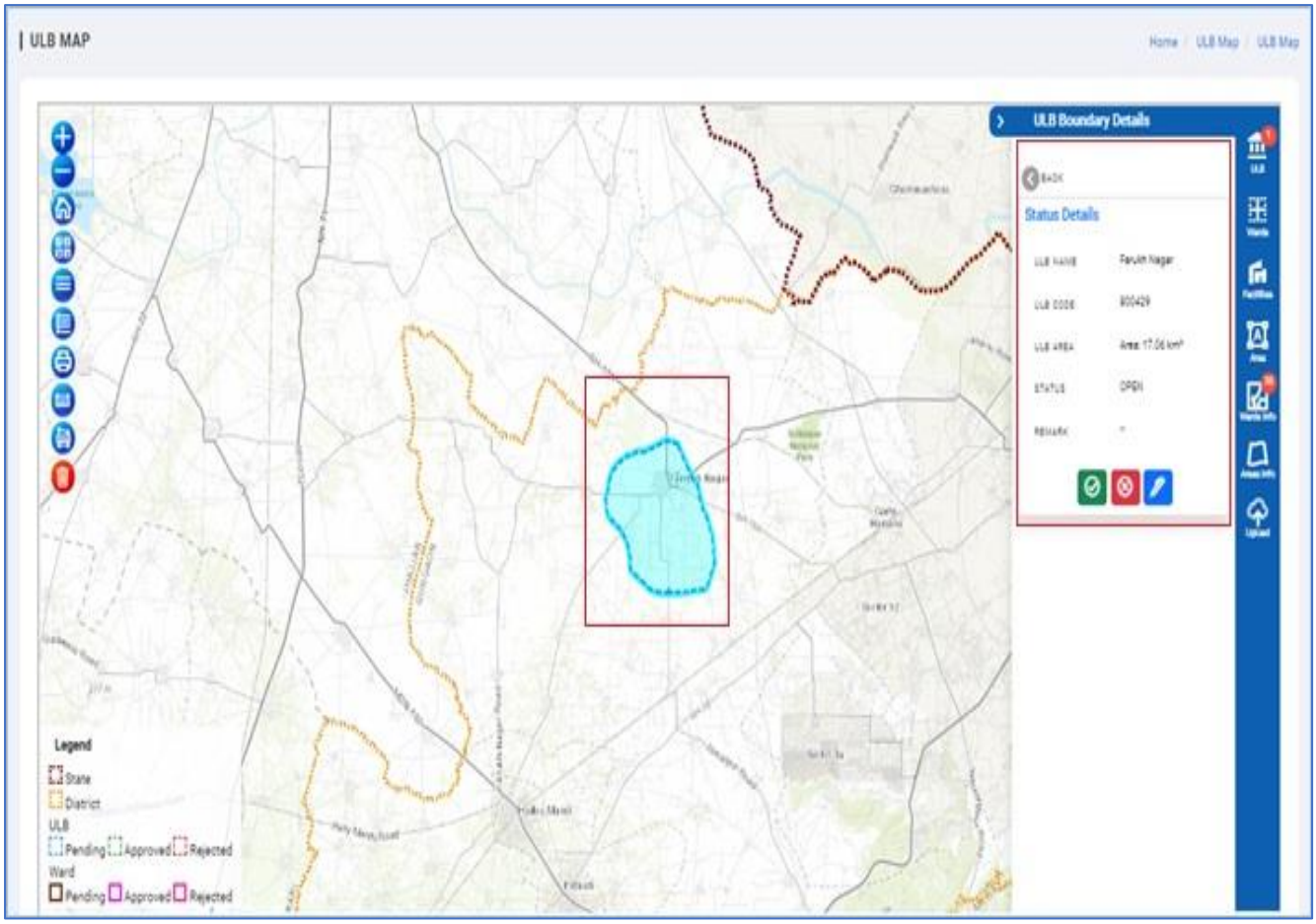

8. Click on ‘Upload File’ button, User can view the uploaded ULB on map.



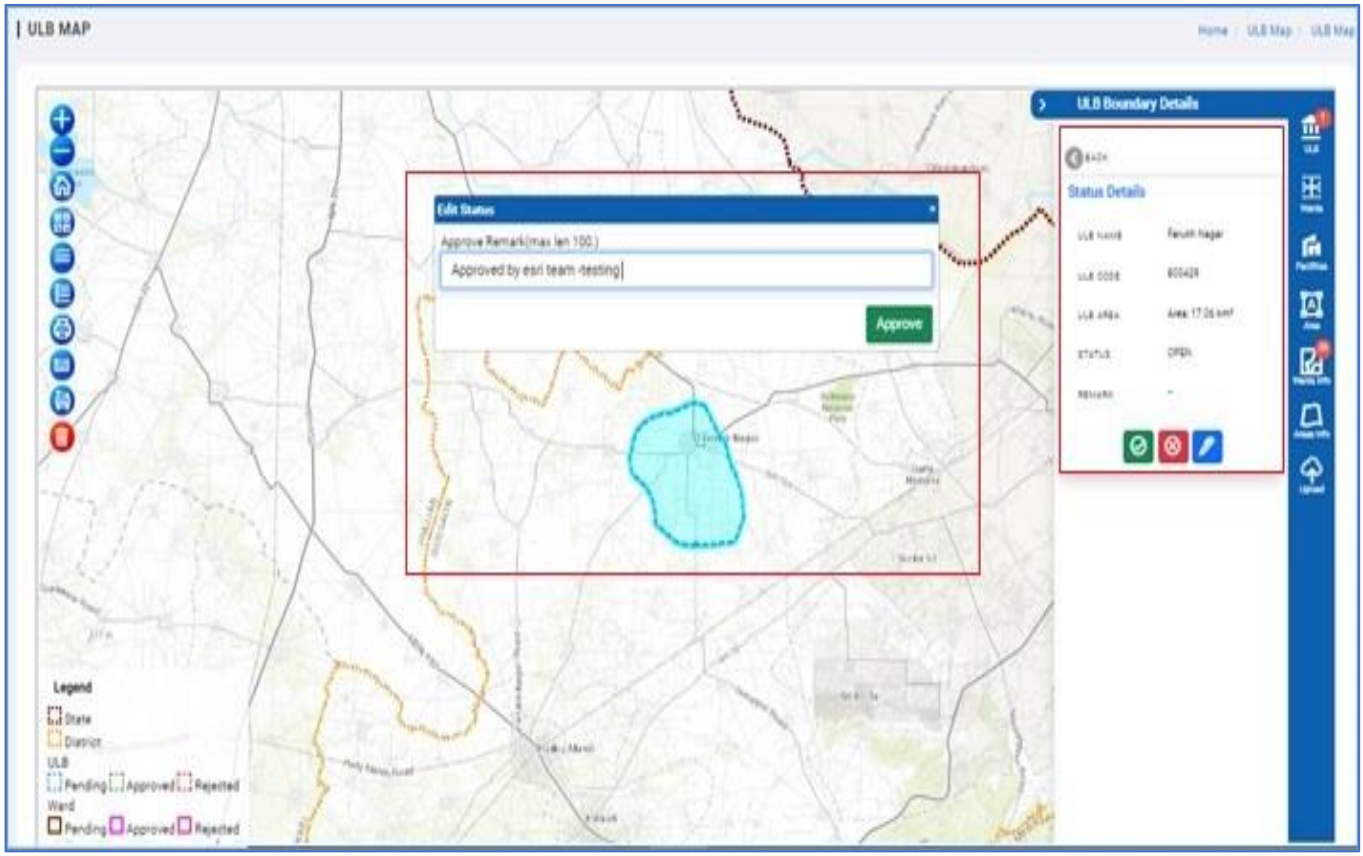

9. Click on, ‘ULB Status’ button. User can view the updated status of the ULB.



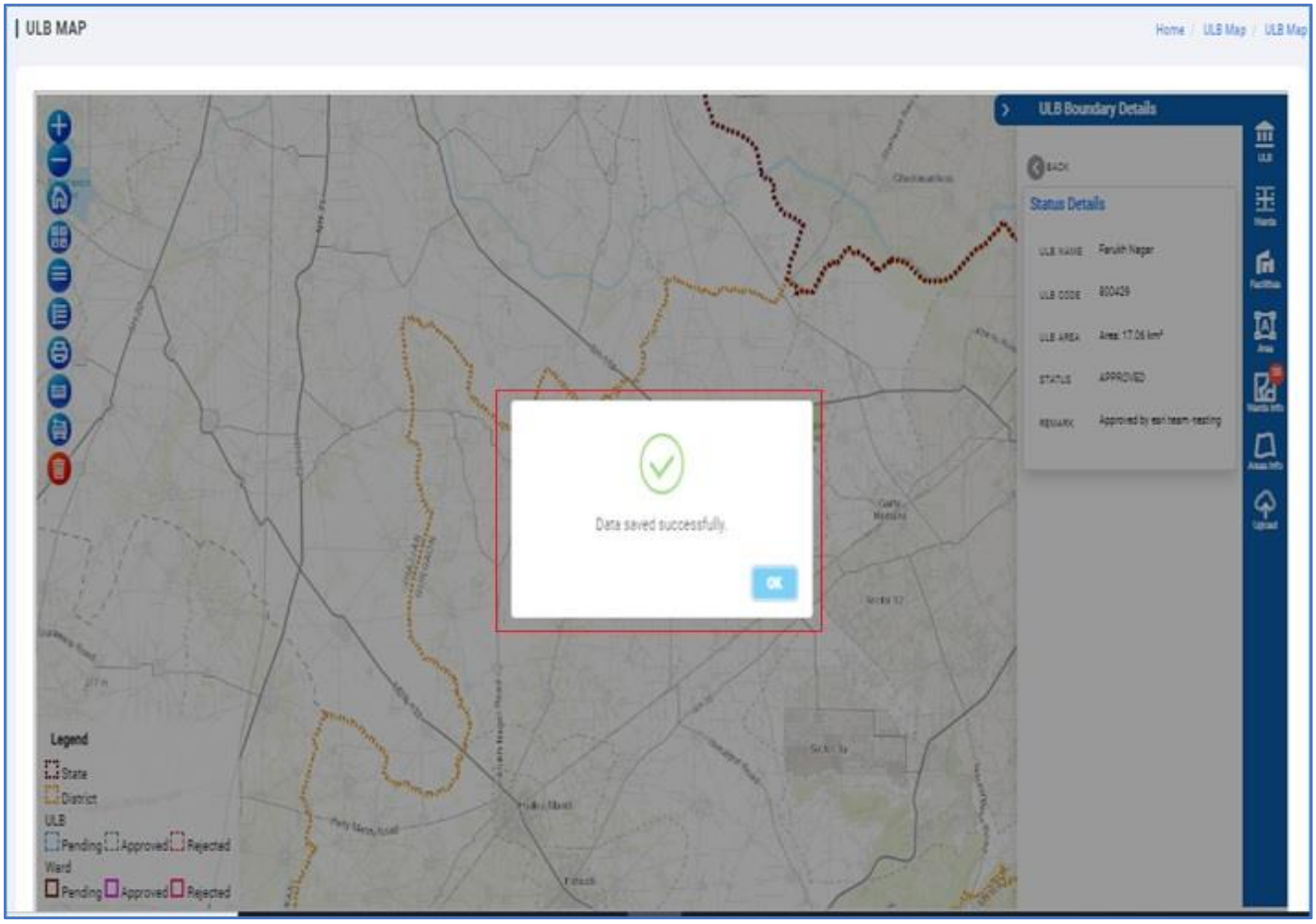

10. View the status of the ULB Status for the selected ULB boundary.
11. Click on ‘Green, Red’ or ‘Edit Boundary’ button to approve or reject the boundary.
12. Nodal officer can click to edit the uploaded boundary in blue icon.
13. To reject the uploaded boundary, Nodal officer can click to red icon and add remarks.




14. Officer can click on green icon and update the remark to approve. Click on ‘Approve’ button.




15. Nodal officer should get a message ‘Data saved successfully.’

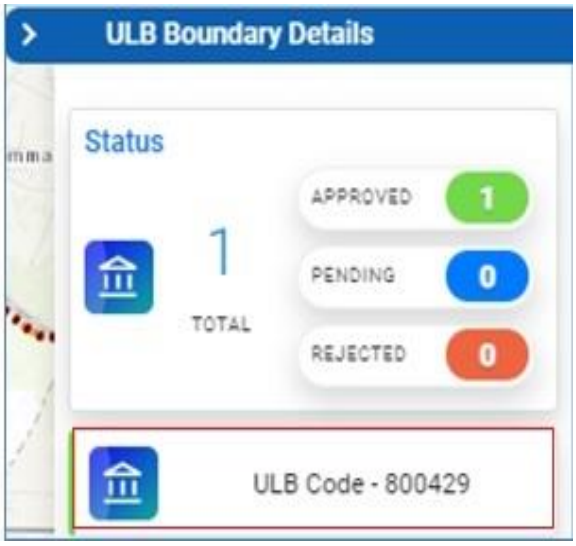



16. Status will get updated and ‘Nodal Officer’ and ‘GIS operator’ can view the updated status.

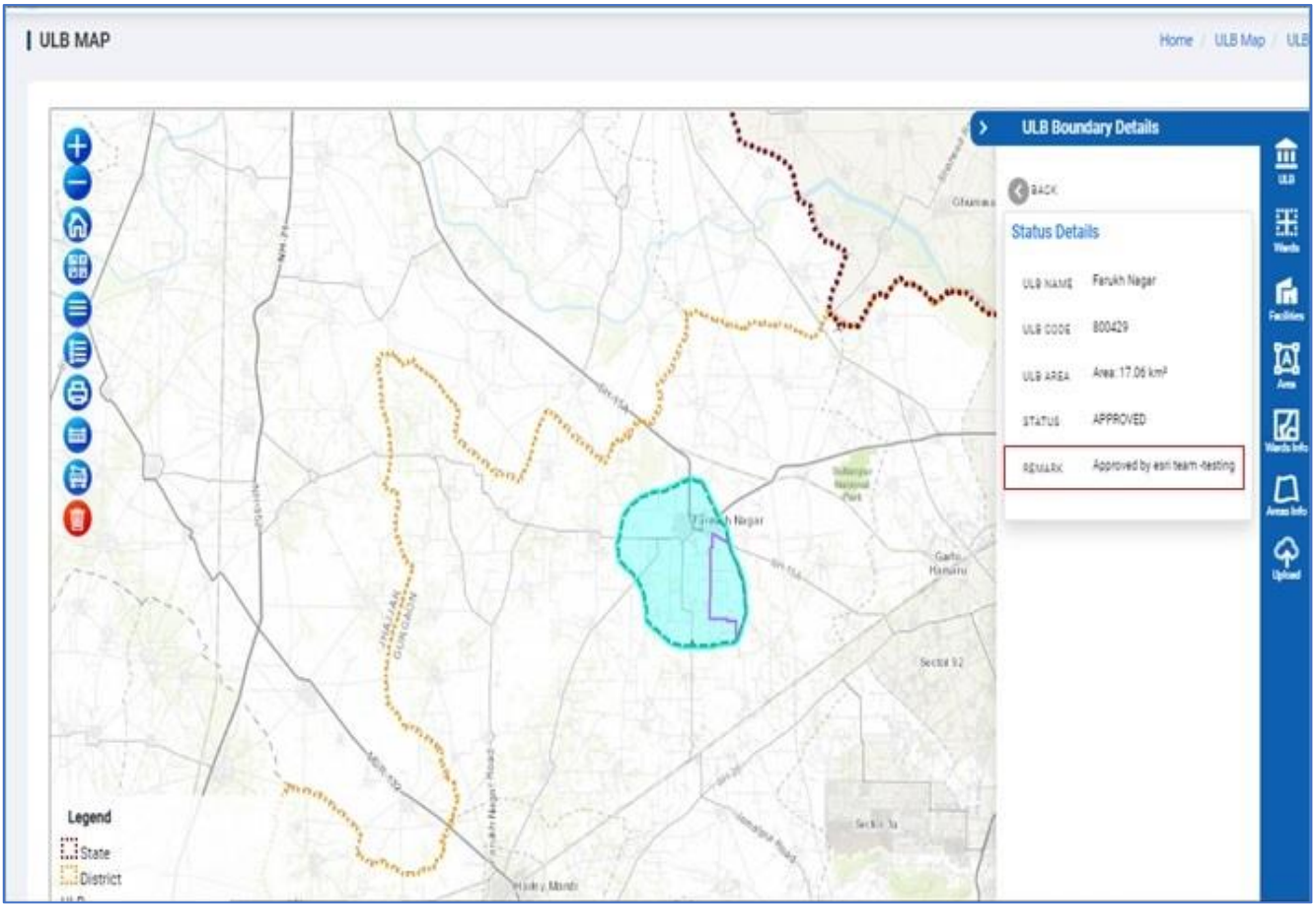
### 1.6.1 ULB STATUS

User can view the ULB status for all the ULB boundary by clicking on ‘ULB Status’ icon. There are three types of the status

- **Approve** -Status of all the ULB boundary approved by Nodal officer can be seen with count. User can click on from the list and able to view the detailed information.
- **Pending**- ULB boundary needs to be approved before that status should be pending.
- **Rejected**- Status of the ULB boundary rejected by the Nodal officer is updated here.


- User can click on approved status, approved ULB should be highlighted on map.

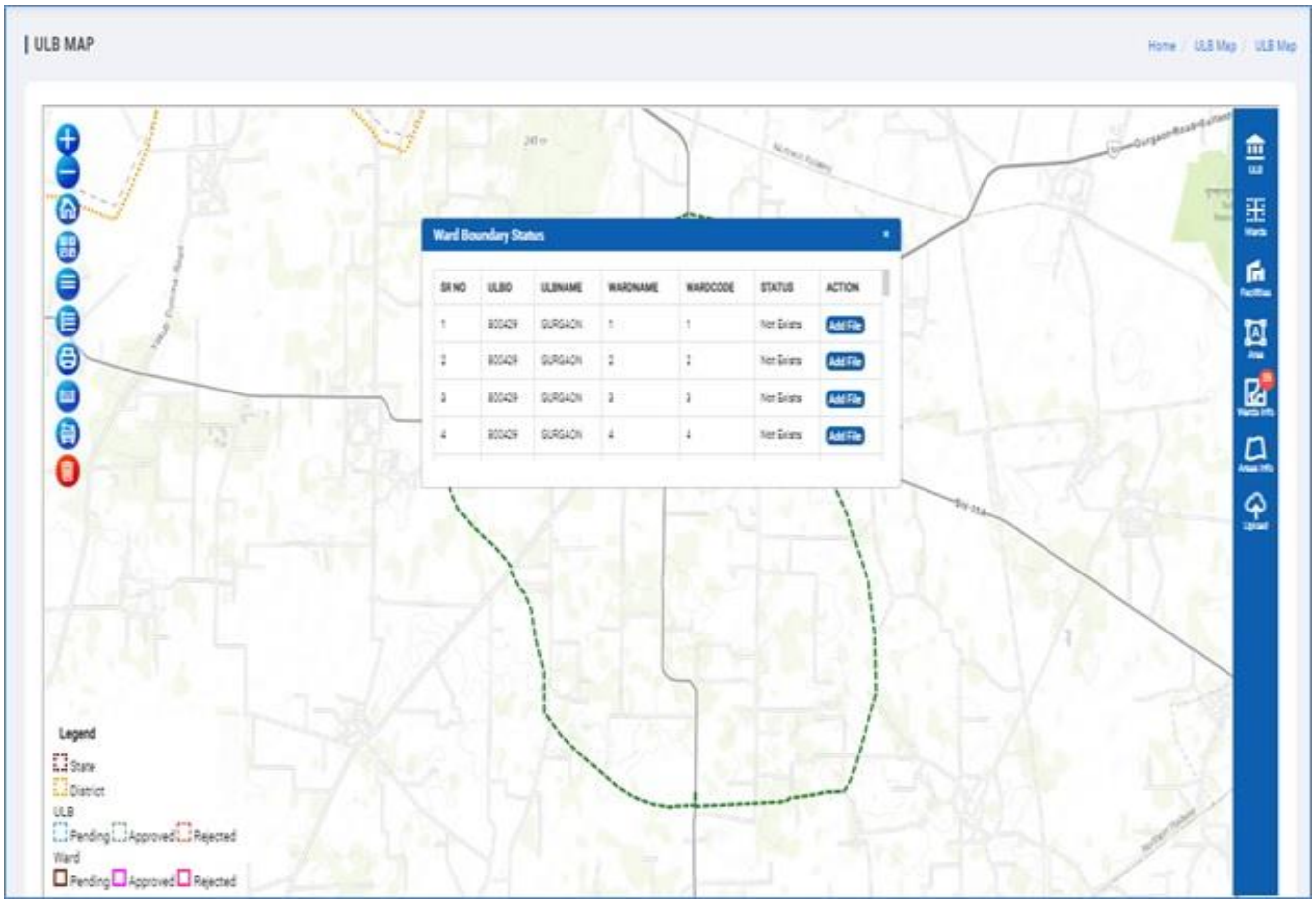


## 1.7 NODAL OFFICER- WARD INFO (SINGLE FILE UPLOAD WARD BOUNDARY)

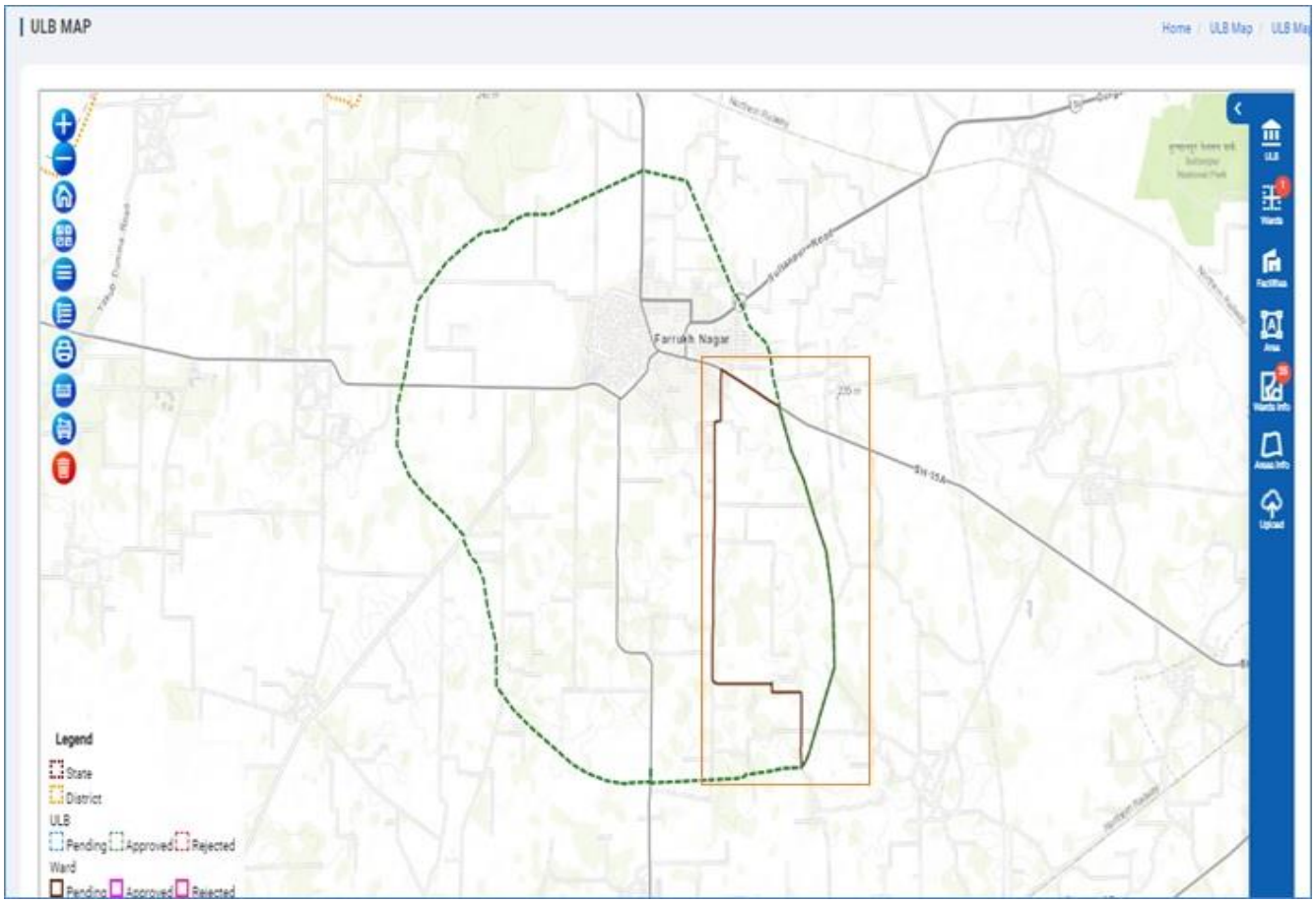
Nodal officer can only upload the ward boundary if the ULB for that location is already uploaded. For single file upload, Nodal officer can upload the ward boundary using the option ‘Ward Info’.

**Steps to perform**

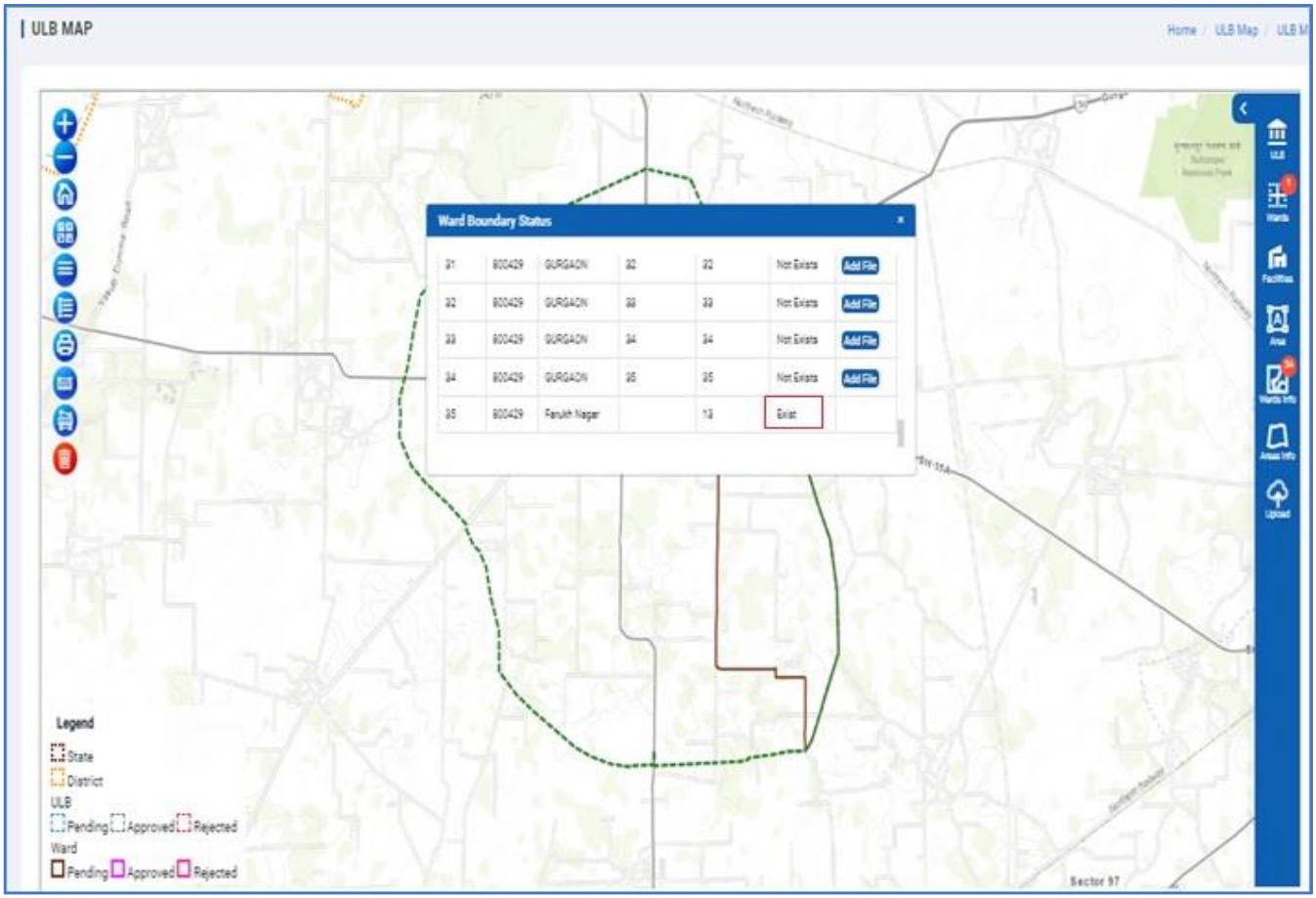
1. Click on ‘Ward Info’ button, Ward boundary status window should get open.
2. If the status is ‘Not Exists’, means the ward boundary for the selected ULB is not uploaded.
3. If the status is ‘Exists’, means the ward boundary for the selected ULB is already available.

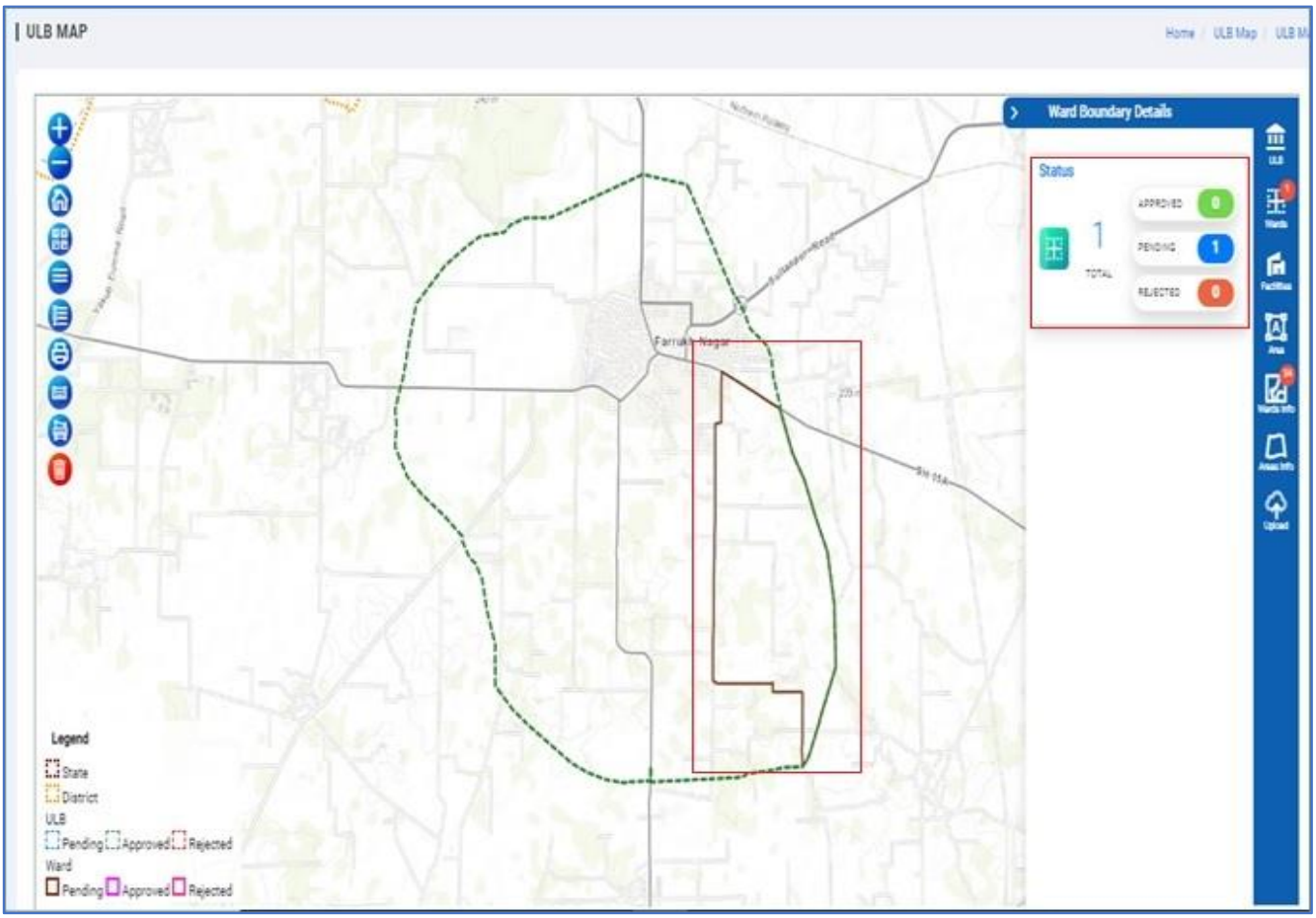


4. Click on ‘Add File’ for the status, ‘Not Exists’ and upload the ward boundary for your local machine.
5. Selected file should be uploaded and visible on map.

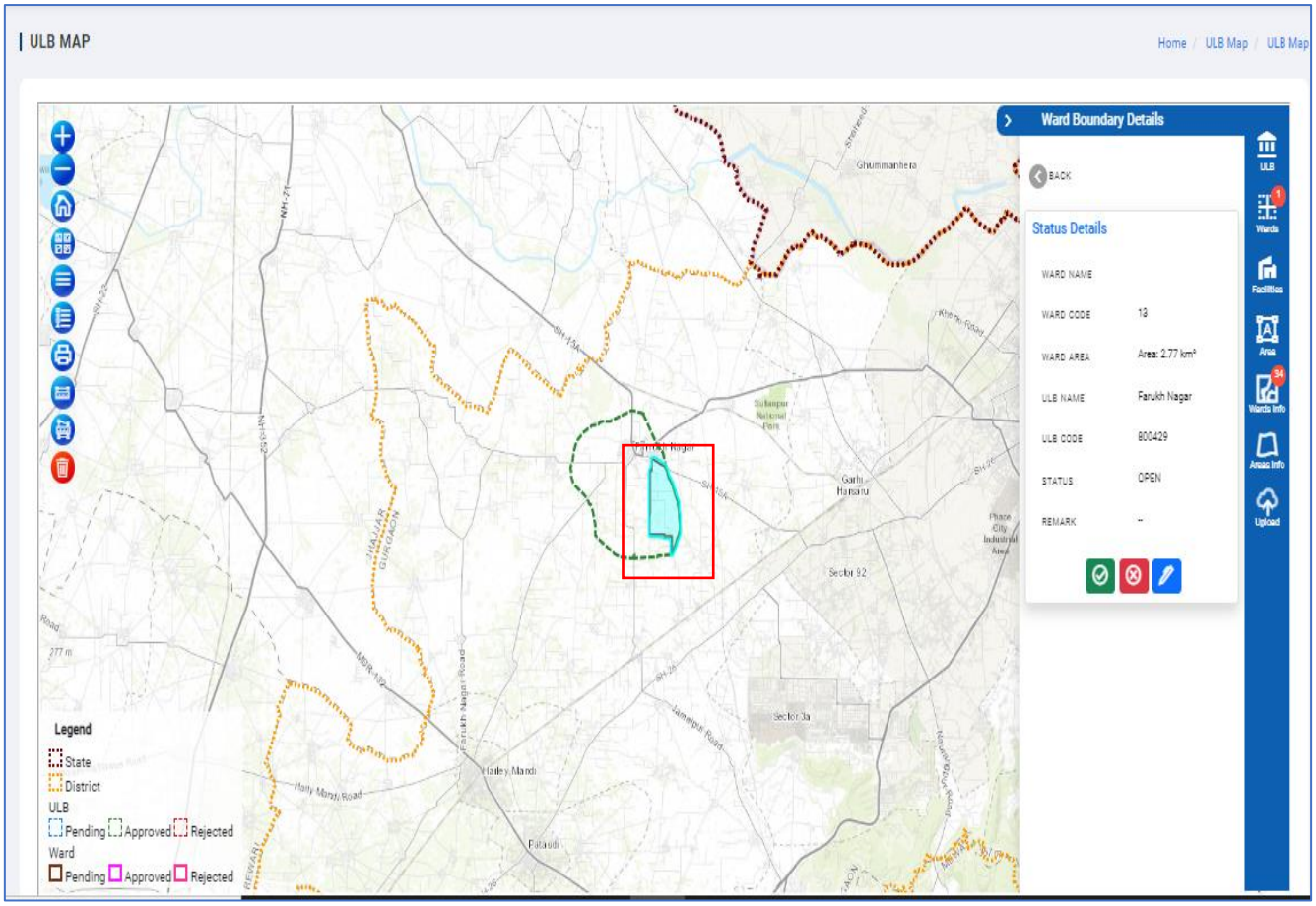



6. Status for the recently uploaded ward boundary should change to ‘Exists’ and Add File option should not be available for that ULB boundary.
7. Click on ‘Wards’ icon and view the status of the selected Ward Boundary Details’. User can view the status as pending e.g., 1 for the recently uploaded ward boundary.

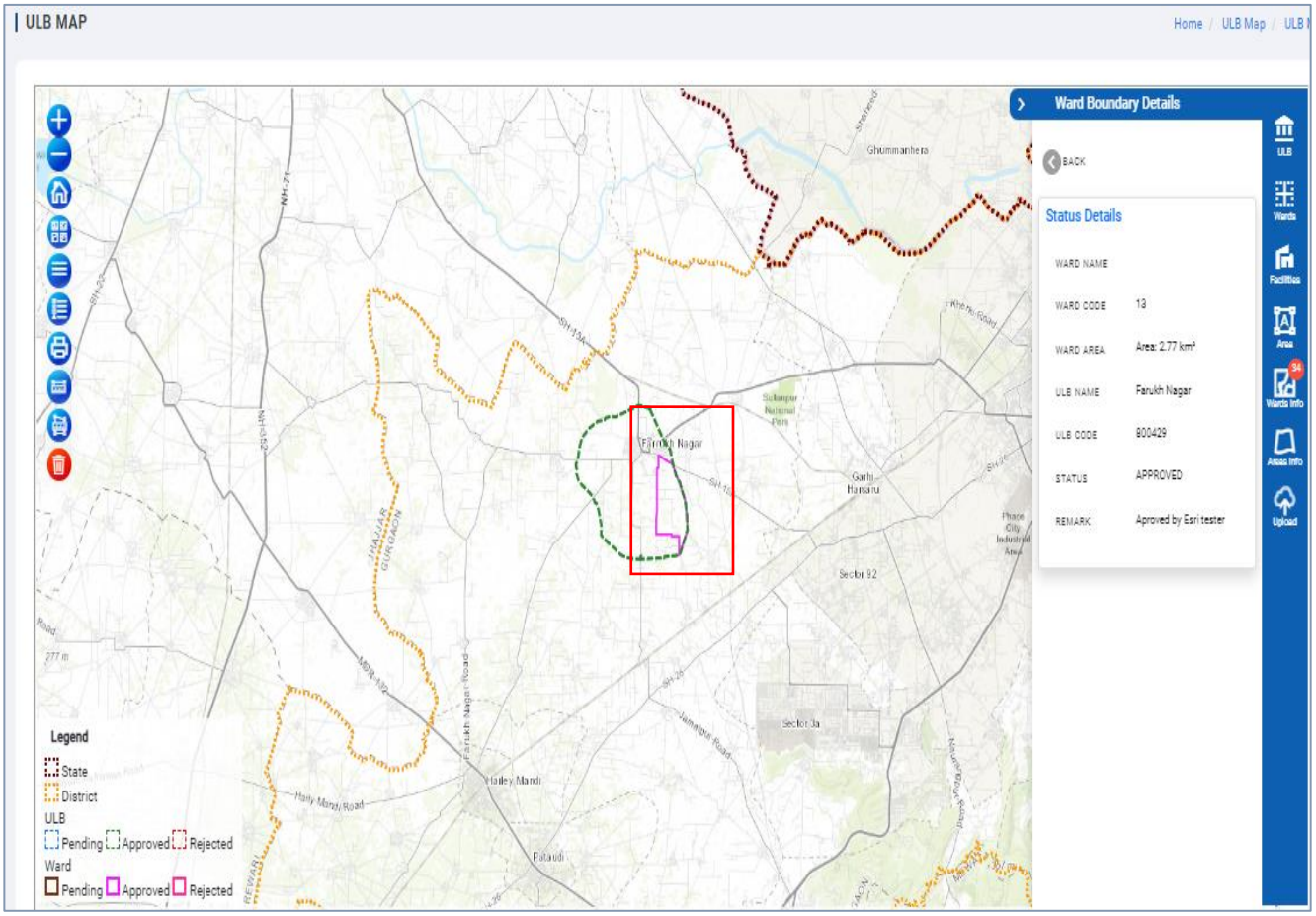

ULB MAP
Home / ULB Map / ULB M
Ward Boundary Status
Add File
Legend
State
District
ULB
Pending Approved Rejected
Ward
Pending Approved Rejected
Sector 97




8. Nodal officer can click on ‘pending status’ and can view the details for the recently uploaded ward boundary.
9. Click on ‘Green, Red’ or ‘Edit Boundary’ button to approve or reject the boundary.
10. Nodal officer can click to edit the uploaded boundary in blue icon.
11. Nodal Officer can click on green icon and update the remark to approve. Click on ‘Approve’ button.
12. To reject the uploaded boundary, Nodal officer can click to red icon and add remarks.




13. Nodal officer and GIS operator can view the updated status of the ward with the nodal officer remarks.



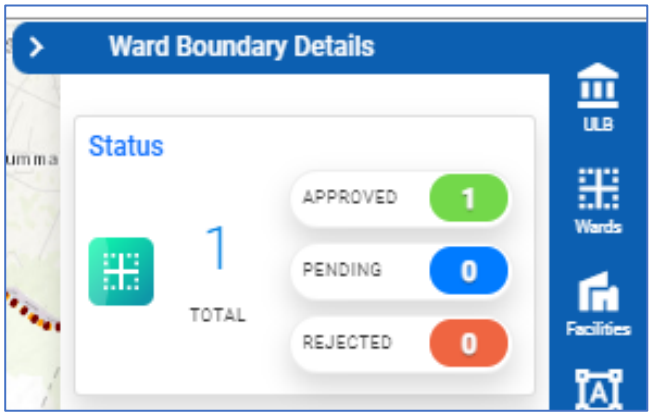

**Note:**

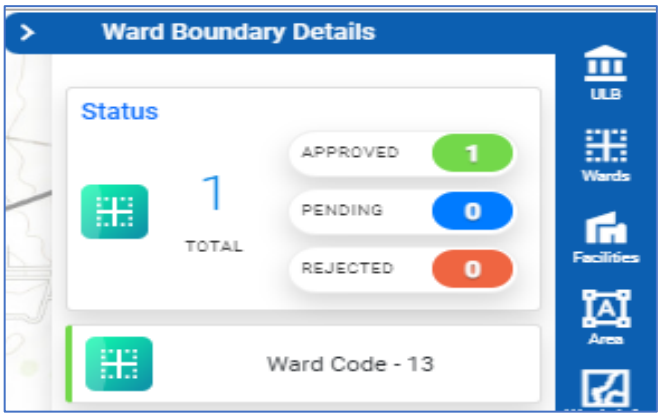
1. Nodal Officer is responsible user to validate ULB, Ward, Area Boundaries.
2. During approval process all the measurement and distance measurement data to be visible to respective user for validation and verification purpose.
3. Nodal Officer to Approve or Reject the ULB, Ward, Area Boundaries as upload by GIS operator user of ULB.
4. User to save updated/added data to store in the GIS database, as well as MIS database.

### 1.7.1 WARD STATUS

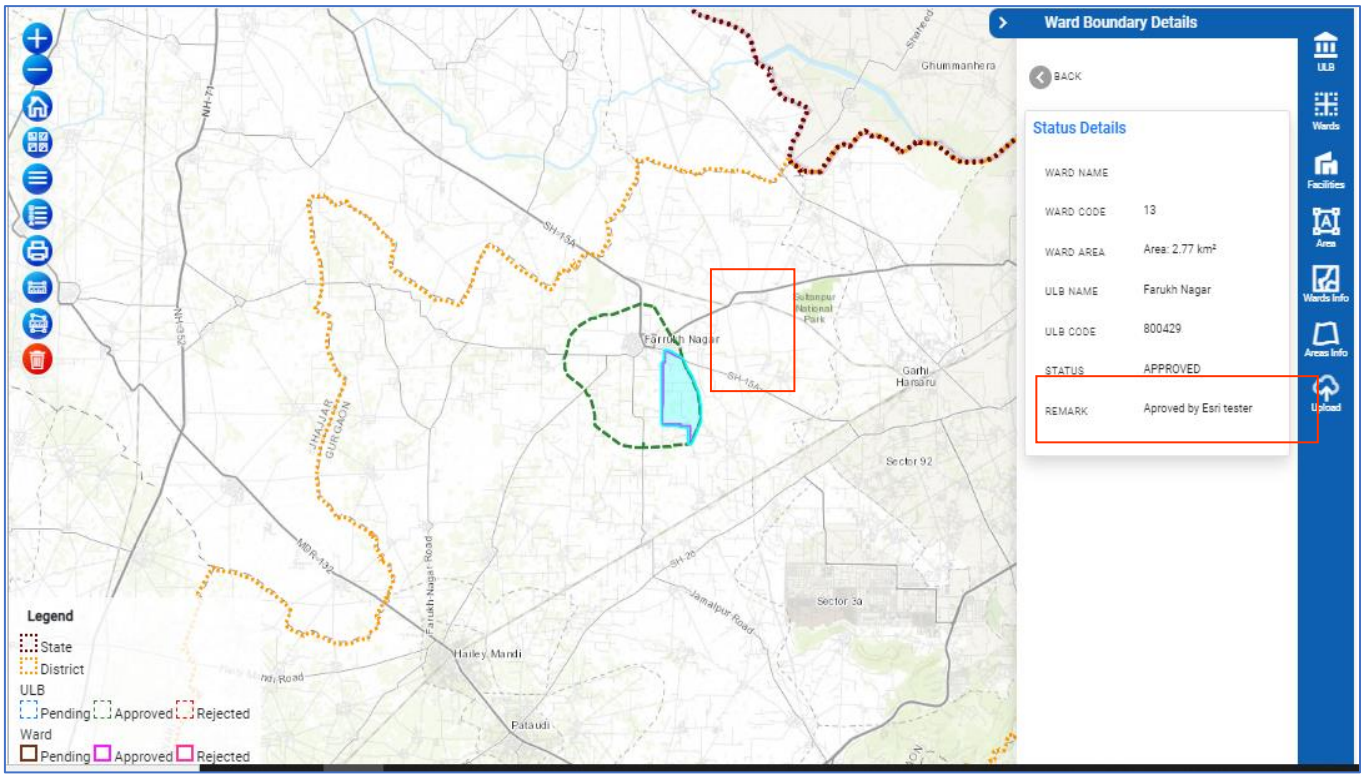
User can view the Ward status for all the Ward boundary by clicking on ‘Ward Status’ icon. There are three types of the status

- **Approve** -Status of all the Ward boundary approved by Nodal officer can be seen with count. User can click on from the list and able to view the detailed information.
- **Pending**- Ward boundary needs to be approved by Nodal officer before that status should be pending.
- **Rejected**- Status of the ward boundary rejected by the Nodal officer is updated here.



- User can click on approved status, approved ULB should be highlighted on map.




## 1.8 NODAL OFFICER-AREA INFO

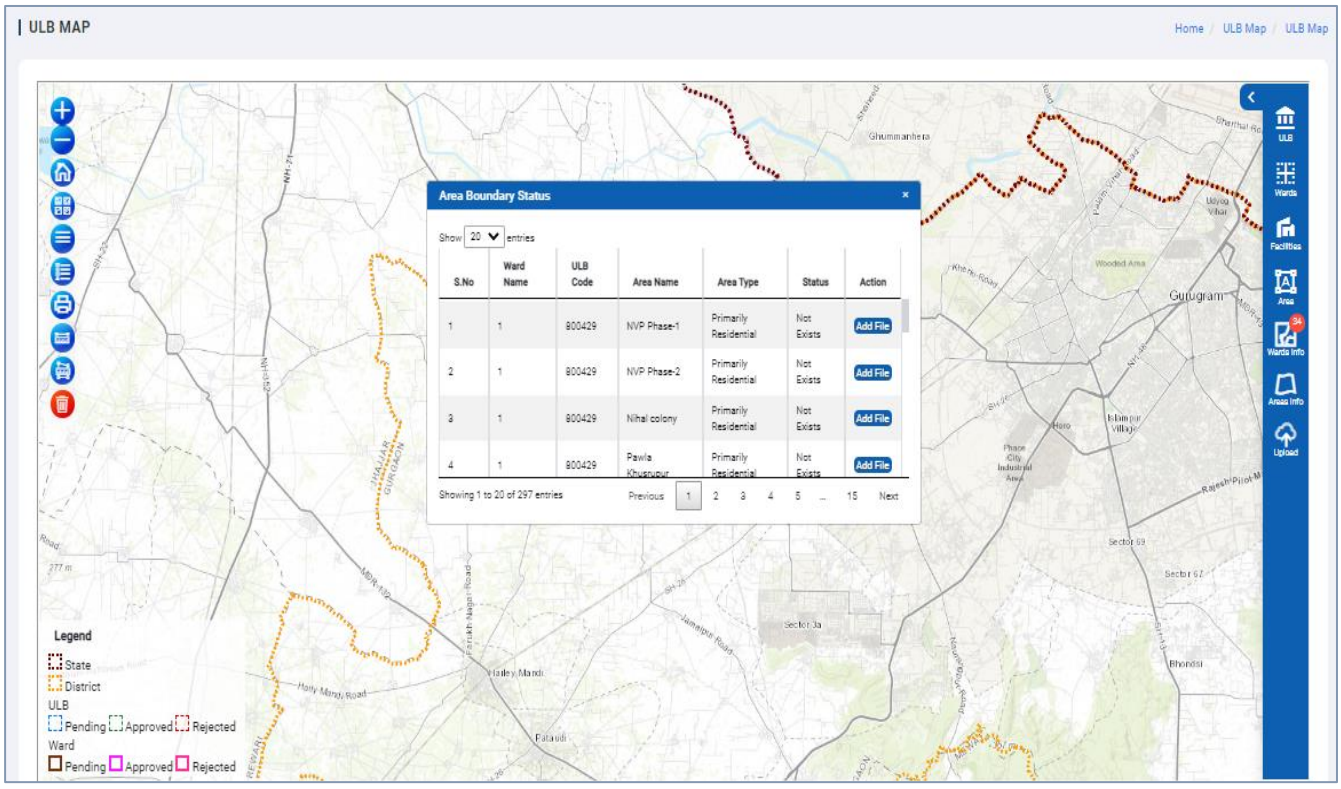
Nodal officer can only upload the area for the previously uploaded ULB boundary and ward boundary. Single file can be uploaded. Nodal officer can click on ‘Area Info’ button to upload the area boundary.

**Steps to perform**

1. Click on ‘Area Info’ button, ‘Area Boundary Status’ window should get open.
2. If the status is ‘Not Exists’, means the area boundary for the selected ULB and ward is not uploaded.
3. If the status is ‘Exists’, means the area boundary for the selected ULB and ward is already available.
4. Click on ‘Add File’ for the status, ‘Not Exists’ and upload the ward boundary for your local machine.
5. Selected file should be uploaded and visible on map.
6. Status for the recently uploaded area boundary should change to ‘Exists’ and

Add File option should not be available for that ULB boundary.

7. Click on ‘Area’ icon and view the status of the selected Area Boundary Details’. User can view the status as pending e.g., 1 for the recently uploaded ward boundary.
8. Nodal officer can click on ‘pending status’ and can view the details for the recently uploaded ward boundary.
9. Click on ‘Green, Red’ or ‘Edit Boundary’ button to approve or reject the boundary.
10. Nodal officer can click to edit the uploaded boundary in blue icon.
11. Nodal Officer can click on green icon and update the remark to approve. Click on ‘Approve’ button.
12. To reject the uploaded boundary, Nodal officer can click to red icon and add remarks.

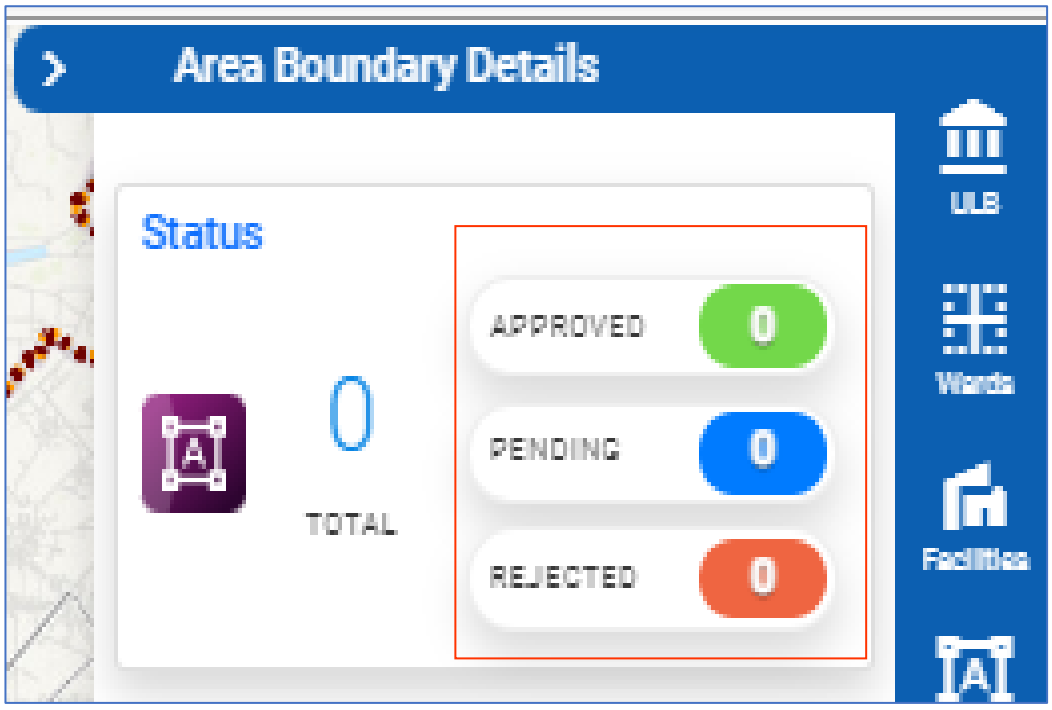



## 1.8.1 AREA STATUS

User can view the Ward status for all the area boundary by clicking on ‘Area Status’ icon. There are three types of the status

- **Approve** -Status of all the area boundary approved by Nodal officer can be seen with count. User can click on from the list and able to view the detailed information.
- **Pending**- Area boundary needs to be approved by Nodal officer before that status should be pending.
- **Rejected**- Status of the area boundary rejected by the Nodal officer is updated here.

User can click on approved status, approved ULB should be highlighted on map.



### 1.9 NODAL OFFICER- CITY FACILITY UPLOAD

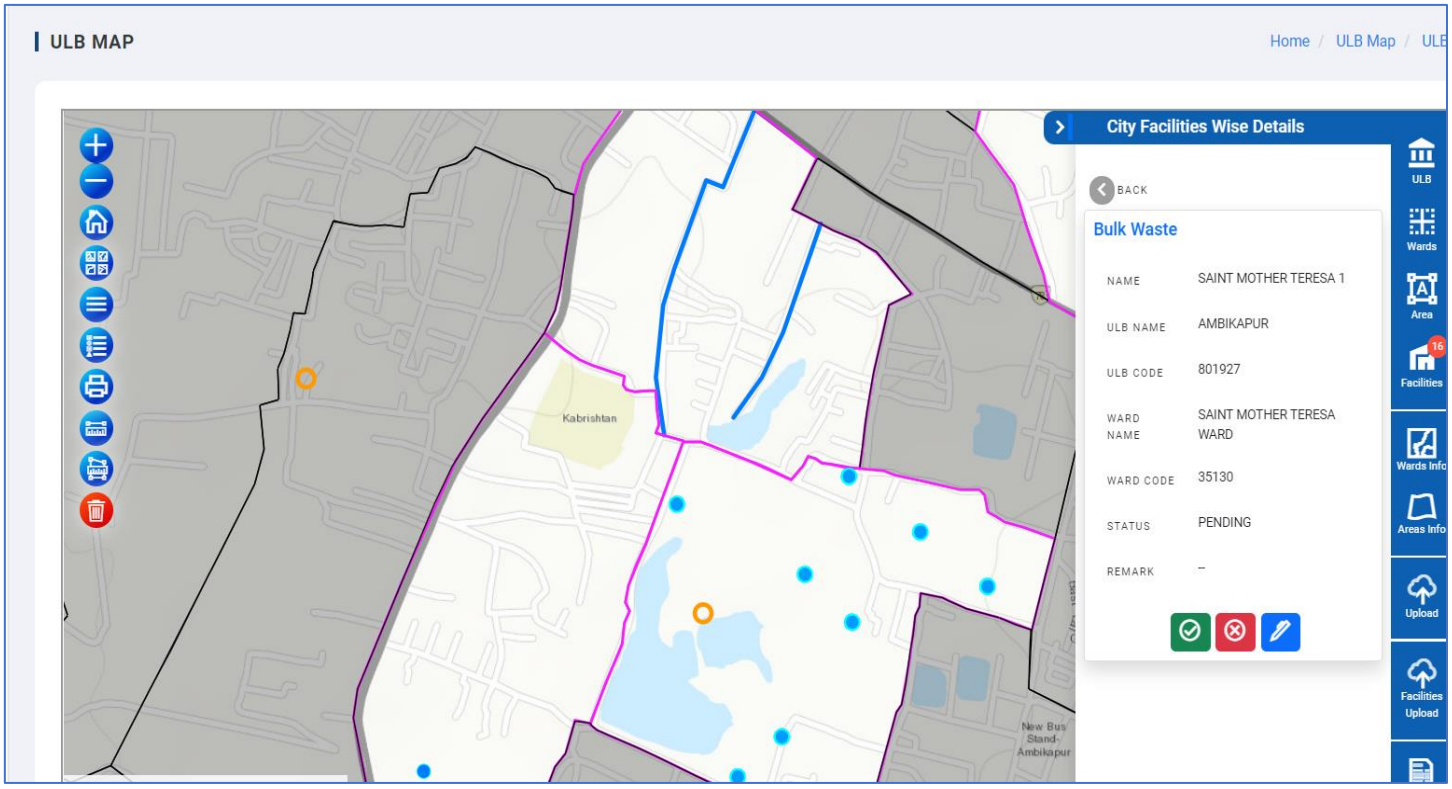
Nodal officer can only upload the facility data for the area for the previously uploaded ULB boundary and ward boundary. If the data is available in defined format e.g., shape, kml or GeoJSON nodal officer can directly upload bulk facility for the single facility e.g., Bulk Waste from SBM web portal.

**Steps to perform**

1. Click on ‘Facilities Upload’ button, ‘Upload City Facilities (Bulk)’ window should get open with the list of all the available facilities in the portal.


2. With each facility, ‘Add File’ button should be available. Add file should accept data only in the defined format e.g., shape, kml or GeoJSON.
3. If the data is available in the defined format, click on ‘Add File’ button and upload the zip file in the defined format.
4. Once the file is uploaded, user should get a message,’ Successfully uploaded’
5. User can view the uploaded data on map.
6. Click on any data from map, user can view the detailed information about the uploaded facility.
7. Nodal officer can approve, reject, or edit boundary for the selected facility on map.

8. If the facility is not available in the defined format, Nodal officer can create a new GIS operator and then GIS operator can upload the single facility for single task using the mobile app.
9. GIS operator can download the mobile app from the google play store,' https://play.google.com/store/apps/details?id=com.esri.s_b_m'.



# GIS OPERATOR

GIS Operator is a field user, authorized user can upload the ULB/Ward boundary using KML, JSON and Shape file format. These files should contain **the state name, state code, district name, district code, ulbname and ulbcode fields. In case user add the ward boundary, Ward file should contain state name, state code, district name, district code, ulbname, ulbcode, ward name and ward code fields.** GIS Operator user can upload File can be browsed from the local machine and view the data on GIS Map. User can view & query the ULB facilities, it will show only approved ULB facilities. GIS Operator user can upload the data in the predefined downloaded sample format from the application.

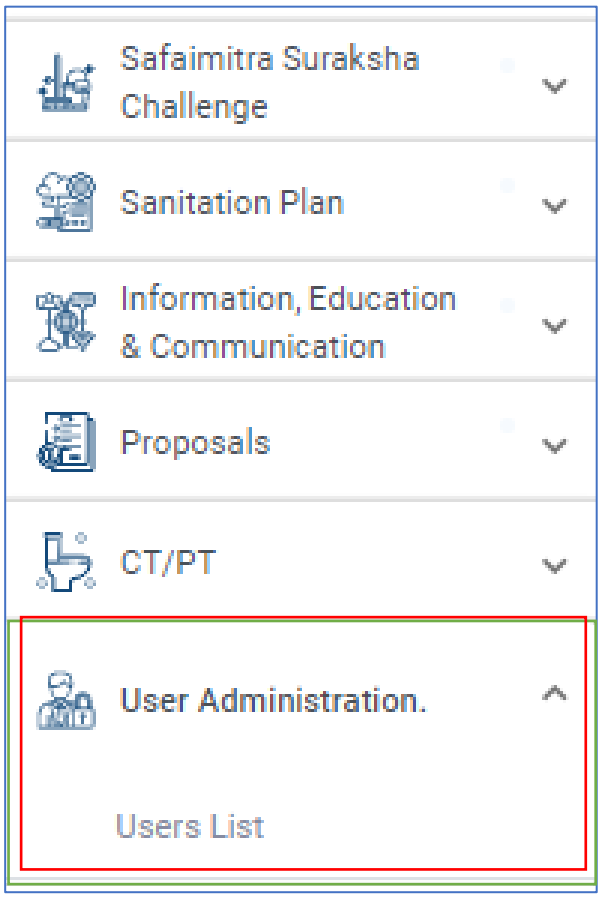
## 1.10 ADD NEW GIS USER

Nodal Officer can login with their credentials and go to the User Administration tab/User Listed

and Create GIS Operator User as per their requirements.

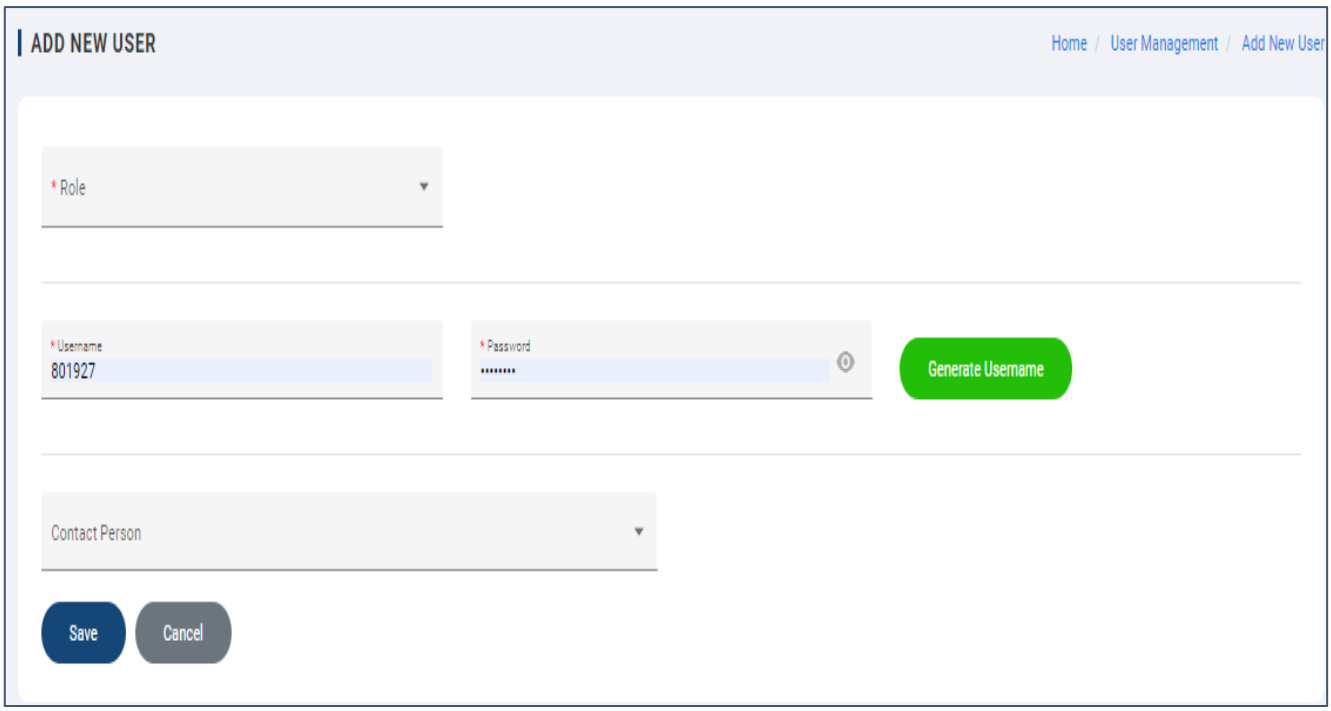
### Steps to add a new user

1. Login with authorized Nodal Officer credentials
2. Go to User Administration→ User List

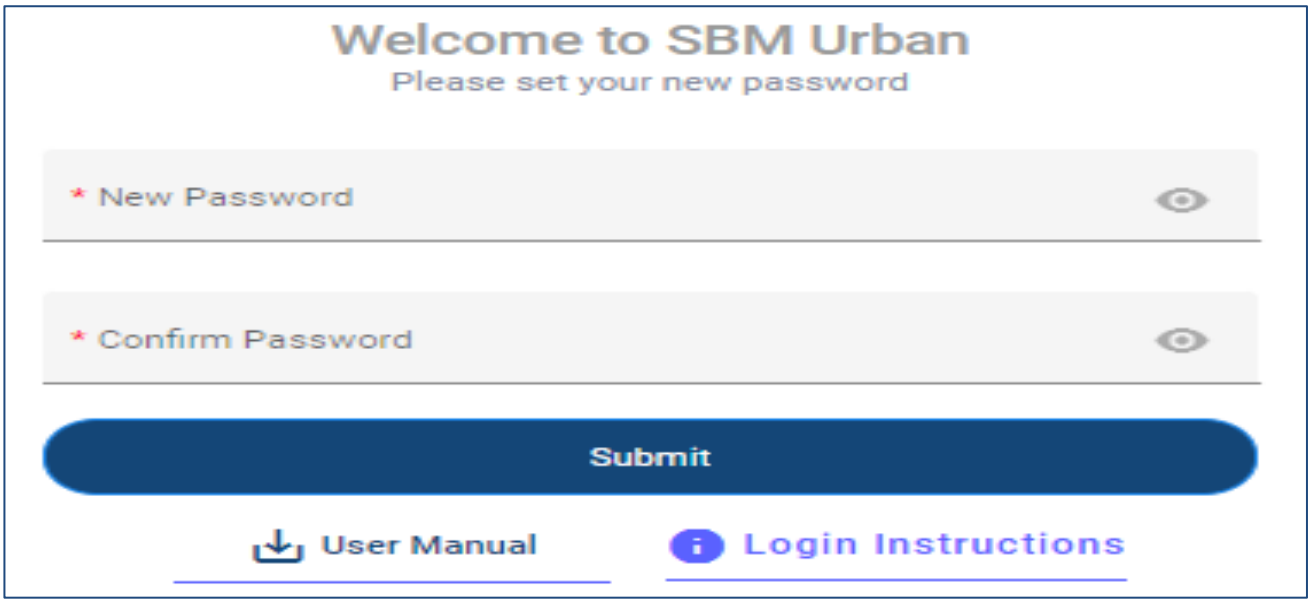



\

3. Click on User list to add new
4. Add New User window should get open with the detail's information
5. Based on the Nodal Officer required, input values to be added
6. Click on 'Save' button
7. Nodal Officer should be able to add new GIS user in the database

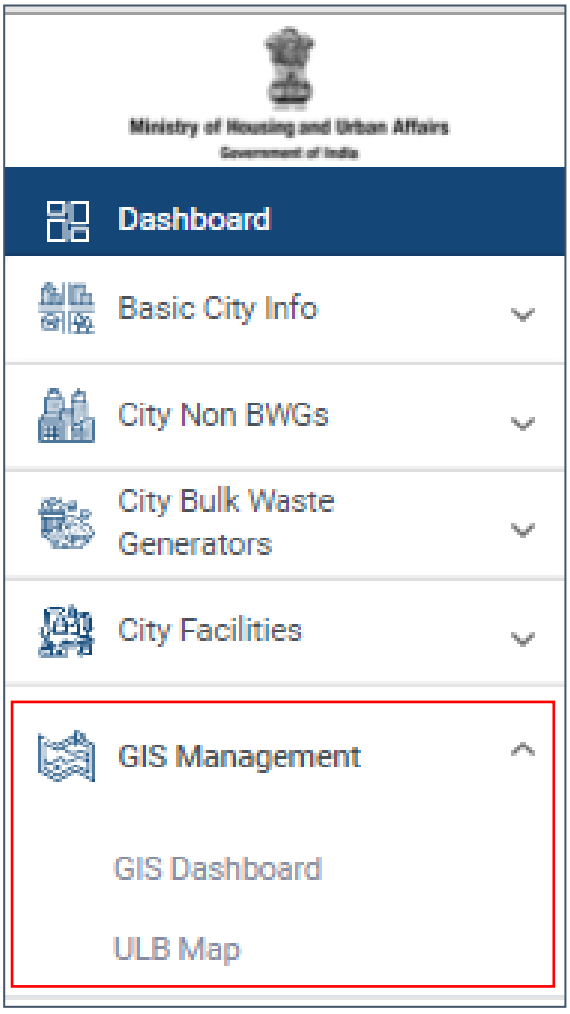



8. Now Nodal office will logout from the application.
9. Once the user-GIS Operator is added, new user needs to set one time password for data security.
10. Now GIS Operator can view below screen.
11. GIS operator will set the password and click on Submit button



**Steps to perform on GIS Data Management tab**

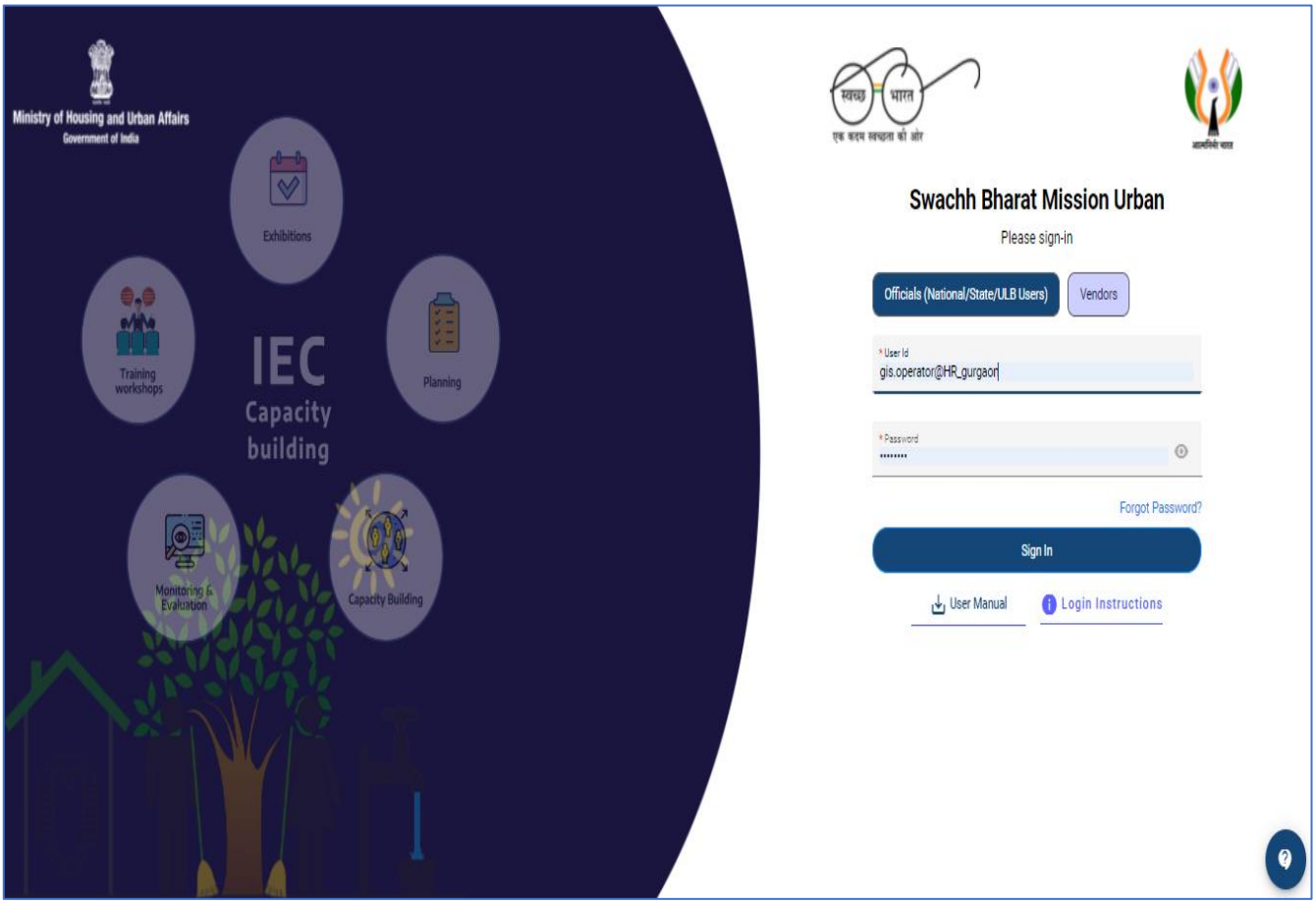
1. Click on ‘GIS Data Management tab’ at the left panel and click on ‘ULB Map’



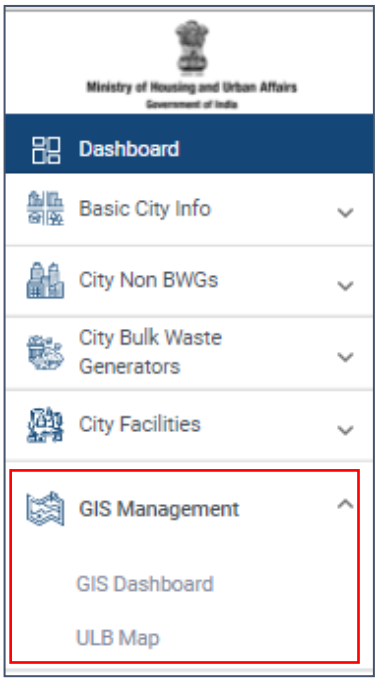

2. User should be able to view the GIS page with all the default map icons on map. Select any ULB boundary on map.
3. Side panel show the pending boundaries count in red in color and see the list of pending Boundaries (ULB, Ward).

**Steps Performed by GIS Operator**

1. Login as authorized GIS operator login credentials.




2. Click on ‘GIS Data Management tab’ at the left panel and click on ‘ULB Map’



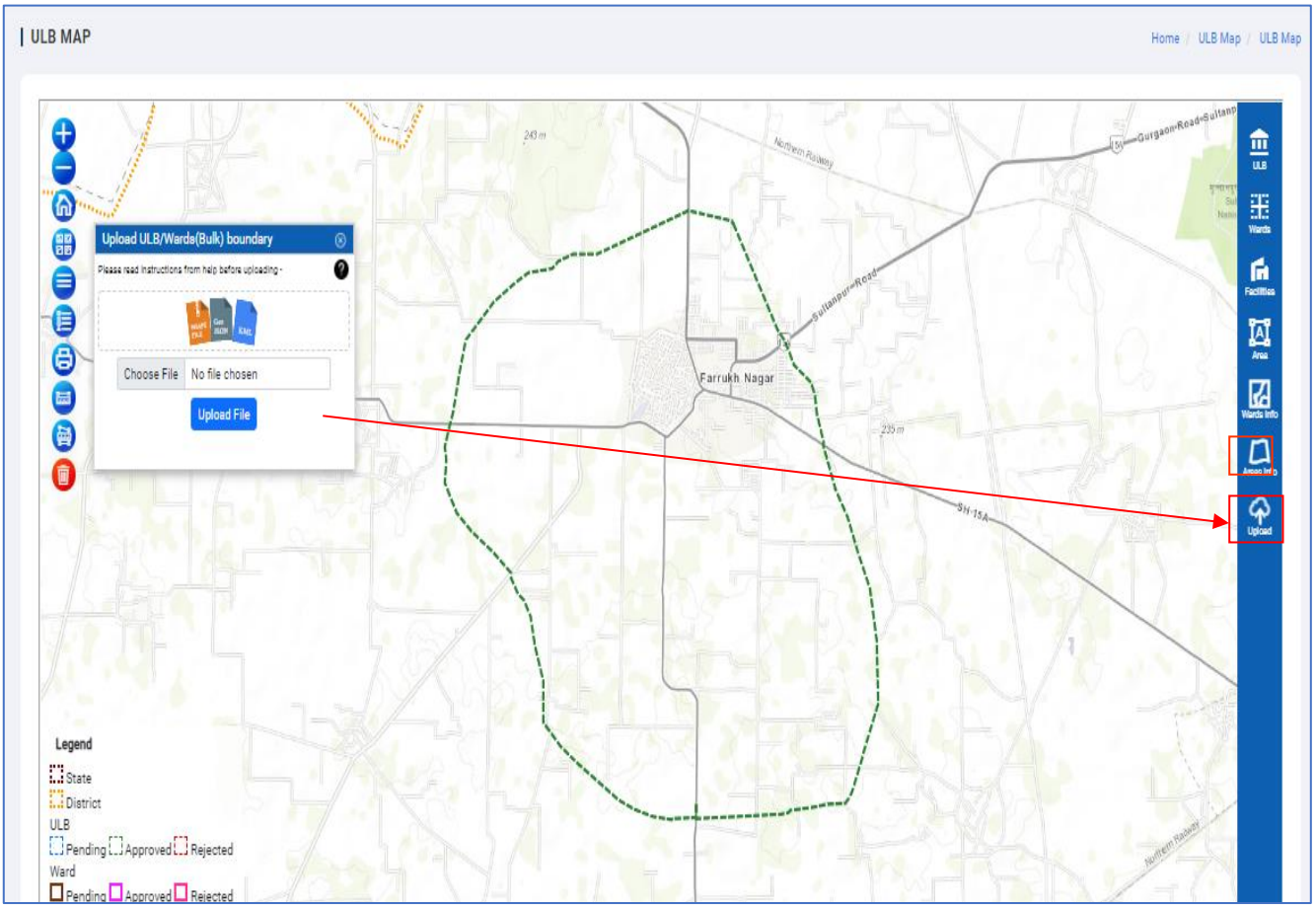
3. User should be able to view the GIS page with all the default map icons on map and their State, District, available ULB, ward boundaries in case ULB and Ward not available pop- message will appear Please upload your ULB & Ward, Area respective boundaries

## 1.11 GIS OPERATOR- UPLOAD ULB / WARDS (BULK) BOUNDARY

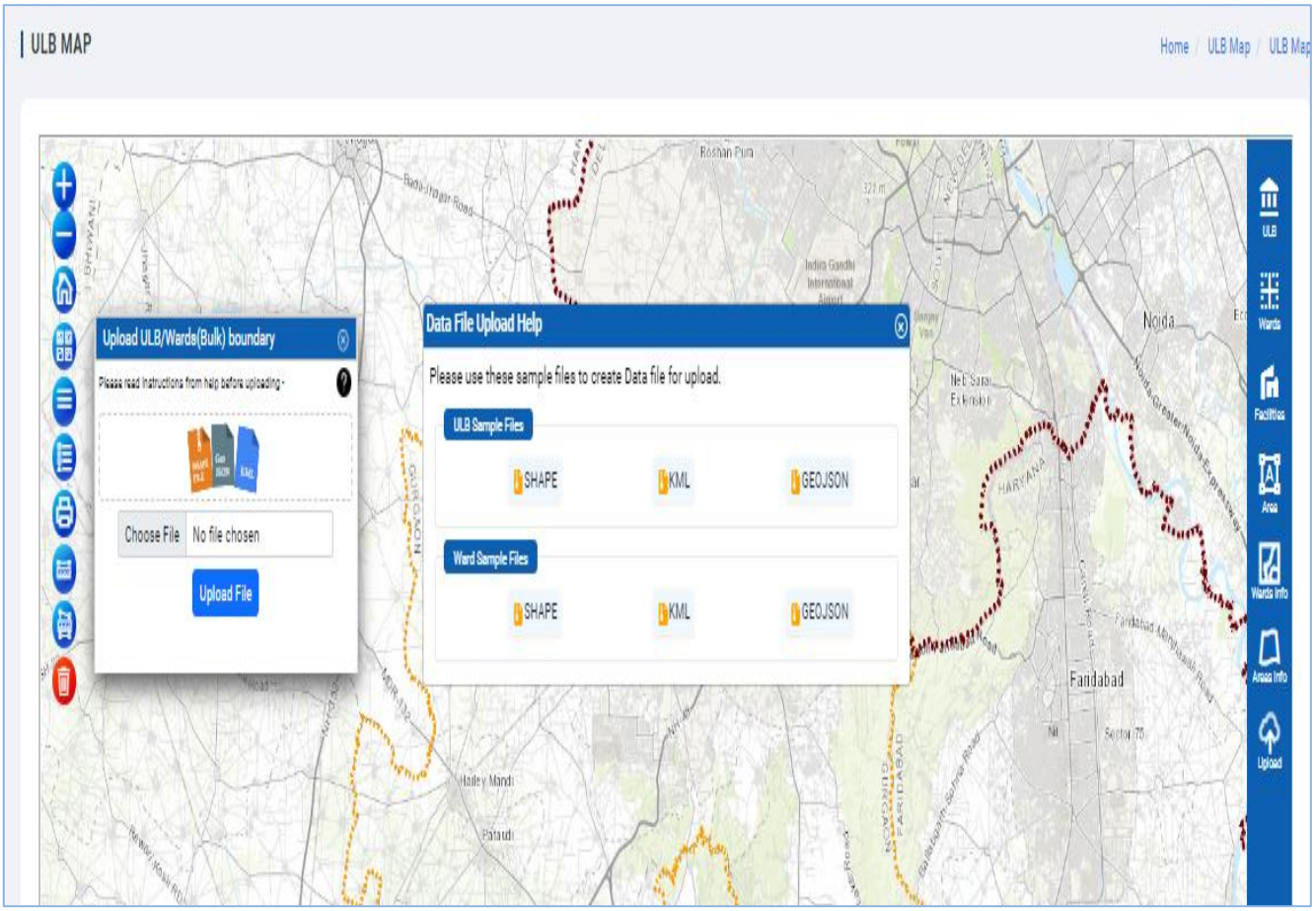
ULB Boundary is a single file upload, GIS Operator can upload the ULB boundary in one time using the option ‘Upload ULB/Ward (Bulk) boundary. ULB boundary can only be uploaded if it falls under the selected district boundary. GIS Operator can also upload the bulk ward using the same steps. The prerequisite to upload the ward boundary is, for all the wards respective ULB boundary should be already uploaded.

**Steps to perform**

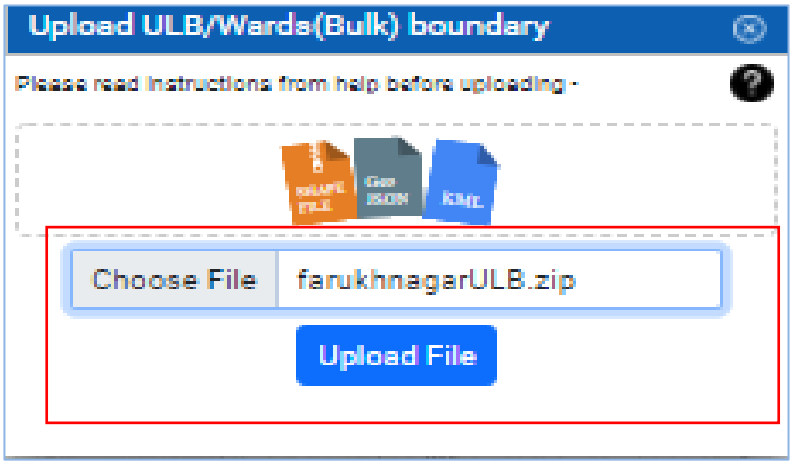
1. GIS Operator can upload the ULB Boundary by clicking on ‘Upload ULB / Wards (Bulk) Boundary.’
2. GIS operator officer can upload the ULB Boundary by clicking on ‘Upload ULB / Wards (Bulk) Boundary.’

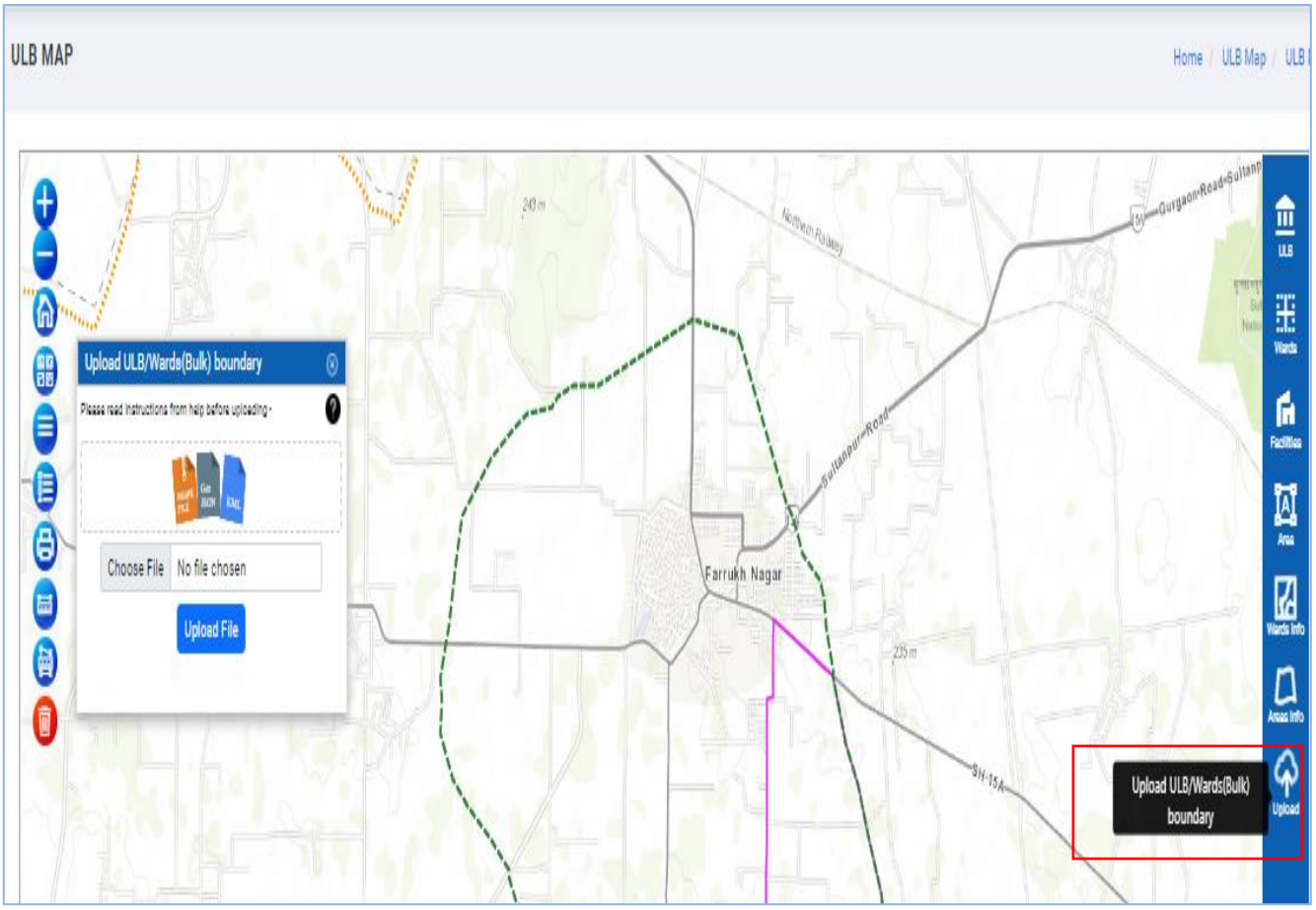



3. Download the sample format and upload the file in that format only. ULB user can upload the data in the downloaded sample format only. To upload the ULB/Ward /Area boundaries using KML, GeoJSON and Shape file format with respective validation while adding the same.

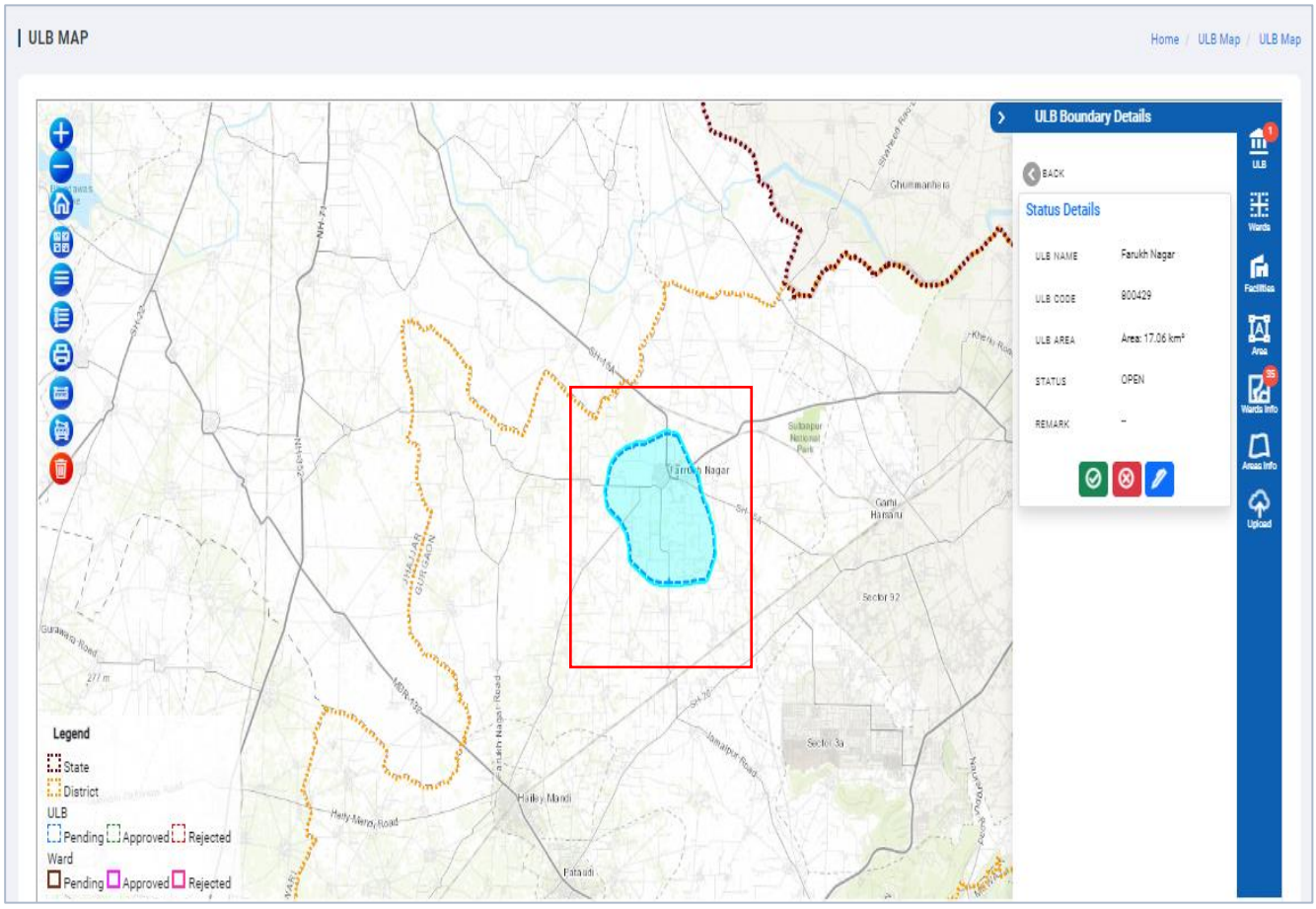



4. Click on upload button on (Upload ULB / Wards (Bulk) boundary.
5. Click on ‘Choose File’ and choose the file from your local browser.





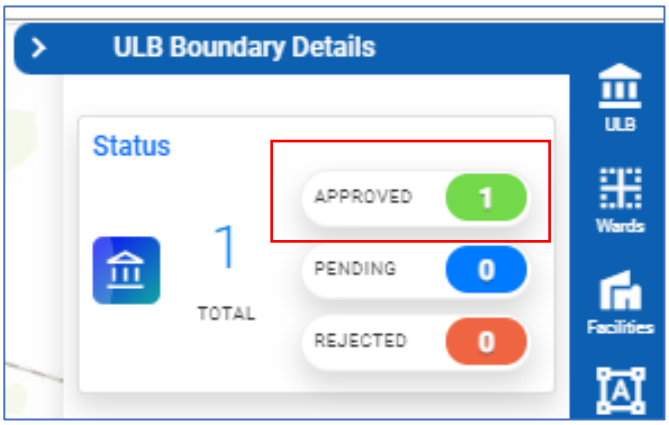

6. User can view the file name in Upload ULB/Wards (Bulk)boundary.
7. Click on ‘Upload File’ button, User can view the uploaded ULB on map.
8. View the status of the ULB Status for the selected ULB boundary.
9. To reject the uploaded boundary, Nodal officer can click to red icon and add remarks.
10. Status will get updated and ‘Nodal Officer’ and ‘GIS operator’ can view the updated status.

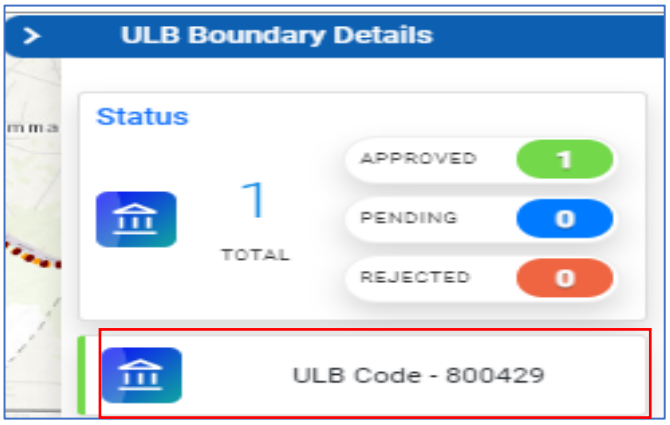



### 1.11.1 ULB STATUS

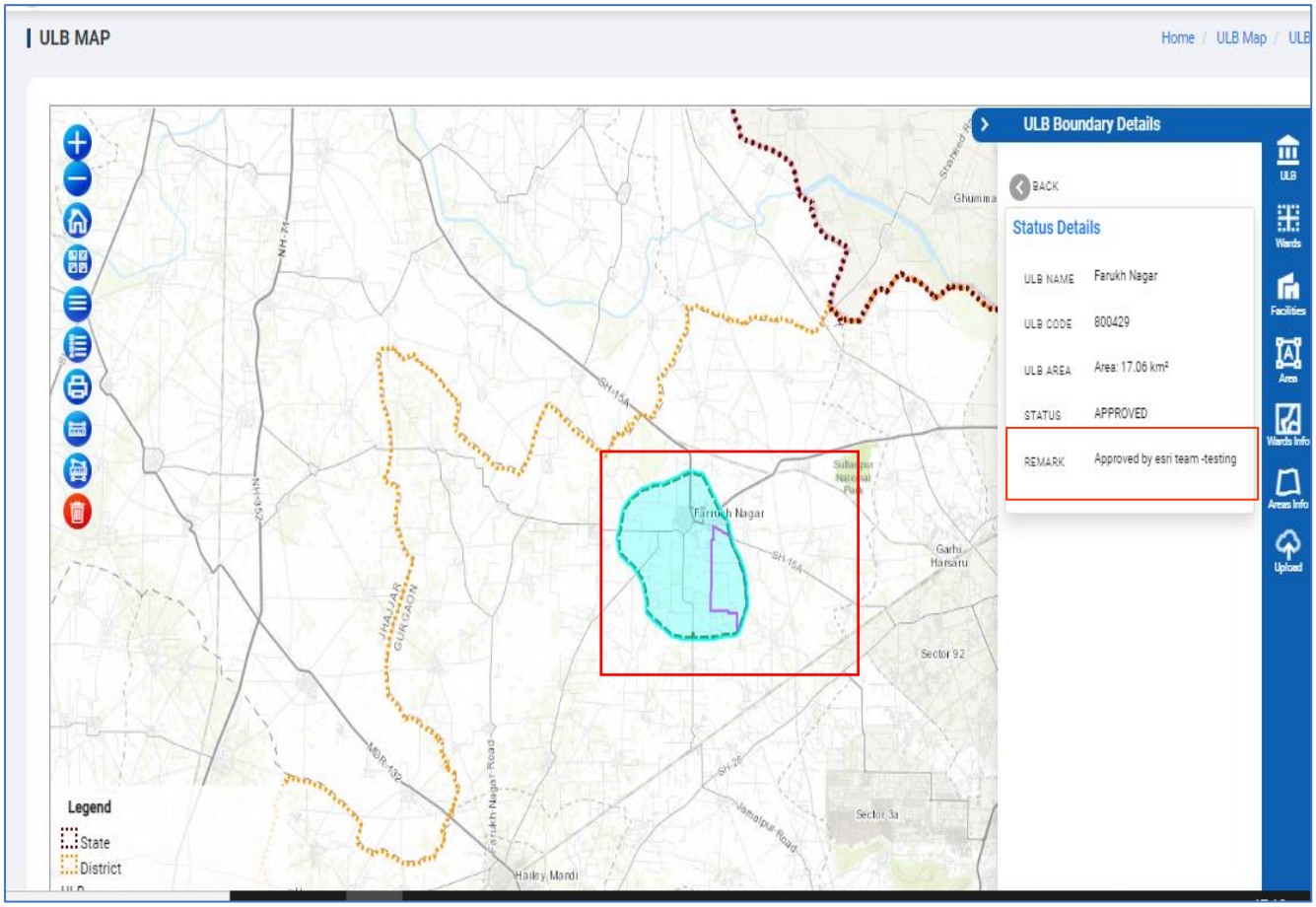
User can view the ULB status for all the ULB boundary by clicking on ‘ULB Status’ icon. There are three types of the status

- **Approve** -Status of all the ULB boundary approved by Nodal officer can be seen with count. User can click on from the list and able to view the detailed information.
- **Pending**- ULB boundary needs to be approved before that status should be pending.
- **Rejected**- Status of the ULB boundary rejected by the Nodal officer is updated here.




- User can click on approved status, approved ULB should be highlighted on map.

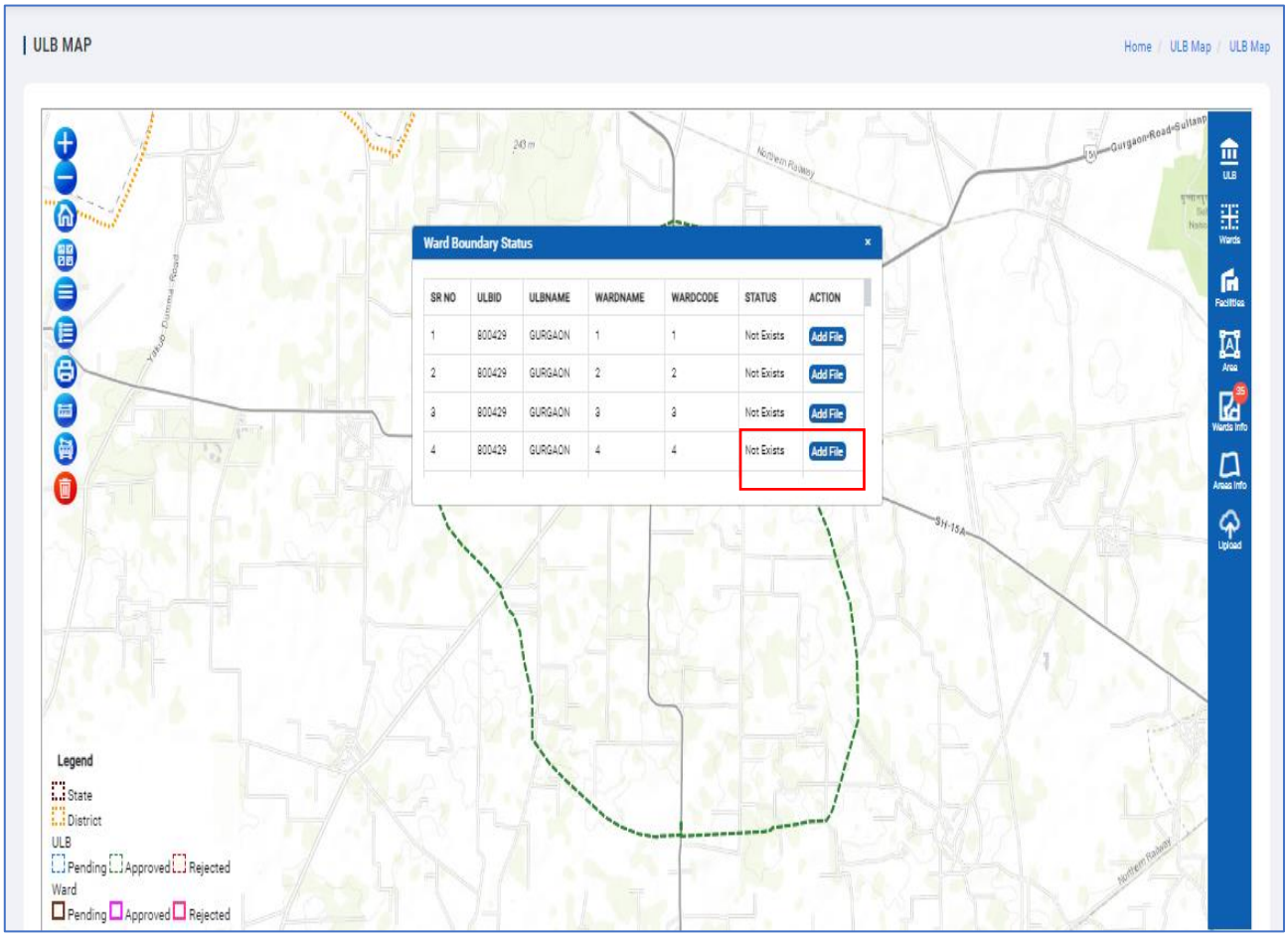


## 1.12 GIS OPERATOR- WARD INFO (SINGLE FILE UPLOAD WARD BOUNDARY)

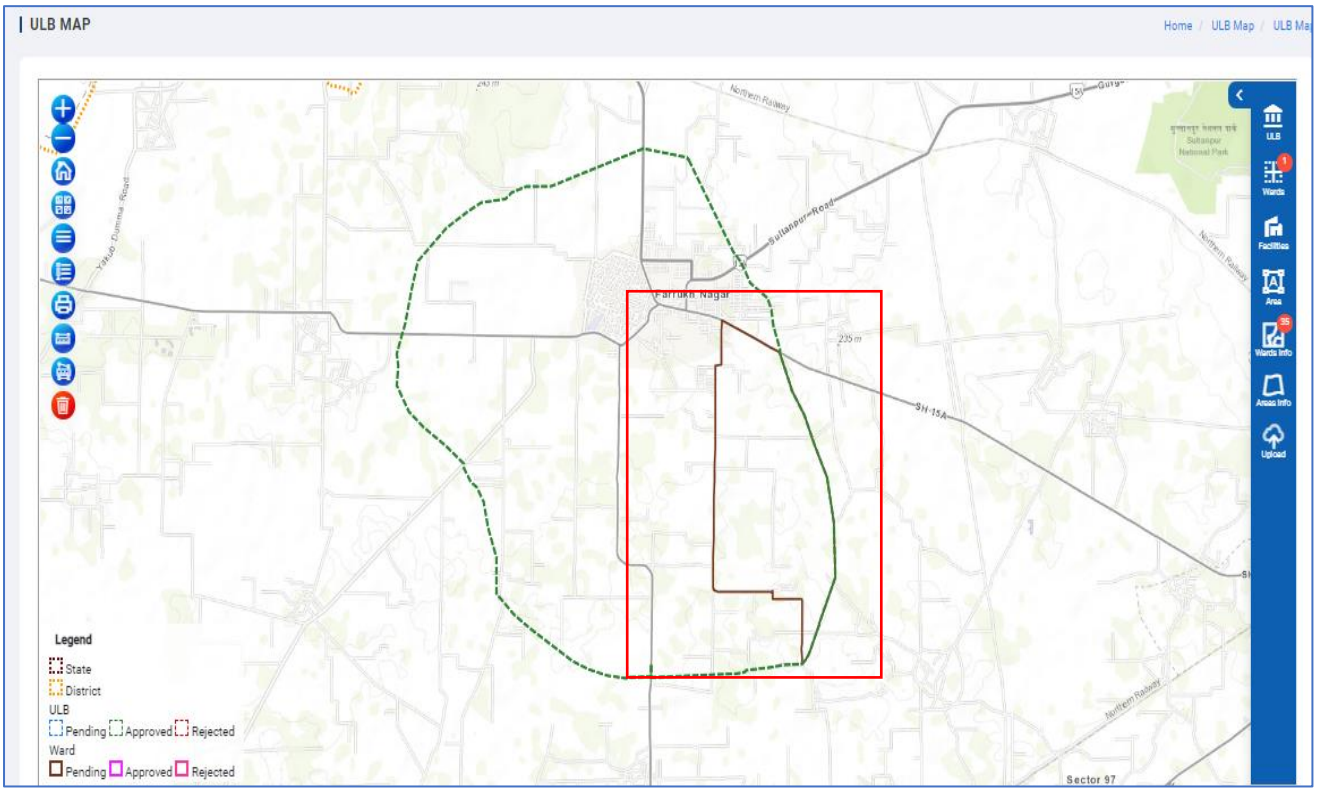
GIS Operator can only upload the ward boundary if the ULB for that location is already uploaded. For single file upload, Nodal officer can upload the ward boundary using the option ‘Ward Info’.

**Steps to perform**

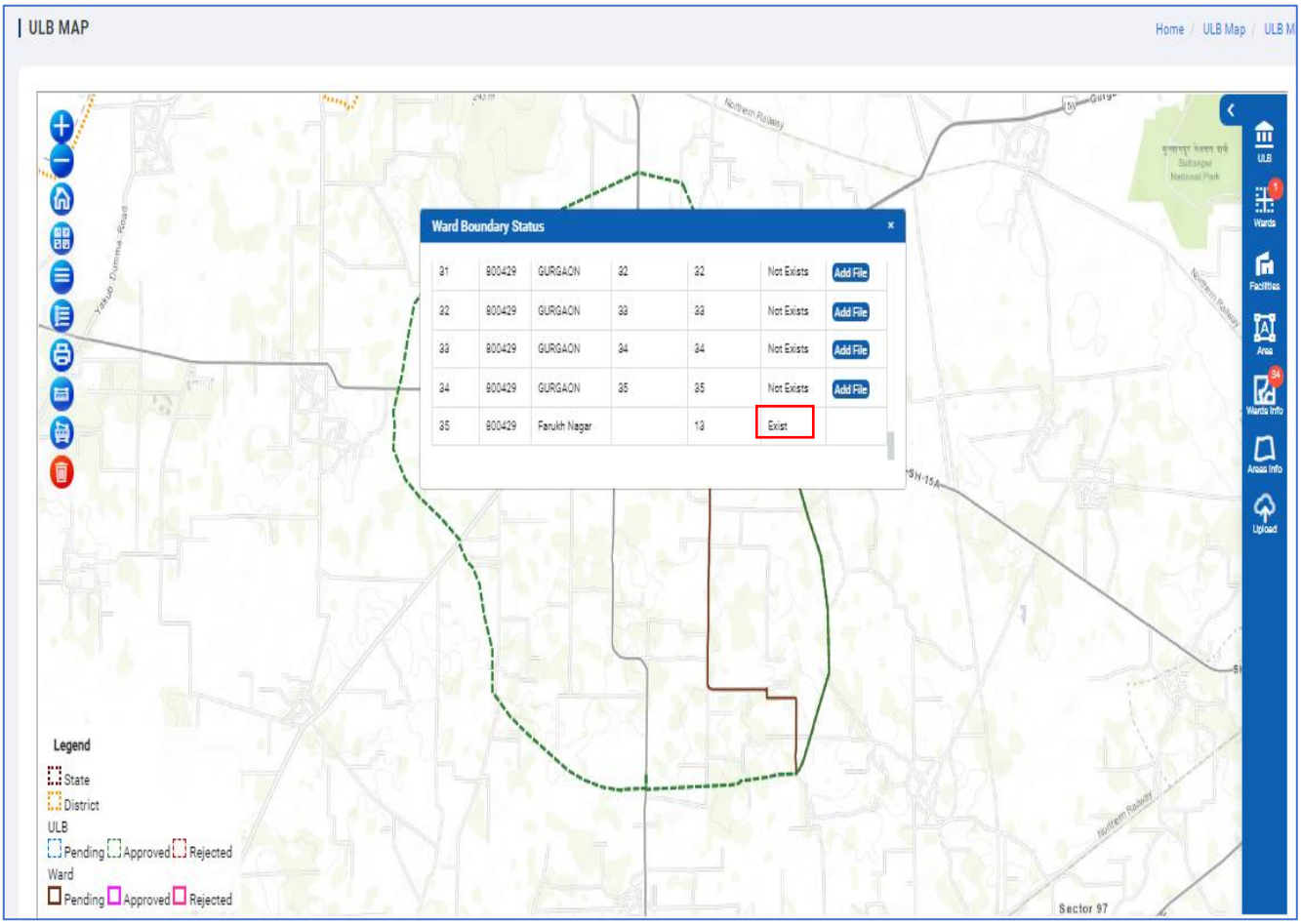
1. Click on ‘Ward Info’ button, Ward boundary status window should get open.
2. If the status is ‘Not Exists’, means the ward boundary for the selected ULB is not uploaded.
3. If the status is ‘Exists’, means the ward boundary for the selected ULB is already available.



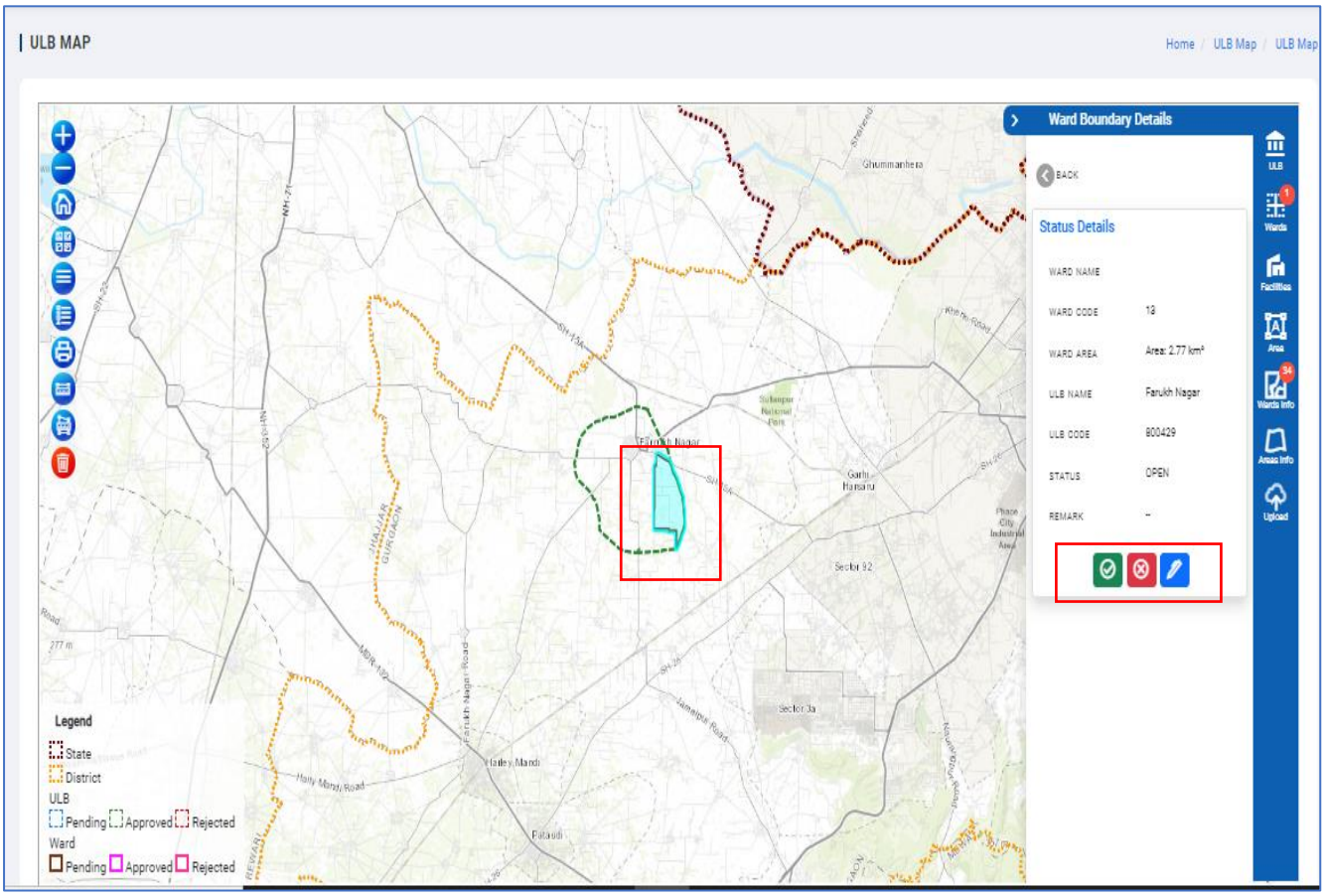
4. Click on ‘Add File’ for the status, ‘Not Exists’ and upload the ward boundary for your local machine.
5. Selected file should be uploaded and visible on map.



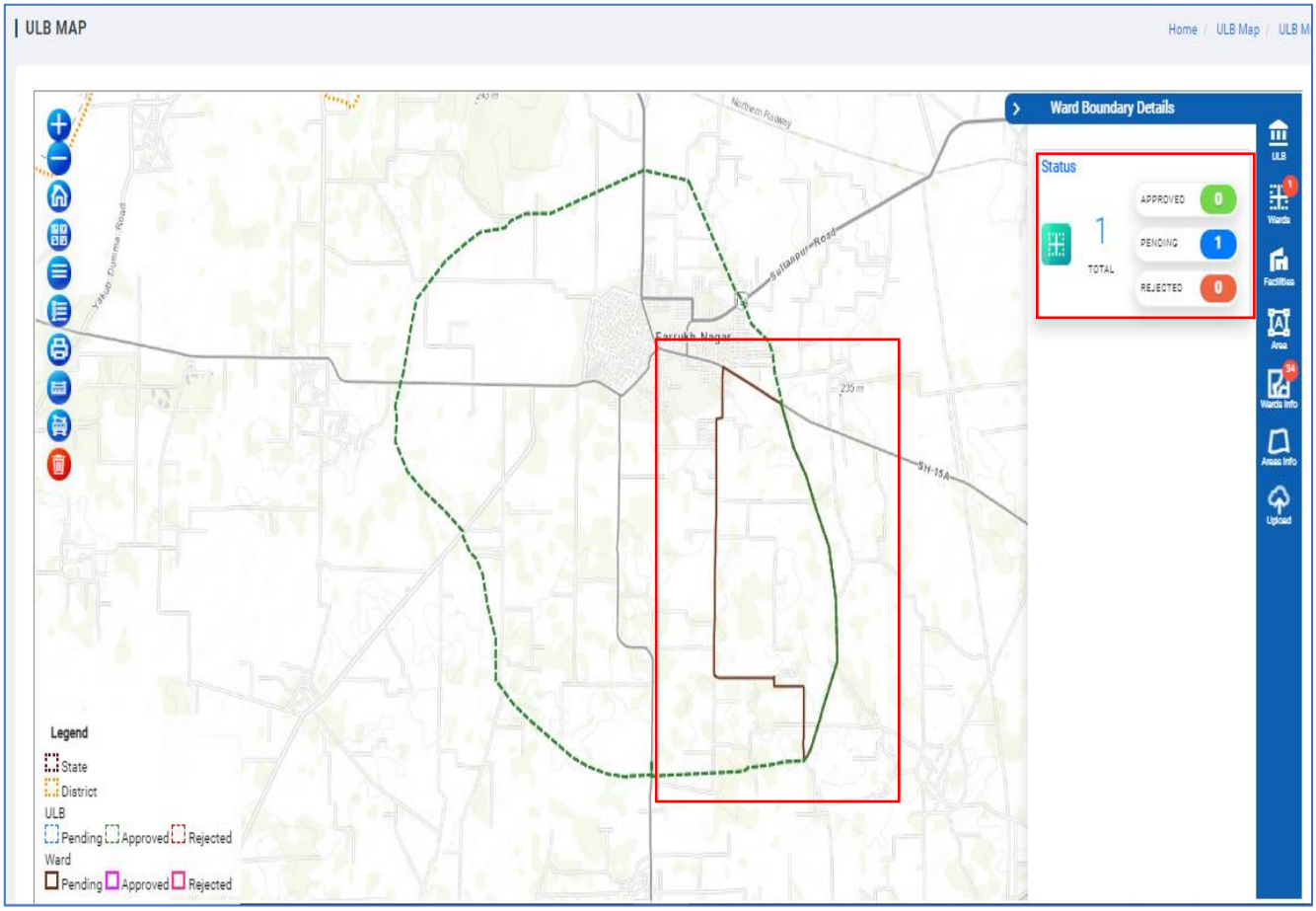

6. Status for the recently uploaded ward boundary should change to ‘Exists’ and Add File option should not be available for that ULB boundary.



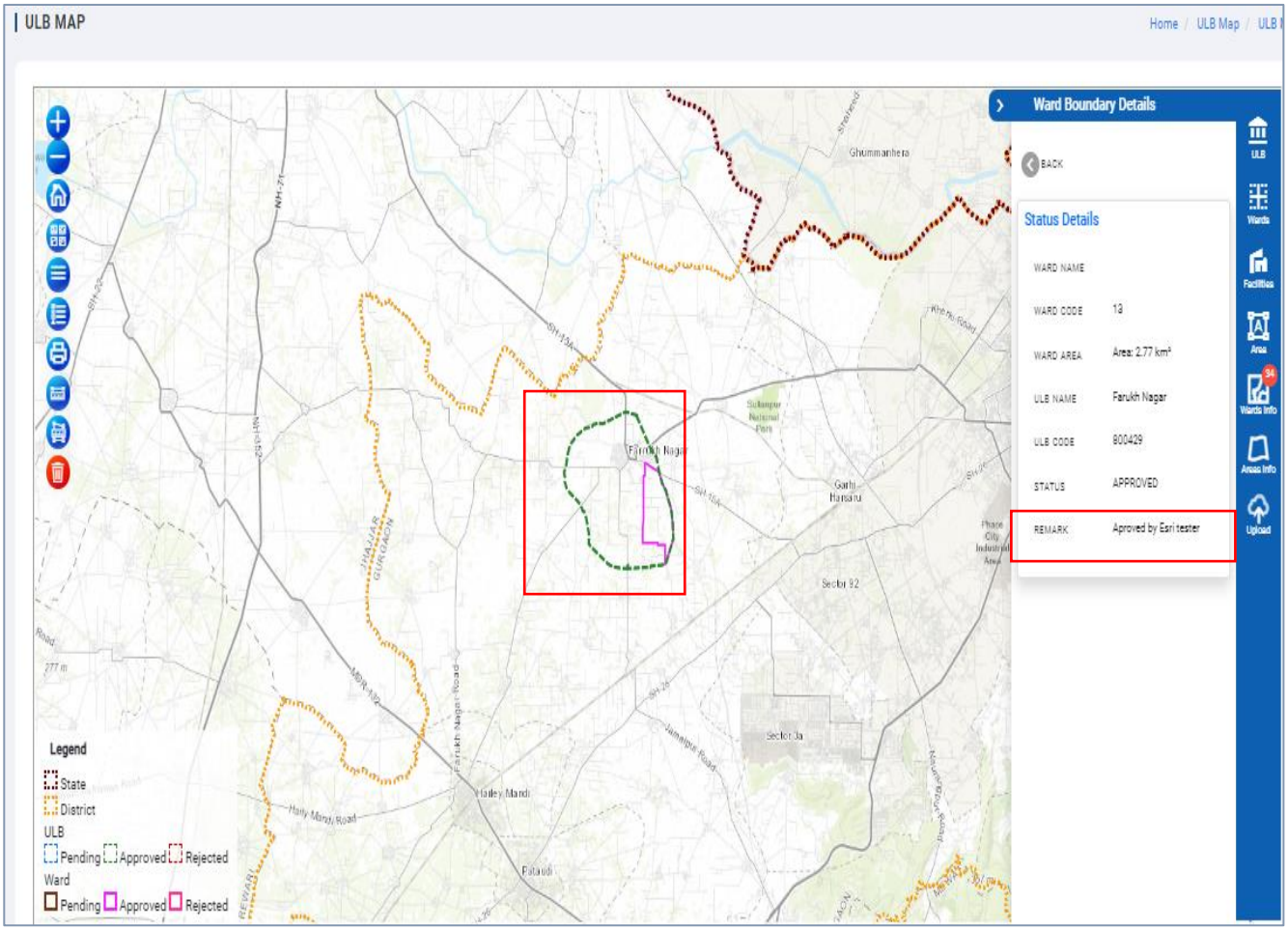

7. Click on ‘Wards’ icon and view the status of the selected Ward Boundary Details’. User can view the status as pending e.g., 1 for the recently uploaded ward boundary.




8. GIS Operator can click on ‘pending status’ and can view the details for the recently uploaded ward boundary.




9. Nodal officer and GIS operator can view the updated status of the ward with the nodal officer remarks.



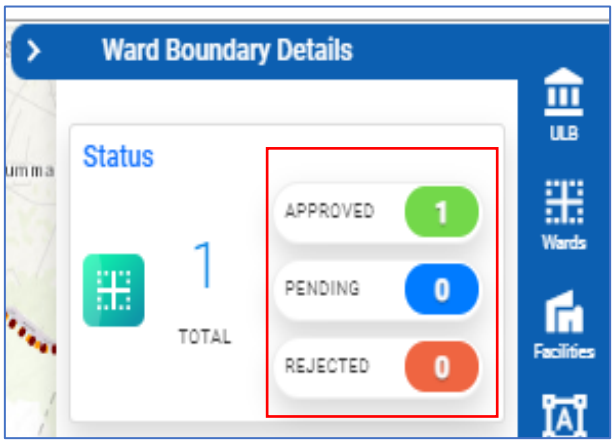

**Note:**

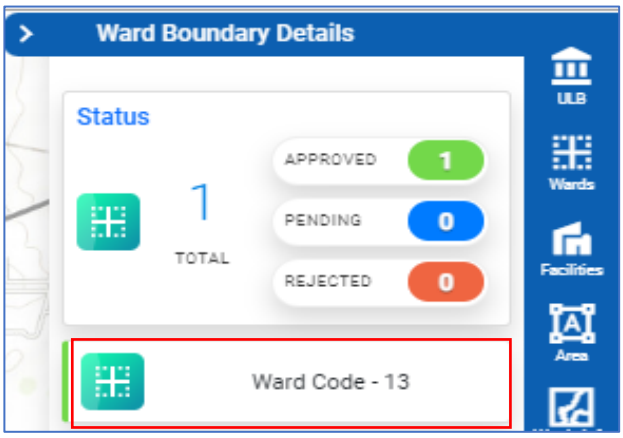
1. GIS Operator cannot edit, reject, and approve the ULB, Ward or Area Boundaries.
2. Nodal Officer to Approve or Reject the ULB, Ward, Area Boundaries as upload by GIS operator user of ULB.
3. User to save updated/added data to store in the GIS database, as well as MIS database.

### 1.12.1 WARD STATUS

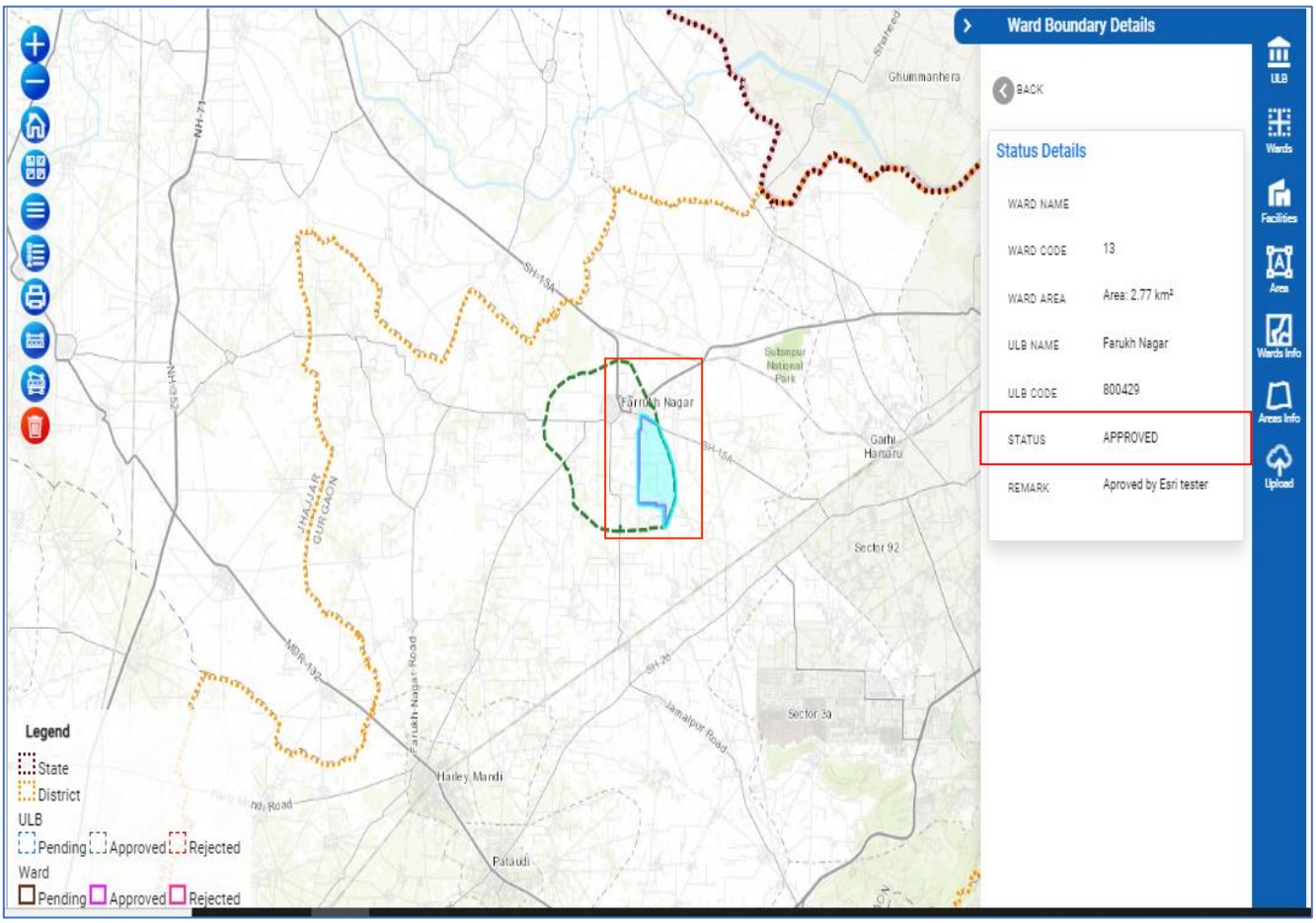
User can view the Ward status for all the Ward boundary by clicking on ‘Ward Status’ icon. There are three types of the status

- **Approve** -Status of all the Ward boundary approved by Nodal officer can be seen with count. User can click on from the list and able to view the detailed information.
- **Pending**- Ward boundary needs to be approved by Nodal officer before that status should be pending.
- **Rejected**- Status of the ward boundary rejected by the Nodal officer is updated here.




- User can click on approved status, approved ULB should be highlighted on map.



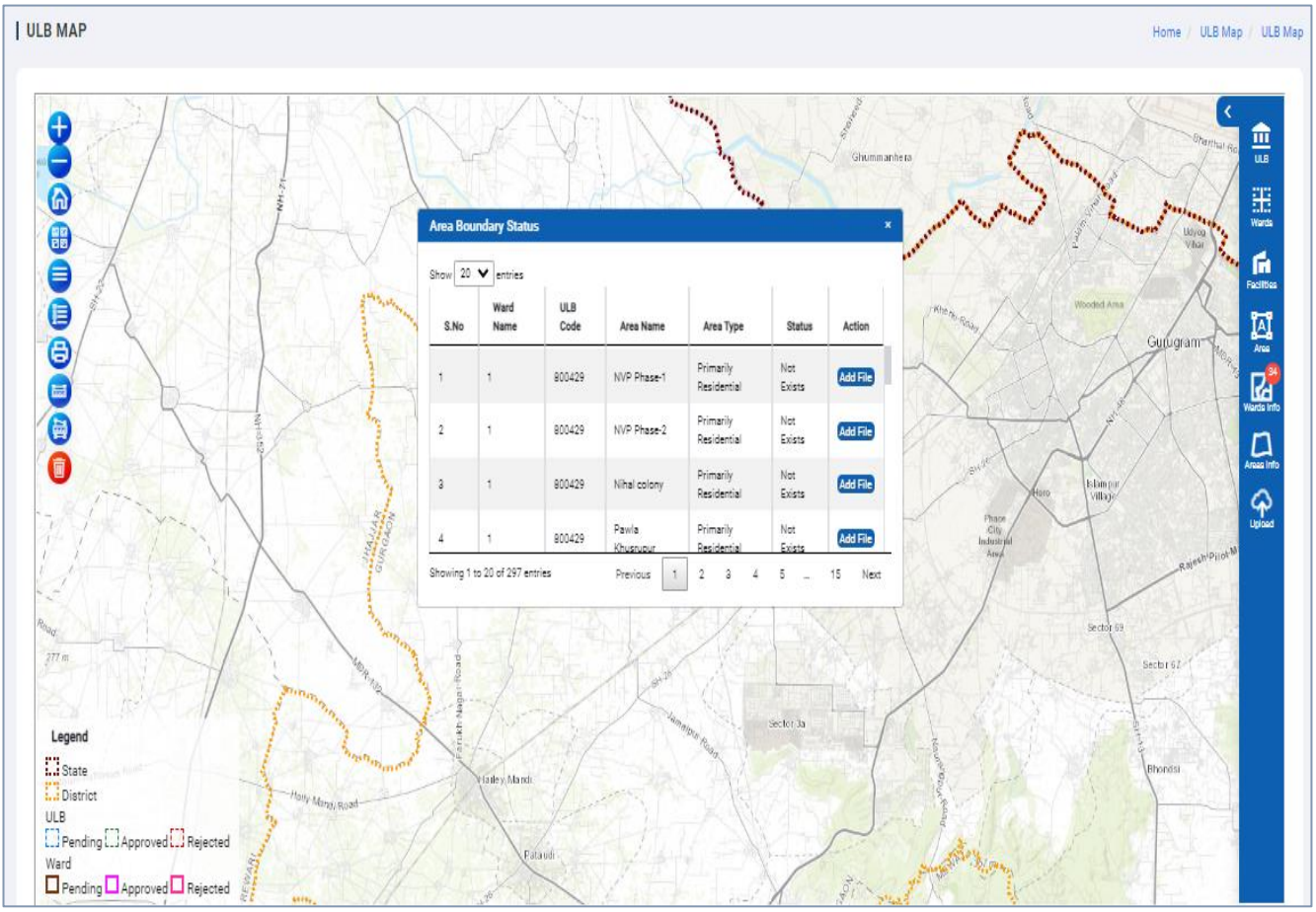

## 1.13 GIS OPERATOR-AREA INFO

GIS Operator can only upload the area for the previously uploaded ULB boundary and ward boundary. Single file can be uploaded. GIS Operator can click on ‘Area Info’ button to upload the area boundary.

**Steps to perform**

1. Click on ‘Area Info’ button, ‘Area Boundary Status’ window should get open.
2. If the status is ‘Not Exists’, means the area boundary for the selected ULB and ward is not uploaded.
3. If the status is ‘Exists’, means the area boundary for the selected ULB and ward is already available.
4. Click on ‘Add File’ for the status, ‘Not Exists’ and upload the ward boundary for your local machine.

5. Selected file should be uploaded and visible on map.
6. Status for the recently uploaded area boundary should change to ‘Exists’ and Add File option should not be available for that ULB boundary.
7. Click on ‘Area’ icon and view the status of the selected Area Boundary Details’. User can view the status as pending e.g., 1 for the recently uploaded ward boundary.
8. To reject the uploaded boundary, Nodal officer can click to red icon and add remarks.




### 1.13.1 AREA STATUS

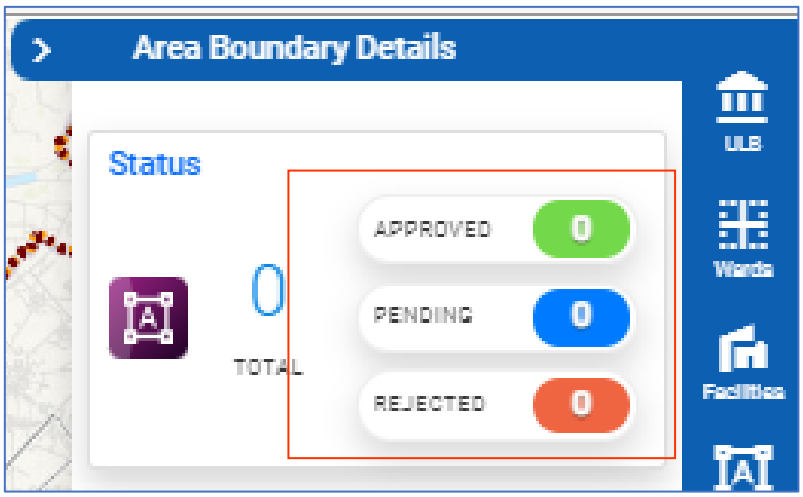
User can view the Ward status for all the area boundary by clicking on ‘Area Status’ icon. There are three types of the status

- **Approve** -Status of all the area boundary approved by Nodal officer can be seen with count. User can click on from the list and able to view the detailed

information.

- **Pending**- Area boundary needs to be approved by Nodal officer before that status should be pending.
- **Rejected**- Status of the area boundary rejected by the Nodal officer is updated here.

User can click on approved status, approved ULB should be highlighted on map.



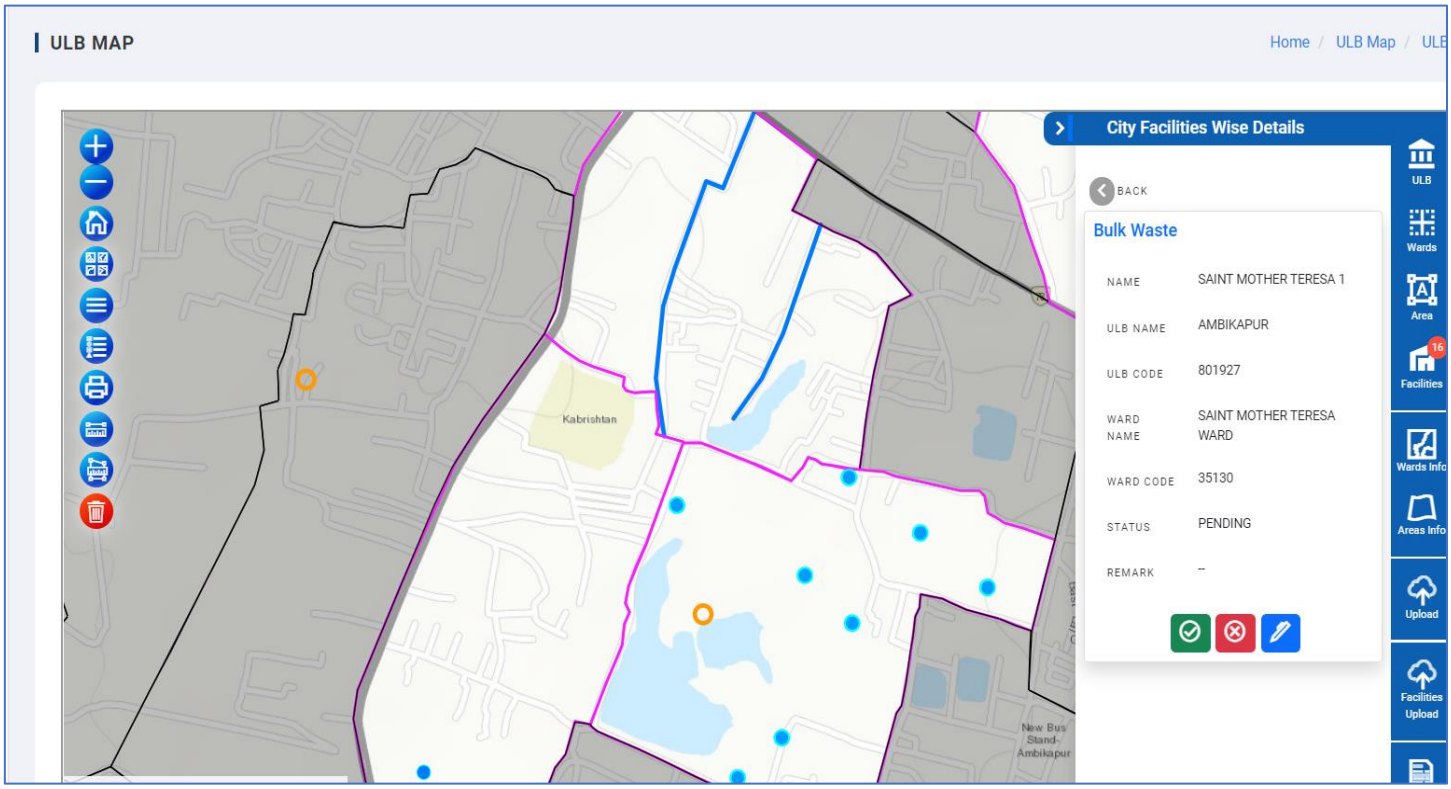

## 1.14 GIS OPERATOR-FACILITY UPLOAD

GIS officer can only upload the facility data for the area for the previously uploaded ULB boundary and ward boundary. If the data is available in defined format e.g., shape, kml or GeoJSON nodal officer can directly upload bulk facility for the single facility e.g., Bulk Waste from SBM web portal. If the data is not available in the defined format, GIS operator can upload the data one by one for each facility using mobile app available on google play store.

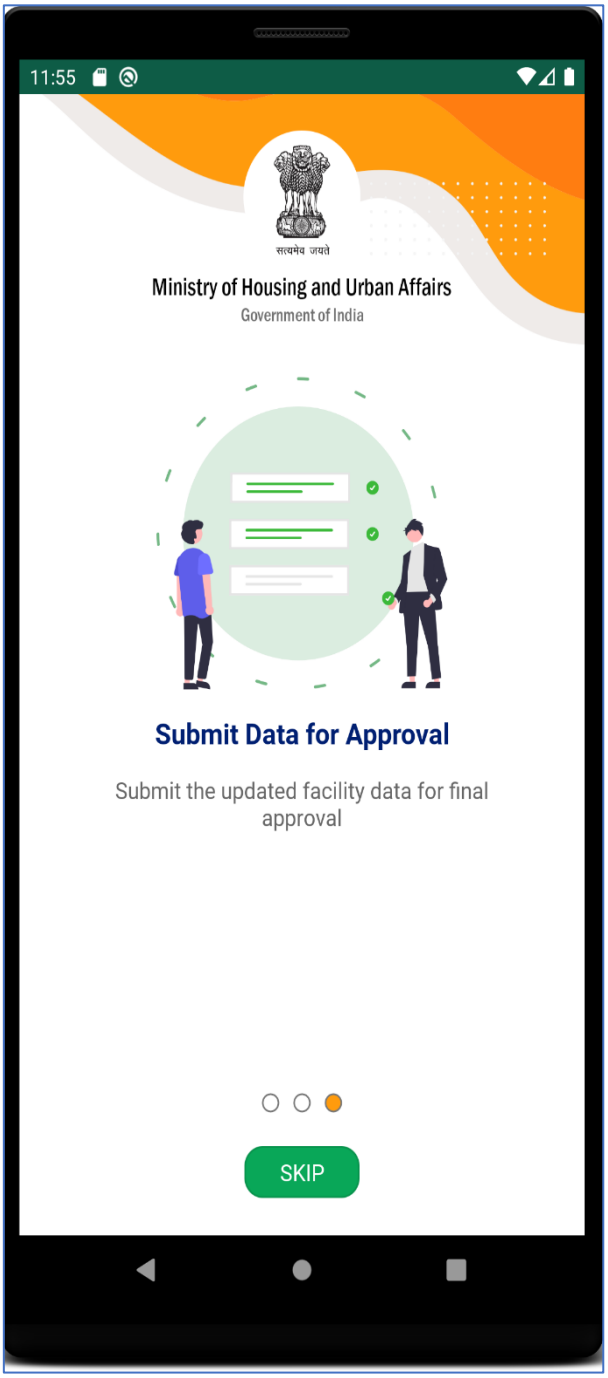
**Steps to perform**

1. Click on ‘Facilities Upload’ button, ‘Upload City Facilities (Bulk)’ window should get open with the list of all the available facilities in the portal.


2. With each facility, ‘Add File’ button should be available. Add file should accept data only in the defined format e.g., shape, kml or GeoJSON.
3. If the data is available in the defined format, click on ‘Add File’ button and upload the zip file in the defined format.
4. Once the file is uploaded, user should get a message,’ Successfully uploaded’
5. User can view the uploaded data on map.
6. Click on any data from map, user can view the detailed information about the uploaded facility.




7. If the facility is not available in the defined format, GIS operator can upload the single facility for single task using the mobile app.
8. GIS operator can download the mobile app from the google play store,' https://play.google.com/store/apps/details?id=com.esri.s_b_m'.
9. Once the app is downloaded click on the icon, Splash page should get open.

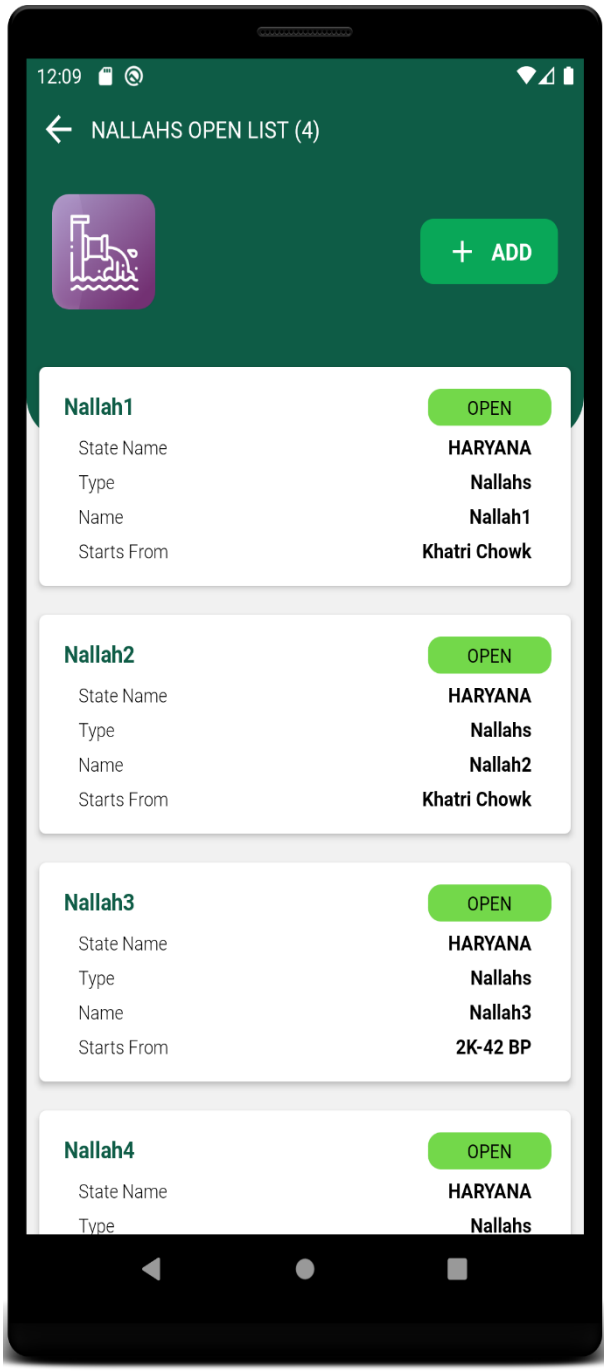




10. Read the quick help and login to the app using GIS operator login credentials.

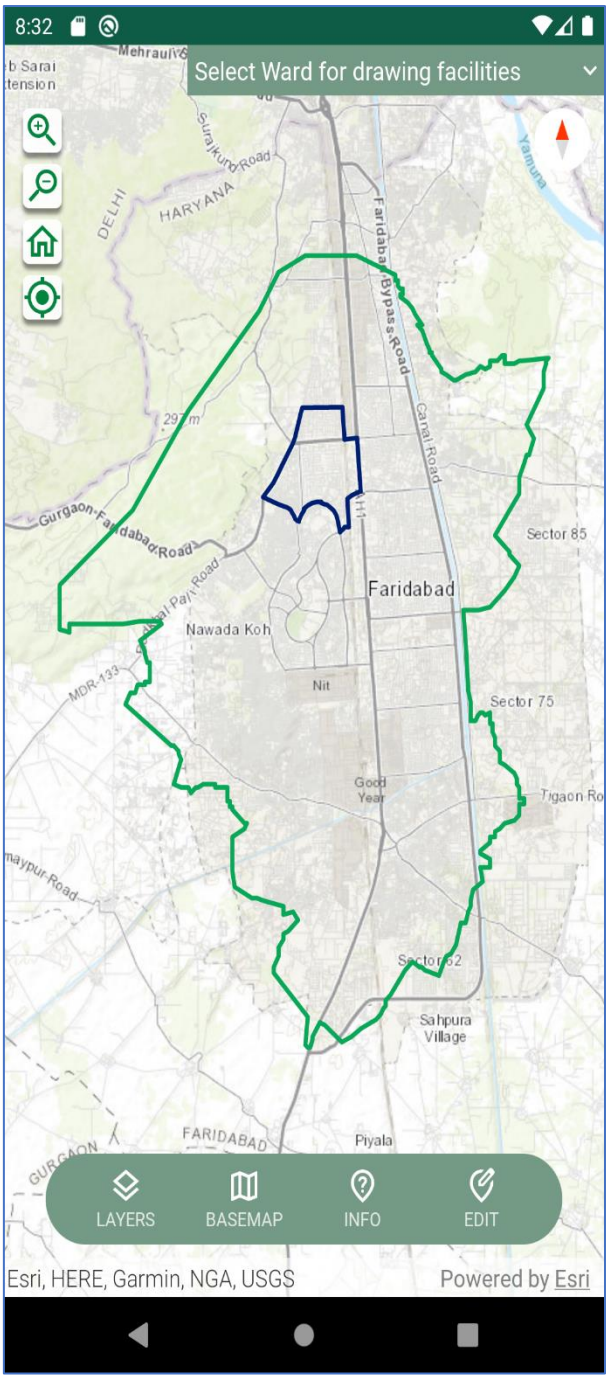

11. Once the user can login, User should be able to view city facility page.

12. GIS operator can update the facility in two ways.
    a. To add a new facility, Select the facility and click on ‘Add’ button.
    b. To update the existing facility, click on the facility from the list of added facility and click on ‘open’ button.

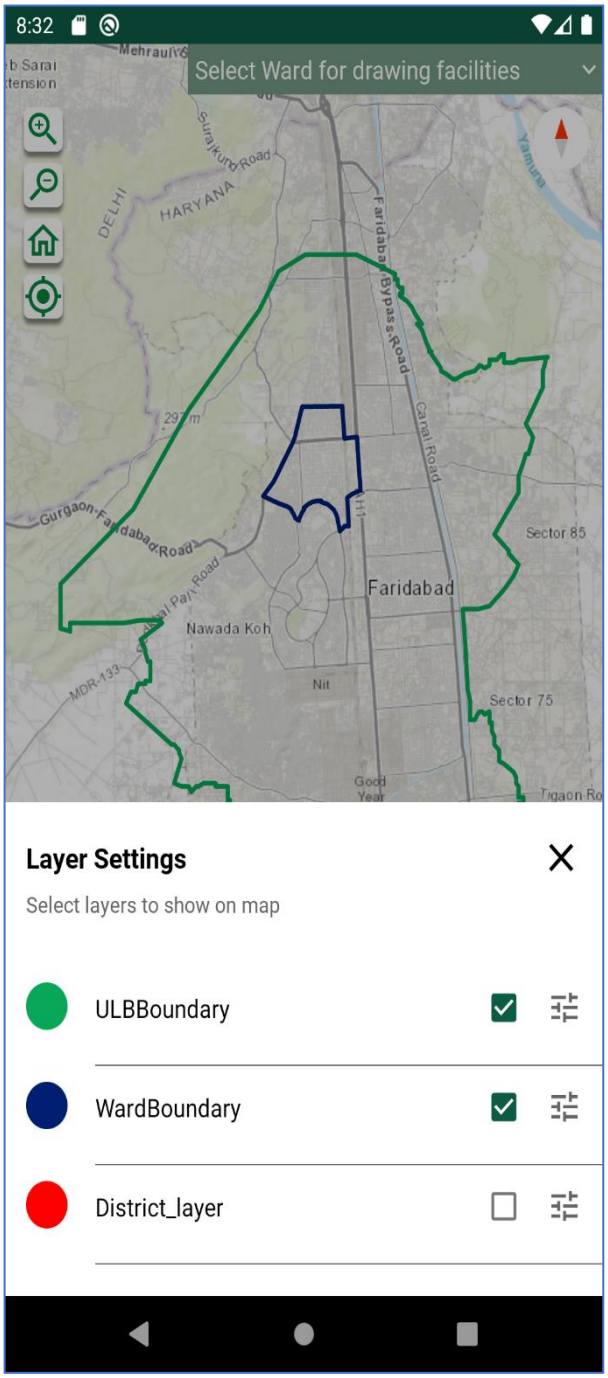
*Note: GIS operator can upload the data for single facility one by one.*

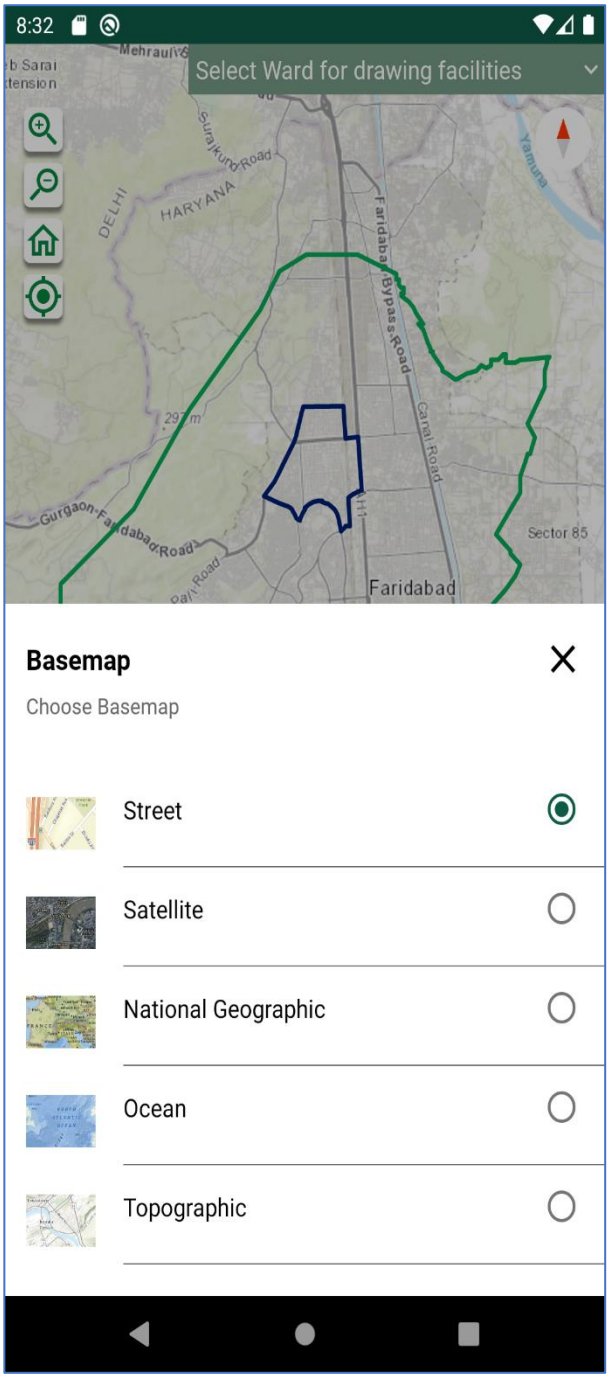


13. Click on ‘Add’ button in the app. User can view the map and user should be able to select the ward for drawing the facility on map.



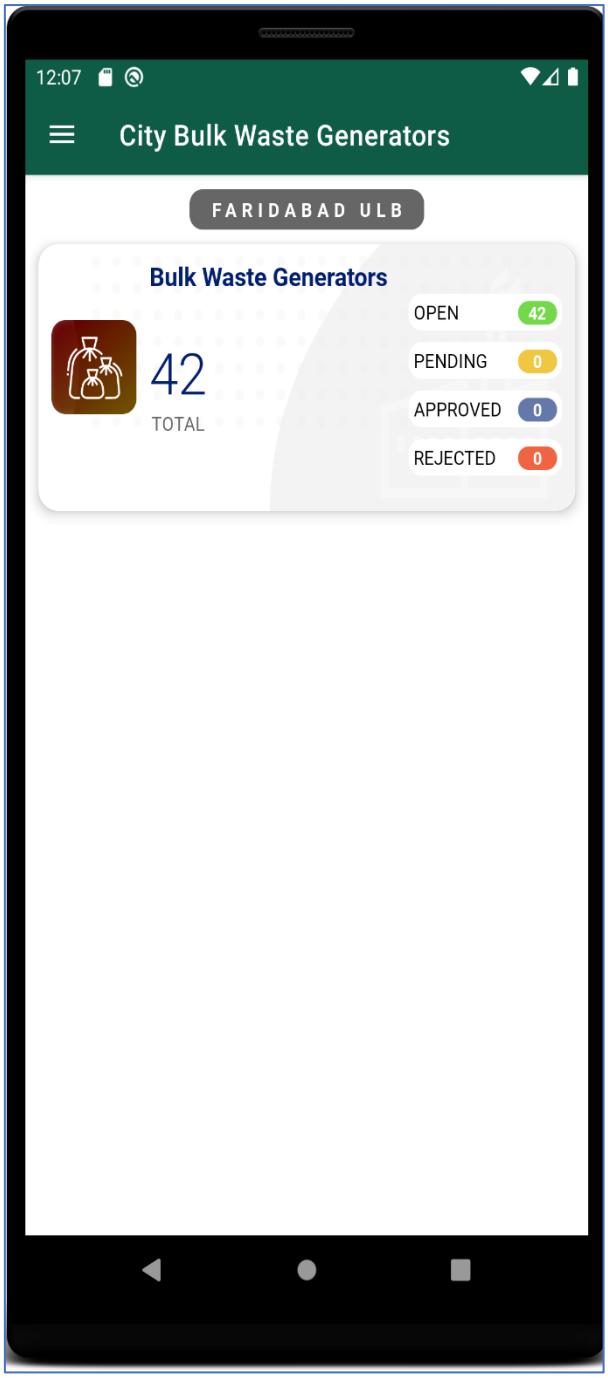
14. GIS operator should be able to change the layer settings and add the desired basemap.
15. GIS operator should be able to do the default operations on map.




16. Once the GIS operator add the facility on map. Click on ‘Submit’ button.
17. GIS operator will get a message,’ Successfully submitted’
18. Status of newly added facility will change from ‘Open’ to ‘Pending’.
19. After login, Nodal officer will receive the notification for the Pending status.

20. Nodal officer can approve, reject, or edit boundary for the selected facility on map.
21. Once the nodal officer will approve the status will change to ‘approve’, Nodal officer and GIS operator can view the updated status.
22. If the nodal officer will reject the status, the status will change to ‘reject’, Nodal officer and GIS operator can view status.

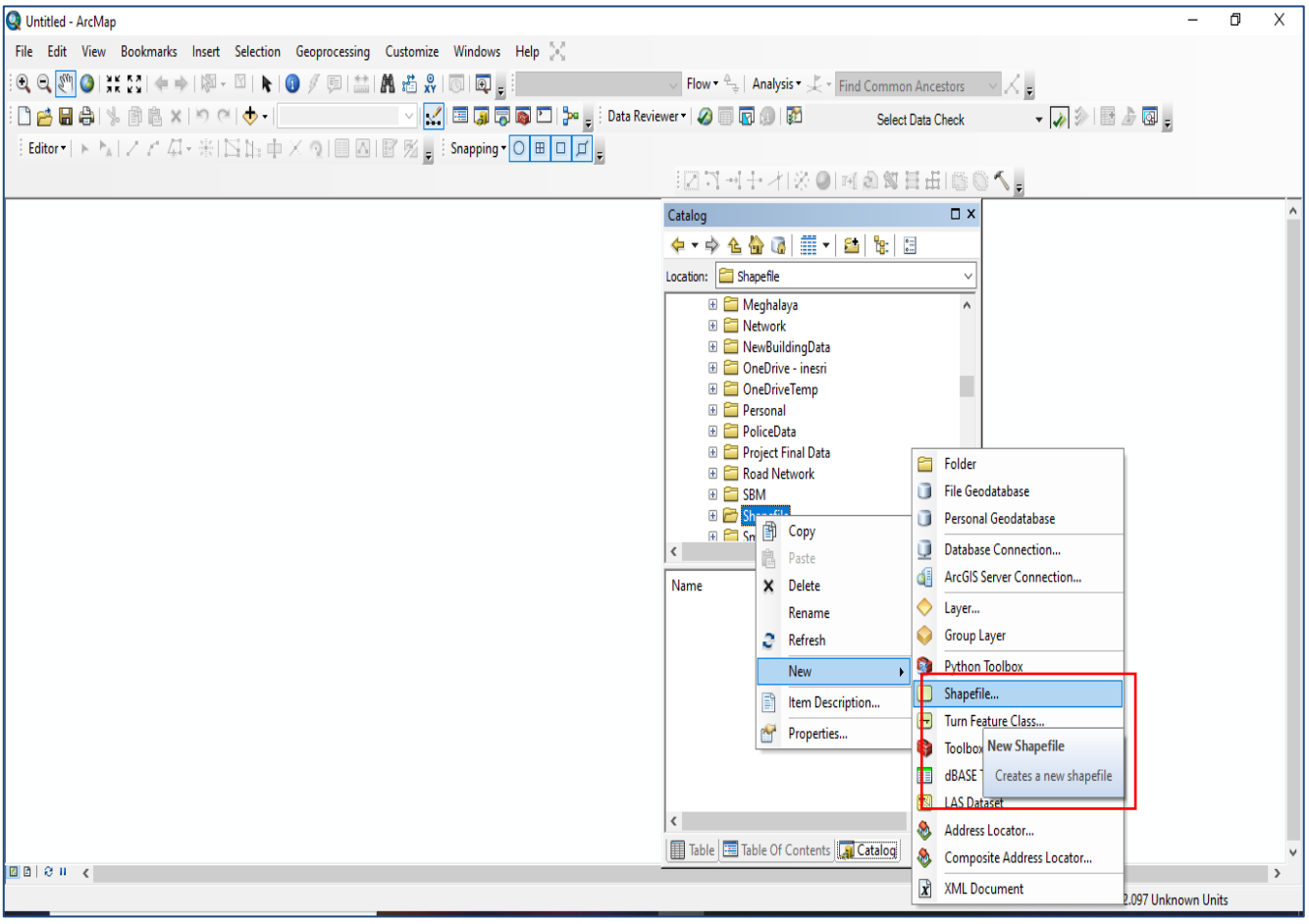


# CREATION OF GIS DATA USING ARCMAP

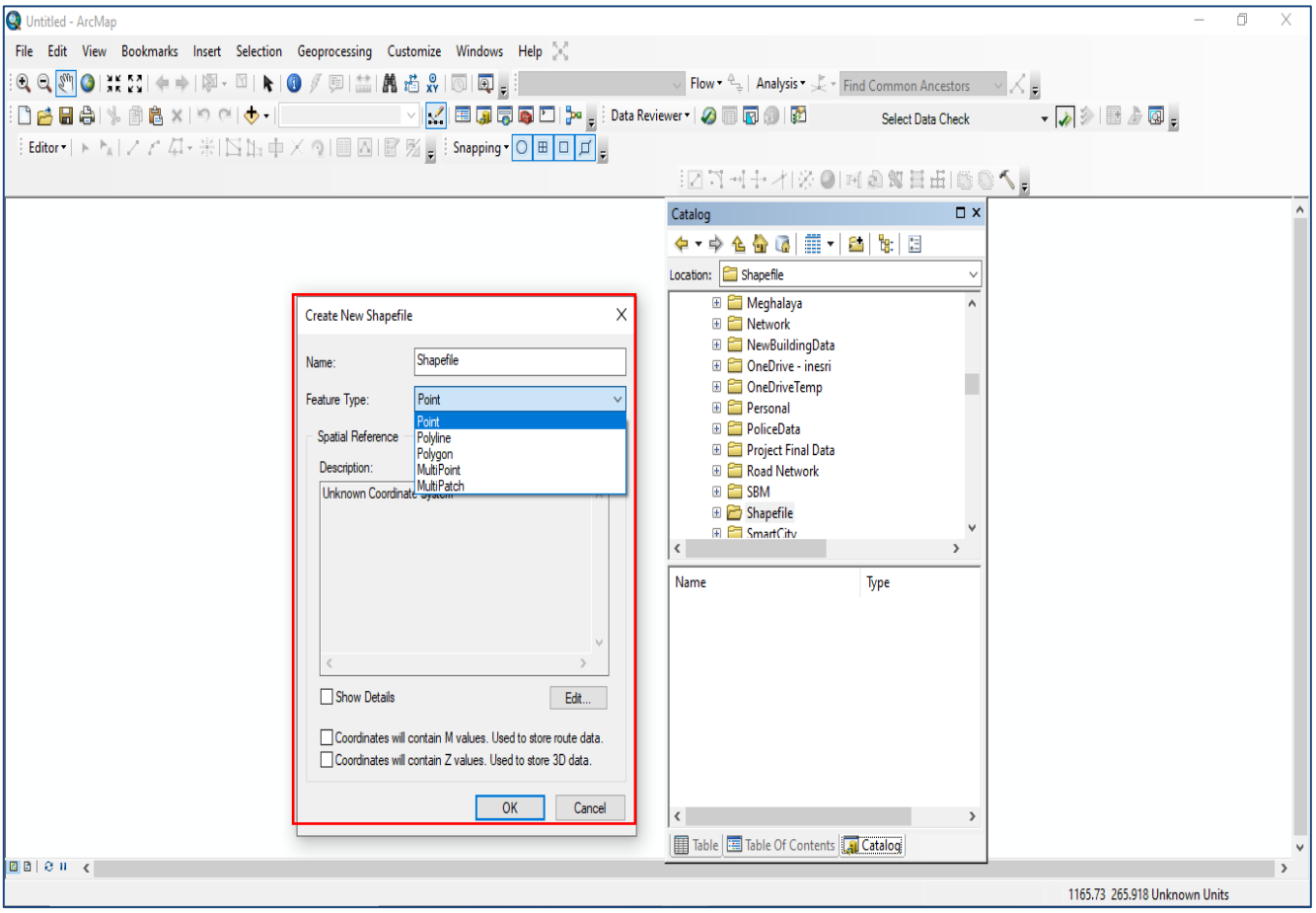
User can use create GIS data using ArcMap.

### Steps to perform

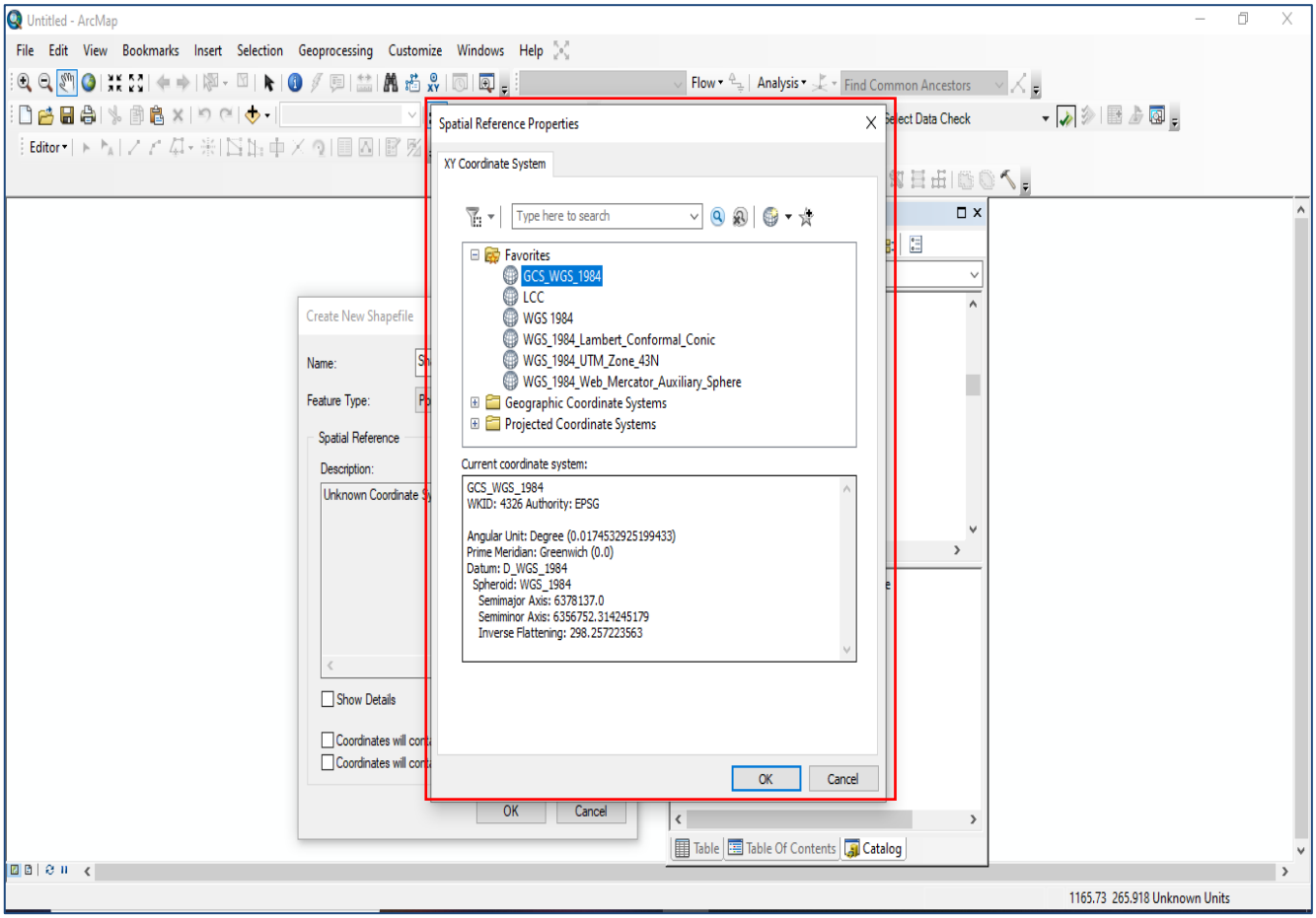
1. Select a folder or folder connection in the Catalog tree.
2. Click the File menu, point to New, then click Shapefile.




3. Click in the Name text box and type a name for the new shapefile.

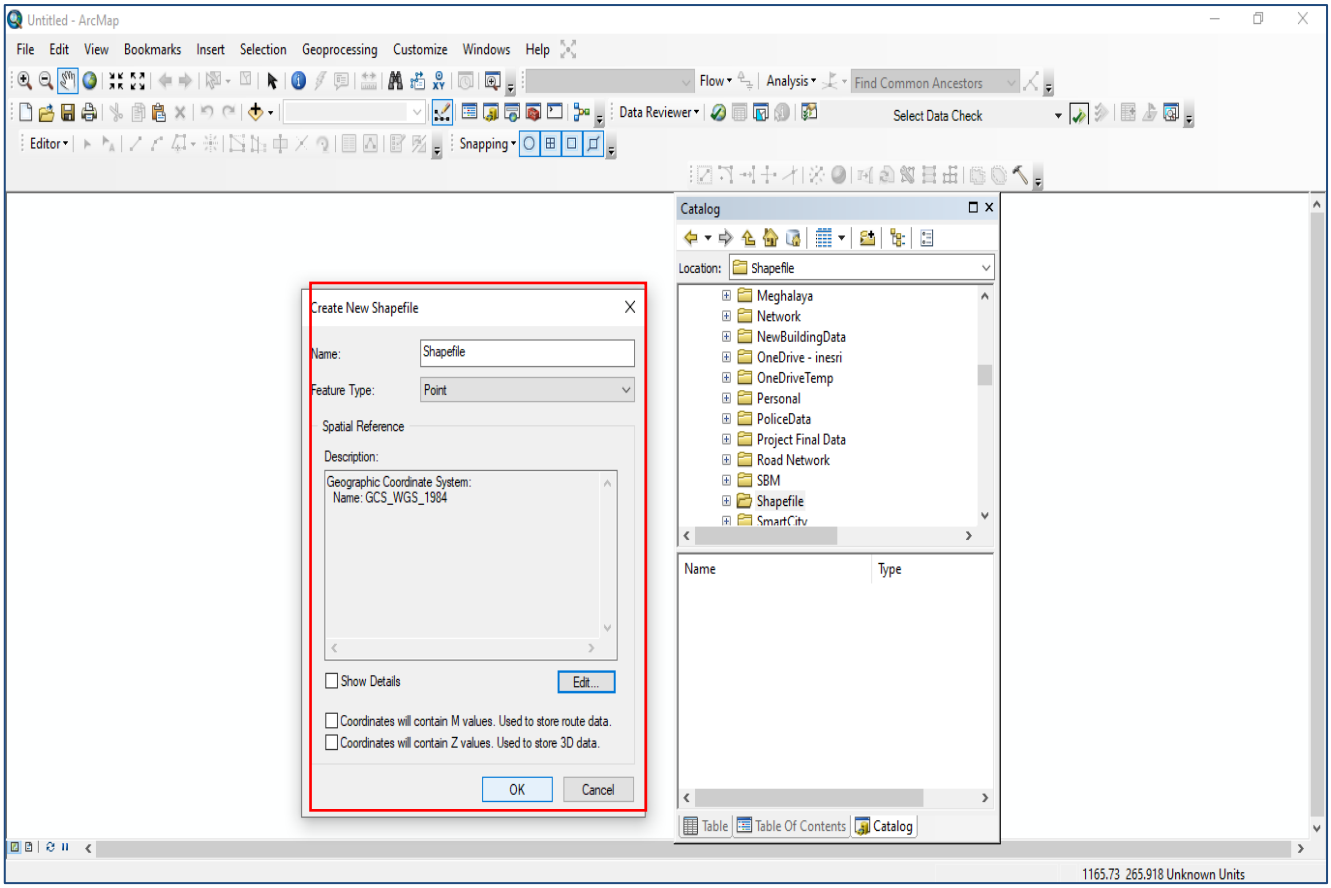



4. Click the Feature Type drop-down arrow and click the type of geometry the shapefile will contain.
5. Click Edit to define the shapefile's coordinate system.

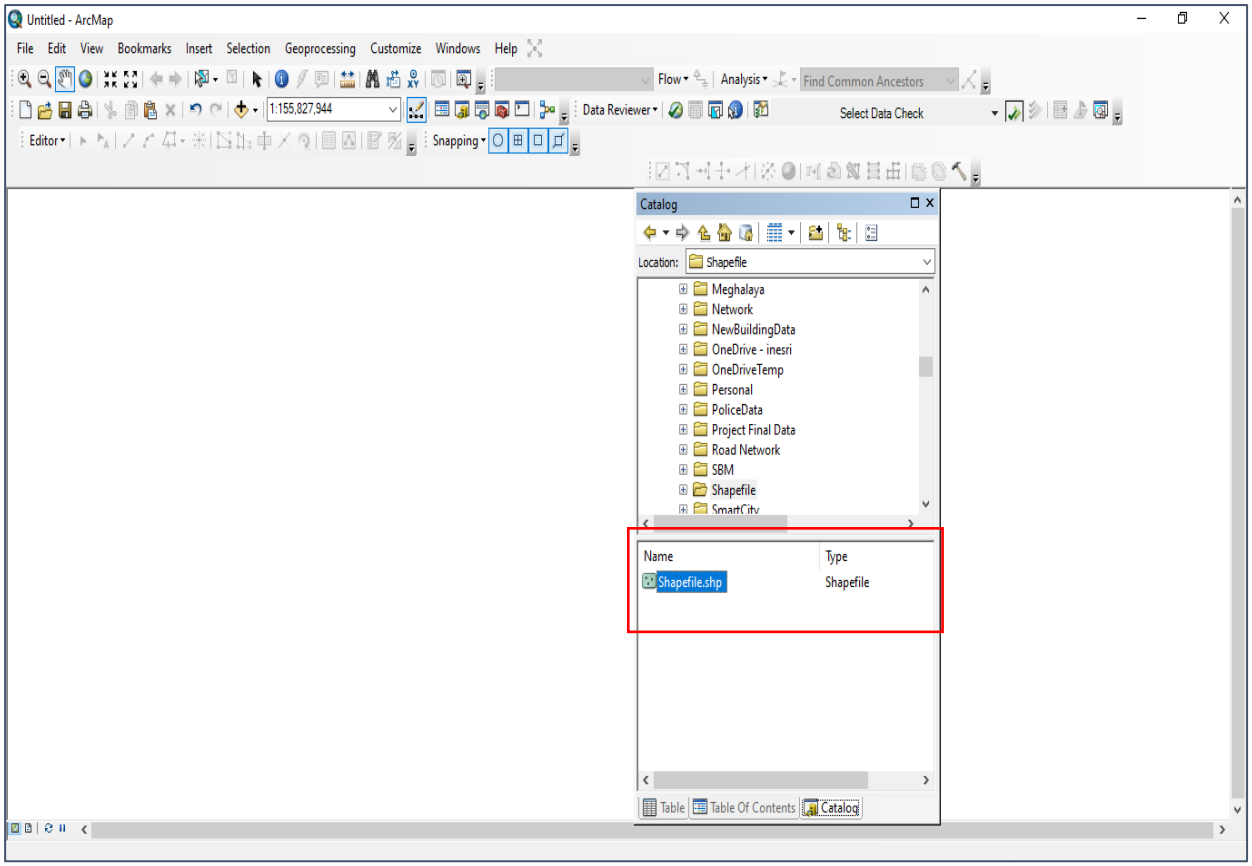



6. Select, import, or define a new coordinate system (Take 4326).
7. Click OK.

8. Start Edit of the Shapefile.




9. Click Create Feature & Draw the shapefile. The new shapefile appears in the folder's contents. Visit the below URL for reference




## 1.15 SAMPLE SHAPEFILE ATTACHED FOR REFERENCE

BhopalUlb.zip

***Note:*** *The new shapefile appears in the folder's contents. All the attribute should be defined as per the given sample shape file format.*

***Visit the below URL for reference.***

https://desktop.arcgis.com/en/arcmap/10.3/manage-data/shapefiles/creating-a-new-shapefile.htm

# TO CREATE A KML FILE FROM SPREADSHEET DATA

Steps to create a KML file from spreadsheet data:

1. Go to batchgeo.com.
2. Paste your data into the big box.
3. Add attribute names as per attached sample file
4. Click "Map Now"
5. Wait for geocoding to finish, then click "Continue / Save"
6. Fill out the title, description, and make sure to include your email address, then click "Save Map"

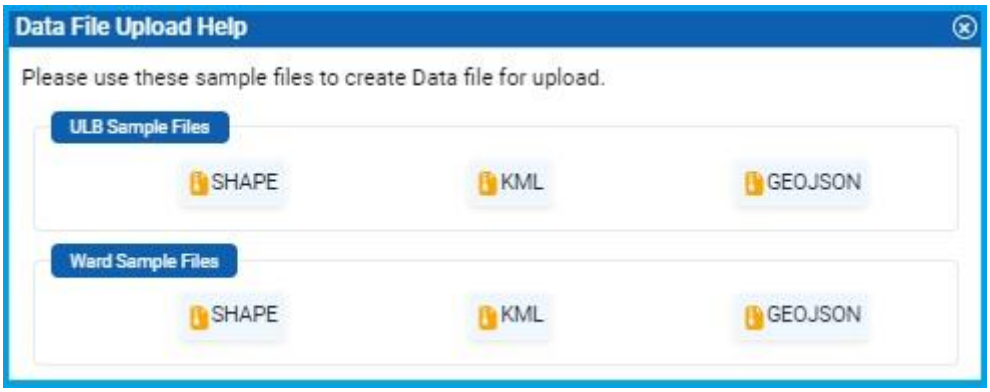
## 1.16 SAMPLE KML FILE ATTACHED FOR REFERENCE

user (802312).kml

***Note:*** *All the attribute should be defined as per the given sample kML file format.*
***Visit the below URL for reference****.*
https://desktop.arcgis.com/en/arcmap/10.3/manage-data/shapefiles/creating-a-new-shapefile.htm

# PREREQUISTE FOR GIS DATA CREATION

User must follow the steps for GIS Data Creation. Sample file can be downloaded in the shape, KML and GeoJSON format by the user in Data File Upload Help section.




## 1.17 UPLOAD ULB BOUNDARY

User must follow few steps before upload **ULB Boundary**, sample file can be downloaded from the help section.

**Step 1**: Download the sample file from help section

**Step 2**: Open your file in GIS Software and ensure that it has one single ULB boundary. User should ensure that all the attributes' names of your file matches with the attributes name mentioned in the sample file as below:

- **stnm***
- **stcode***
- **distnm***
- **distcode***
- **ulbnm***
- **ulbcode***

**Step 3:** ULB boundary should be within authorized district boundaries

**Step 4:** User can save file as KML or on JSON format, Shapefile format (in case of shape file only zip folder upload)

**Step 5:** Once the file is saved, user can now open the SMB GIS application, click on GIS Management→Click on ULB Map

**Step 6:** Select Right side Area info tool helps to single file upload for Area Boundary. User can select the single Area file and upload it on map.


***Note**: Attribute information should be same as MIS*

ShapeUlb.zip

## 1.18 UPLOAD WARD BOUNDARY (SINGLE/MULTIPLE)

User must follow few steps before upload Ward Boundary, sample file can be downloaded from the help section.

**Step 1**: User must ensure UBL boundary uploaded and Approved by Nodal officer

**Step 2**: Download the Ward sample file from help section

**Step 3**: Open your file in GIS Software. User should ensure that all the attributes' names of your file matches with the attributes name mentioned in the sample file as below:

- **statename***
- **statecode***
- **districtna***
- **districtco***
- **ulbname***
- **ulbcode***
- **wardcode***
- **wardname***

**Step 4:** Ward boundary should be within authorized ULB boundaries

**Step 5:** User can save file as KML or on JSON format, Shapefile format (in case of shape file only zip folder upload)

**Step 6:** Once the file is saved, user can now open the SMB GIS application, click on GIS Management→Click on ULB Map

**Step 7:** Select Right side upload tool and upload Multiple Ward boundaries


**Step8:** In Case of Single Ward use Wardinfo Tool


***Note**: Attribute information should be same as MIS*


ShapeWard.zip


KmlWard.zip

## 1.19 UPLOAD AREA BOUNDARY

User must follow few steps before upload Area Boundary

**Step 1:** Open your file in GIS Software and ensure that it has one single ULB boundary. User should ensure that all the attributes' names of your file matches with the attributes name mentioned in the sample file as below:

- **statename***
- **statecode***
- **districtna***
- **districtco***
- **ulbname***
- **ulbcode***
- **wardcode***
- **wardname***
- **areacategory(like Primarily Residential)**
- **areaname(like CR Tower)***

**Step 3:** ULB boundary should be within authorized Ward boundaries

**Step 4:** User can save file as KML or on JSON format, Shapefile format (in case of shape file only zip folder upload)

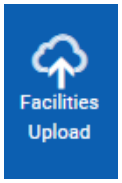
**Step 5:** Once the file is saved, user can now open the SMB GIS application, click on GIS Management→Click on ULB Map

**Step 6:** Select Right side Area info tool helps to single file upload for Area Boundary. User can select the single Area file and upload it on map.


*Note: Attribute information should be same as MIS*

## 1.20 UPLOAD FACILITY UPLOAD

User must follow few steps before upload facility using the SBM GIS web portal.




**Step 1**: Open your file in GIS Software and ensure that it has single or multiple facility of **same nature only** e.g., all Bulk waste for a single city facility type. User should ensure that all the attributes' names of your file matches with the attributes name mentioned in the sample file as below:

- **stnm***
- **stcode***
- **distnm***
- **distcode***
- **ulbnm***
- **ulbcode***
- **wardnm***
- **wardcode***
- **name(facility name)***
- **type(facility type )**

**Step 2:** Facility should be within authorized Ward boundaries

**Step 3:** User can save file as KML or on JSON format, Shapefile format (in case of shape file only zip folder upload)

**Step 4:** Once the file is saved, user can now open the SMB GIS application, click on GIS Management→Click on Facility upload to upload the data in the defined format.

## FREQUENTLY ASKED QUESTIONS (FAQ)

Q1. How many types of users available in SBM Login?

Ans. There are two types of users available

- Nodal Officer
- GIS Operator

Q2. Nodal Officer can perform all the task done by GIS Operator.?

Ans. Yes

Q3. GIS operator can perform all the task as Nodal officer.?

Ans. No

Q4. From where user can upload ULB Boundary and can view its status?

Ans. User can view the ULB boundary and its status from Right Side Menu on Map→ ULB Status.

Q5. From where user can upload Ward Boundary and can view its status?

Ans. User can view the Ward boundary and its status from Right Side Menu on Map→Wards Info

Q6. From where user can upload Area Boundary and can view its status?

Ans. User can view the Ward boundary and its status from Right Side Menu on Map→Area Info

Q7. How to add attribute in the KML file format for ULB / Ward / Area / City Facility?

Ans. Open KML file format in Google Earth → In left panel, right-click on the file name→ Open properties→ Click on 'Description' tab and copy and paste the attached script for the respective file format. Choose the file according to the requirement e.g. ULB boundary only, Ward Boundaries, Area boundary, City Facility – Dumpsite, River ghat, etc. Change the values according to your authorized city e.g., ULB name, ULB code, Ward Name, Ward code, Facility

name and facility id in the attached format.  Please find the attached script.

Scripts.zip

## ANNEXURE – ULB BOUNDARY SCRIPT FOR GOOGLE EARTH

Please change the respective field(s) data which are marked shaded with yellow color.

In the below mentioned script:

---

```
<html xmlns:fo="http://www.w3.org/1999/XSL/Format" xmlns:msxsl="urn:schemas-microsoft-com:xslt">
<head>
<META http-equiv="Content-Type" content="text/html">
<meta http-equiv="content-type" content="text/html; charset=UTF-8">
</head>
<body style="margin:0px 0px 0px 0px;overflow:auto;background:#FFFFFF;">

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-collapse:collapse;padding:3px 3px 3px 3px">
<tr style="text-align:center;font-weight:bold;background:#9CBCE2">
<td></td>
</tr>
<tr>
<td>

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-spacing:0px; padding:3px 3px 3px 3px">
<tr>
<td>FID</td>
<td>0</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>stnm</td>
        <td>Madhy Pradesh</td>
</tr>
<tr>
        <td>stcode</td>
        <td>23</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>distnm</td>
        <td>Sagar</td>
</tr>
<tr>
        <td>distcode</td>
        <td>427</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>ulbnm</td>
        <td>Sagar</td>
</tr>
```

```
<tr>
        <td>ulbcode</td>
        <td>802159</td>
</tr>
</table>
</td>
</tr>
</table>
</body>
</html>
```

## ANNEXURE – WARD BOUNDARY SCRIPT FOR GOOGLE EARTH

Please change the respective field(s) data which are marked shaded with yellow color.

In the below mentioned script:

---

```
<html xmlns:fo="http://www.w3.org/1999/XSL/Format" xmlns:msxsl="urn:schemas-microsoft-com:xslt">
<head>
<META http-equiv="Content-Type" content="text/html">
<meta http-equiv="content-type" content="text/html; charset=UTF-8">
</head>
<body style="margin:0px 0px 0px 0px;overflow:auto;background:#FFFFFF;">

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-collapse:collapse;padding:3px 3px 3px 3px">
<tr style="text-align:center;font-weight:bold;background:#9CBCE2">
<td></td>
</tr>
<tr>
<td>

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-spacing:0px; padding:3px 3px 3px 3px">
<tr>
<td>FID</td>
<td>1</td>
</tr>
<tr bgcolor="#D4E4F3">
<td>objectid</td>
<td>0</td>
</tr>
<tr>
        <td>statename</td>
        <td>Goa</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>statecode</td>
        <td>30</td>
</tr>
<tr>
        <td>districtna</td>
        <td>South Goa</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>districtco</td>
        <td>586</td>
</tr>
<tr>
        <td>ulbname</td>
```

```
        <td>Canacona</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>ulbcode</td>
        <td>803254</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>wardcode</td>
        <td>10</td>
</tr>
<tr>
        <td>wardname</td>
        <td>WARD 10</td>
</tr>
</table>
</td>
</tr>
</table>
</body>
</html>
```

## ANNEXURE – AREA BOUNDARY SCRIPT FOR GOOGLE EARTH

Please change the respective field(s) data which are marked shaded with yellow color.

In the below mentioned script:

---

```
<html xmlns:fo="http://www.w3.org/1999/XSL/Format" xmlns:msxsl="urn:schemas-microsoft-com:xslt">
<head>
<META http-equiv="Content-Type" content="text/html">
<meta http-equiv="content-type" content="text/html; charset=UTF-8">
</head>
<body style="margin:0px 0px 0px 0px;overflow:auto;background:#FFFFFF;">

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-collapse:collapse;padding:3px 3px 3px 3px">
<tr style="text-align:center;font-weight:bold;background:#9CBCE2">
<td>Area_Boundary</td>
</tr>
<tr>
<td>

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-spacing:0px; padding:3px 3px 3px 3px">
<tr bgcolor="#D4E4F3">
        <td>statename</td>
        <td>Andhra Pradesh</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>statecode</td>
        <td>28</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>districtna</td>
        <td>East Godavari</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>districtco</td>
        <td>545</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>ulbname</td>
        <td>Kakinada</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>ulbcode</td>
        <td>802955</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>wardcode</td>
```

```
        <td>3</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>wardname</td>
        <td>JNTU College</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>areacategory </td>
        <td>3</td>
</tr>
<tr bgcolor="#D4E4F3">
        <td>areaname</td>
        <td>Godarigunta,D Mart,NFCL,Aksara School</td>
</tr>
</table>
</body>
</html>
```

## ANNEXURE – CITY FACILITY MAPPING SCRIPT FOR GOOGLE EARTH

Please change the respective field(s) data which are marked shaded with yellow color. In the below mentioned script:

---

```
<html xmlns:fo="http://www.w3.org/1999/XSL/Format" xmlns:msxsl="urn:schemas-microsoft-com:xslt">
<head>
    <META http-equiv="Content-Type" content="text/html">
    <meta http-equiv="content-type" content="text/html; charset=UTF-8">
</head>
<body style="margin:0px 0px 0px 0px;overflow:auto;background:#FFFFFF;">

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-collapse:collapse;padding:3px 3px 3px 3px">
<tr style="text-align:center;font-weight:bold;background:#9CBCE2">
<td>Facility Type</td>
<td>Bulkwaste</td>
</tr>
<tr>
<td>

<table style="font-family:Arial,Verdana,Times;font-size:12px;text-align:left;width:100%;border-spacing:0px; padding:3px 3px 3px 3px">
<tr>
    <td>stnm</td>
    <td>Chhattisgarh</td>
</tr>
<tr bgcolor="#D4E4F3">
    <td>stcode</td>
    <td>22</td>
</tr>
<tr>
    <td>distnm</td>
    <td>Sarguja</td>
</tr>
<tr bgcolor="#D4E4F3">
    <td>distcode</td>
    <td>401</td>
</tr>
<tr>
    <td>ulbnm</td>
    <td>Ambikapur</td>
</tr>
<tr bgcolor="#D4E4F3">
    <td>ulbcode</td>
```

```
            <td>801927</td>
</tr>
<tr>
            <td>wardnm</td>
            <td>Saint Mother Teresa Ward</td>
</tr>
<tr bgcolor="#D4E4F3">
            <td>wardcode</td>
            <td>35130</td>
</tr>
<tr bgcolor="#D4E4F3">
            <td>name</td>
            <td>Plant One</td>
</tr>
<tr bgcolor="#D4E4F3">
            <td>type</td>
            <td>Processing Plant</td>
</tr>
</table>
</body>
</html>
```