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Forest Fire Reporting & Monitoring Dashboard Features Overview

All dashboards have been developed by GIS LAB, Punjab Forest Department, Lahore.

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Mobile: 0337-9926560

This Dashboard can be accessed from this link:

https://frm.gisforestry.com

Login page:

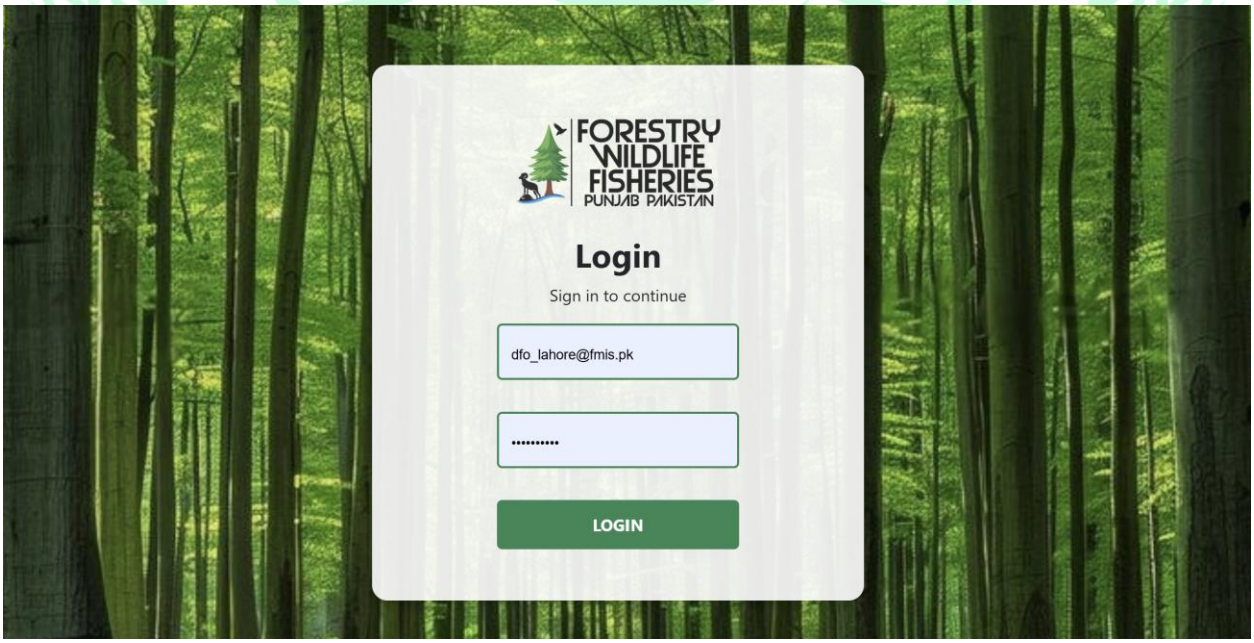


Figure 1:Login Page

Welcome Page After Login:

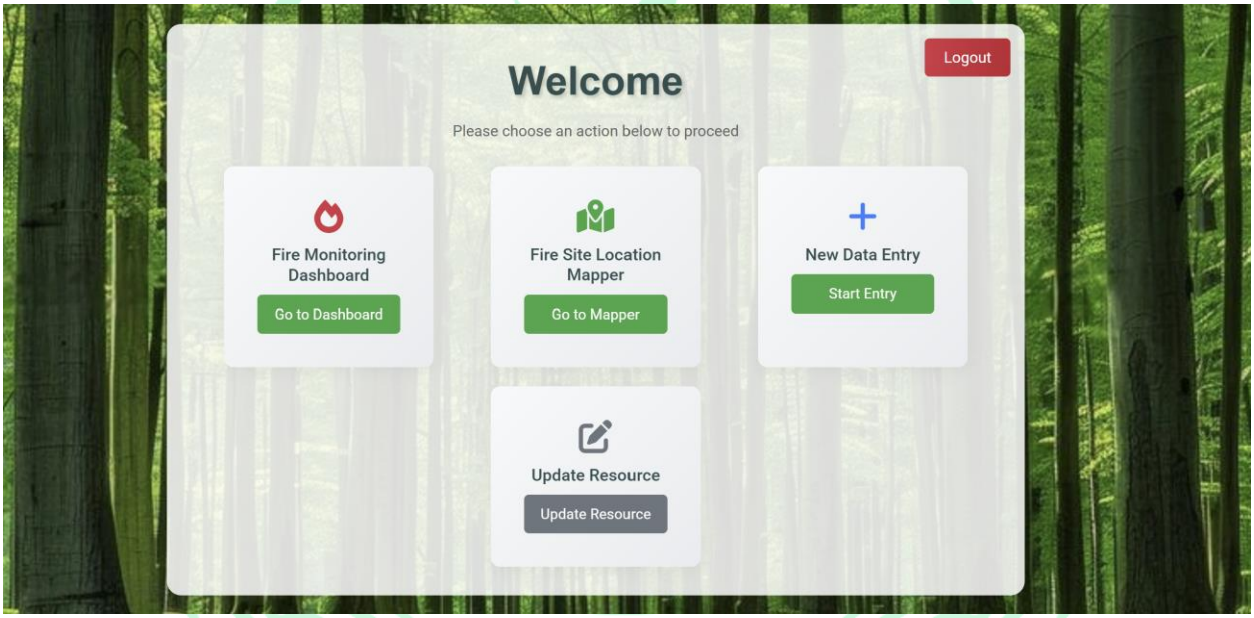


Figure 2: Welcome Page

On the selection of Dashboard, we will have directed to the dashboard.

Figure 3: Fire Reporting and Monitoring Dashboard

This image shows a "Non-Spatial Statistics on Forest Fire Reporting & Monitoring Dashboard" used to track and analyze forest fire incidents. It helps you view fire data by year and month, showing incident numbers and affected areas. Here's a simple and detailed explanation for your user manual:

Overview

The "Forest Fire Reporting & Monitoring Dashboard," developed by Wildlife Fisheries Punjab Pakistan, provides a streamlined interface for analyzing forest fire trends through numerical data

and statistics, without the use of maps. At the top, explanatory text notes that users can filter data by year and month using dropdown menus containing all previous years and their respective months, enabling detailed trend analysis over time. This dashboard focuses on presenting fire-related statistics in a clear, data-driven format to support effective monitoring and reporting of fire incidents.

Left Panel: Navigation and Filters

The "Forest Fire Reporting & Monitoring Dashboard," created by Wildlife Fisheries Punjab Pakistan, features a user-friendly navigation menu on the left side, offering options such as "Dashboard," "Zones," "Circles," "Divisions," "Sub-Divisions," "Forests," and "Logs," with the "Dashboard" option currently selected to display the main statistics page. A background image of a forest fire subtly reinforces the dashboard's focus on fire monitoring.

In the center, the dashboard presents key fire statistics across different zones through vibrant, color-coded cards. For fire incidents, a purple card for the Northern Zone reports 35 incidents, a blue card for the Central Zone shows 31 incidents, and a red card for the Southern Zone indicates 14 incidents, each accompanied by a progress bar and a fire tree icon for visual clarity. Additionally, affected area statistics are displayed in separate cards: a purple card notes 451 acres affected in the Northern Zone, a green card reports 505 acres in the Central Zone, and an orange card shows 264 acres in the Southern Zone, each with a progress bar and a fire icon. These cards provide a quick, at-a-glance overview of fire incidents and affected land areas across the zones, facilitating efficient monitoring and analysis

Data Selection on Dashboard for Fire Monitoring

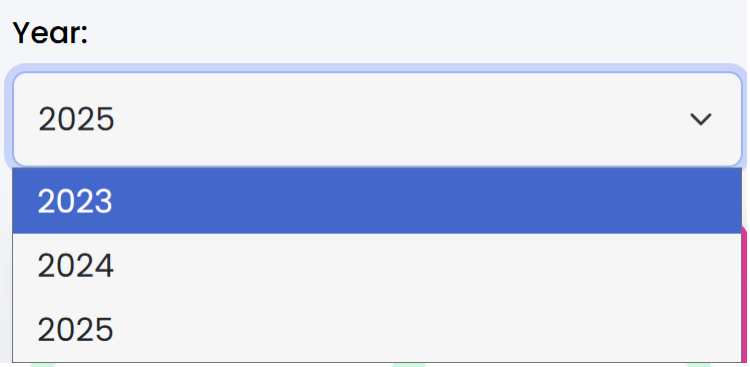


Figure 4: Year Selection Feature

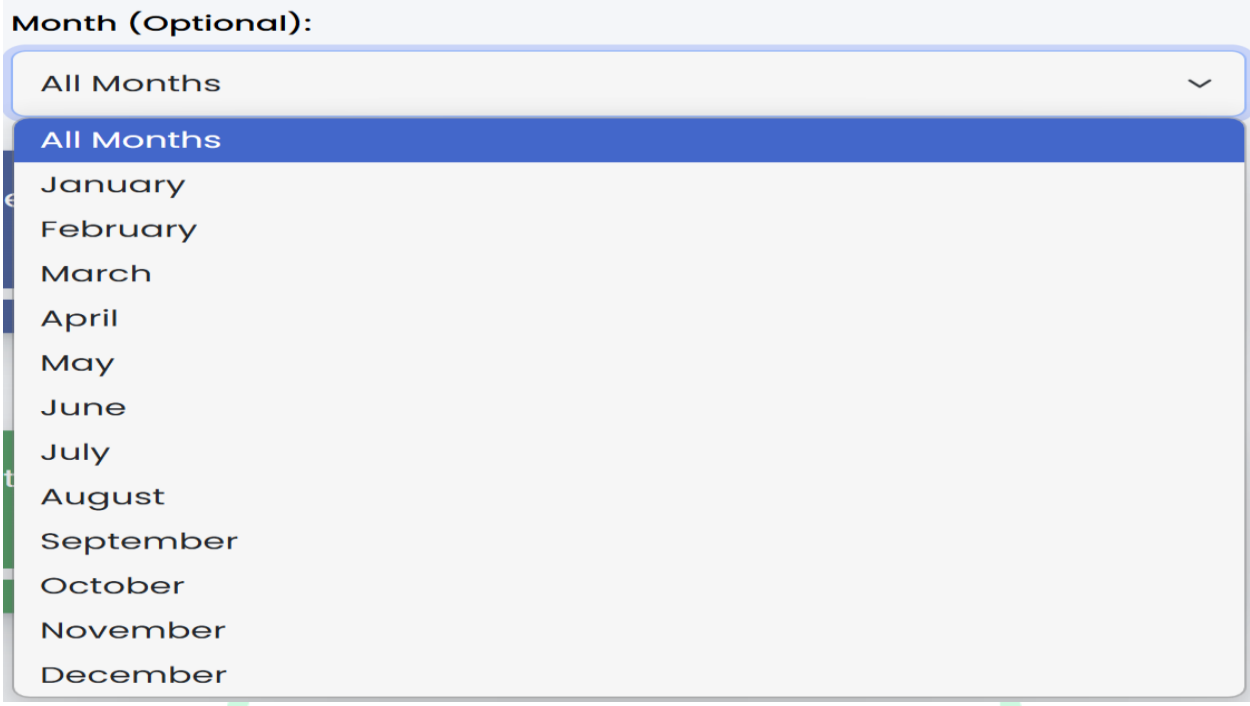


Figure 5: Monthly Selection Feature

- **Filters**:

The "Forest Fire Reporting & Monitoring Dashboard" by Wildlife Fisheries Punjab Pakistan offers a straightforward interface for tracking forest fire trends through a dropdown-based filtering system. At the top left, a "Year" dropdown is set to 2025, with options ranging from 2020 to 2025, allowing Kep allowing users to select a specific year for analysis. Next to it, an optional "Month" dropdown defaults to "All Months" but includes choices like January through December for more granular data. Once a year or month is selected, the total number of fire incidents appears next to the month selection, providing an immediate overview of fire activity.

To use the dashboard, users start by selecting a year from the "Year" dropdown to view fire data for that period, then optionally choose a specific month or "All Months" from the "Month" dropdown to refine the data. The dashboard's colored cards then display key statistics, including the number of fire incidents in the Northern (35), Central (31), and

Southern (14) Zones, and the affected areas in acres (451, 505, and 264 acres, respectively), each accompanied by progress bars and fire-related icons for quick comparison. By adjusting the year or month, users can analyze trends, such as seasonal or regional patterns in fire incidents and affected areas. This map-free, data-focused tool simplifies the process of generating reports and planning by providing clear, visual insights into forest fire trends.

Figure 6: Non Spatial Statistical Summaries

Overview of statistical Panel

The "Forest Fire Reporting & Monitoring Dashboard" by Wildlife Fisheries Punjab Pakistan, set against a forest scene with smoke to emphasize its focus on fire incidents, includes a top text explaining that the "Division Wise Summary" table presents raw incident counts, while accompanying graphs visually depict fire trends. The table, titled "Division Wise Summary," occupies the left section and lists fire incidents across divisions, with columns for serial number, division name (e.g., Attock, Bahawalnagar), and incident count (e.g., 25 for Attock, 1 for

Lahore). This table highlights which divisions face the most fires, such as Attock with 25 incidents and Lahore with just 1, aiding quick identification of high-risk areas.

On the right, two graphs provide visual insights. The "Month Wise Fire Incidents" graph displays blue bars representing incident counts per month (January to December) on the x-axis, with the y-axis showing incidents from 0 to 100. Higher bars in months like April and May indicate peak fire periods, while lower bars in November and December show fewer incidents, helping users pinpoint seasonal trends. The "Yearly Zone Wise Trend" graph compares fire incidents across the Central (blue line), Northern (purple line), and Southern (green line) Zones from 2019 to 2025, with the y-axis ranging from 0 to 200 incidents. Notable trends include peaks in the Northern Zone in 2021 and 2022, while the Southern Zone remains consistently low. To use the dashboard, review the table to assess division-specific incident counts, check the monthly graph to identify high-risk months, and analyze the yearly graph to compare zone trends over time, enabling straightforward planning and response to forest fire risks.

On Click Card Detailed Incident Table Feature on each Zone

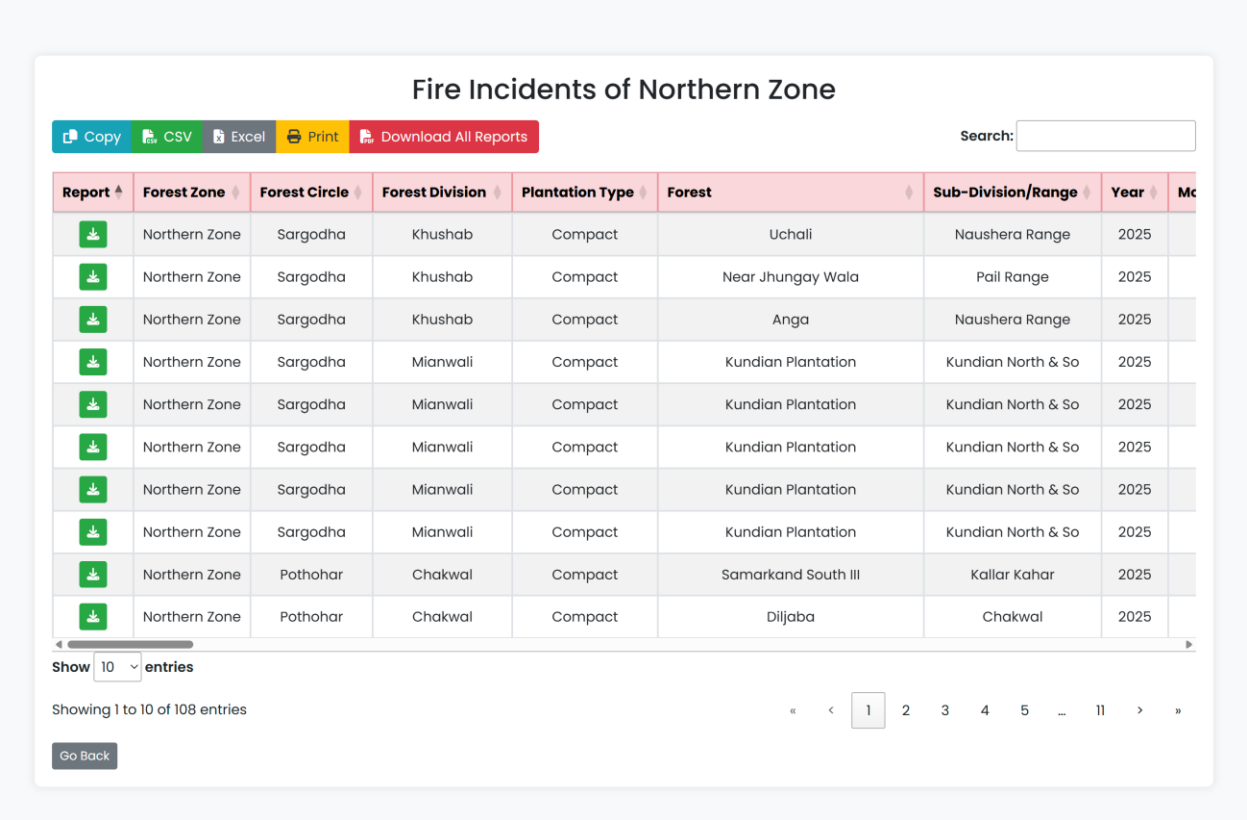


Figure 7: Combined and Separate Report download and Incident table

Fire Incidents Table (Opens on Click)

The "Forest Fire Reporting & Monitoring Dashboard" by Wildlife Fisheries Punjab Pakistan allows users to dive deeper into zone-specific fire data by clicking on a zone card, such as the Northern Zone, which opens a detailed "Fire Incidents" table for that zone. This table lists up to five incidents with columns for serial number, date (e.g., 2025-05-03), zone (Northern Zone), circle (Rawalpindi), division (Murree), forest/site (Brewery), coordinates (e.g., 33.892735, 73.370819), and affected area (e.g., 2.5 acres). For example, one entry details a fire on May 3, 2025, in the Northern Zone's Brewery forest, affecting 2.5 acres. This table enables users to

quickly review specific incident details for the selected zone, providing a clear snapshot of fire activity.

Above the table, a set of management options enhances usability: a "Copy" button copies the table data to the clipboard for pasting elsewhere, a "CSV" button saves the data as a spreadsheet-compatible file, an "Excel" button exports it to an Excel file, and a "Print" button allows direct printing. Additionally, download options include a "Download Separate Report" button for generating a report specific to the selected zone (e.g., Northern Zone) and a "Download All Report" button for a combined report covering all zones (Northern, Central, and Southern). A note in a red box clarifies that the table supports copying, exporting to CSV or Excel, printing, and downloading reports either for a single zone or all zones combined, making it a versatile tool for analyzing and sharing fire incident data.

Overview of Spatial Boundaries Selection Feature:

- The top text explains: "When a zone, circle, division, and forest are selected, their boundaries are drawn on the map with different colors: yellow for zone boundary, blue/purple for circle, and green for forest boundary."

Top Section: Selection Dropdowns

The "Forest Fire Reporting & Monitoring Dashboard" by Wildlife Fisheries Punjab Pakistan includes a top text explanation noting that selecting a zone, circle, division, and forest displays their boundaries on the map in distinct colors: yellow for the zone, blue or purple for the circle, and green for the forest. This feature helps users visualize the geographical scope of their selections.

In the top section, a series of dropdown menus allows precise area selection: the "Zone" dropdown is set to "Northern Zone," the "Circle" dropdown to "Rawalpindi," the "Division" dropdown to "Murree," and the "Forest/Site" dropdown to "Brewery." By choosing options from these dropdowns, users can focus on a specific area, with the map updating to show the

corresponding boundaries in their designated colors, facilitating targeted analysis and management of forest fire incidents.

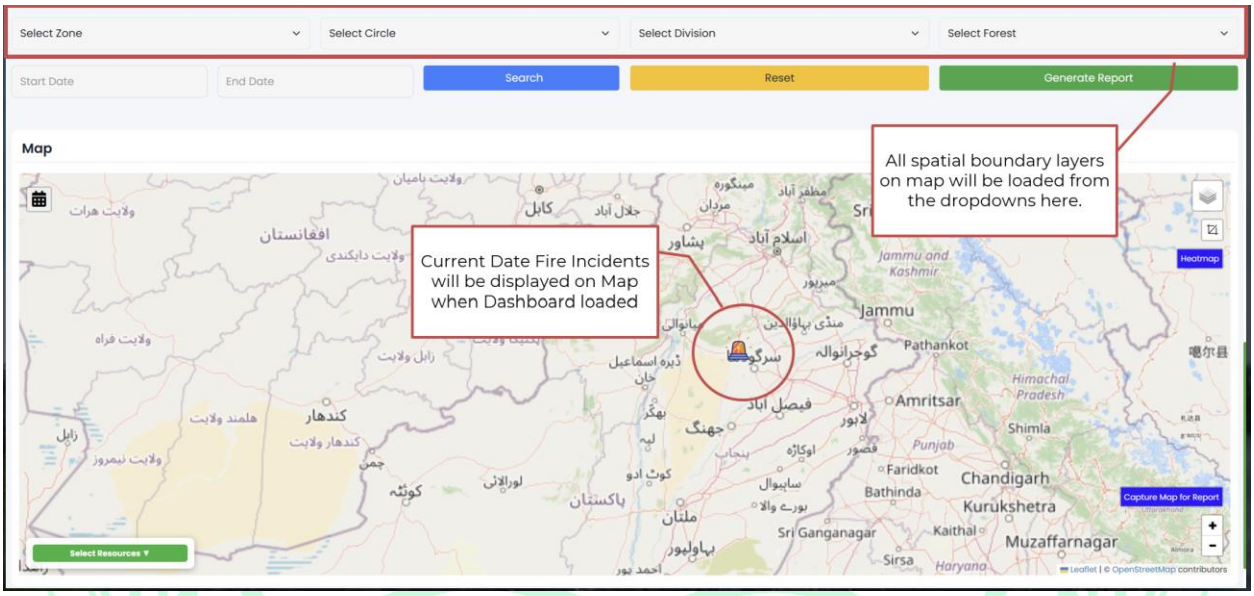


Figure 8: Spatial Boundaries selection

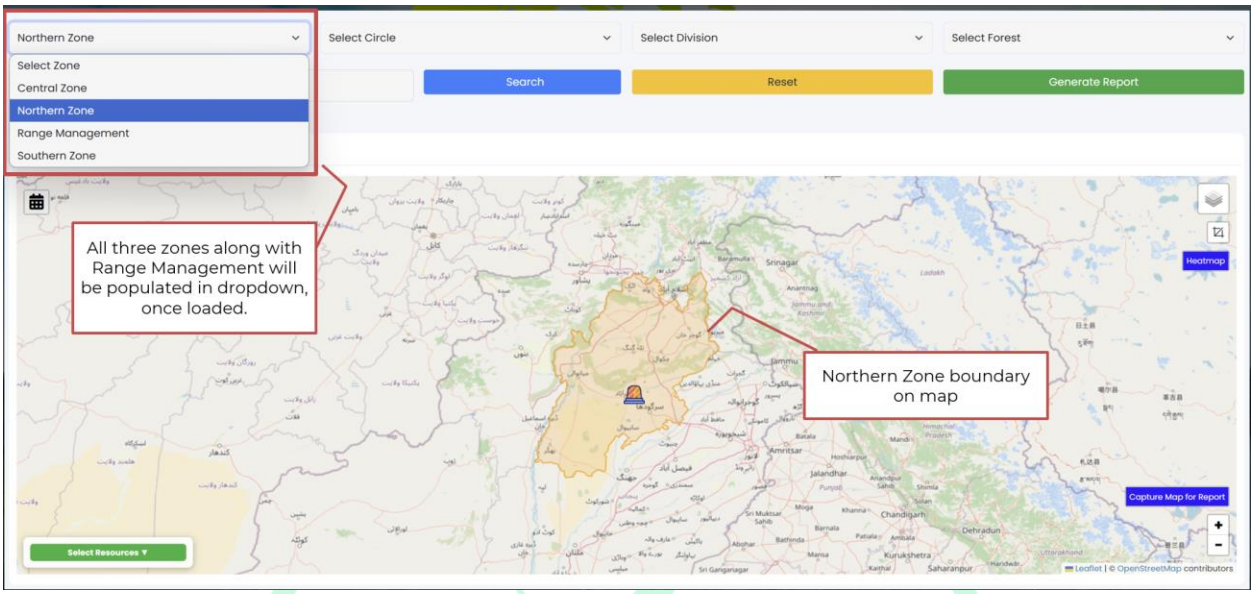


Figure 9: Zone selection along boundary drawn

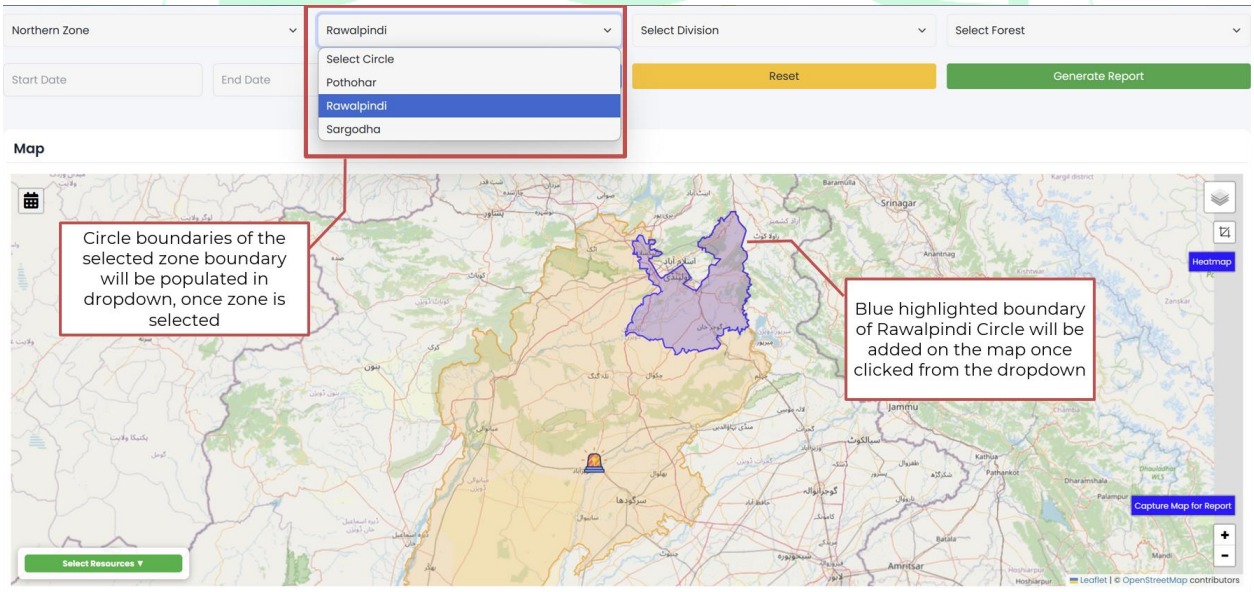


Figure 10: Circle selection along boundary drawn

Map Section: Boundaries Displayed

The "Forest Fire Reporting & Monitoring Dashboard" by Wildlife Fisheries Punjab Pakistan features a central map as its primary component, displaying the selected area with color-coded boundaries to enhance visualization. Upon selecting options from the dropdown menus, the map outlines the "Northern Zone" with a yellow boundary, the "Rawalpindi" circle within it using a blue or purple highlighted boundary, and the "Brewery" forest within the Murree division with a green boundary. A note in a red box clarifies that these colors—yellow for the zone, blue/purple for the circle, and green for the forest—distinguish each boundary when a zone, circle, division, and forest are selected. The map also includes roads and place names for additional context, allowing users to clearly see the spatial relationships and boundaries of the selected areas, facilitating effective monitoring and management of forest fire incidents.

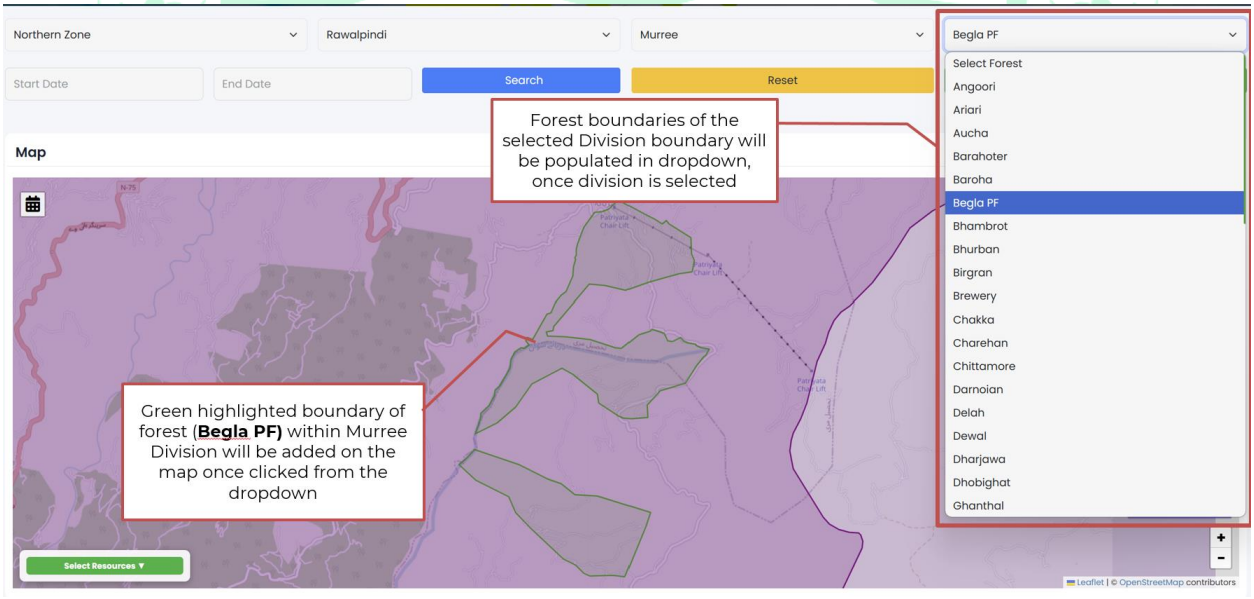


Figure 11: Forest selection along boundary drawn

Users select a specific area using the dropdown menus at the top, choosing a zone (e.g., Northern Zone), circle (e.g., Rawalpindi), division (e.g., Murree), and forest (e.g., Begla PF). Once selected, the map updates to display these areas with distinct colored boundaries: a yellow line

outlines the Northern Zone, a blue or purple line highlights the Rawalpindi circle, and a green line marks the Begla PF forest boundary, clearly showing how these areas overlap and their precise locations.

After setting the boundaries, users can explore the map by zooming in or out to view additional details such as roads or nearby place names, enhancing contextual understanding. Map controls also allow switching between different layers if needed, providing flexibility in visualization. This dashboard simplifies the process of understanding and managing fire-prone areas by using color-coded boundaries to clearly delineate zones, circles, and forests, making it an effective tool for fire reporting and monitoring.

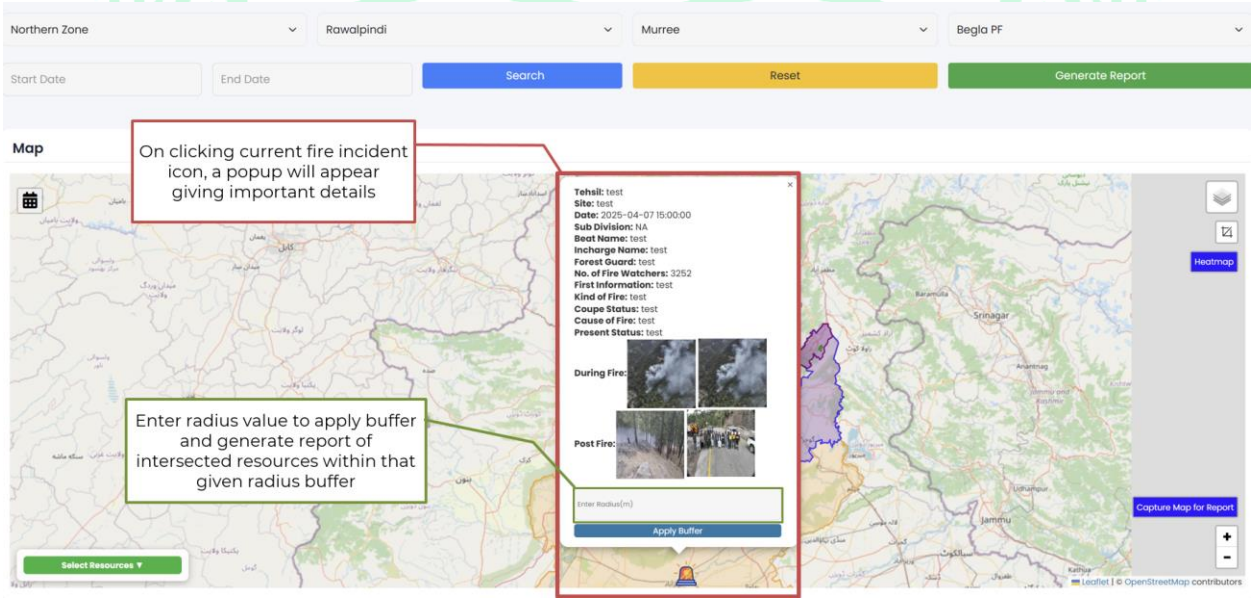


Figure 12: Buffer Radius & Pop Up Info on Map

The map and controls help you track fire incidents and analyze the affected areas.

Top Section: Selection and Control Buttons

The Forest Fire Reporting & Monitoring Dashboard provides an intuitive interface for filtering and analyzing fire incidents through a series of dropdown menus and date fields. At the top, users can select a specific area using dropdowns set to "Northern Zone" for the zone, "Rawalpindi" for the circle, "Murree" for the division, and "Begla PF" for the forest/site, allowing precise focus on a target area for fire monitoring. These dropdowns streamline the process of narrowing down the geographical scope to analyze fire-related data effectively.

Below the dropdowns, the dashboard includes fields for entering a start date and end date to filter incidents within a specific date range. A blue "Search" button initiates a query to retrieve fire incidents based on the selected area and dates, while a yellow "Reset" button clears all selections for a fresh start. Additionally, a green "Generate Report" button allows users to create a report summarizing the current map and data findings. To use the dashboard, users select a zone, circle, division, and forest, input a date range, click "Search" to view relevant incidents, and either reset selections with "Reset" or save findings with "Generate Report," making it a powerful tool for targeted fire incident analysis and reporting.

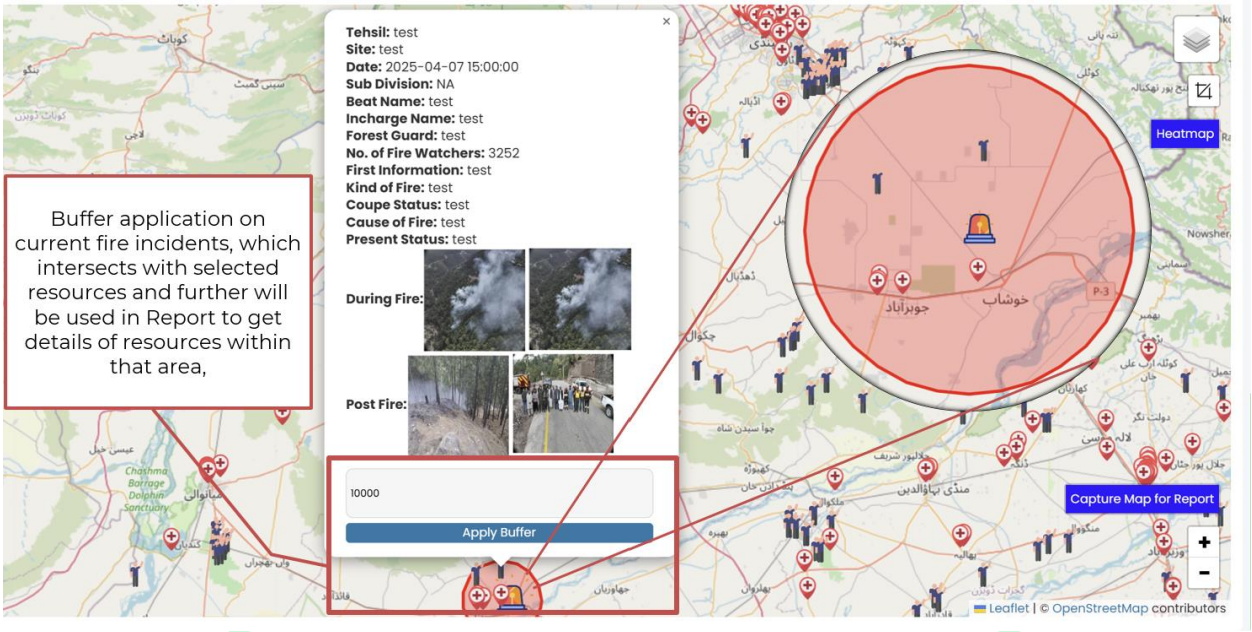


Figure 13: Buffer Area On Map

Map Section: Fire Incident and Buffer Zone

This system provides a comprehensive tool for managing and analyzing fire incidents within selected geographical areas. The primary interface features a map display that outlines roads, significant place names like Srinagar and Jammu, and demarcated boundaries for zones (purple) and forests (green). A prominent red flame icon on this map indicates the precise location of a current fire incident.

Clicking on a red flame icon triggers a pop-up window that delivers critical details about the fire. This information includes the site name, date/division, beat name, incharge name, forest guard, number of fire watchers, first information received, kind of fire, cause status, cause of fire, and present status. The pop-up also showcases visual aids with "During Fire" and "Post Fire" photos, offering a clear understanding of the incident's progression and aftermath. A unique feature in this pop-up is a text box to "Enter Radius(m)" and an "Apply Buffer" button, allowing users to define a buffer zone around the fire.

The buffer zone functionality is crucial for analysis. Once a radius is entered and "Apply Buffer" is clicked, a red circle appears around the fire icon on the map, visually representing the specified buffer zone. This visual aid helps in quickly identifying and analyzing resources or areas that fall within the defined radius of the fire incident, facilitating more effective resource management and reporting.

To utilize this system, users first select an area and date by using dropdown menus to choose a zone, circle, division, and forest. After inputting a start and end date, clicking "Search" will display relevant fire incidents. Users can then view fire incident details by simply clicking on the red flame icon on the map. Finally, to apply a buffer zone, they enter a desired radius in meters within the pop-up window and click "Apply Buffer", which draws the buffer circle on the map for further analysis and reporting.

GIS Functionality on Dashboard:

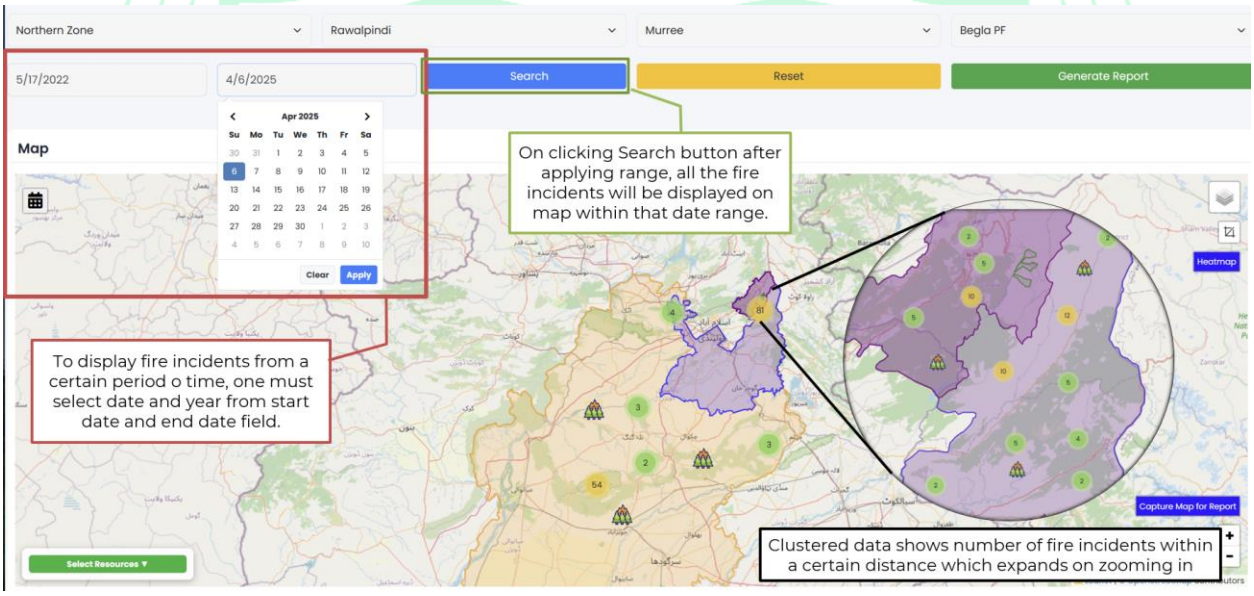


Figure 14: GIS based functionality on Map

Overview of Fire Incidents Details

- The dashboard includes a map with a heat map, and options to manage the data.
- The from and to date exposed all the fire incidents on map on that specific date range.

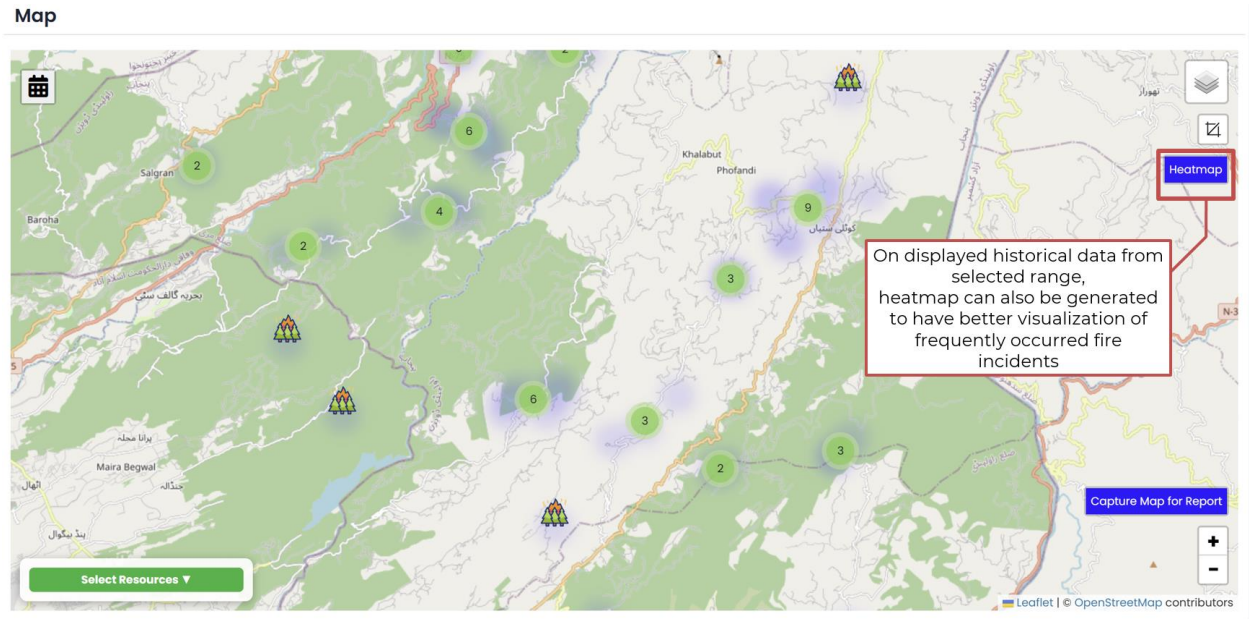


Figure 15: Historical data on Heat Map Functionality

Left Section: Map with Heatmap for Historical Data

The map, displayed on the left, shows roads, place names, and colored areas distinguishing forests (purple) from other land (gray). Crucially, a heatmap is overlaid on this map, visually representing the intensity of past fire incidents. Yellow areas indicate lower intensity, signifying fewer or less severe fires, while red areas highlight higher intensity, pinpointing locations with more frequent or severe fire occurrences. A note clarifies that this heatmap visualizes the concentration and severity of historical fires.

The system provides intuitive map controls, including icons for zooming in/out, changing views, and a dedicated heatmap toggle to switch the heatmap visualization on or off. A "Capture Map

for Report" button allows users to save the current map view for inclusion in reports. To use this feature, users first select an area and date range using dropdowns to choose a zone, circle, division, and forest, then enter start and end dates and click "Search" to load historical data. They can then view the heatmap by turning it on via the map controls, observing how red areas denote high-risk spots and yellow areas indicate lower risk. Additionally, users can check historical fire incidents in a dedicated table on the right side of the interface, which provides details like dates, locations, and affected areas. Finally, a "Generate Report" button allows for the creation of comprehensive reports that include both the heatmap and incident details, enhanced by the ability to capture specific map views. This dashboard effectively helps in identifying high-risk areas based on historical data, aiding in better planning and prevention strategies.

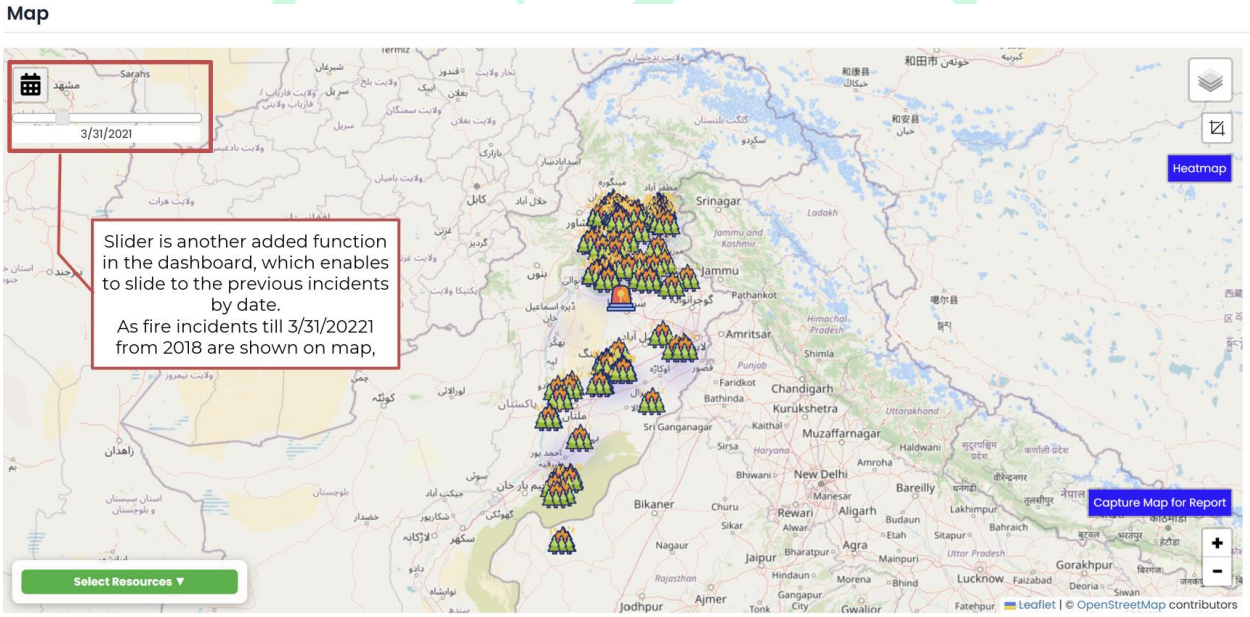


Figure 16: Slider Functionality on map

The image shows a section of the Forest Fire Reporting Dashboard with a slider functionality to view fire incidents on the map based on a selected date range. The slider, located at the top left, is set to "3/31/2021" and allows you to slide through dates to display incidents from 2018 to the chosen date. A note in a red box explains, "Slider is another added function in the dashboard, which enables to slide to the previous incidents. As fire incidents till 3/31/2021 from 2018 are shown on map." To use it, adjust the slider to a specific date, and the map will update to show all

fire incidents (marked with flame icons) up to that date within the selected area (e.g., Northern Zone, Rawalpindi, Murree, Begla PF). This helps you track historical fire incidents over time.

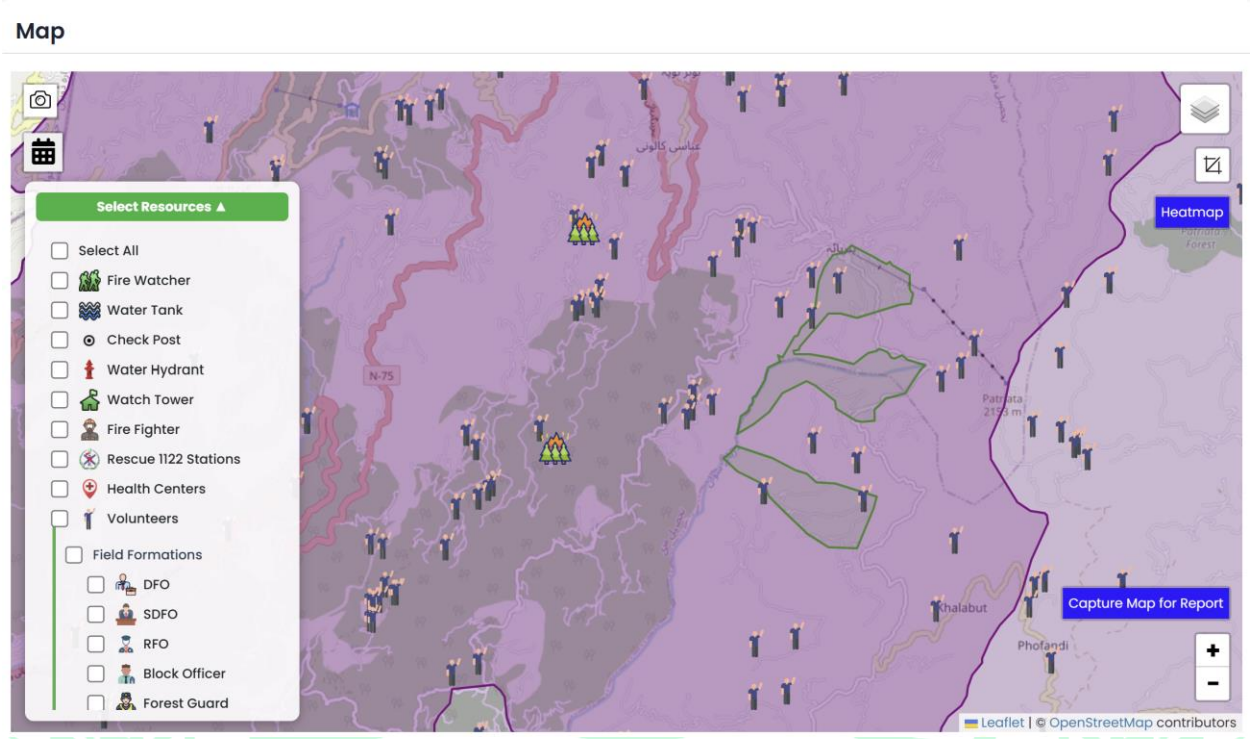


Figure 17: Resource Selection Feature

Left Section: Map with Resource Icons

This system provides a clear overview of available resources for managing fire incidents, displayed directly on a map. Various icons are scattered across the map, each representing a different type of resource.

On the right side of the interface, a "Select Resources" panel allows users to customize which resources are visible on the map. This green panel contains options like "Select All" to display every resource type, or individual checkboxes for specific resources such as Fire Watchers**,** Water Tanks**,** and Check Posts**.** This ensures users can focus on the resources most relevant to their immediate needs.

The map also features standard map controls like zoom functionalities, layer options, and a dedicated heatmap toggle**.** A distinct "Heatmap" button allows users to overlay a heatmap layer, which visualizes fire intensity. Furthermore, a "Capture Map for Report" button enables users to save the current map view, including selected resources and any active heatmap, for reporting

purposes. To utilize this, simply open the "Select Resources" panel, check the boxes for the desired resources, and use the map controls to refine the view or capture it for a report.

Report Generation & Screen shot of Map

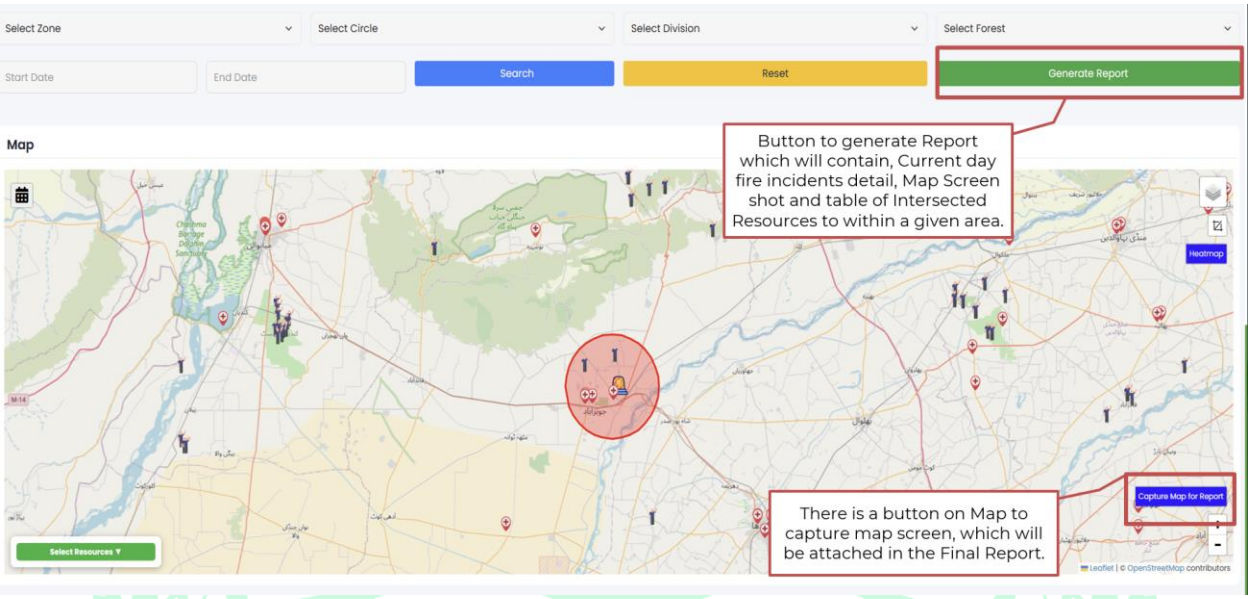


Figure 18: Report Genrate & Capture Map Screenshot

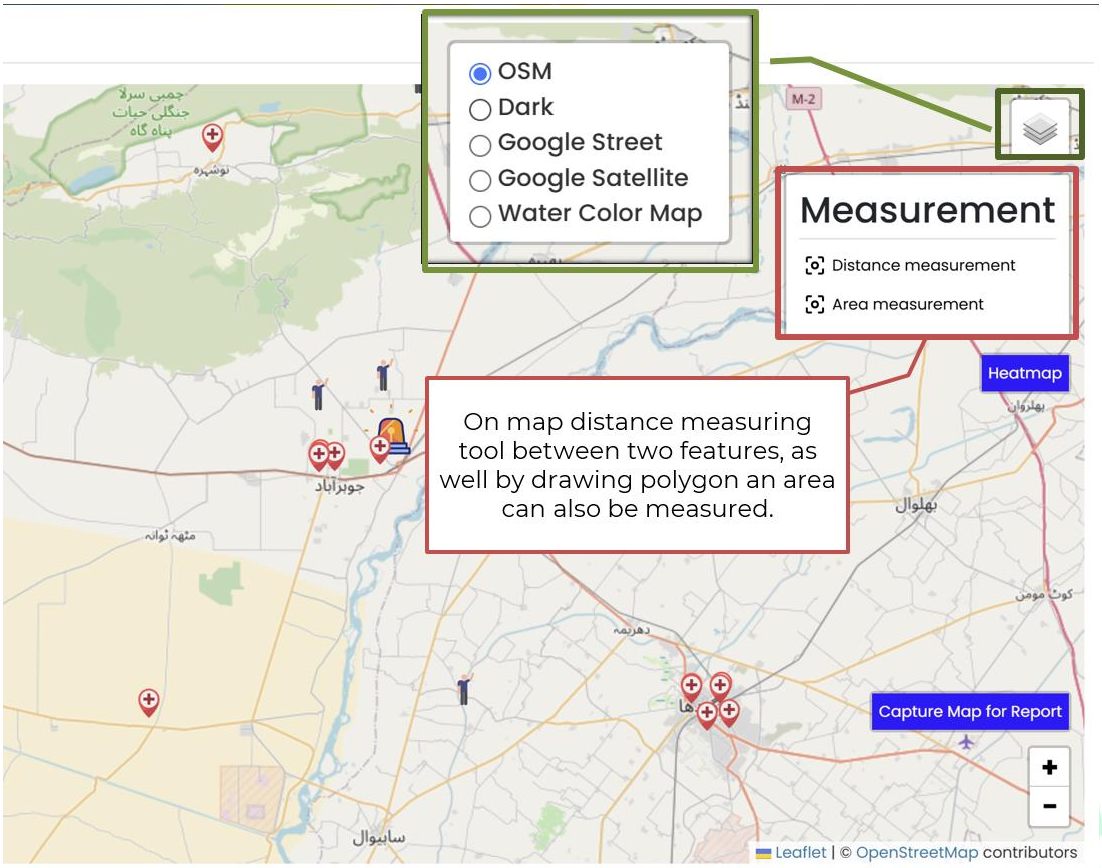


Figure 19: Layer Control & Measurement

Layer Control Feature

The map interface features a small panel that allows users to switch between different base map layers, providing flexibility in how geographic information is displayed. This layer control panel is typically located in a corner of the map and offers several options to customize the view according to user preferences or needs.

The default option is OSM (Open Street Map), which displays a standard map with roads, place names, and geographic features, such as cities like Srinagar and Jammu. For more detailed street-level information, users can select Google Street, which provides a familiar, high-resolution map layout. Alternatively, those seeking a real-world perspective can choose Google Satellite, which renders satellite imagery for a more realistic view of the terrain. For a more artistic or stylized representation, the Water Color Map option applies a soft, watercolor-like effect to the map.

Meanwhile, the Dark Map is ideal for low-light environments, offering a dark-themed design that reduces eye strain.

To use the layer control, users simply click the panel and select their desired option—for instance, switching from OSM to Google Satellite or Water Color Map. The map instantly updates to reflect the chosen layer, allowing for seamless transitions between different visual styles. This functionality ensures that users can select the most suitable map view for navigation, planning, or exploration, enhancing both usability and accessibility.

Measurement Tool Feature

The map includes a "Measurement" panel, which provides useful tools for calculating distances and areas directly on the map. This feature is particularly helpful for planning, analysis, and situational awareness, allowing users to obtain precise measurements for various purposes.

The panel offers two main options: Distance Measurement and Area Measurement. The Distance Measurement tool allows users to measure the straight-line distance between two points simply click on the starting and ending locations, and the tool displays the distance in meters or kilometers. Meanwhile, the Area Measurement tool enables users to draw a polygon (a multi-sided shape) around a specific region, such as a fire-affected zone, and instantly calculates the enclosed area in square meters or hectares.

To use these tools, users can click "Distance Measurement" to measure the space between two locations for example, the distance between a fire incident and the nearest resource point. Alternatively, selecting "Area Measurement" allows them to outline a region of interest, such as a disaster-affected area, and instantly view its total size. A red box note on the panel reinforces these functions, stating: "On map distance measuring tool between two features, as well by drawing polygon an area can also be measured." This ensures users understand that both linear distances and surface areas can be calculated efficiently. These measurement tools enhance decision-making by providing accurate spatial data directly within the map interface.

Fire Incident Report:

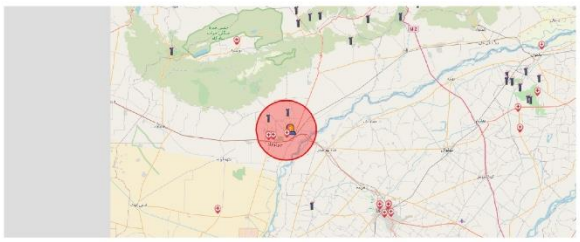
Forest Fire Incident Report

Current Fire Incidents:

Serial No.	Fire ID	Tehsil	Site	Date/Time	Cause	Latitude	Longitude
0	810	test	test	2025-04-07 15:00:00	test	32.327498	72.3278429
1	807	test	tets	2025-04-07 01:05:08	twts	74.356997	31.629392
2	808	svzu	sbsh	2025-04-07 10:13:52	nxnxhx	7976	980606
3	809	dbdh	snxh	2025-04-07 12:00:07	bzxbbx	798909	978989

Name of Resource	Address	Contact No.	Division	Resource Type
Muhmmad Sajawal	PAil	0315-7436558	Chakwal RM	Volunteers
Abid Hussain	Noor Pur	0325-5611681	Chakwal RM	Volunteers
Muhmmad Ijaz	Noor Pur	0325-5611681	Chakwal RM	Volunteers

Intersected Resources Map



Intersecting Resources:

Name of Resource	Address	Contact No.	Division	Resource Type
Noor Memorial Hospital Khushab			Khushab	Health Centers
Robina Shaheen Hospital Khushab			Khushab	Health Centers
Muhammad Hospital Khushab			Khushab	Health Centers
Aoun Hospital Khushab			Khushab	Health Centers
Bhatti Hospital Khushab			Khushab	Health Centers
Muhmmad Qadeer	Pail	.0314-5441577	Chakwal RM	Volunteers

This report gives you a clear picture of fire incidents, nearby resources, and a map to help plan and respond to forest fires effectively. The report includes current fire incidents, a captured map, and a table of intersected resources with their details. The report summarizes current fire incidents, shows their locations on a map, and lists nearby resources that can help respond to the fires.

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FOREST FIRE INCIDENT ALERT SYSTEM

All dashboards have been developed by GIS LAB, Punjab Forest Department, Lahore.
For any queries contact details are:

Email: devteam@fwf.punjab.gov.pk

Mobile: 0337-9926560

This Dashboard can be accessed from this link:

https://frm.gisforestry.com/alertsystem/index.php

Dashboard Features Overview

This user-friendly map application helps you take fast action during forest fire emergencies.
Here's how it works:

1. **Enter Fire Location:** Type in the coordinates (latitude and longitude) of the fire, and the app will show the exact spot on a map.
2. **See What's Nearby:** The app will look around the fire within a certain distance (called a "critical radius") to find important resources. These can include things like:
    - Fire stations
    - Water sources
    - Emergency response teams
    - Helicopter landing zones
    - Roads and access points
3. **Make Smart Decisions:** Once you see what's nearby, you can plan how to respond to the fire. This helps you:
    - Use resources wisely
    - Save time
    - Keep people and nature safe

4. **Create Reports:** You can also generate reports that show where the fire is and what resources are available. This helps teams stay informed and coordinate better.

Here's a simple and detailed explanation of the **two scenarios of Resource Mapping**, using easy-to-understand English:

Two Ways to Map Fire Locations and Resources

When using the mapping application during a forest fire emergency, you have **two different ways** to input the fire location and map nearby resources.

Scenario 1: Entering the Fire Location Directly

In this method, you can **manually enter the latitude and longitude** of the fire or **draw the point directly on the map**.

How it works:

- You either type in the coordinates (numbers that show the fire's exact location),
  OR
  you use a tool to click and drop a point on the map where the fire is happening.
- The app will automatically show the fire location on the map.
- Then, it will search within a nearby area to find resources like fire trucks, water points, or roads that can help.

Best for:
When you already know the fire's exact location.

Scenario 2: Drawing the Forest Boundary First

In this method, you start by drawing the forest area on the map where the fire might occur. Then, you drop the fire location inside that forest boundary**.**

How it works:

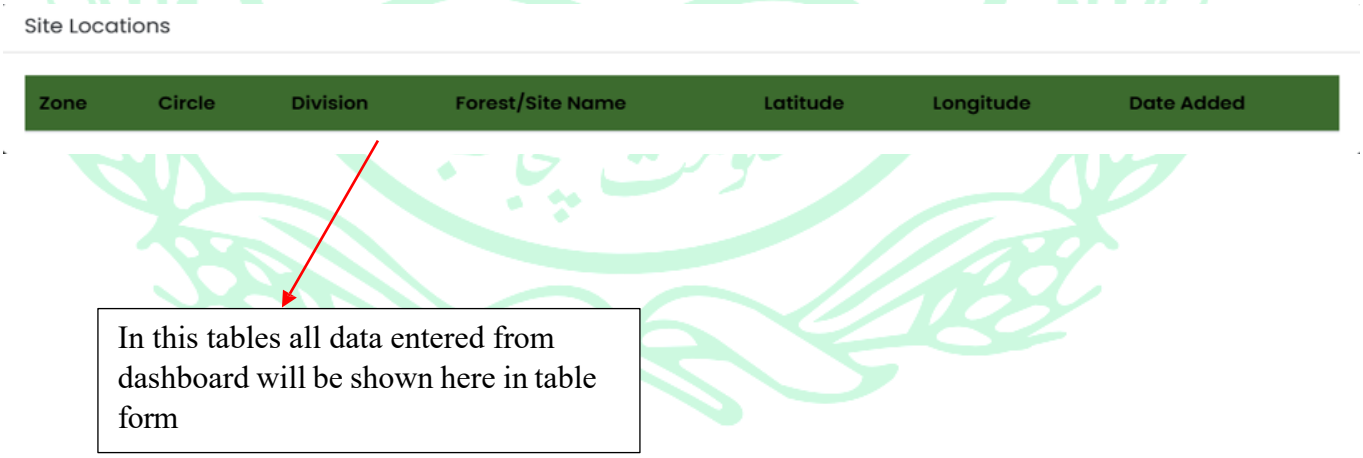
- First, you use drawing tools to outline the boundary of a forest (for example, Forest A or Forest B).
- Once the forest area is marked, you click inside it to mark the fire location.
- The app will then look for all nearby resources inside or close to that forest.

Best for:

When you are working with a specific forest area and want to manage multiple fires or resources within that boundary.

Both methods help you:

- Quickly locate the fire on the map
- Identify nearby resources
- Make faster decisions during emergencies
- Improve coordination with firefighting teams



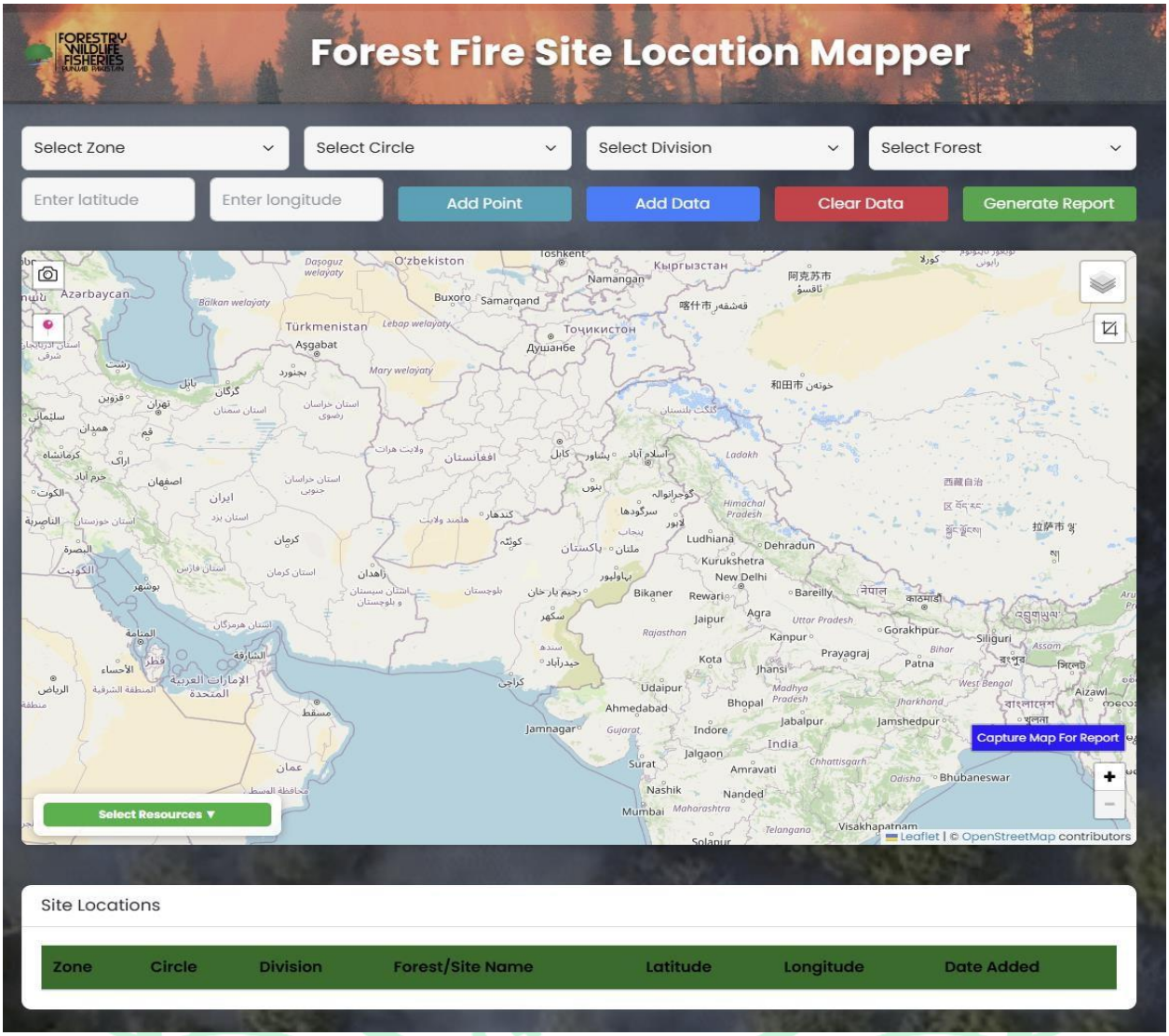


Figure 1: Dashboard View

Dropdowns of Zonal, Circle, Divisional and Forest Boundaries

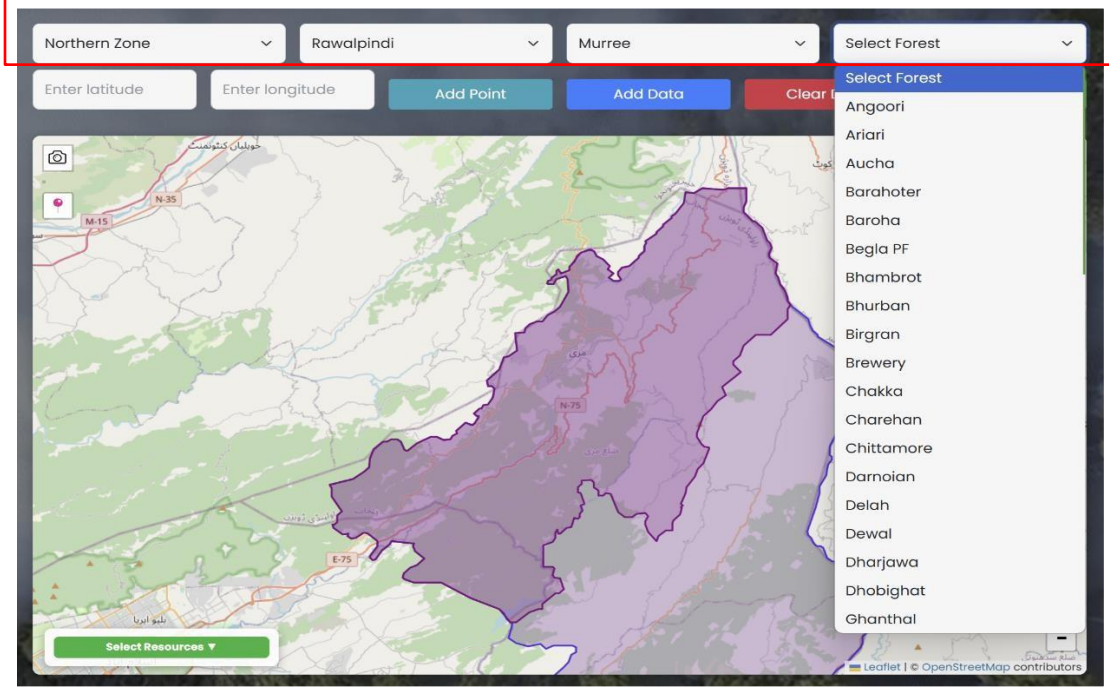


Figure 2: Drop Downs Options

Map Interface Description

The image displays a map with various controls and dropdown menus at the top, which help you select and manage different zones, circles, divisions, and forest boundaries. Here's how it works:

1. **Map Area**:
    - The main part of the image is a map showing a region with green and gray areas, representing forests and other land types.
    - Purple and blue lines outline specific forest boundaries on the map.
    - Roads and labels (like "M-15" and "N-35") are marked to help you identify locations.
2. **Dropdown Menus and Controls**:
    - At the top, there are three main dropdown menus and some buttons, all enclosed in a red box labeled "**Dropdowns of Zonal, Circle, Divisional and Forest** Boundaries."
    - **Northern Zone Dropdown**: This menu lets you choose a zone. It's currently set to "Northern Zone" with options like "Rawalpindi" and "Murree" visible.
    - **Select Forest Dropdown**: This menu allows you to pick a specific forest. It's open and shows a list of forest names such as "Angoori," "Ariari," "Aucha," "Barahoter," and more (up to "Ghanthal").
    - **Other Dropdown**: There's a third dropdown (partially visible) that might be for additional settings or options.

Input Fields and Buttons:

Below the dropdowns, there are two text boxes labeled "Enter latitude" and "Enter longitude." These are where you can type in specific coordinates to mark a point on the map.

Add Point Button: A blue button labeled "Add Point" lets you add the coordinates you entered to the map.

Add Data Button: Another blue button labeled "Add Data" is used to save or add more information to the map.

Clear Button: A red button labeled "Clear" removes any selected data or points from the map.

Additional Features:

At the bottom left, there's a green button labeled "Select Resources ▼," which might let you choose different map layers or resources to display.

The map includes a logo or emblem in the top right corner, which might be related to the organization or region (e.g., a crescent and star).

How to Use This Interface?

Select a Zone and Forest: Use the "Northern Zone" and "Select Forest" dropdowns to choose the area and specific forest you want to work with.

Add a Location: Type the latitude and longitude in the respective boxes, then click "Add Point" to mark it on the map.

Save Information: Click "Add Data" to save any changes or additional details.

Clear Selections: Click "Clear" to remove all selected points or data.

Explore Resources: Use the "Select Resources" button to view different map layers or details.

This interface is designed to be user-friendly, helping you manage and visualize forest boundaries and other geographical data easily.

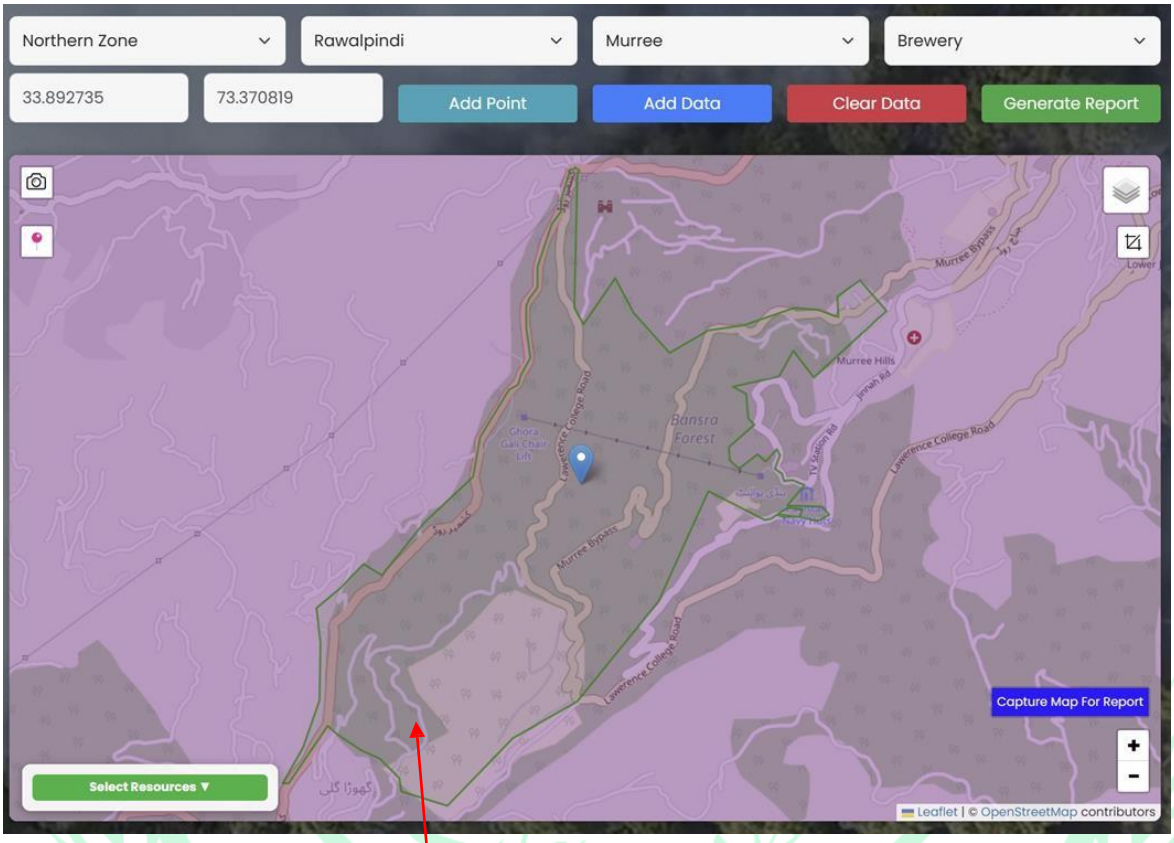


Figure 3: Forest Boundary On Map

Forest boundary as Green highlighted area added on the map, and using Drop down control on map a pin of fire incident will be added.

The image shows a map interface with dropdown menus at the top, set to "Northern Zone," "Rawalpindi," "Murree," and "Brewery." After selecting a forest (Brewery), its boundary is highlighted in green on the map. Latitude (33.892735) and longitude (73.370819) fields, along with buttons like "Add Point," "Add Data," "Clear Data," and "Generate Report," allow users to mark and manage points. A note explains that the green boundary represents the forest area, and a pin can be dropped to mark a fire incident. A "Capture Map for Report" button is also visible.

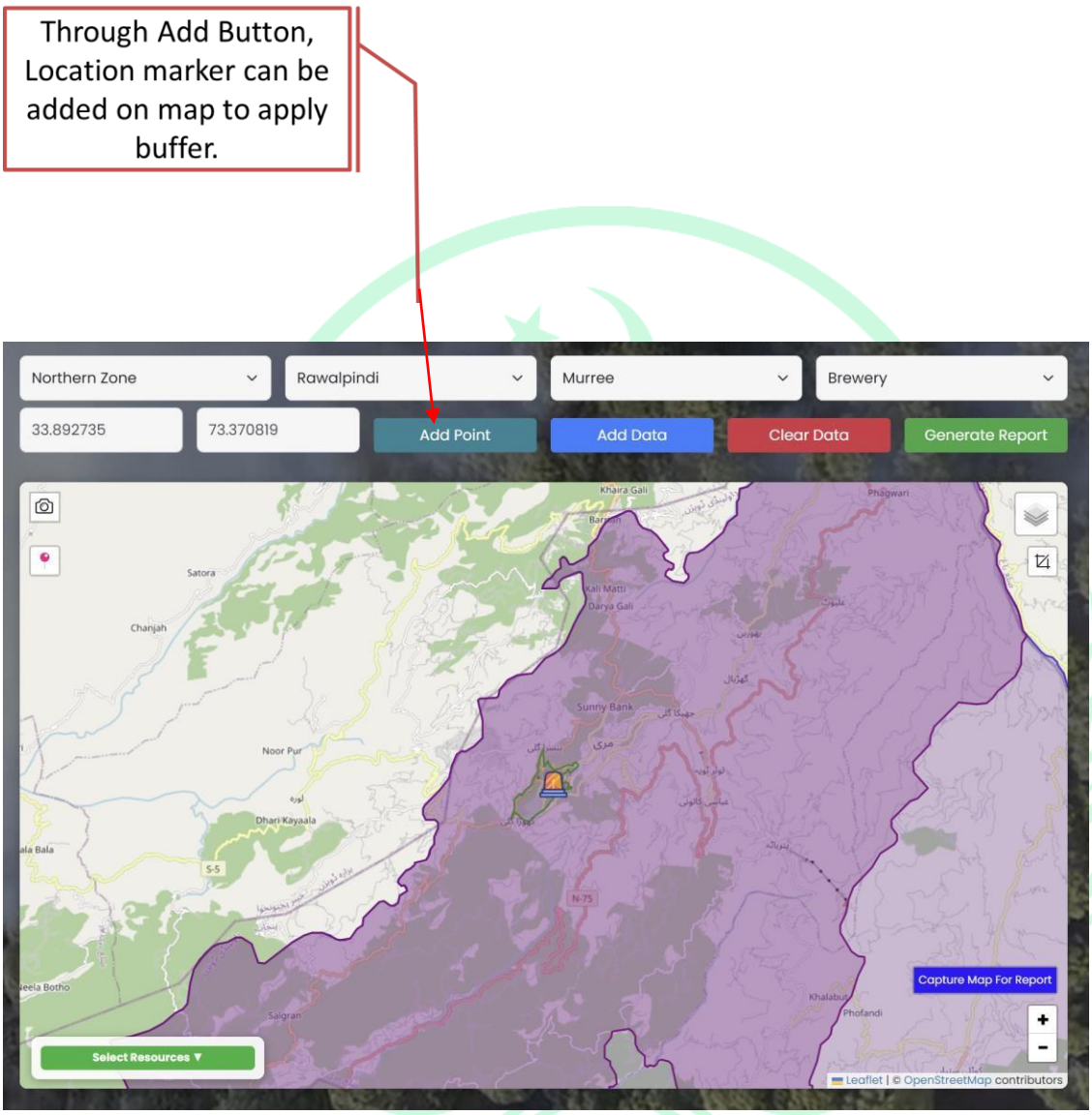


Figure 4: Add Data Feature

Buttons:

- **Add Point**: A blue button to add the entered coordinates as a point on the map.
- **Add Data**: Another blue button to save additional information.
- **Clear Data**: A red button to remove all selected data or points.
- **Generate Report**: A green button to create a report based on the map data.
- **Capture Map for Report**: A blue button on the right to take a snapshot of the map for your report.

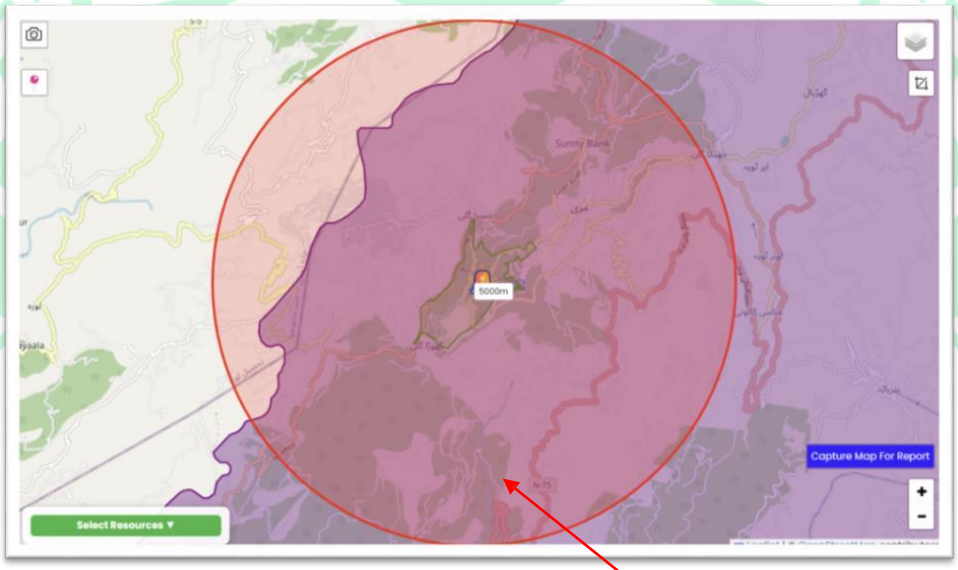


Figure 5: Buffer On Map

A 5000-meter buffer will be added on map

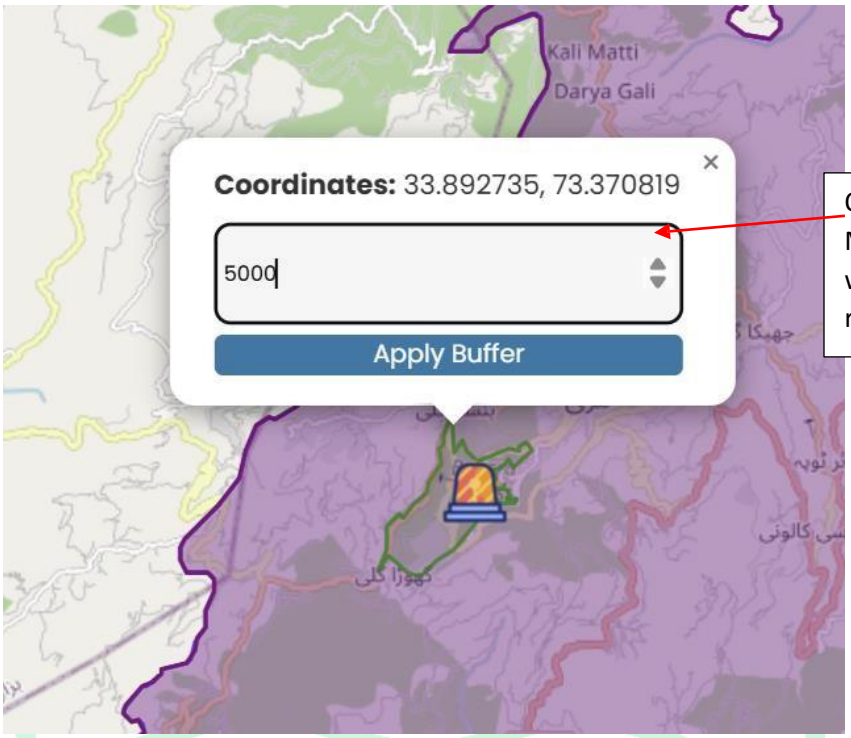


Figure 6: Buffer Apply Feature

This image shows a map interface that helps you add locations and create buffers around them, likely for managing forest areas or tracking incidents. Here's a simple and detailed explanation:

Adding Locations and Buffers

- **Through Add Button**: A note with a red box explains that clicking the "Add Point" button lets you add a location marker on the map. A small pink marker is visible on the left side of the map as an example.
- **Buffer Feature**:
  - A zoomed-in map section (in a red box) shows a marker at the coordinates (33.892735, 73.370819) with a "5000" value entered.
  - Clicking "Apply Buffer" adds a red circle around the marker, showing a 5000-meter buffer zone.
  - Another note explains that clicking the marker will pop up a window to apply this buffer radius.
  - A final note at the bottom confirms that a 5000-meter buffer will be added to the map around the selected location.

How to Use This Interface?

1. **Choose an Area**: Use the dropdowns ("Northern Zone," "Rawalpindi," "Murree," "Brewery") to select the region you want to work on.
2. **Add a Location**: Enter the latitude and longitude in the boxes, then click "Add Point" to place a marker on the map.
3. **Save Data**: Click "Add Data" to save any extra information.
4. **Clear Data**: Use "Clear Data" to remove all markers or data.
5. **Generate a Report**: Click "Generate Report" or "Capture Map for Report" to save your work.
6. **Apply a Buffer**: Click the marker on the map, enter a buffer distance (e.g., 5000 meters), and click "Apply Buffer" to see a circle around the location.

This tool is easy to use for adding locations and creating buffer zones, helping you manage areas like forests or track incidents effectively.

A list of resources will appear on left of the base map, and after selecting all resources, within buffer radius resources will be added on the map

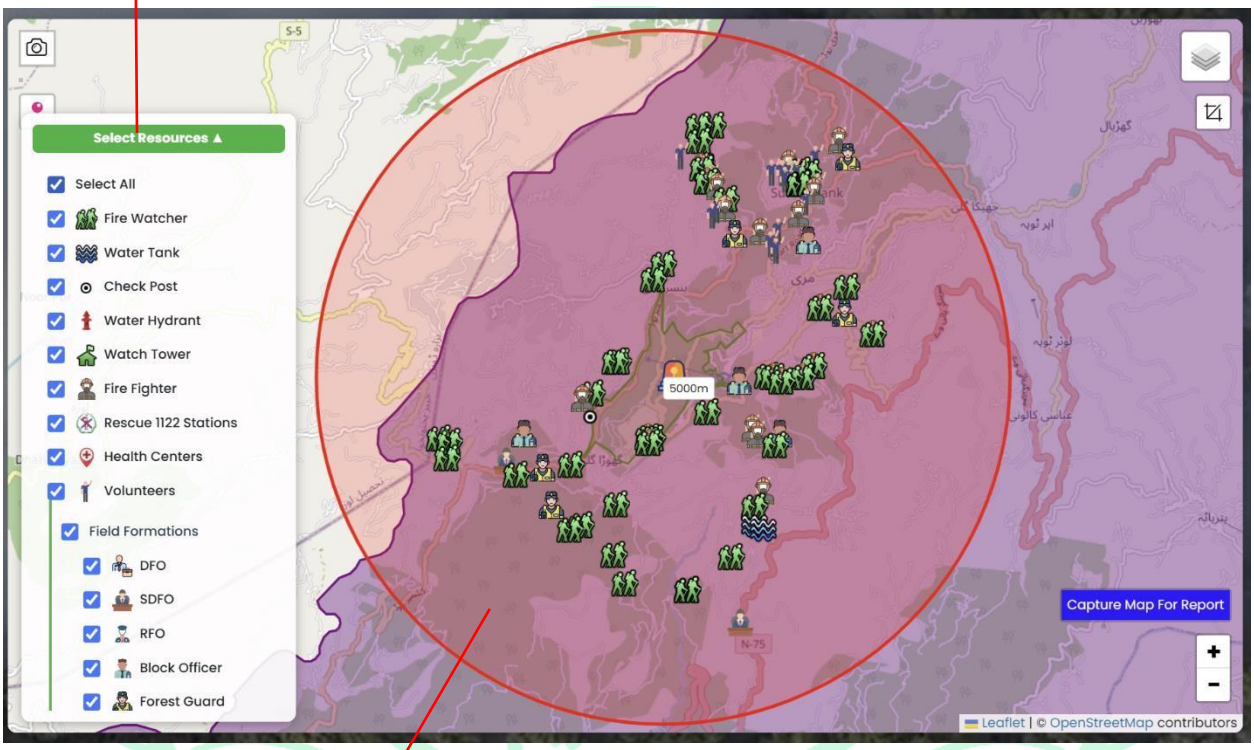
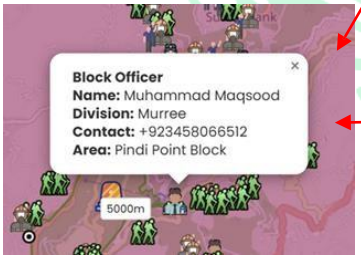


Figure 7: Resource Details



On clicking Individual resource on map. A popup showing brief detail about

Figure 8: Resource Drawn in a buffer

This image shows a map interface designed to help you manage resources within a forest area, such as fire watchers, water tanks, and block officers. It includes a map with a buffer zone and a list of resources. Here's a simple and detailed explanation

Main Map Area

- The main part of the image is a map showing a region with purple and gray areas, representing forests and other land types.
- A red circle with a "5000m" label is drawn on the map, indicating a 5000-meter buffer zone around a specific point.
- Small icons (like people, water tanks, and fire symbols) are scattered within the buffer zone, representing different resources like fire watchers, water tanks, and block officers.
- Roads and place names (like "Sumbal" and "N-75") are marked to help you identify locations.

Left Panel: Resource List

- On the left side, there's a panel labeled "Select Resources ▼" with a list of options.
- A note in a red box says, "A list of resources will appear on left of the basemap, and after selecting all resources within buffer radius resources will be added on the map."
- The list includes options like:
    - Fire Watcher
    - Water Tank
    - Check Post
    - Water Hydrant
    - Watch Tower
    - Fire Fighter
    - Rescue 1122 Stations
    - Health Centers
    - Volunteers
    - Field Formation
    - DFO (Divisional Forest Officer)
    - SFO (Sub-Divisional Forest Officer)
    - RFO (Range Forest Officer)
    - Block Officer
    - Forest Guard
- Each option has a checkbox. Many are checked (e.g., Fire Watcher, Water Tank, Block Officer), meaning these resources are displayed on the map within the buffer zone.

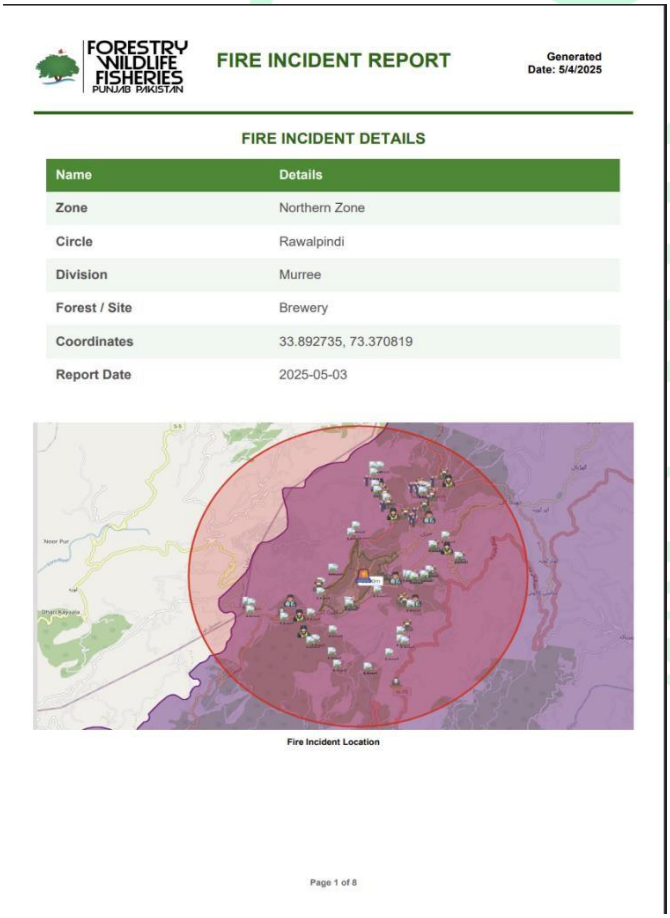
Pop-Up Window: Resource Details

- On the right side, there's a zoomed-in section of the map in a red box.
- A note says, "On clicking individual resource on map. A popup showing brief detail about that resource will appear."
- A pop-up window is open, labeled "Block Officer," showing:

- **Name**: Muhammad Maqsood
- **Division**: Murree
- **Contact**: +923458066512
- **Area**: Pindi Point Block

- This pop-up appears when you click on a Block Officer icon on the map, giving you quick details about that resource.

FOREST FIRE INCIDENT LOCATION AND RESOURCES MAPPER REPORT



FIRE INCIDENT REPORT

Generated Date: 5/4/2025

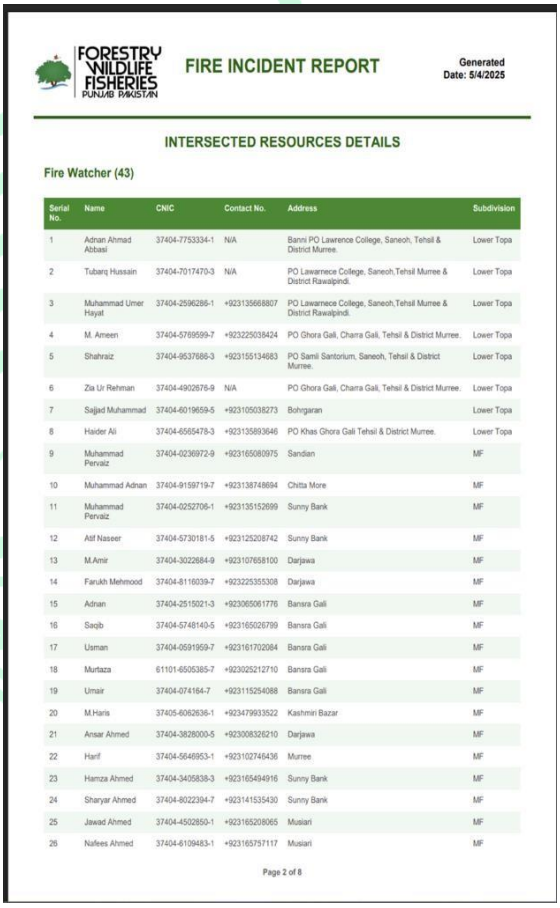
FIRE INCIDENT DETAILS

Name	Details
Zone	Northern Zone
Circle	Rawalpindi
Division	Murree
Forest / Site	Brewery
Coordinates	33.892735, 73.370819
Report Date	2025-05-03

Fire Incident Location

Page 1 of 8

Figure 9: Fire Incident Report pg 1



FIRE INCIDENT REPORT

Generated Date: 5/4/2025

INTERSECTED RESOURCES DETAILS

Fire Watcher (43)

Serial No.	Name	CNIC	Contact No.	Address	Subdivision
1	Adnan Ahmad Abbasi	37404-7753334-1	N/A	Banni PO Lawrence College, Saneoh, Tehsil & District Murree.	Lower Topa
2	Tubarq Hussain	37404-7017470-3	N/A	PO Lawarnece College, Saneoh,Tehsil Murree & District Rawalpindi.	Lower Topa
3	Muhammad Umer Hayat	37404-2596286-1	+923135668807	PO Lawarnece College, Saneoh,Tehsil Murree & District Rawalpindi.	Lower Topa
4	M. Ameen	37404-5789599-7	+923225038424	PO Ghora Gali, Chirra Gali, Tehsil & District Murree.	Lower Topa
5	Shahraiz	37404-9537686-3	+923155134683	PO Samli Santorium, Saneoh, Tehsil & District Murree.	Lower Topa
6	Zia Ur Rehman	37404-4902676-9	N/A	PO Ghora Gali, Chirra Gali, Tehsil & District Murree.	Lower Topa
7	Sajjad Muhammad	37404-6019659-5	+923105038273	Bohrgaran	Lower Topa
8	Haider Ali	37404-6565478-3	+923135893646	PO Khas Ghora Gali Tehsil & District Murree.	Lower Topa
9	Muhammad Pervaiz	37404-0236972-9	+923165080975	Sandian	MF
10	Muhammad Adnan	37404-9159719-7	+923138748694	Chitta More	MF
11	Muhammad Pervaiz	37404-0252706-1	+923135152699	Sunny Bank	MF
12	Atif Naseer	37404-5730181-5	+923125208742	Sunny Bank	MF
13	M.Amir	37404-3022884-9	+923107658100	Darjawa	MF
14	Farukh Mehmood	37404-8116039-7	+923225355308	Darjawa	MF
15	Adnan	37404-2515021-3	+923065061776	Bansra Gali	MF
16	Saqib	37404-5748140-5	+923165026799	Bansra Gali	MF
17	Usman	37404-0591959-7	+923161702084	Bansra Gali	MF
18	Murtaza	61101-6505385-7	+923025212710	Bansra Gali	MF
19	Umair	37404-074164-7	+923115254088	Bansra Gali	MF
20	M.Haris	37405-6062636-1	+923479933522	Kashmiri Bazar	MF
21	Ansar Ahmed	37404-3828000-5	+923008326210	Darjawa	MF
22	Harif	37404-5646953-1	+923102746436	Murree	MF
23	Hamza Ahmed	37404-3405838-3	+923165494916	Sunny Bank	MF
24	Sharyar Ahmed	37404-8022394-7	+923141535430	Sunny Bank	MF
25	Jawad Ahmed	37404-4502850-1	+923165208065	Musiari	MF
26	Nafees Ahmed	37404-6109483-1	+923165757117	Musiari	MF

Page 2 of 8

Figure 10: Fire Incident Report pg 2

After Clicking on the generate report button in pdf form a report will be generated and opened in this form. The report has two pages, each with specific details

Here is the explanation of report.

Overview of the Report

- The report is titled "Fire Incident Report" and is created by the "Wildlife Fisheries Punjab Pakistan."
- It's dated May 20, 2025 (as shown by the "Generated Date: 5/4/2025" at the top).
- The report has two main pages: one for fire incident details and a map, and another for resource details in a table.

Page 1: Fire Incident Details and Map

- **Header**:
  - The top left has the logo of Wildlife Fisheries Punjab Pakistan.
  - The title "FIRE INCIDENT REPORT" is in the center.
  - The generated date (5/4/2025) is on the top right.
- **Fire Incident Details**:
  - A section labeled "FIRE INCIDENT DETAILS" provides key information:
    - **Name**: (Not filled in this example).
    - **Zone**: Northern Zone.
    - **Circle**: Rawalpindi.
    - **Division**: Murree.
    - **Forest/Site**: Brewery.
    - **Coordinates**: 33.892735, 73.370819 (latitude and longitude of the fire location).
    - **Report Date**: 2025-05-03 (the date the incident was reported).
- **Map**:
  - Below the details, there's a map showing the fire incident location.
  - A red circle marks the fire area with a buffer zone around it.
  - The map includes purple and gray areas (likely forest and other land types), roads, and place names.
  - A label "Fire Incident Location" is added to the map, pointing to the fire spot.
  - The bottom of the page says "Page 1 of 8," indicating this is the first page of a longer report.
- **Note**:
  - A red box with text says, "The first page of the report will be empty in case no boundary is selected and data has not been added to Database." This means if you don't select a forest boundary or add data, this page will be blank.

Page 2: Intersected Resources Details

- **Header**:
  - Same as Page 1, with the logo, title, and date.
- **Intersected Resources Details**:
  - A section labeled "INTERSECTED RESOURCES DETAILS" shows a table listing resources within the fire incident's buffer zone.
  - The table is titled "Fire Watcher (43)," meaning there are 43 Fire Watcher resources in the area.
  - The table has columns:
    - #: Number (1 to 26 in this example).
    - **Name**: Names of the Fire Watchers (e.g., Adnan Ahmed, Tufail Hussain).
    - **CNC**: A unique code for each watcher (e.g., 37405-7735314-5).
    - **Contact No.**: Phone numbers (e.g., +923115666057).
    - **Address**: Locations (e.g., PO Lawrence College, Samooh Tehsil Murree).
    - **Subdivision**: Area they cover (e.g., Lower Topa, Upper Topa).
  - Some entries have "N/A" for missing information like CNC or contact numbers.
  - The table lists 26 Fire Watchers, with details for each.

- **Note**:
  - A red box with text says, "The second page and so on, contains resources details in different tables with Resource Name as Heading. This Page shows in both cases, 1. When only selection of resources are made and no boundary is selected. 2. When boundary selection has made along with data insertion in DB."
  - This means:
    - The table will appear even if you only select resources without choosing a boundary.
    - It will also appear if you select a boundary and add data to the database.
- The bottom of the page says "Page 2 of 8," indicating this is the second page of the report.

How to Understand the Report?

1. **Page 1**:
   - Check the fire incident details like the zone, circle, division, forest, and coordinates.
   - Look at the map to see where the fire incident happened, marked with a red circle.
   - If no boundary or data is added, this page will be empty.
2. **Page 2**:
   - Review the table to see the list of resources (like Fire Watchers) in the fire area.
   - Each resource has details like name, contact, and location.
   - This page will show up whether you only select resources or also add a boundary and data.

This report helps you track fire incidents and the resources available to respond, making it easier to manage emergencies in forest areas.

حکومت پنجاب

Table of Contents

Table of Figures

FIRE INCIDENT REPORTING DATA ENTRY FORM

All dashboards have been developed by GIS LAB, Punjab Forest Department, Lahore.

For any queries contact details are:

Email: devteam@fwf.punjab.gov.pk

Mobile: 0337-9926560

This Forest Fire Incident Reporting Data Entry Form can be accessed from this link:

https://frm.gisforestry.com/fireform/fire.php

Login Page:

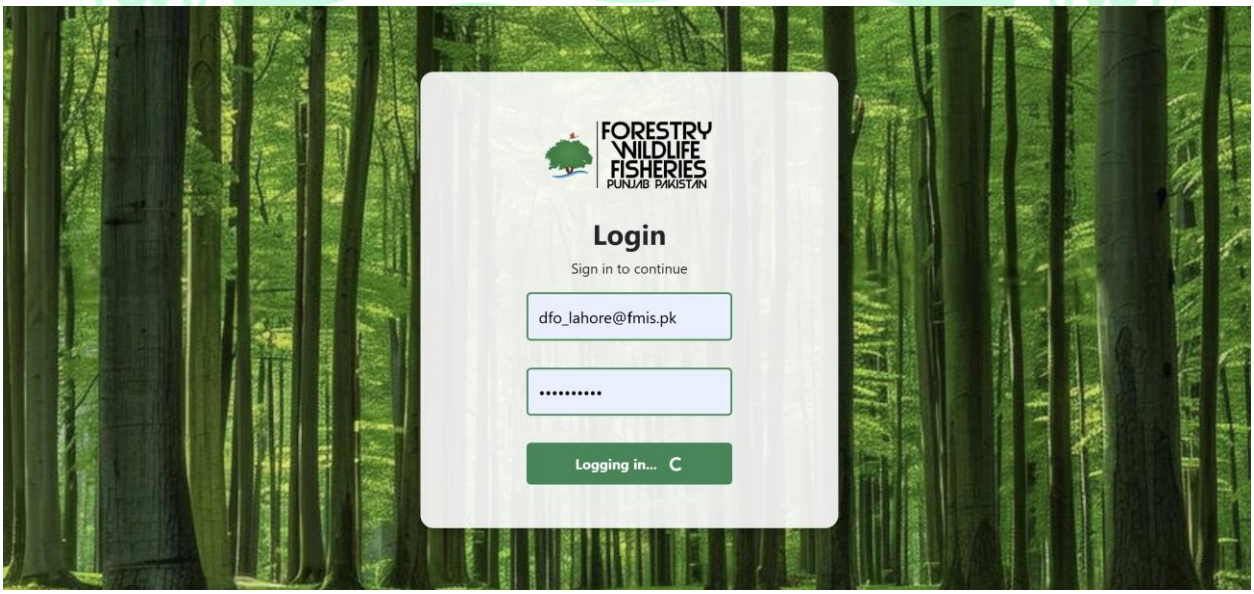


Figure 1: Login Page for DFO

This image shows the login page for the "Fire Incident Reporting Data Entry Form" managed by the Department of Forestry, Wildlife, and Fisheries in Punjab, Pakistan. Here's a simple and detailed explanation for a user manual:

Overview of Login Page:

The login page is designed to allow authorized users, such as District Forest Officers (DFOs), to access the system where they can enter and manage fire incident reports. The background features a green forest scene with tall trees, which reflects the focus on forestry and wildlife.

Key Elements on the Page

This document outlines the login process for a system managed by the Forestry, Wildlife & Fisheries Punjab department. At the very top of the page, a logo featuring a tree alongside the text "Forestry, Wildlife & Fisheries Punjab" clearly identifies the overseeing authority. The login section is prominently marked by the word "Login," indicating the purpose of the page, with a sub-heading "Sign in to continue" prompting users to proceed.

To gain access, users must provide their credentials in two dedicated fields. The username field, pre-filled with an example email like "dfo.lahore@ffmis.pk," requires users to enter their official departmental email address. Below this, a password field displays dots for security, where users input their personal password. After entering both pieces of information, a green button labeled "Logging in..." is pressed to submit the details, with the changing text suggesting the system is processing the login attempt.

To use the login page, simply access it via the official link provided by the Forestry, Wildlife, and Fisheries Department. Then, accurately type your official email address into the username box and your unique password into the password box. Finally, click the green "Login" button and wait for the system to verify your information. If you encounter any issues during login, such as incorrect credentials or forgotten passwords, it's advised to double-check your input or contact your supervisor or IT support for assistance. It's important to remember that this page is secure,

ensuring only authorized personnel can access the system, and the forest background serves as a visual reminder of the department's core mission to protect nature and manage fire incidents.

Form Overview

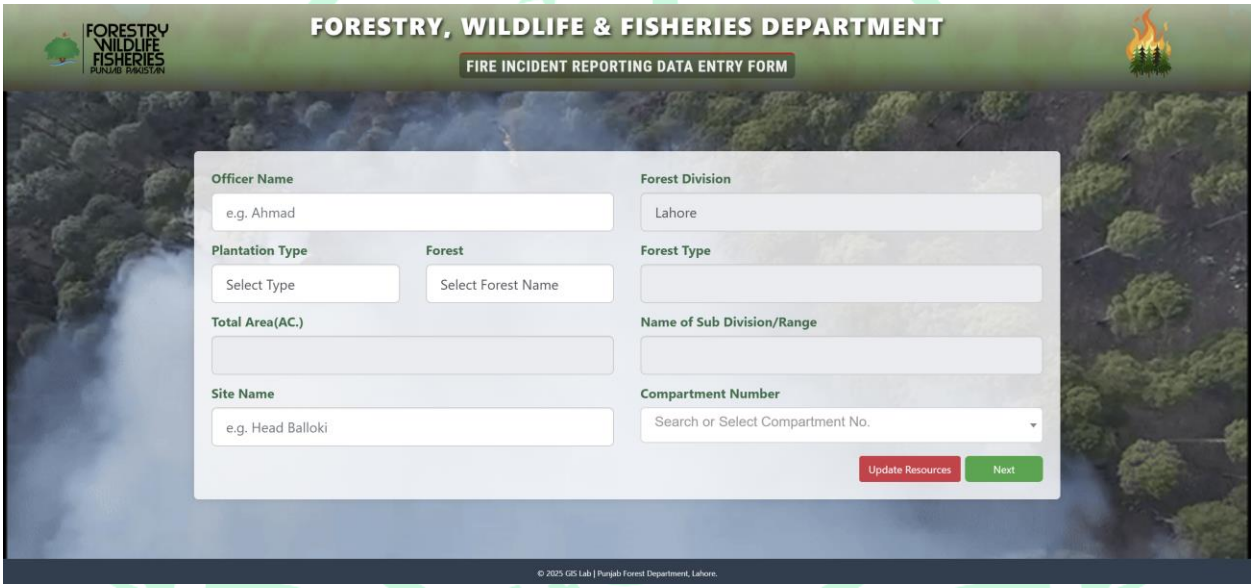


Figure 2: Fire Form Main Page after Login

Overview of First Page

This page is the starting point for entering details about a fire incident in a forest area. It’s part of the Forestry, Wildlife & Fisheries Department system to track and manage fire incidents. The background shows a forest with a fire symbol, reminding users of the focus on forest fire reporting.

Key Elements on the First Page

At the top of the page, a header features the departmental logo and title, clearly identifying the form's origin. Below this, the prominent title "FIRE INCIDENT REPORTING DATA ENTRY FORM" states its purpose.

The form itself is composed of various labeled fields where users must input specific information about a fire incident. These fields include: "Officer Name," for the individual filling out the form, with "e.g. Ahmad" as an example; "Forest Division," for which "Lahore" is given as an example, requiring the name of the relevant forest division; and "Plantation Type," which is likely a dropdown menu where users select the type of plantation, such as "Natural Forest." Similarly, "Forest Name" and "Forest Type" are also likely dropdown menus for selecting the specific forest and its classification, respectively. The "Total Area (Ac)" field is for typing the affected area in acres. Further details include "Name of Sub Division/Range," for the smaller geographical area within the division, "Site Name," providing a specific location example like "e.g. Head Balloki," and "Compartment Number," which is likely a searchable or selectable field for a smaller, managed forest section.

At the bottom of the form are two crucial buttons. A red "Update Resources" button is designed to save any modifications made to the form and return the user to the dashboard where resources are described. A green "Next" button allows users to proceed to the subsequent page of the form to input more incident details. Below these buttons, a footer displays the copyright information: "© 2025 GIS Lab Punjab Forest Department - Lahore," indicating the creator and copyright year.

To use this page effectively, after logging in, users should begin by accurately filling in all the fields with the correct information about the fire incident. This involves typing names for the officer, forest division, sub-division/range, and site, and selecting from dropdown menus for plantation type, forest name, and forest type, as well as entering numerical values for total area. Once the details are entered, users can either click the red "Update Resources" button to save their changes or the green "Next" button to continue to the subsequent section of the form. It is crucial that all information entered is accurate, as this data is vital for managing and tracking fire incidents, contributing significantly to the department's efforts in forest protection. If any field's

information is uncertain, it is recommended to consult a supervisor or departmental records for verification

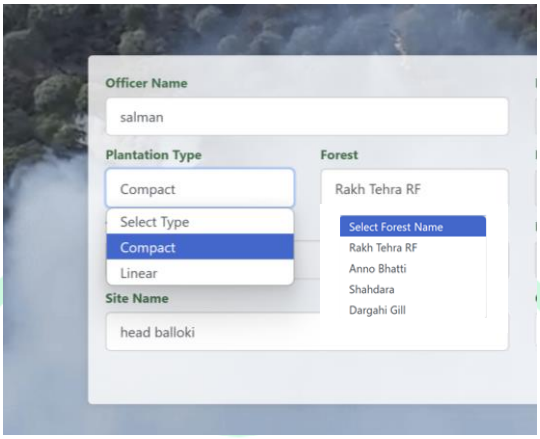


Figure 3: Plantation & Forest Type Selection

The "Plantation Type" dropdown on this form page allows you to choose between two options: "Linear" and "Compact." "Linear" refers to plantations arranged in a straight line, such as along roadsides or rivers, while "Compact" indicates a densely packed plantation, like a block of trees in a forest area. Similarly, the "Forest Name" dropdown provides a list of specific forest names to select from, such as "Rakh Tehra RF," "Anno Bhattian," "Shahdarah," "Jallo," and "Dargahi Gill," where "RF" stands for Reserved Forest. You should pick the option that matches the fire incident's location from these predefined choices to ensure accurate reporting.

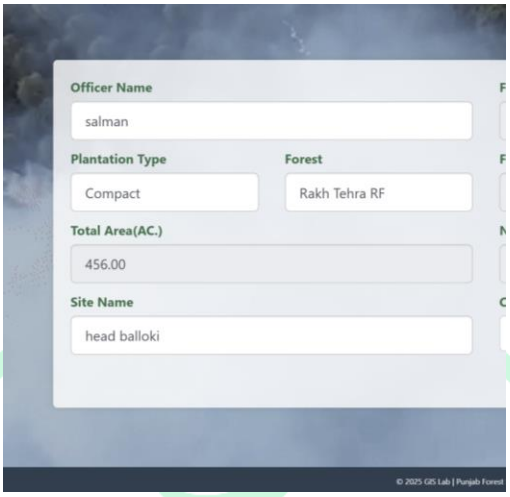


Figure 4: Automatic Area Calculation after Forest Selection

After selecting the "Plantation Type" (either "Linear" or "Compact") and the "Forest Name" from their respective dropdown menus, the "Total Area (Ac)" field will automatically calculate and display the area in acres based on the chosen plantation type and forest name. This feature uses pre-stored data linked to each forest and plantation type to estimate the affected area, saving you time and ensuring accuracy. For example, selecting "Compact" for "Rakh Tehra RF" might automatically fill in a specific acreage, such as 25 acres, depending on the system's records, so you won't need to manually enter this value.

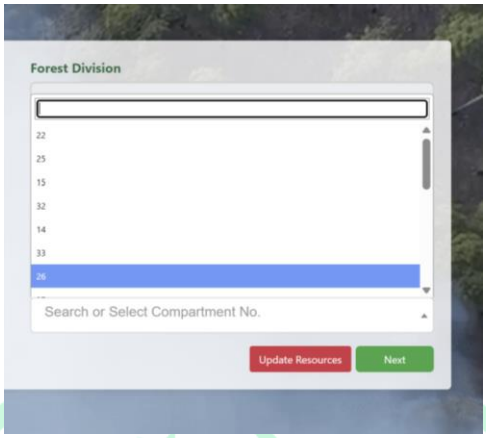


Figure 5: Search or Select Compartment No.

The "Compartment Number" field on this form page offers a dropdown menu where you can either search for a specific compartment number or select one from the available options, such as 22, 25, 15, 32, 14, 33, or 26, with 26 currently selected as an example. This flexibility allows you to quickly find and choose the correct compartment where the fire incident occurred by typing a few characters to search or scrolling through the list. Additionally, the "Forest Division," "Forest Type," and "Name of Sub Division/Range" fields are automatically populated with data pulled from the database, ensuring that the information, such as "Lahore" for Forest Division, "Irrigated" for Forest Type, and "Jallo" for Name of Sub Division/Range, is accurate and consistent based on the system's records.

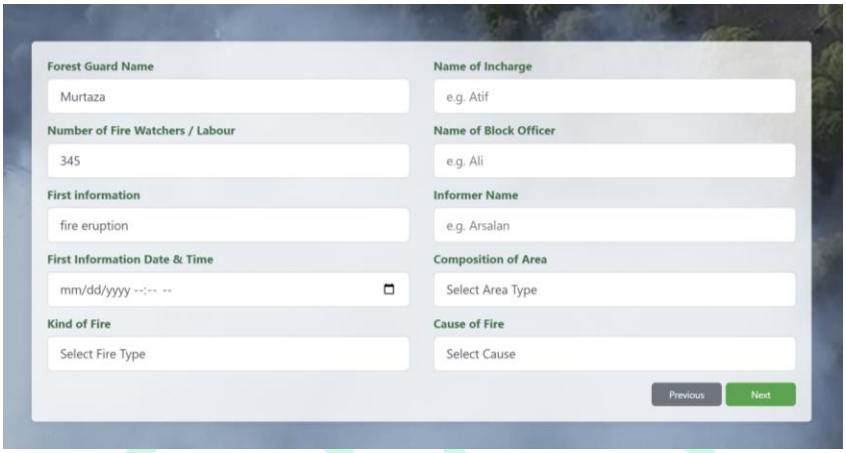


Figure 6: Second Page of Form

Key Elements on the Second Page

This form section focuses on collecting detailed information about the personnel involved in a fire incident and the initial report of the fire. Users will encounter several fields, each requiring specific input. The "Forest Guard Name" field expects the name of the forest guard responsible for the area, with "Murtaza" provided as an example. Similarly, "Name of Incharge" requires the name of the supervising officer, exemplified by "e.g. Asif." For "Number of Fire Watchers/Labour," users will enter the total count of individuals involved in managing or observing the fire, with "345" as a sample. The "Name of Block Officer" field asks for the name of the officer overseeing the specific forest block where the fire occurred, with "e.g. Ali" as an example.

Information regarding the initial report of the fire is captured in the subsequent fields. "Informant Name" is where the user enters the name of the person who first reported the fire, using "e.g. Aslam" as a guide. The "First Information" field is an empty text box where users can provide a brief description of how the fire was initially noticed, such as "Smoke seen at 10 AM." Crucially, "First Information Date & Time" requires the exact date and time of the initial report, following the format "mm/dd/yyyy ..." with an example like "05/21/2025 04:40 PM." Finally, dropdown menus are provided for categorizing the fire incident. "Composition of Area" allows users to

select the type of affected area, such as "Forest" or "Grassland," while "Kind of Fire" offers choices like "Ground Fire" or "Crown Fire." "Cause of Fire" provides options for the reason behind the incident, including "Human Carelessness," "Lightning," or "Arson."

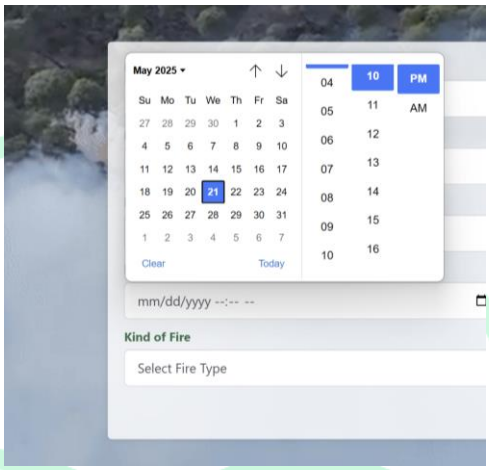


Figure 7: First Information of fire Incident Date & Time

This part of the form includes navigation buttons to help users move through the reporting process. A gray "Previous" button allows you to go back to the first page if any changes are needed, ensuring that you can easily correct mistakes or add forgotten details. Conversely, a green "Next" button facilitates progression to the subsequent pages of the form, enabling the continuous entry of more fire incident details.

To effectively use this page, begin by accurately filling in all the personnel-related fields: "Forest Guard Name," "Name of Incharge," "Name of Block Officer," and "Informant Name." Then, input the total "Number of Fire Watchers/Labour" involved. Next, provide a concise summary of the initial report in the "First Information" field and precisely enter the "First Information Date & Time." Finally, utilize the dropdown menus to select the appropriate "Composition of Area,"

"Kind of Fire," and "Cause of Fire" that best describe the incident. Once these details are entered, you can either click "Previous" to revisit the earlier section or "Next" to continue with the form. It's crucial to ensure all names and numbers are correct to maintain report accuracy and to use the dropdown menus to select the most fitting options for area type, fire kind, and cause, thereby ensuring data consistency. If you're uncertain about dates or times, always verify with records or those who first witnessed the fire.

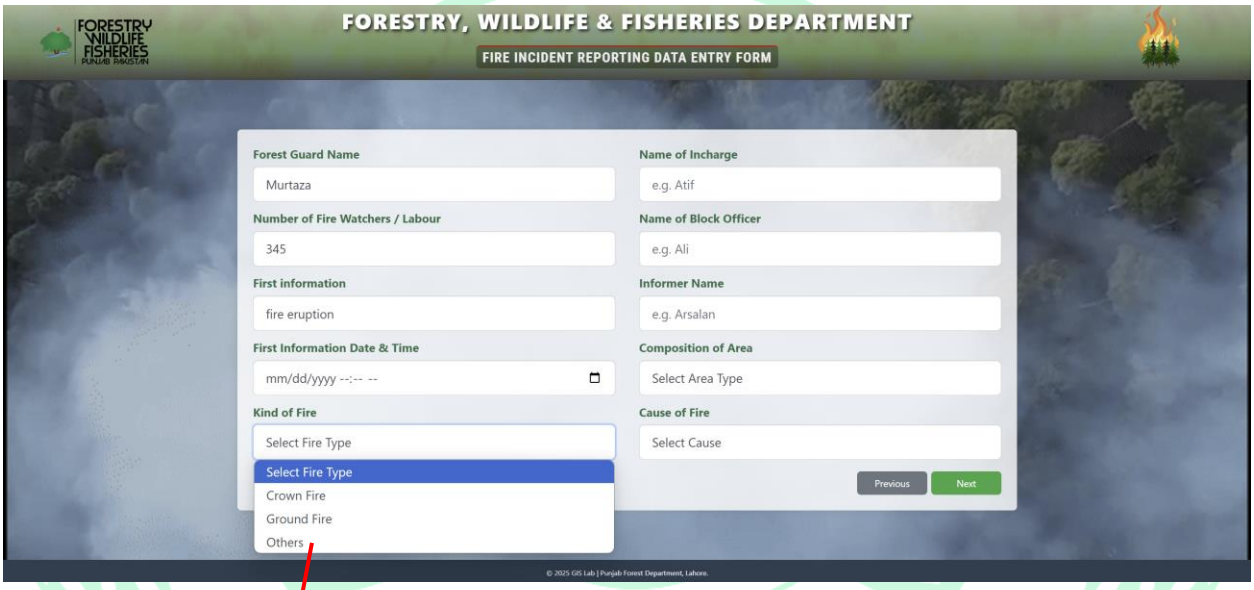
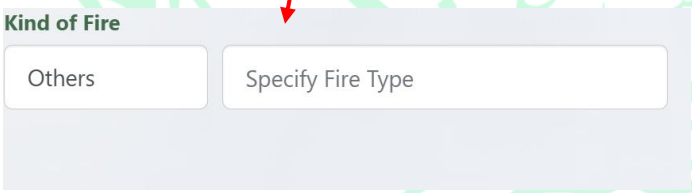


Figure 8: Fire Type Selection



The "Kind of Fire" dropdown menu allows you to select the type of fire that occurred, offering options such as "Crown Fire," "Ground Fire," and "Others," with "Crown Fire" currently selected as an example. This dropdown helps you categorize the fire based on its behavior, where "Crown Fire" indicates a fire spreading through the tops of trees, "Ground Fire" affects the forest floor, and "Others" can be chosen if the fire type doesn't fit these categories. If you select "Others," an

additional "Specify Fire Type" field appears where you can type a specific description, providing flexibility to record unique fire incidents accurately.

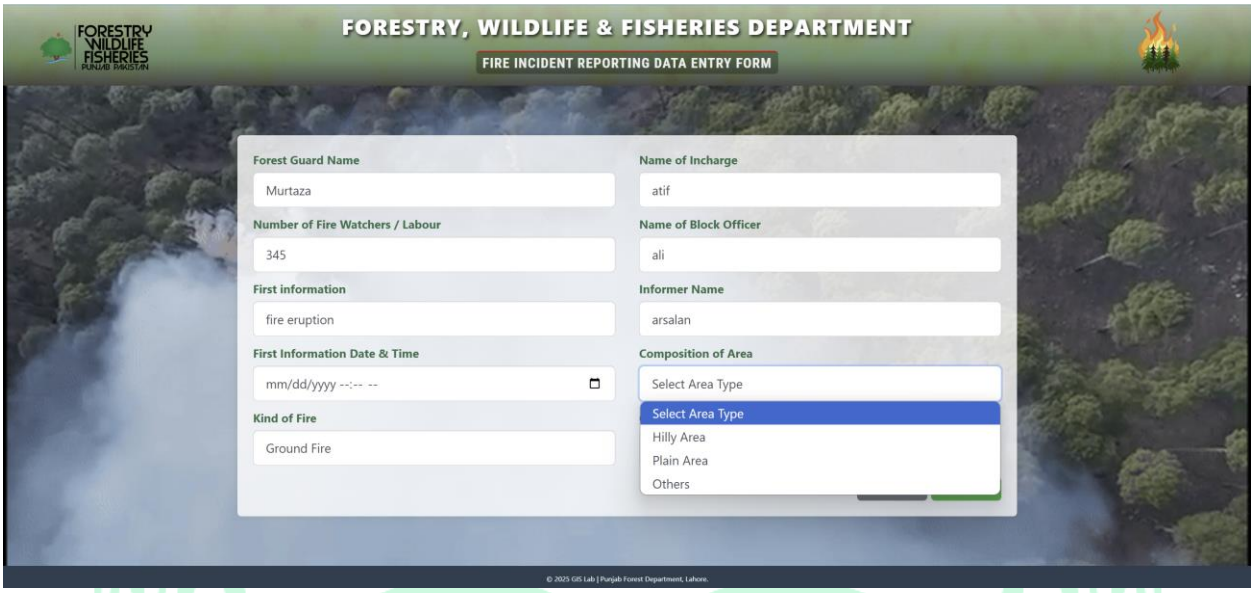


Figure 9: Composition Area Selection

The "Composition of Area" dropdown menu allows you to select the type of terrain where the fire occurred, offering options such as "Hilly Area," "Plain Area," and "Others," with "Hilly Area" currently highlighted as an example. This dropdown helps classify the landscape affected by the fire, ensuring accurate reporting based on the area's topography, where "Hilly Area" indicates a sloped or mountainous region, "Plain Area" refers to flat land, and "Others" can be chosen if the terrain doesn't fit these categories, providing flexibility for unique cases.

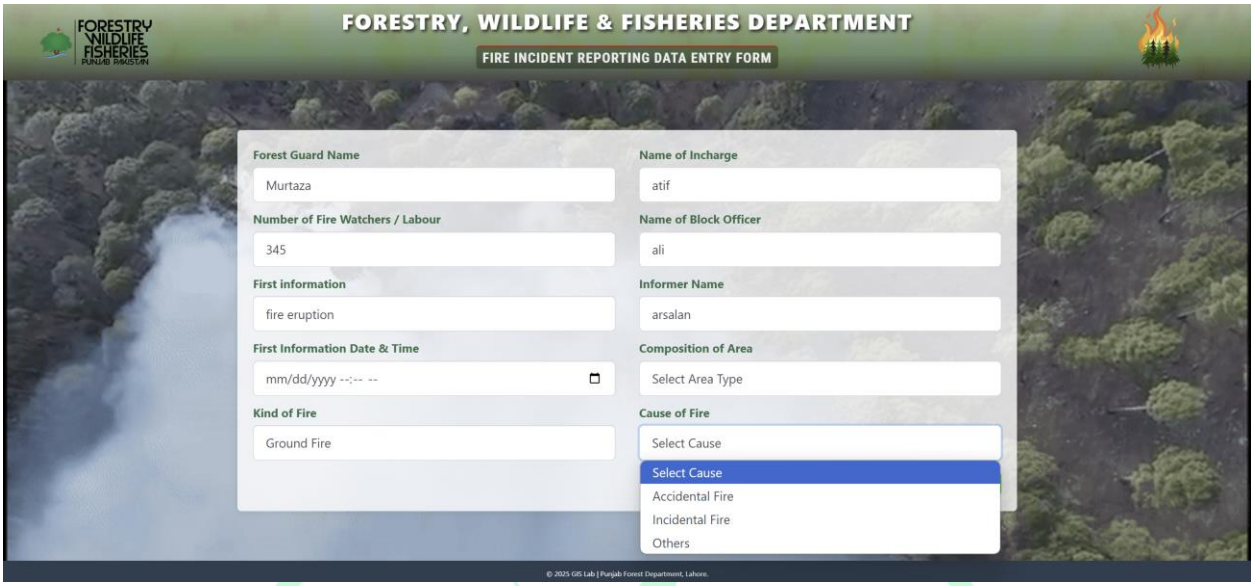


Figure 10: Cause of Fire Selection

The "Cause of Fire" dropdown menu enables you to select the reason behind the fire incident, offering options such as "Accidental Fire" and "Others," with "Accidental Fire" currently selected as an example. This dropdown helps identify the origin of the fire, where "Accidental Fire" indicates an unintended cause like a campfire or equipment mishap, and "Others" can be chosen if the cause doesn't fit the listed options, allowing for flexibility to specify unique or unknown causes.

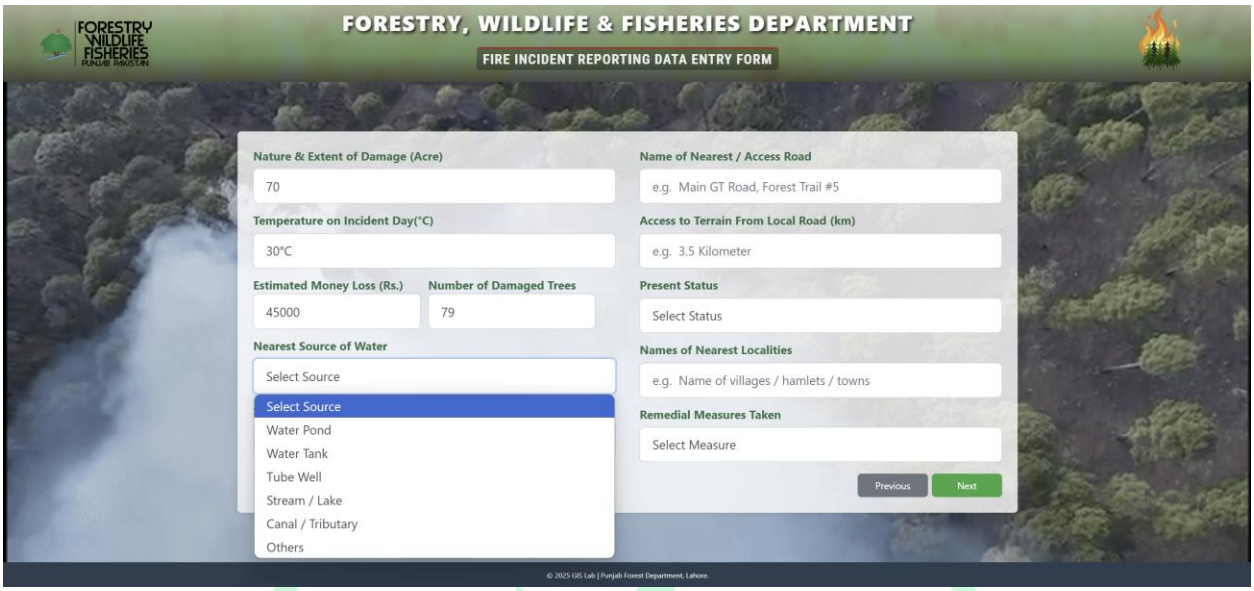


Figure 11: page 3 of Form with source selection

Key Elements on the Third Page

This section of the form is dedicated to gathering crucial details about the damage caused by **the** fire and the resources and actions taken during the incident. Users will need to fill in fields such as "Nature & Extent of Damage (Acre)," where they specify the total area affected in acres (e.g., "70"). To aid in locating the incident, the "Name of Nearest/Access Road" field asks for the closest road or trail, with examples like "Main GT Road, Forest Trail #5." The "Temperature on Incident Day (°C)" requires the temperature in Celsius on the day of the fire (e.g., "30°C"), and "Access to Terrain from Local Road (Km)" prompts for the distance in kilometers from the nearest local road to the fire site (e.g., "3.5 Kilometer").

Financial implications are captured in the "Estimated Money Loss (Rs.)" field, where users enter the estimated monetary loss in Pakistani Rupees (e.g., "45000"). The "Number of Damaged Trees" field is for inputting the total count of trees affected by the fire (e.g., "100"). The "Present Status" is a dropdown menu allowing users to select the current state of the fire, such as "Active," "Controlled," or "Extinguished." Information on firefighting resources is gathered through "Nearest Source of Water," a dropdown offering options like "Water Pond," "Water Tank," or "Canal/Tributary." "Names of Nearest Localities" requires the names of nearby villages or towns (e.g., "Name of villages/hamlets/towns"), and "Remedial Measures Taken" is a

dropdown for selecting the actions implemented to control the fire, such as "Fire Breaks" or "Water Spraying."

Navigation within the form is facilitated by two buttons. A gray "Previous" button allows users to return to the second page of the form for any necessary revisions. Conversely, a green "Next" button moves the user to the subsequent page to continue providing further details about the fire incident. At the very bottom of the page, a footer displays the copyright information: "© 2025 GIS Lab Punjab Forest Department, Lahore," acknowledging the creator and copyright year.

To effectively use this page, accurately enter numerical values for the damaged area, temperature, money loss, and number of damaged trees. For fields like nearest road, access to terrain, and nearby localities, provide clear and concise text descriptions. Crucially, utilize the dropdown menus to select the correct "Present Status," "Nearest Source of Water," and "Remedial Measures Taken," as this ensures data consistency and accuracy. Once all information is entered, click "Previous" to review prior sections or "Next" to advance to the next part of the form. It is essential to be precise with all data, especially numerical values, to assist the department in accurately assessing the fire's impact. If any details, such as the nearest road or water source, are uncertain, it is advisable to consult with your team or local records for verification.

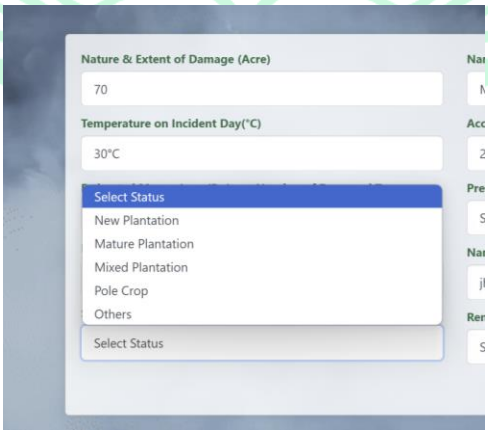


Figure 12: Status of coup Selection

The "Select Status" dropdown menu under "Select Status of coup" allows you to choose the current condition of the forest or plantation affected by the fire, offering options such as "New Plantation," "Mature Plantation," "Mixed Plantation," "Pole Crop," and "Others," with "New Plantation" currently selected as an example. This dropdown helps categorize the growth stage or type of vegetation impacted, where "New Plantation" indicates recently planted trees, "Mature Plantation" refers to fully grown trees, "Mixed Plantation" includes a variety of tree types, "Pole Crop" denotes young trees used for poles, and "Others" can be selected for any unlisted conditions, providing flexibility for accurate reporting.

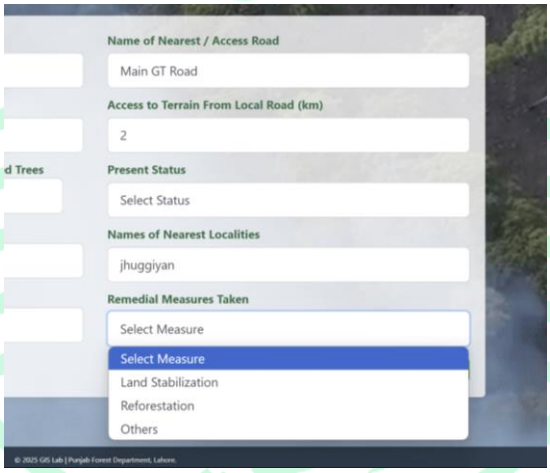


Figure 13: Remedial Measures Selection

The "Remedial Measures Taken" dropdown menu allows you to select the actions implemented to address or recover from the fire, offering options such as "Land Stabilization," "Reforestation," and "Others," with "Land Stabilization" currently selected as an example. This dropdown helps document the specific efforts made post-fire, where "Land Stabilization" refers to securing the soil to prevent erosion, "Reforestation" indicates replanting trees, and "Others" can be chosen to specify additional or unique measures not listed, ensuring comprehensive reporting of recovery actions.

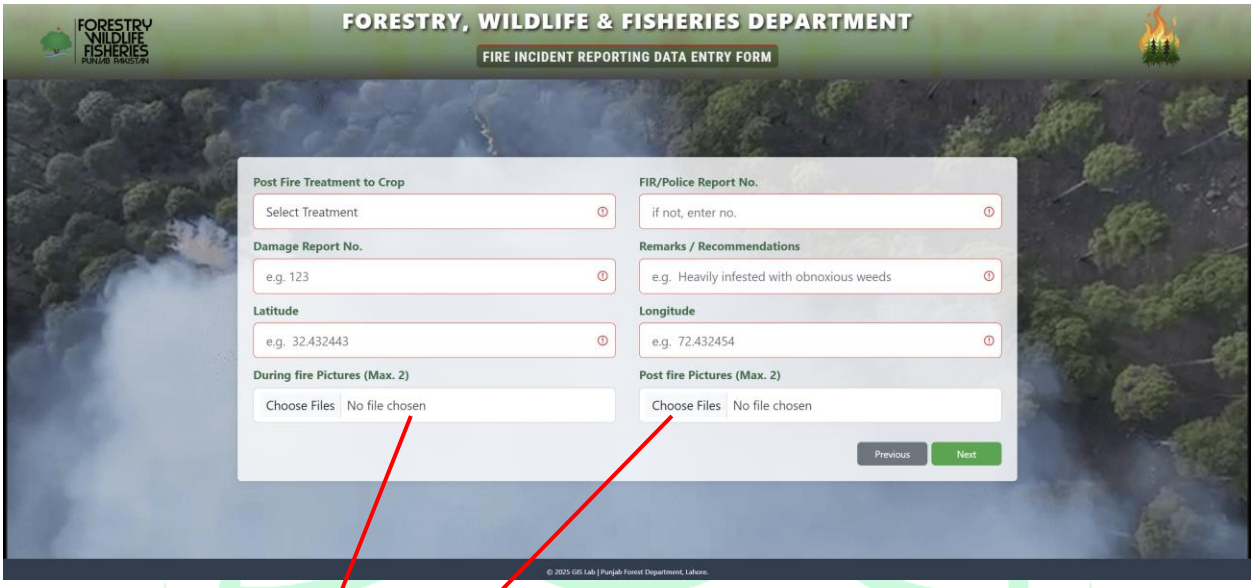


Figure 14: page 4 of Form

Figure 15: Image Upload Modal

Key Elements on the Forth Page

This section of the form is designed to capture details about the post-fire treatment, official reports, precise location, and visual evidence of the incident. The "Post Fire Treatment to Crop" is a dropdown menu where users select the treatment applied to crops after the fire, such as "Replanting" or "No Treatment." For official documentation, the "FIR/Police Report No." field allows entry of the report number if available, with a checkbox to indicate if no report was filed. Similarly, "Damage Report No." is for inputting the corresponding damage report number, with "e.g. 123" as an example.

Accurate location data is crucial, so the form includes "Latitude" and "Longitude" fields, where users enter the precise coordinates of the fire location (e.g., "32.43243" for latitude and "72.43254" for longitude). An open text box for "Remarks/Recommendations" allows for additional notes or suggestions about the site, such as "e.g. Heavily infested with obnoxious weeds." To provide visual context, two file upload fields are available: "During Fire Pictures (Max. 2)" and "Post Fire Pictures (Max. 2)," where users can upload up to two images taken during and after the fire, respectively, by clicking "Choose Files."

Navigation within the form is managed by two buttons. A gray "Previous" button allows users to return to the third page for any necessary revisions, while a green "Next" button either advances to the next step or submits the completed form.

To complete this section, start by selecting the appropriate post-fire treatment from the "Post Fire Treatment to Crop" dropdown. Then, enter the FIR/Police Report number and Damage Report number if applicable, or check the box if no FIR exists. Input the accurate latitude and longitude coordinates for the fire location. Add any relevant remarks or recommendations in the designated field. Finally, click "Choose Files" for both "During Fire Pictures" and "Post Fire Pictures" to upload up to two relevant images for each category. Once all details are entered and images are uploaded, click "Previous" to review prior sections or "Next" to finalize and submit the form.

When uploading images, an image upload modal will appear, allowing you to select files from your device. This modal displays the department logo and a preview area for selected images, with an option to remove them if needed. After choosing your files, click "Close" or "OK" to save the images and return to the form. It is vital to ensure the accuracy of latitude and longitude for precise location pinpointing. Upload clear photos to effectively illustrate the fire's impact, keeping in mind the two-picture limit per category. Always double-check all your entries before clicking "Next" to avoid errors in the final report.

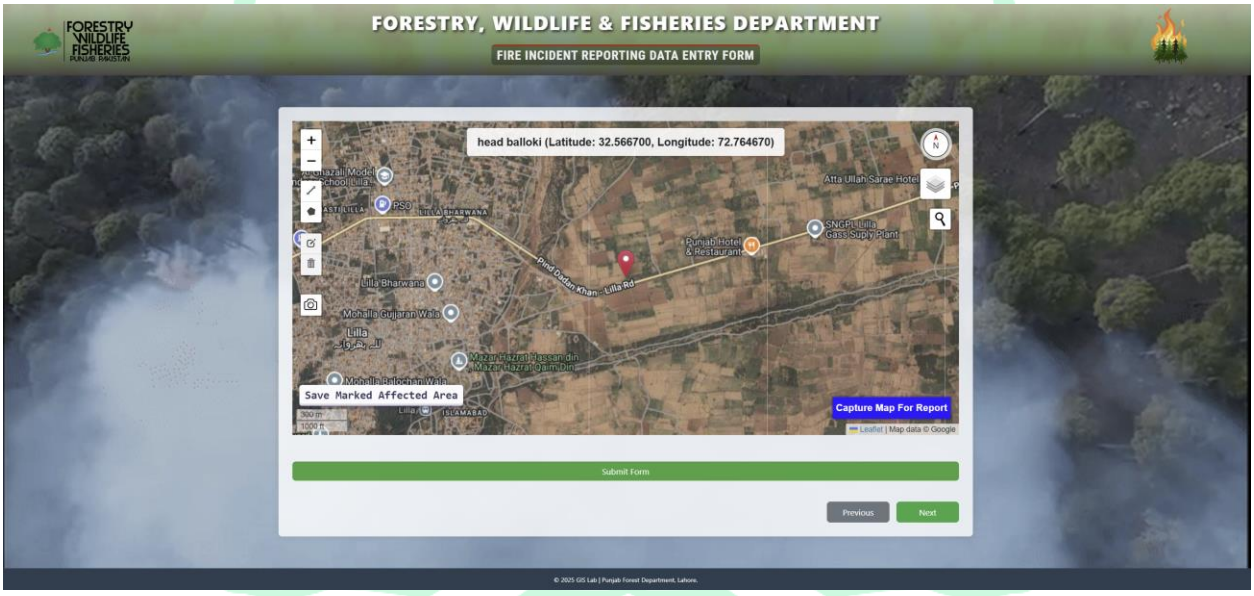


Figure 16: Second Last Page of Form with Map Preview

Key Elements on the Fifth Page

Map Preview Section:

The map interface provides an interactive geographic display centered on the fire incident at Head Balloki (Latitude: 32.56670, Longitude: 72.64670). The detailed map visualization shows roads, key landmarks like Punjab Hotel & Restaurant and Atta Ullah Sara Hotel, and clearly demarcates the fire-affected zone with a distinct boundary. Users can verify the location's accuracy by examining the terrain features and surrounding points of interest. The map includes standard navigation controls, with "+" and "-" buttons for zooming in and out to obtain either a close-up view of the affected area or a broader regional perspective.

A suite of map tools enhances functionality, featuring a pin marker for precise location identification, a hand tool for panning across the map, and other utilities for area measurement and adjustment. After delineating the fire-affected zone, users must click the prominent green "Save Marked Affected Area" button to preserve their annotations. For reporting purposes, the blue "Capture Map Data for Google" button exports the current map view including all markings, ensuring accurate geospatial data integration into official documentation. The interface includes three action buttons: a gray "Preview" button to review the complete form, a green "Next" button to proceed to subsequent steps, and a final green "Submit Form" button for official report transmission.

The workflow requires users to first validate the automatic location detection against visible landmarks and coordinates. If adjustments are needed, the zoom and annotation tools allow for precise modifications to the affected area's boundaries. The save and capture functions create permanent records of these adjustments before proceeding with form submission. Special attention is given to data accuracy, with clear warnings to double-check all geographic information before final submission, as the process cannot be undone. Users can navigate back to previous form sections if coordinate corrections are required, ensuring the final report reflects the most accurate situational assessment. The entire interface is designed to maintain data integrity while providing intuitive tools for emergency response documentation.

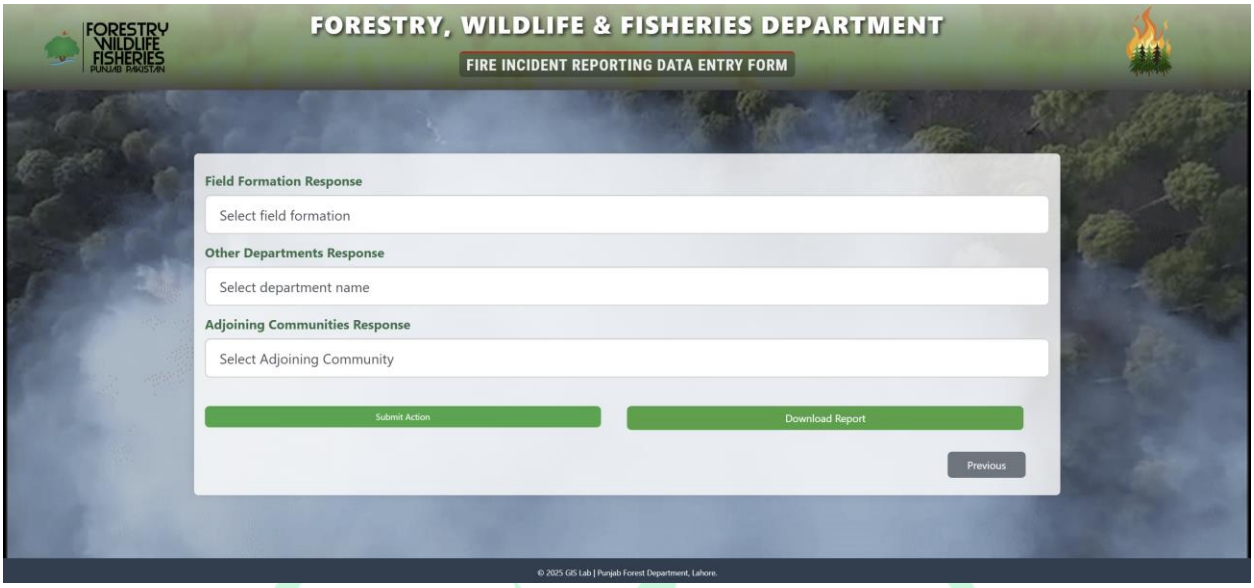


Figure 17: Last Page of Form with More Selections

Key Elements on the Last Page

This section of the form is dedicated to documenting the coordinated response to the fire incident from various entities. Users will encounter dropdown menus for three key areas. "Field Formation Response" allows selection of actions taken by the field team, such as "Controlled," "Assisted," or "Reported." "Other Departments Response" is where users choose the name of any other responding department, like the Police or Local Government, and note their specific actions or support. Lastly, "Adjoining Communities Response" captures the involvement of nearby communities, with options like "Assisted" or "Evacuated."

At the bottom of this page are three essential buttons for finalizing and managing the report. A green "Submit Action" button is used to send the entire form and its data to the department for review and processing, thereby completing the report. Another green button, "Download Report," allows users to save a copy of the finalized form to their device, typically as a PDF, for personal records. A gray "Previous" button provides a way to navigate back to the preceding page, which is the map preview, in case any edits or additions are necessary before submission.

To use this page, begin by accurately selecting the appropriate response for each dropdown menu: "Field Formation Response," "Other Departments Response," and "Adjoining

Communities Response." Once you have confirmed all information on this page and all previous pages is complete and accurate, click the "Submit Action" button to finalize and send your report to the department. For your records, it's highly recommended to click the "Download Report" button to save a copy of the completed form. Should you need to make any last-minute adjustments to information on the previous page, simply click the "Previous" button. Remember to double-check all responses before submitting, as submission is final, and keep your downloaded report safe as proof of submission.

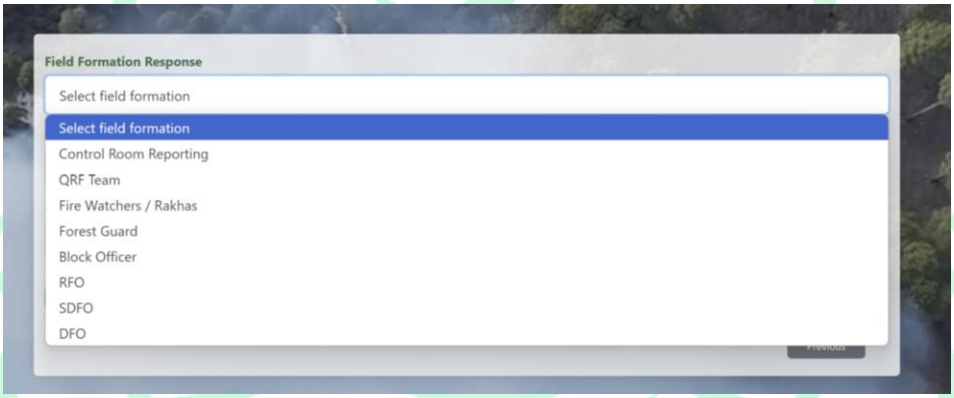


Figure 18: Field Formation Response Selection

The "Adjoining Communities Response" dropdown menu allows you to select the involvement of nearby communities in the fire incident, offering options such as "Assisted Extinguishing," "Reported Fire," "Evacuated," and "No Response," with "Assisted Extinguishing" currently selected as an example. This dropdown helps document how local villages or towns reacted, where "Assisted Extinguishing" indicates they helped put out the fire, "Reported Fire" means they informed authorities, "Evacuated" shows they left the area for safety, and "No Response" implies they didn't take any action, ensuring the report captures community impact accurately.

After selection a modal or dialogue box opened again for more details entries for Confirmation.

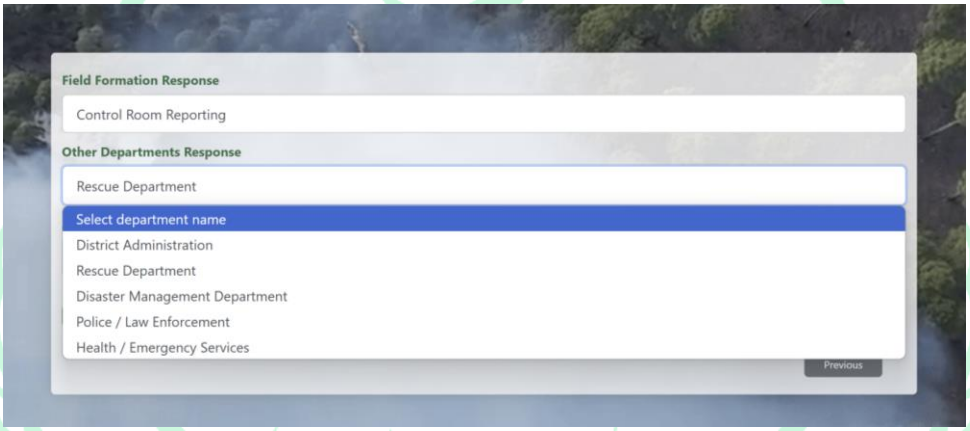


Figure19: Others Department Response Selection

The dropdown menu "Other Department Response" within the Forestry, Wildlife & Fisheries Department's Fire Incident Reporting Data Entry Form, allows users to select additional departments involved in responding to a fire incident, beyond the primary Control Room Reporting team. Options include District Administration, Rescue Department, Disaster Management Department, Police/Law Enforcement, and Health/Emergency Services, enabling the form to capture a comprehensive record of inter-departmental coordination during fire response efforts in Punjab, Pakistan.

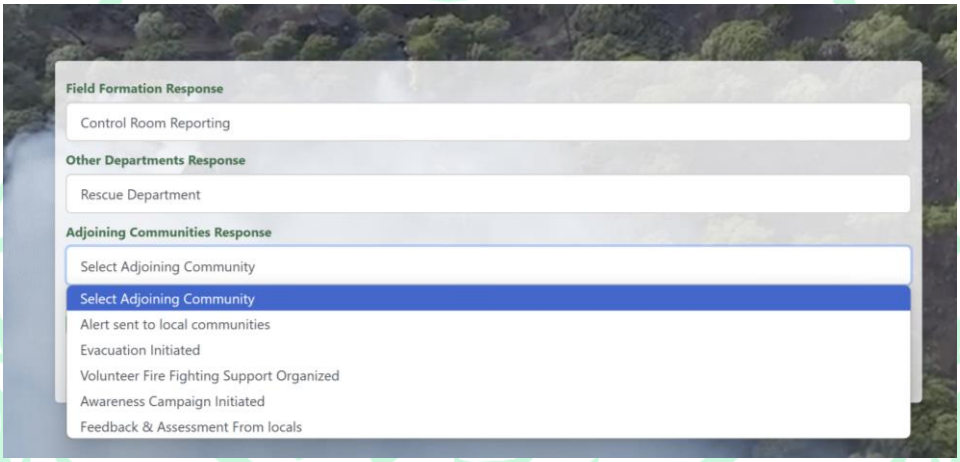


Figure20: Adjoining Communities Response Selection

The dropdown menu "Adjoining Communities Response" within the Forestry, Wildlife & Fisheries Department's Fire Incident Reporting Data Entry Form, enables users to specify the type of support or action taken by nearby communities during a fire incident. Options include selecting an adjoining community, indicating an alert sent to local communities, organizing evacuation, initiating volunteer fire fighting support, starting an awareness campaign, or gathering feedback and assessments from locals, allowing for a detailed record of community involvement in fire response efforts in Punjab, Pakistan.

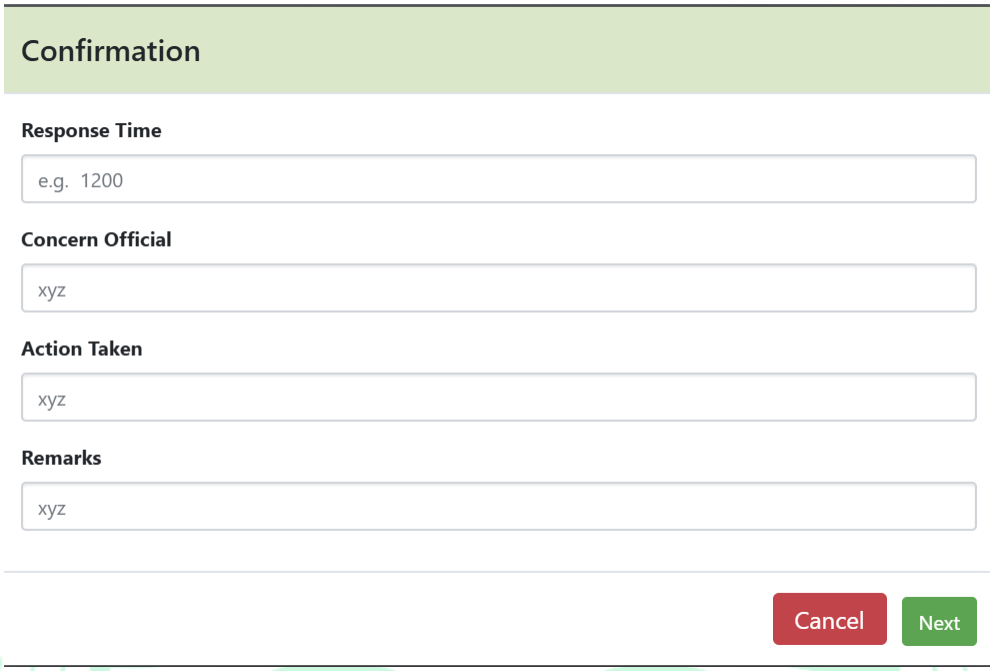


Figure 21: For Details Dialogue Box Opened Against Each Selection

The modal shown in Figure 21, labeled "Confirmation," appears as a mandatory step following each selection from the dropdown menus in the Forestry, Wildlife & Fisheries Department's Fire Incident Reporting Data Entry Form, requiring users to input specific details such as Response Time (e.g., 1200), Concern Official, Action Taken, and Remarks before proceeding with the "Next" button or canceling the action. This ensures that critical confirmation information is consistently recorded for every response selection made, enhancing the accuracy and completeness of the fire incident report in Punjab, Pakistan.

Figure 19: Download Report Button

FIRE DSR # 1158
Date: 5/20/2025, 10:51:24 PM

FIRE-1747763484683-335

Fire Incident Report Of Lahore Forest Division Anno Bhatti Forest

Serial No.	Category	Detail
1	Forest Zone	Central Zone
2	Forest Circle	Lahore
3	Forest Division	Lahore
4	Name of Sub-Division / Range	Compact
5	Type of Plantation	Jallo
6	CPT No.	cc
7	Name of Fire Site	cc
8	Name of Incharge	cc
9	Forest Guard	ccc
10	Block Officer	cc
11	No. of Fire Watchers/ Labour	7
12	GPS Coordinate: Minimum 4	32.326598, 73.326598
13	First Information	cc
14	Name of Informer	cc
15	Date & Time of Bursting Fire	2025-05-20T22:49
16	Kind of Fire (Ground / Crown Fire)	Ground Fire
17	Status of Coupe (Mature, Pole Crop, Planting Area etc.)	Pole Crop
18	Composition of the Area	N/A
19	Cause of Fire	Incidental
20	Nature and Extent of Damage (Acre.)	5
21	Access to terrain from local road (km)	12
22	Name of Nearest / Access Road	cc
23	Temperature on Incident Day	12
24	Present Status (Controlled, partially controlled or out of control)	Partially Controlled

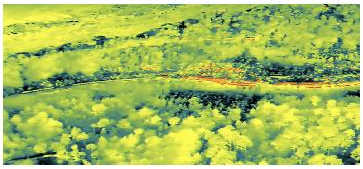
Page 1 of 4

Figure 20: Report Pg 1

Serial No.	Category	Detail
25	Estimated money / value of damage (Rs.)	5
26	Number of Damaged Trees	5
27	Nearest Communities	cc
28	Nearest Source of Water	Tributary
29	Remedial measures taken	Land Stabilization
30	Post Fire treatment to crop	Cooling Process
31	Damage Report No.	cc
32	FIR/Police Report No.	cc
33	Remarks/Recommendations	cc

During Fire

After Fire



Page 2 of 4

Figure 21: Report Pg 2

FIRE DSR # 1158
Date: 5/20/2025, 10:51:26 PM

Map of Forest Fire Incident - cc (5)

Forest Field Formation Actions (Time-Stamp)

Response Time	Field Formation	Concern Official	Action Taken	Remarks
N/A	Control Room Reporting	N/A	N/A	N/A
1200	QRF Team	test	test	test
N/A	Fire Watchers / Rakhas	N/A	N/A	N/A
N/A	Forest Guard	N/A	N/A	N/A
N/A	Block Officer	N/A	N/A	N/A
N/A	RFO	N/A	N/A	N/A
N/A	SDFO	N/A	N/A	N/A
N/A	DFO	N/A	N/A	N/A

Other Departments Actions (Time-Stamp)

Response Time	Department Contacted	Officer in Charge	Action Taken	Remarks
N/A	District Administration	N/A	N/A	N/A
N/A	Rescue Department	N/A	N/A	N/A
N/A	Disaster Department	N/A	N/A	N/A
N/A	Police / Law Enforcement	N/A	N/A	N/A
N/A	Health / Emergency Service	N/A	N/A	N/A

Page 3 of 4

Figure 22: Report Pg 3

FIRE DSR # 1158
Date: 5/20/2025, 10:51:26 PM

Community Engagement Actions (Time-Stamp)

Response Time	Engagement Action	Community Representative	Action Taken	Remarks
N/A	Alert sent to local communities	N/A	N/A	N/A
N/A	Evacuation initiated	N/A	N/A	N/A
N/A	Volunteer fire fighting support organised	N/A	N/A	N/A
N/A	Awareness campaign initiated	N/A	N/A	N/A
N/A	Feedback and assessment from locals	N/A	N/A	N/A

FIRE INCIDENT SUMMARY

A fire incident was reported at cc (N/A Block, N/A Beat) on 5/20/2025, 10:49:00 PM. This was classified as a Ground Fire incident, currently Partially Controlled. The affected area covers approximately 5 (Acre.) with estimated damages of PKR5.

The fire originated from Incidental in an area characterized as Pole Crop with N/A. Access to the site was 12 km from the nearest road with temperatures at 12°C during the incident.

Response efforts involved 1 forest department teams including ccc (Forest Guard) and cc (Block Officer), supported by 0 external agencies. Community actions included 0 coordinated measures with cc.

Remedial measures included Land Stabilization with water sourced from Tributary. Post-fire treatment recommendations include Cooling Process. The incident has been documented under report cc and police case cc.

Prepared by:

(Name & Designation)

Reviewed by:

(Name & Designation)

Page 4 of 4

Figure 23: Report Pg 4

Detail of the Report

The Fire Incident Report from the Lahore Forest Division, Anno Bhatti Forest, documents a ground fire incident on May 20, 2025, at 10:49 PM in the Central Zone's Lahore Forest Circle, specifically within the Compact Sub-Division and Jallo Plantation area. The fire, which spanned 5 acres, was incidental in origin, occurring in a pole crop area with no specific composition noted, and caused an estimated PKR 5 in damages, affecting 5 trees. The site, located 12 km from the nearest road with a temperature of 12°C during the incident, was partially controlled at the time of reporting. Response efforts involved 7 fire watchers and the Quick Response Force (QRF) Team, which acted at 1200 (likely indicating the time of response), but other forest roles like the forest guard, block officer, Range Forest Officer (RFO), and Divisional Forest Officer (DFO), as well as external departments (e.g., Rescue, Police) and local communities, reported no involvement. Remedial actions included land stabilization using water from a nearby tributary, followed by a cooling process to treat the affected area post-fire. The report includes GPS coordinates (32.326598, 73.326598) for precise location tracking, though several fields, such as names of the in charge, forest guard, block officer, informer, and specific reports (e.g., FIR/Police Report), are marked as placeholders (e.g., "cc"). The document concludes with placeholders for the names and designations of the preparer and reviewer, ensuring a structured record for future reference.