Integrated Forest Management Toolbox (IFMT) User Manual

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IFMT is a forest management planning tool, developed with the objective to assist forest officials in preparing working plans in accordance with the National Working Plan Code, 2014 (NWPC) that calls for management of forests for a range of ecosystem services.

IFMT consists of a suite of tools which enable forest officials to collect and collate geo-spatial and ground level data, identify potential forest management activities based on flow of ecosystem services and assist in finalising working plan prescriptions. The individual tools that constitute the toolbox were developed to meet the requirements of NWPC-2014.Following is the list of the tools:

- **Forest Resources Observatory (FRO)** - A repository of data from publicly available open data sources that provides certain mandatory and optional spatial layers as required by NWPC-2014.
- **Forest Data Kit (FDK)** - A mobile device based android application that provides a digital platform for collection of field data. The data is further analysed and processed to create geo-spatial layers for visualisation.
- **Composite Land Assessment and Restoration Tool (CLART)** - Tool for classifying areas based on water recharge potential and identifying areas for soil moisture conservation working circle activities that can improve yield of water.
- **Species Distribution Model (SDM)** – Tool for planning of plantation working circle and non-timber forest produce working circle as per the local agro-climatic and edaphic factors. It will assist in finding areas suitable for specified tree species. It can also assist in locating biodiversity hotspots for conservation working circles.

1.0   Getting Started

1.1   System Requirements

Use Google Chrome Version 70 or above for best performance.

1.2   Home Page

Open Google Chrome and enter IFMT URL (http://http://ifmt.fes.org.in/)
in the Address bar. The Home Page will be displayed as shown below, wherein Login option is displayed.
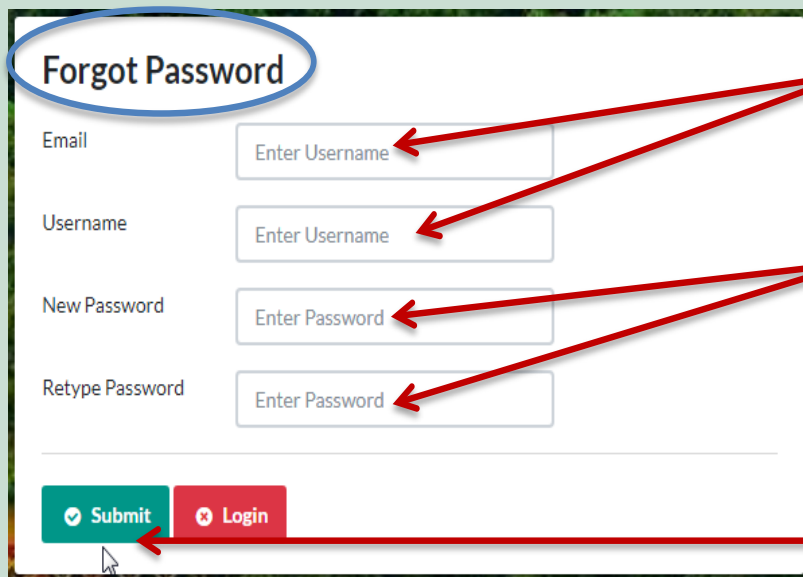
1.3   Login

- How to login?

Enter *Username* or e-mail address as per the account created.

Enter *Password*.
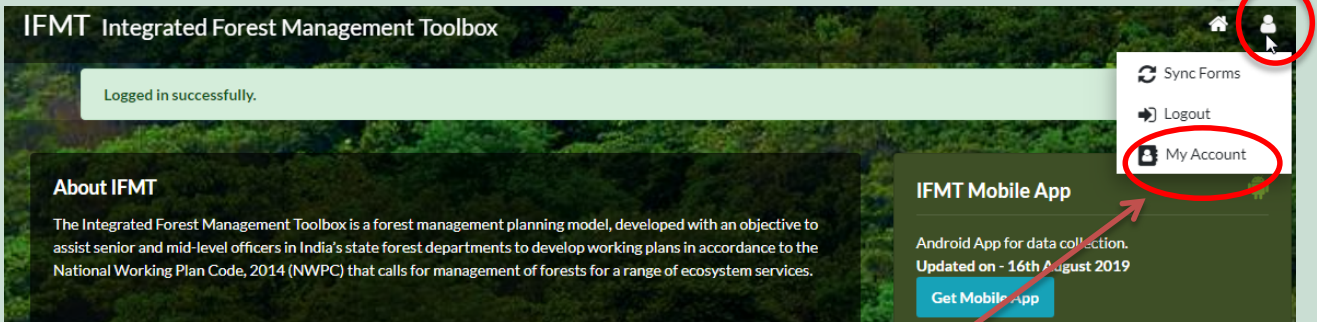
Click on *Login* Button.

Enter *E-mail address or Username* as per the account created.

Enter *New Password* and *Retype new password* for confirmation.

Click *Submit* button to create new password and then click on *Login* button to verify.

1.3.1 View / Edit User Account

Access the details of your account by clicking on user in the upper right corner. Dropdown menu options will be displayed as shown in the image below.

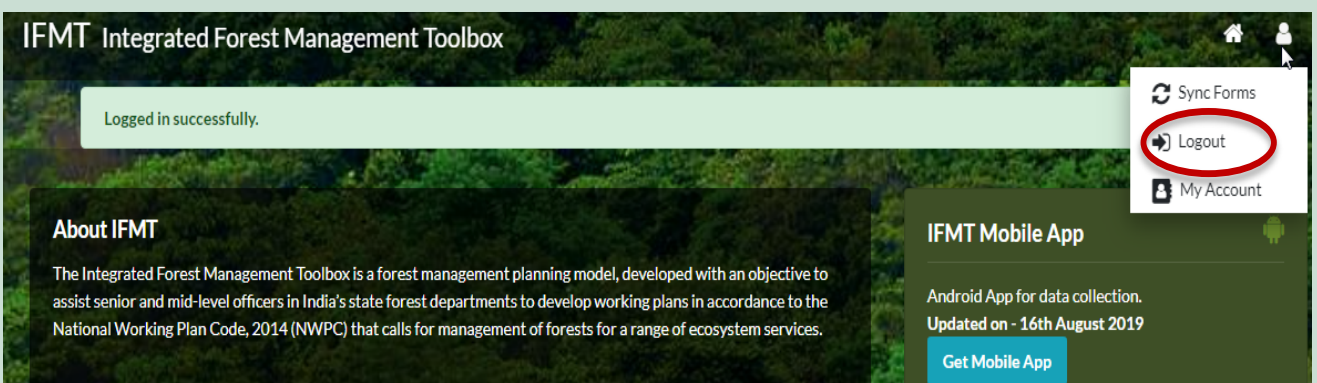Click on 'My Account' to Edit user details or to change password.

User can add *Mobile number* and *email address*.

User can change password by entering *New password* and then *Retype new password*. *Email address* can also be changed, if needed.
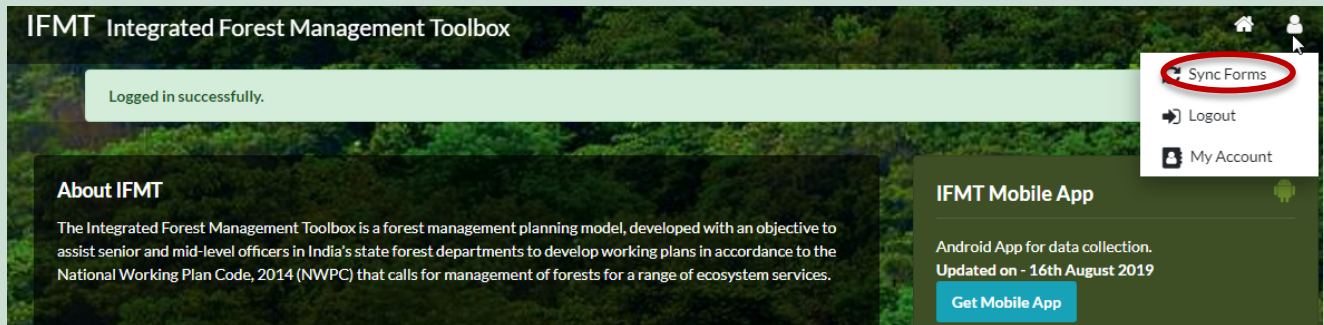
1.3.2 Logout

Click on Logout to exit from the portal as shown in the image below.

1.3.3 Sync Forms

Click on 'Sync Forms' to sync the field data with the central server and save the entered data for future access.

2.0   Using IFMT

After successful User login, Dashboard will be displayed and Menu Options can be viewed by clicking on ▤ , as shown in the image below.
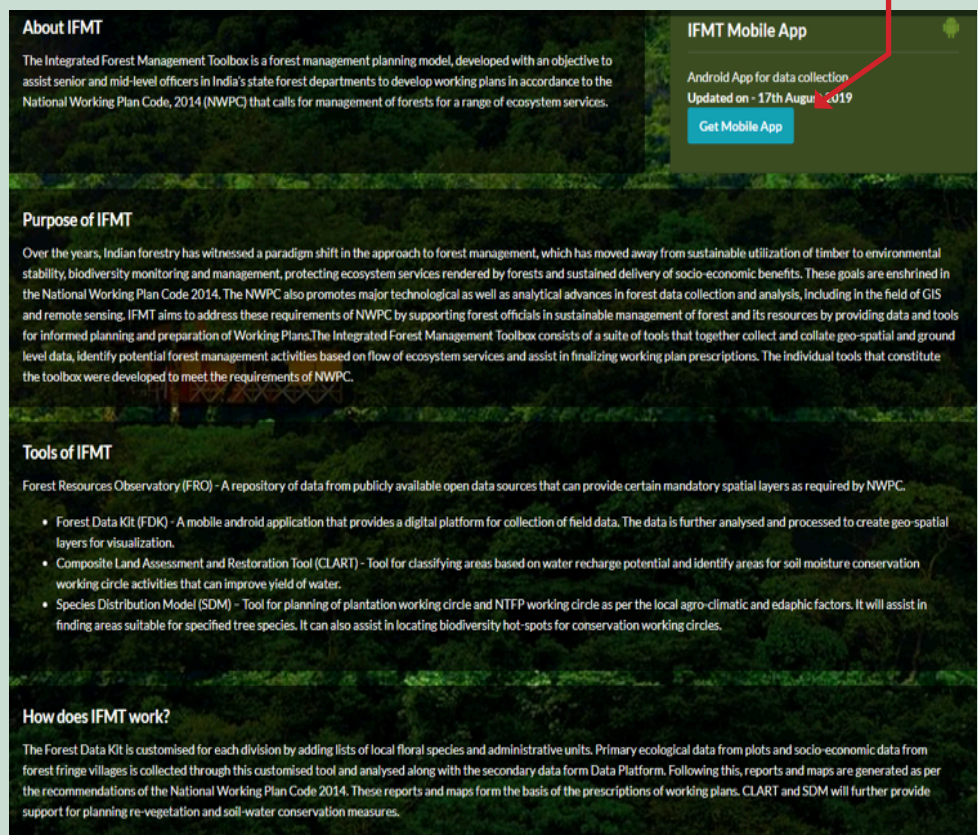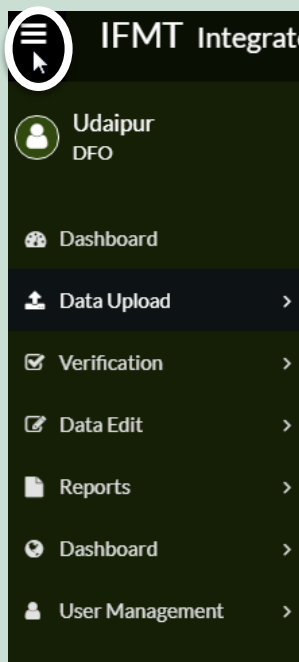
2.1   Menu Options

The functionalities of the above menu options are described below.

2.1.1 Dashboard

Dashboard is displayed along with Mobile app download option.
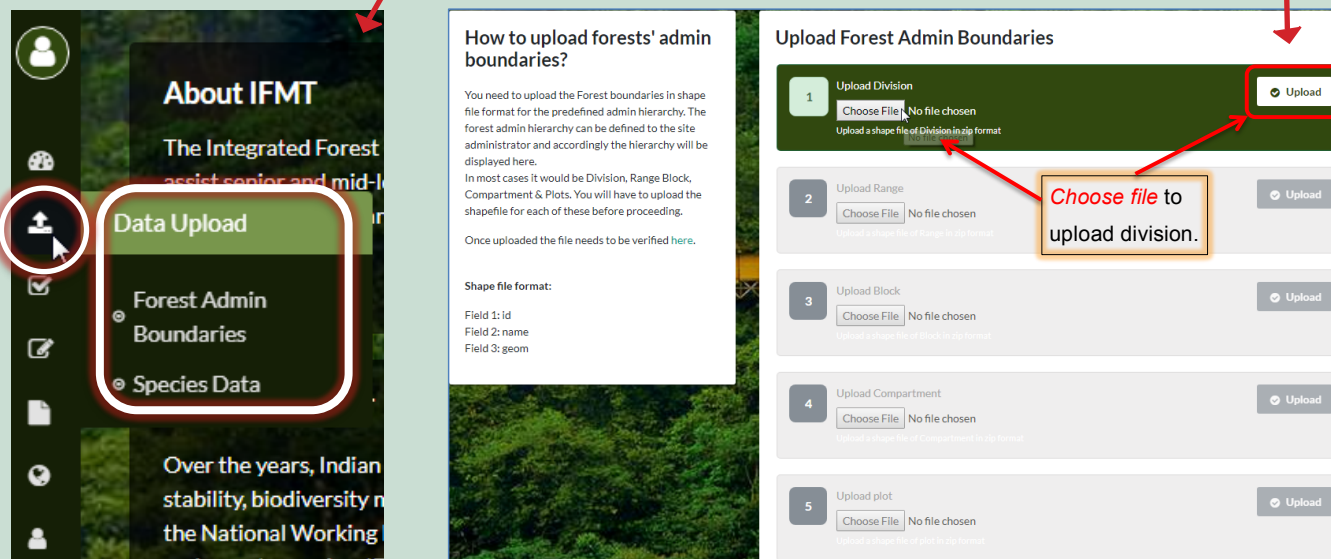
2.1.2 Data Upload

Data upload menu option will open the sub-menu options named Forest Admin Boundaries and Species Data.
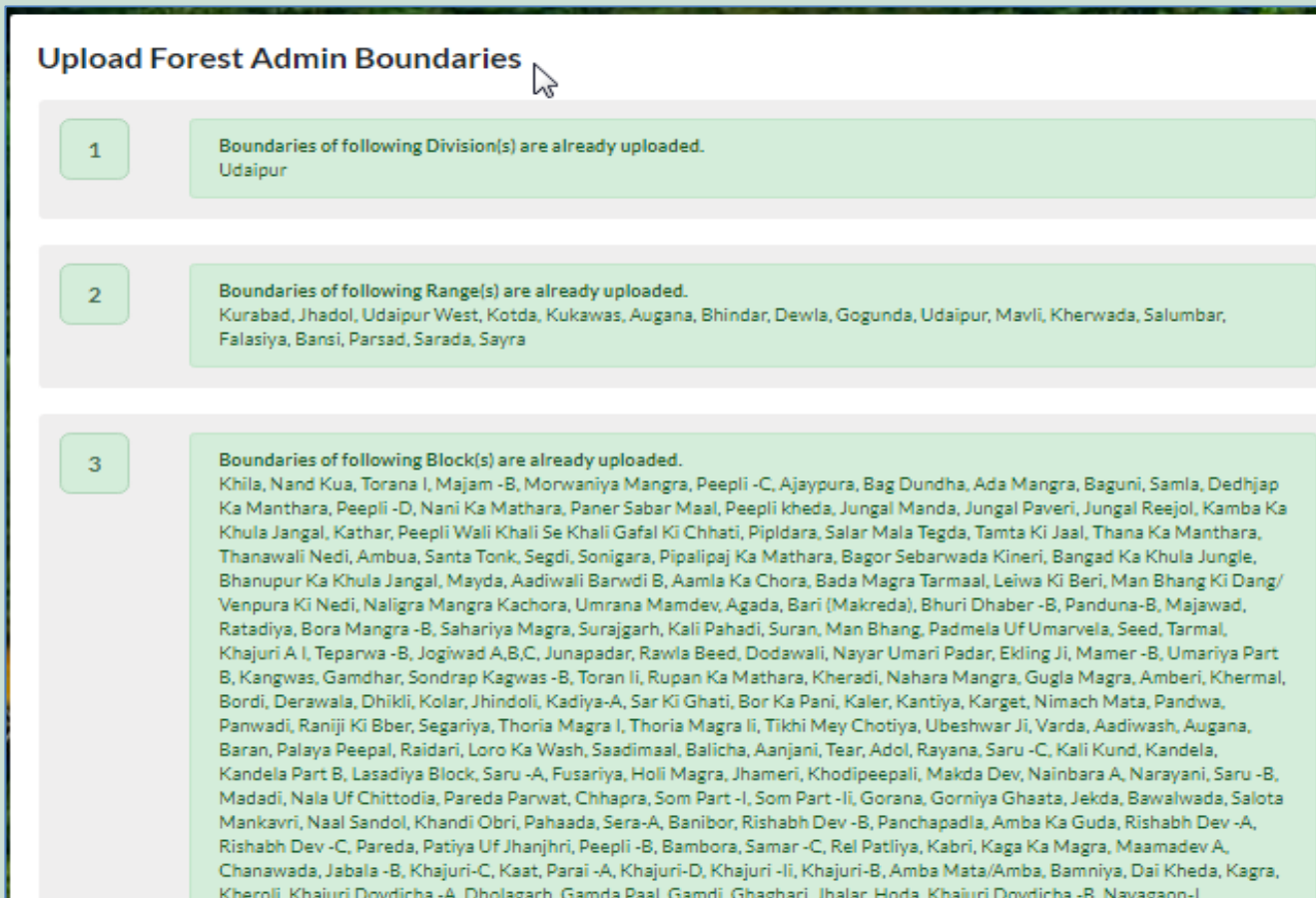
2.1.2.1 Forest Admin Boundaries

Click on Forest Admin Boundaries menu option to upload Forests' boundaries in shape file format. The Following window will appear.
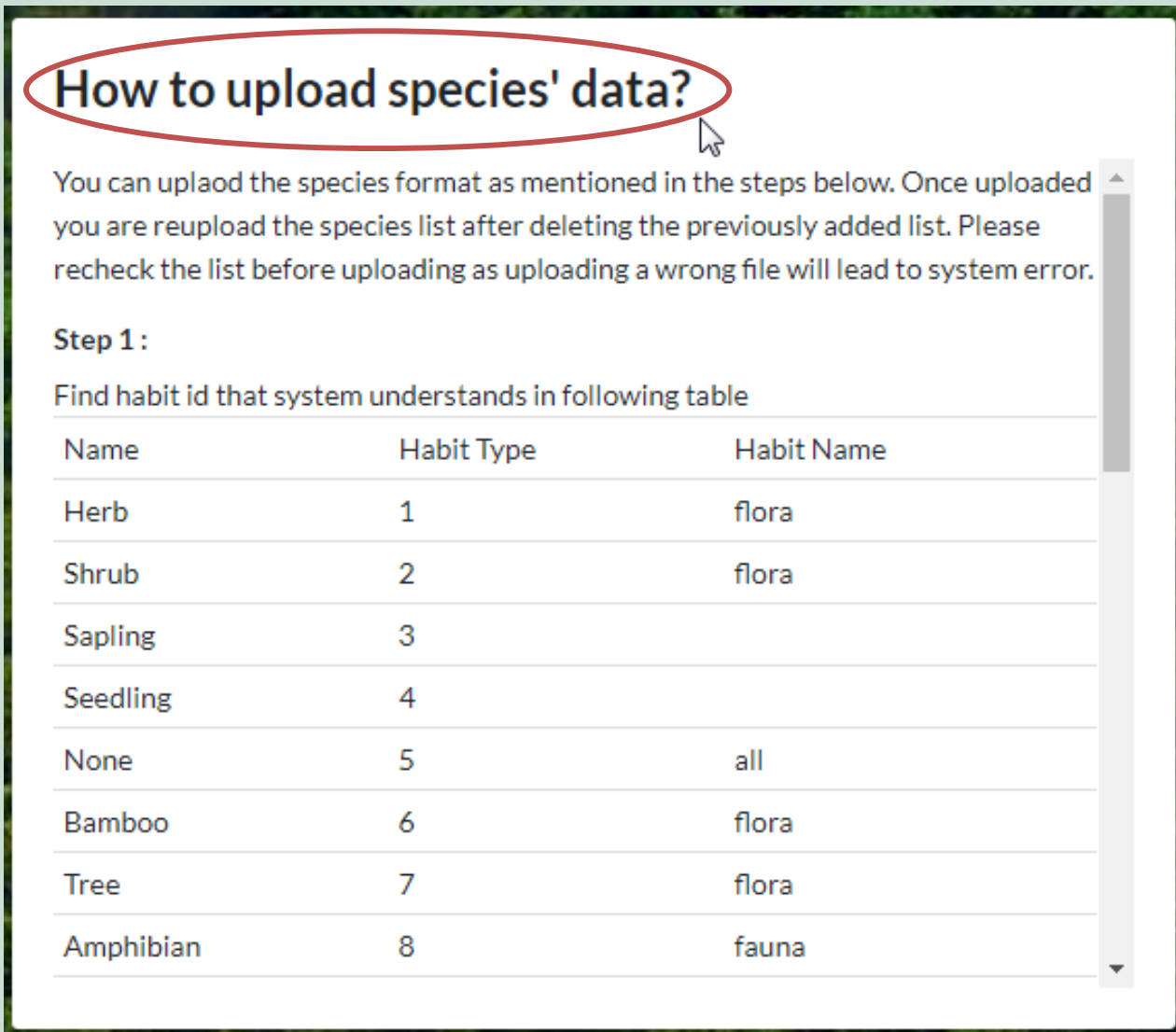

In Addition to the help window, one can upload a list of Forest admin boundaries.

Uploaded boundaries of division, range, blocks, compartments, plots can be later viewed, as shown below.

2.1.2.2 Species Data

Click on Species Data option to upload species data. Following Help window will appear.
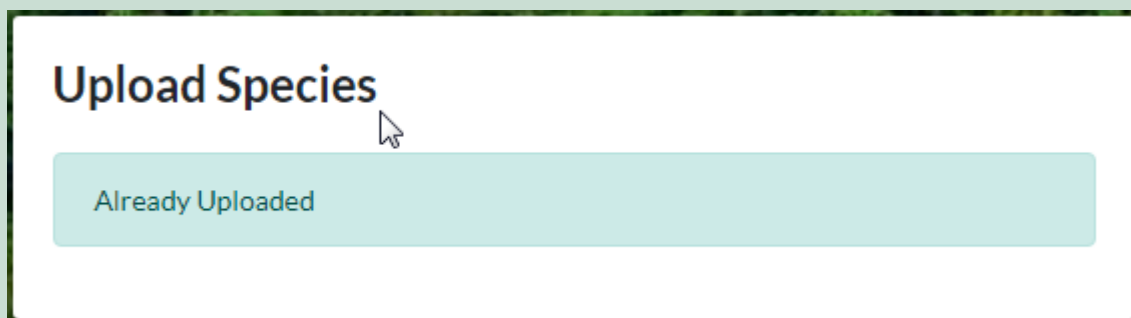

How to upload species' data?

You can uplaod the species format as mentioned in the steps below. Once uploaded you are reupload the species list after deleting the previously added list. Please recheck the list before uploading as uploading a wrong file will lead to system error.

Step 1:

Find habit id that system understands in following table

Name	Habit Type	Habit Name
Herb	1	flora
Shrub	2	flora
Sapling	3	
Seedling	4	
None	5	all
Bamboo	6	flora
Tree	7	flora
Amphibian	8	fauna

Next to the Help window, the following window will appear if Species data has already been uploaded.
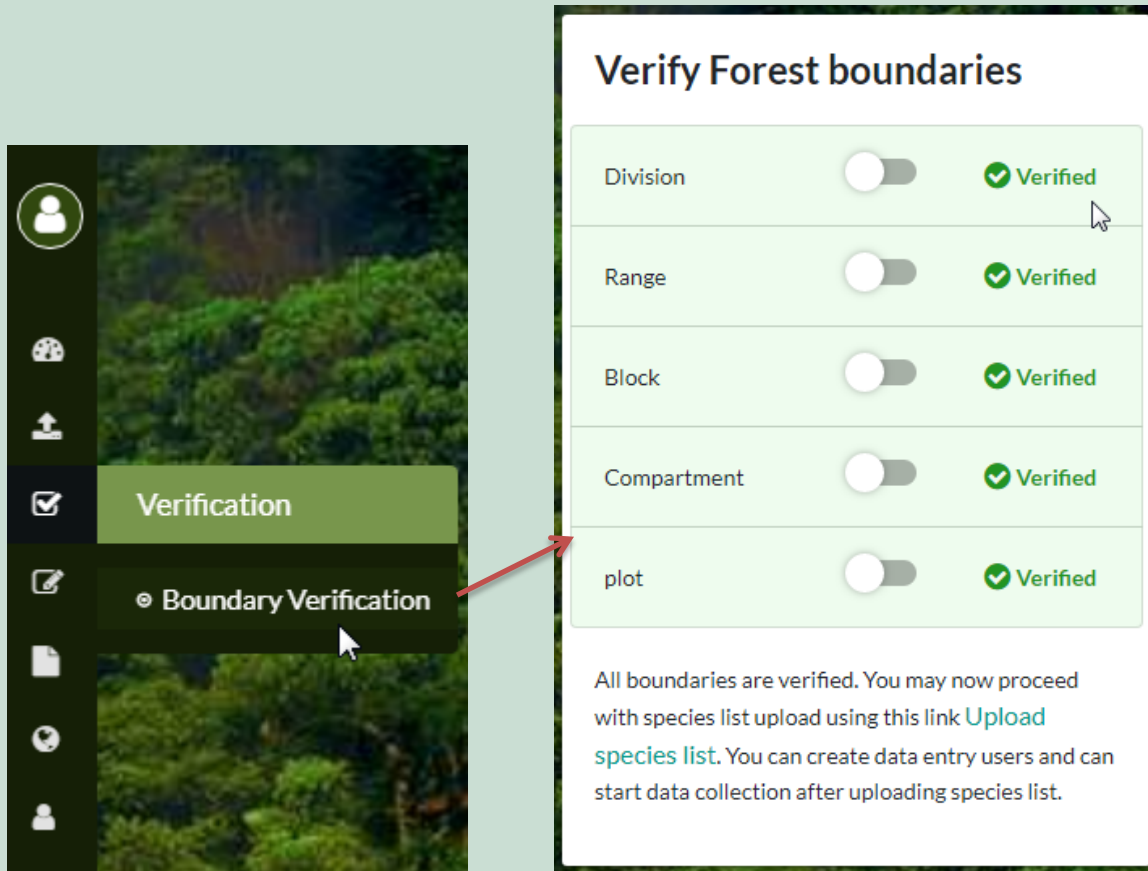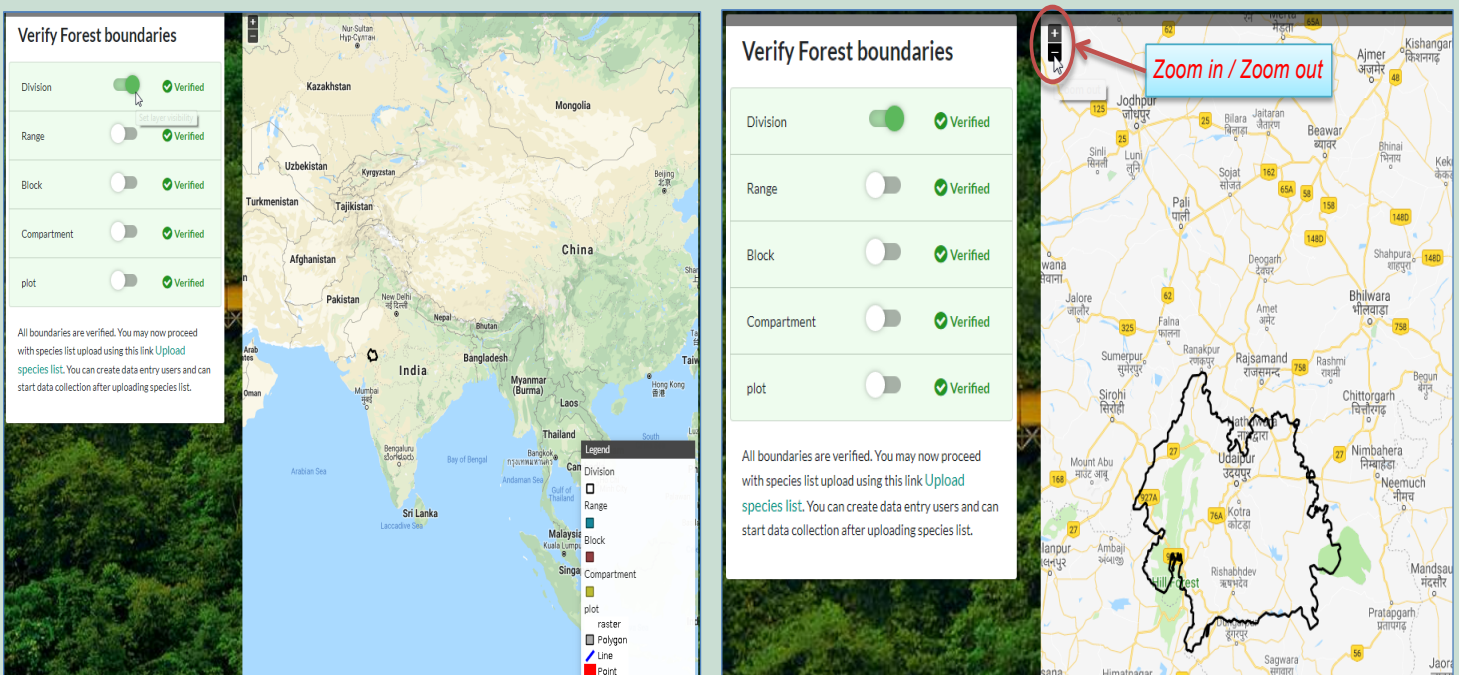

Upload Species
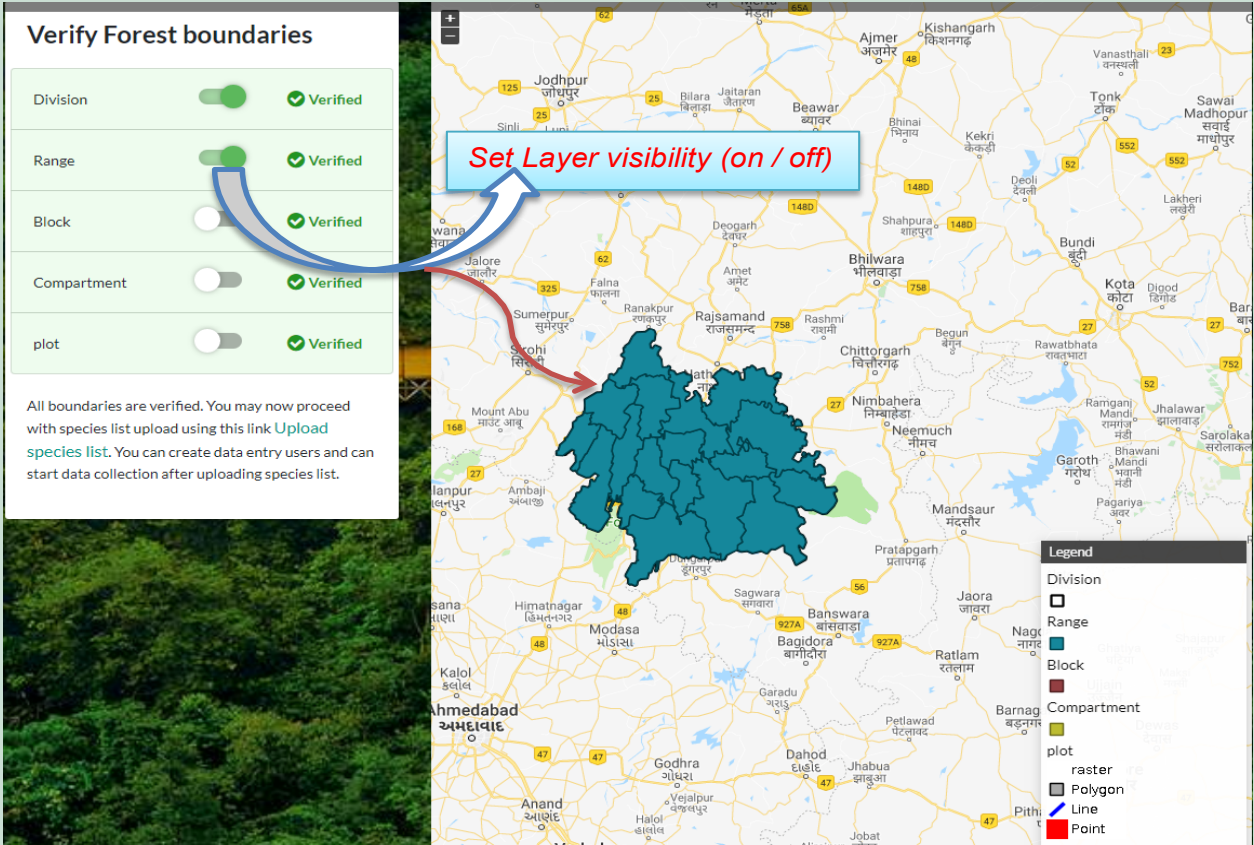
Already Uploaded

2.1.3 Verification

Click on Verification menu option to verify uploaded forest boundaries.
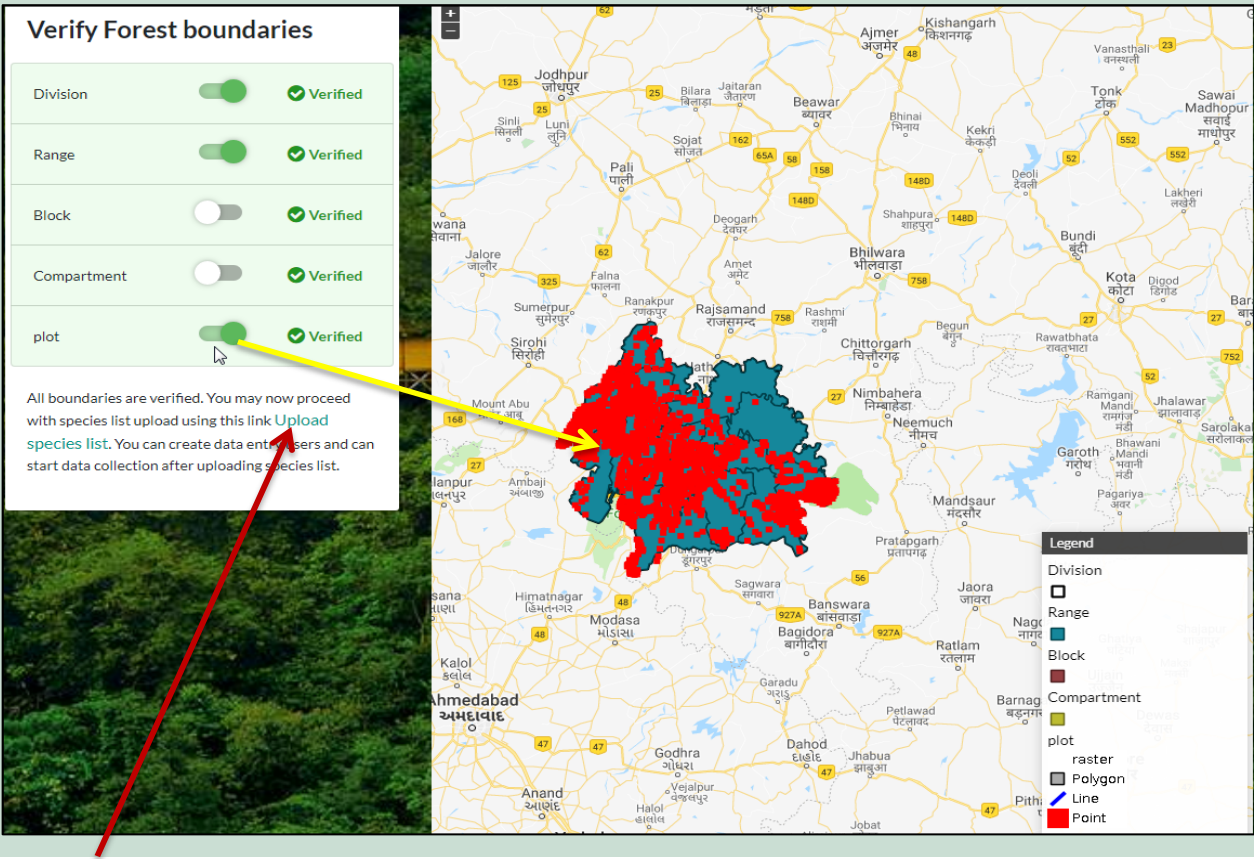

Already verified boundaries will be displayed on the map. Use Zoom in and Zoom out functions for display purposes, as shown in the image below.
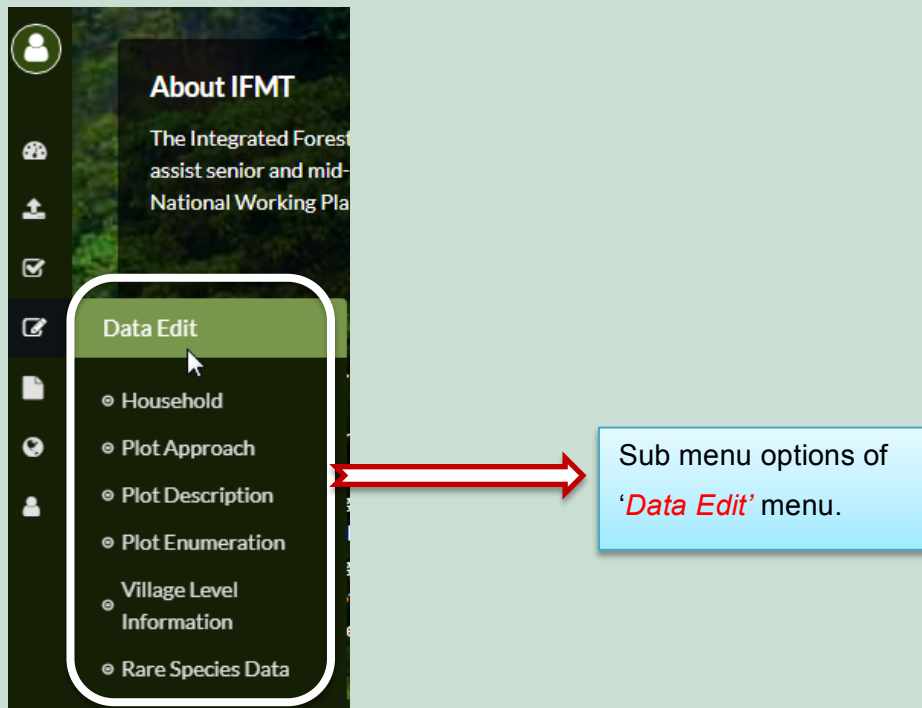
Division, range and plot layers are visible in the map below:

Species can be uploaded by clicking on 'Upload species list' as well. Functionality is same as mentioned in 2.1.2.2

2.1.4 Data Edit

Click on Data Edit menu to display sub-menu options.

Sub menu options of '*Data Edit*' menu.

2.1.4.1 Household

Click on the Household sub-menu option to view details of each Household interviewed and field data collected about their dependency on forest resources. Category wise household details can be viewed and downloaded in Excel format as shown below:

Download in Excel format

Search option

Scroll bar

2.1.4.2 Plot Approach

This option displays the information gathered on the way to the sample plot like details of surveyor, location, topography, floral info, forest biomass collection, factors of degradation etc.

2.1.4.3 Plot Description

This option displays detailed information of the sample plot like location detail, topography, crop composition, bamboo info, grasses and weed, factors of degradation, water body, etc.

2.1.4.4 Plot Enumeration

This option will display surveyor details, location details and flora and fauna data collected under the Plot enumeration form prescribed as per NWPC-2014.

2.1.4.5 Village Level Information

This option shows information about forest fringe villages and their dependency on nearby forest areas or forest blocks, like location details, fuel wood info, fodder requirement, NTFP information, etc.

2.1.4.6 Rare Species Data

Click on this option to load Rare species data for the region as shown below:
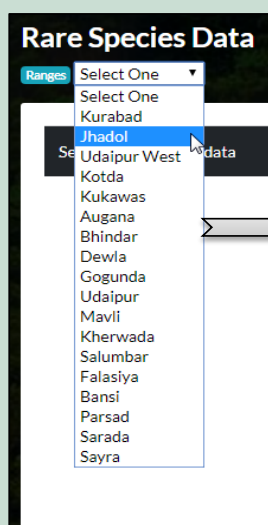
Select *Range* from the list to display rare species data.
Data will be displayed as shown below.

Provision to *Export all* rare species data in Excel is given to authorised users.

Rare Species Data

Rare Species Data

Ranges | Jhadol ▼

Export All

e	height	girth	altitude	longitude	latitude	accuracy	rare_species_name	rare_species_other_name	image
M-	5 - 10	80	493.0	73.4117635153234	24.38135223928839	16.0	Wrightia tinctoria-खेन्नी, खीरनी (100)		
M-	5 - 10	130	481.0	73.41179746203125	24.38134151045233	15.0	Sterculia urens-कडाया, कडा (100)		
M-	5 - 10	130	481.0	73.41179746203125	24.38134151045233	15.0	Sterculia urens-कडाया, कडा (100)		
M-	5 - 10	90	462.0	73.40799886733294	24.379450511187315	15.0	Acacia leucophloea-अस्जिया, अजमेरिया, रॉझ (100)		
M-	5 - 10	90	462.0	73.40799886733294	24.379450511187315	15.0	Acacia leucophloea-अस्जिया, अजमेरिया,		

Click on the image to enlarge as shown below.

Close

Click to *close* the image

Rare Species Data

Ranges | Jhadol ▼

Export All

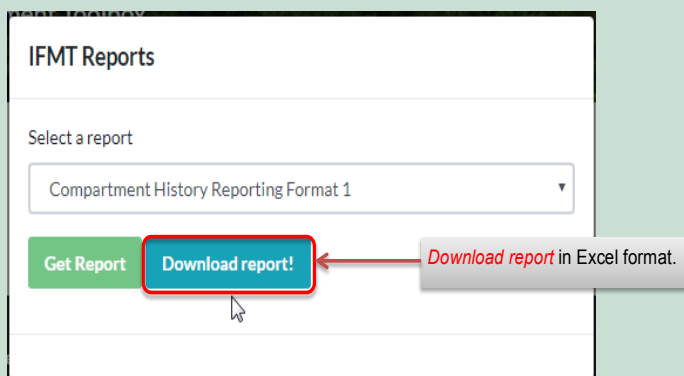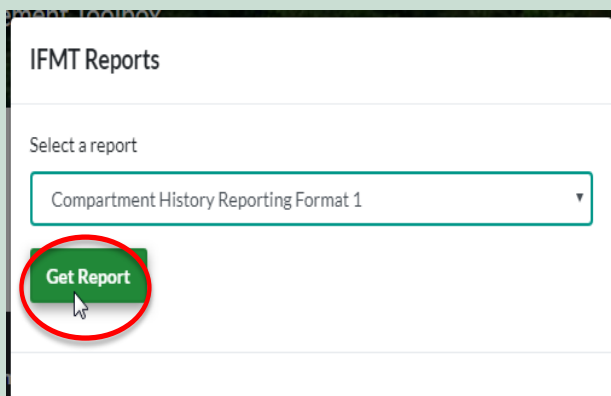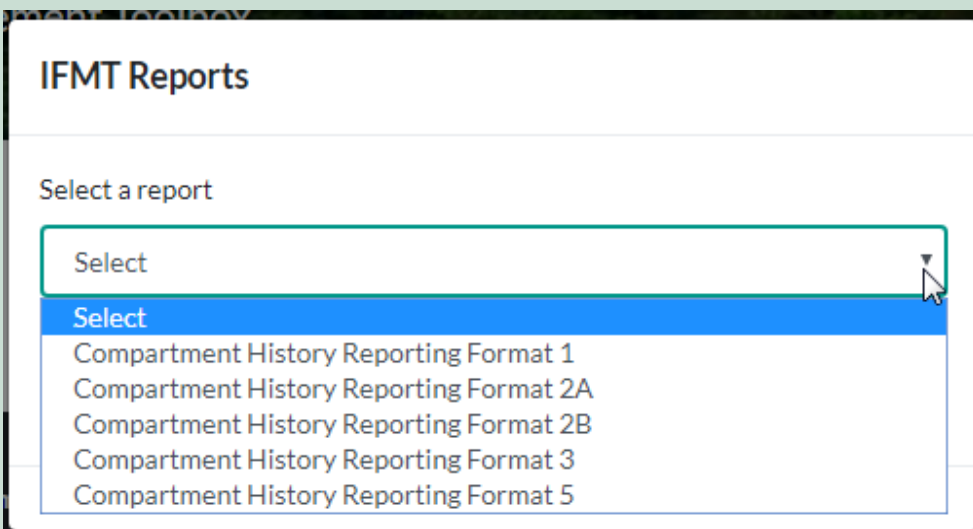|						s_name	rare_species_other_name	image
					493.0	nctoria-ἴ(100)		
SM-	5 - 10	130	481.0			rens-|00)		
SM-	5 - 10	130	481.0			rens-कडाया, कडा (100)		
SM-	5 - 10	90	462.0	73.40799886733294	24.379450511187315	15.0	Acacia leuco अस्जिया, अज रॉझ (100)		
SM-	5 - 10	90	462.0	73.40799886733294	24.379450511187315	15.0	Acacia leucophloea-अस्जिया, अजमेरिया,		

Click to *Rotate* the image.

rotate

2.1.5 Reports

This menu option will display a list of reports and the user can select the report he/she intends to view and download from the dropdown list as shown below.
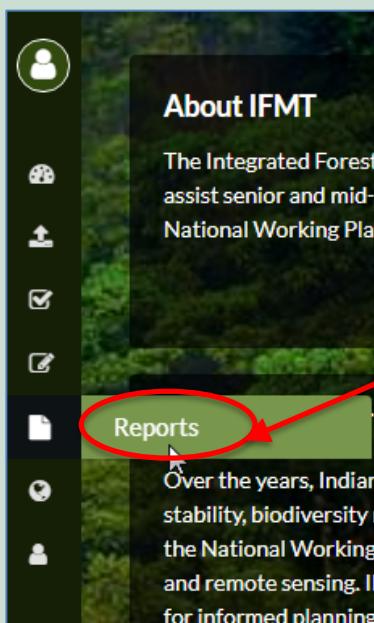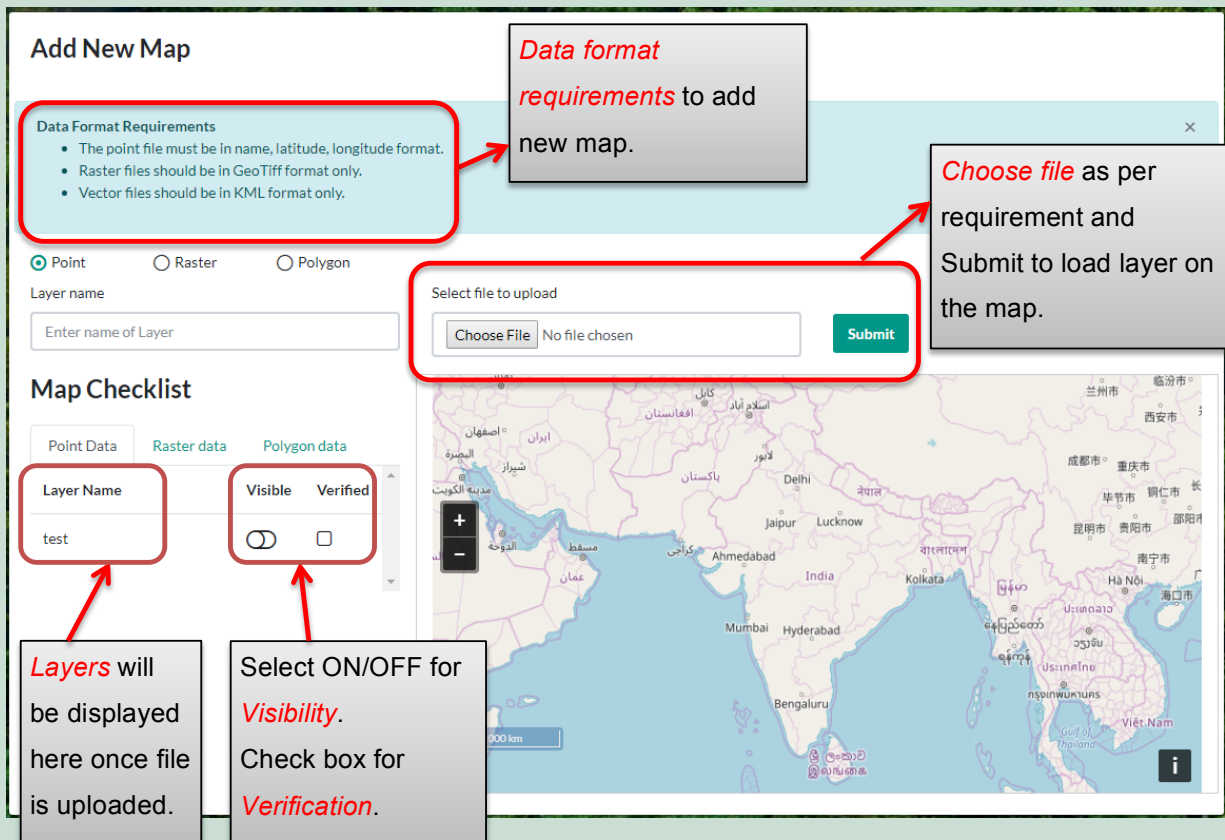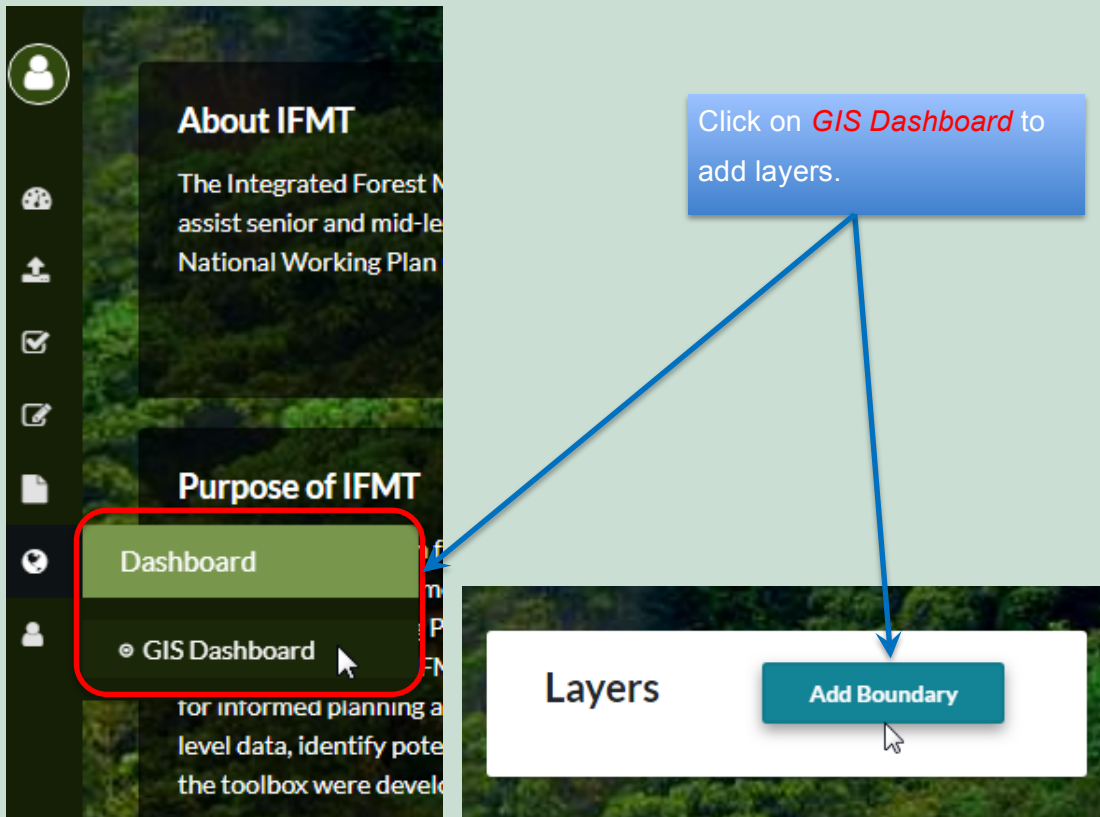

Currently, *Reports* are available in Excel formats and can be downloaded. Additional features of Reports are under development for Version 2.

Select Report from the *list* and download the report as shown in the following image.

IFMT Reports

Select a report

Select ▼

Select
Compartment History Reporting Format 1
Compartment History Reporting Format 2A
Compartment History Reporting Format 2B
Compartment History Reporting Format 3
Compartment History Reporting Format 5

IFMT Reports

Select a report

Compartment History Reporting Format 1 ▼

Get Report

IFMT Reports

Select a report

Compartment History Reporting Format 1 ▼

Get Report   Download report!
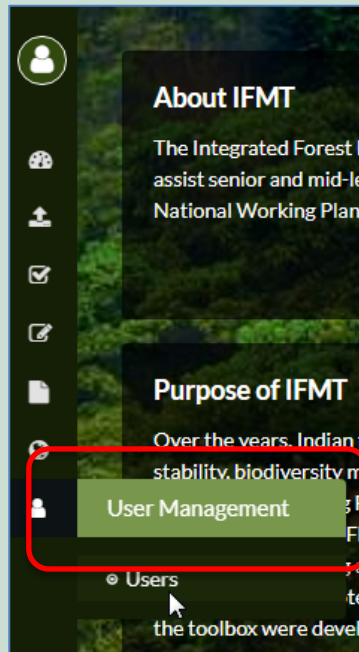
Download report in Excel format.

2.1.6 Dashboard

GIS Dashboard enables the user to add layers and boundaries to prepare an on-screen map composition and visually interpret GIS thematic layers.

Click on *GIS Dashboard* to add layers.

Data format requirements to add new map.

Choose file as per requirement and Submit to load layer on the map.

Layers will be displayed here once file is uploaded.

Select ON/OFF for *Visibility*.
Check box for *Verification*.

2.1.7 User Management

User management helps to create a new user and view existing user details.

Click to *Add user*

Search User

System Users

Show 25 entries

Search:

Sr. No.	Name	Username	Mobile	Email Address	Role	Actions
1	Augana	augana	1234567890		Data Collector	✎ 🔑
2	Bansi	bansi			Data Collector	✎ 🔑
3	Bhindar	bhindar			Data Collector	✎ 🔑
4	Dewla	dewla			Data Collector	✎ 🔑
5	dummytest	dummytest	1236547890	something@something	Data Collector	✎ 🔑
6	Falasiya	falasiya			Data Collector	✎ 🔑
7	Gogunda	gogunda			Data Collector	✎ 🔑
8	Jhadol	jhadol			Data Collector	✎ 🔑
9	Kherwada	kherwada			Data Collector	✎ 🔑
10	Kotda	kotda			Data Collector	✎ 🔑
11	Kukawas	kukawas			Data Collector	✎ 🔑
12	Kurabad	kurabad			Data Collector	✎ 🔑
13	Mavli	mavli			Data Collector	✎ 🔑

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