

# How to read this atlas

## Index Map

Use Index Map to locate the tile of the required map. Index map contains two sections i.e. main map and ancillary material. There are total of six index maps that cover following Forest Sub-Divisions and Ranges of Murree;

1. Ghora Gali Forest Sub Division
2. Sambli Forest Sub Division
3. Lower Topa Forest Sub Division
4. Sehr Bagla Forest Sub Division
5. Municipal Forest Range
6. Ban Forest Range

Map reading instructions are given below to provide thumb rule for the map reader;

### Main Map

- The legend (a key to read the map) contains the administrative zones of MFD with different colours.
- Digital Elevation Model (DEM) and hill shade as backdrop of the map give overall terrain view.
- A geographic grid of interval 2 minutes is also displayed on the main map. This will help the user to locate the geographic location in the field and identify the Map Tile of user interest for detailed map.
- Index grid is displayed as gray rectangle of 0.027 x 0.022 dd size. Out of the Index grid, blue rectangles indicate a particular forest subdivision that contains information of detailed tiles in the upcoming map section

### Ancillary Material

Left side of the index map consists of different sub headings to support the main map.

**Map Title:** Title of the Study

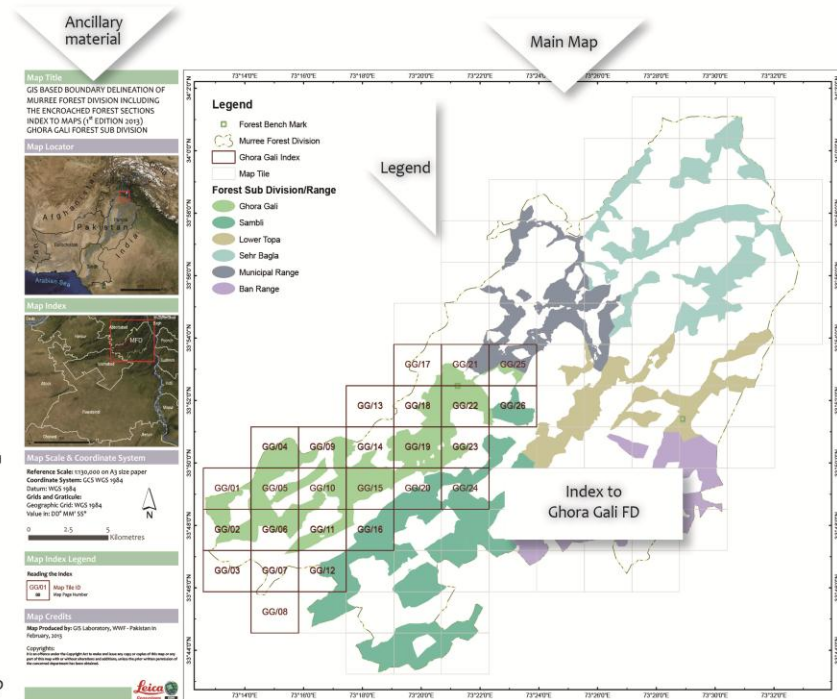
**Map Locator and Index Map Locator:** It helps the user to locate the study area on a macro/ country level scale small map. The Index Map Locator provides the spatial extent of study area on District level.

**Index Key:** It contains Map ID and Map Page No and helps the user to locate the desired map tile within the atlas.

**Map Scale & Coordinate System:** For advance level map users, map scale and coordinate system is mentioned in this part. North arrow provides map orientation to grid north and scale bar is for estimation of aerial distances (kilometers) on the Main Map.

**Map Credits:** This part describes map credentials. Copyright and map production date are mentioned in this section.

**Map Page No.:** On the left part of the map, page number is given.



## Tile Map

Tile map is divided into three parts i.e. main map, ancillary material, signature segment

## Ancillary Material

Left side of the Tile Map consists of different sub headings to support the main map.

### Map Title

The title of the map gives us the following information;

- The name of the project (it is same for all maps).
- Map ID of the current map. Map ID is generated on the basis of initials of the subdivision and sequential numeric values, for example GG/06 represents the 6th tile of Ghora Gali Sub Division
- Name of the Forest Subdivision.

### Map Locator

The map locator consists of a map of MFD with administrative zones. This map provides following information;

- Six administrative zones are highlighted with different colours with legend in upper left corner of the map locator box.
- The map consists of two rectangles;
- ( ) shows the extent of the current subdivision and the map index
- ( ) indicates the extent of main map

### Map Index

Index map is the map of current subdivision. Each subdivision is divided into several small tiles and each tile is given a unique Map ID e.g. GG/06

This part of the map shows the user to visualize the arrangement of all tiles of the Sub Division. The block under "Index to Sheet" heading gives user an idea about the neighboring tiles of this particular Map tile. e.g. in the East of "GG/06" is the Map Tile "GG/11"

### Map Scale & Coordinate System

It contains information about the scale and the coordinate system of the main map. All maps are displayed on 1:10,000 scale on a paper size A3. There are two different grids used on the main map;

- Geographic Grid in degree minute second (values displayed in black).
- Metric Grid in metres (values displayed in blue) and grid index denotes UTM longitude zone 43, UTM latitude zone 5
- A scale bar is placed to calculate the aerial distance on the map, and the North arrow indicates the direction of Grid North.

### Map Legend

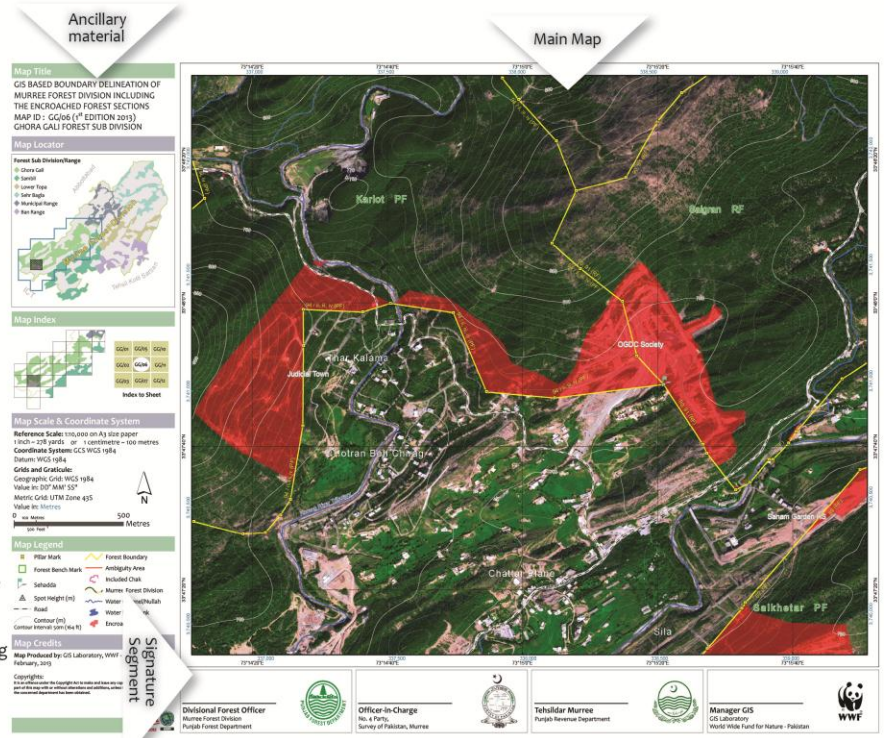
A Legend provides information about symbolic representation of geographic features in the Map. In this atlas, user can find following symbols in the legend section.

- Pillar Mark

It is the vertex marked on the map to show the exact location of the forest boundary pillar.

- Forest Bench Mark

Forest bench marks on the map are shown with the help of this symbol. A forest bench mark is a reference point to set a survey baseline for boundary delineation



### Map Legend

- Pillar Mark
- Forest Bench Mark
- Sehadda
- ▲ Spot Height (m)
- Road
- Contour (m)
- Contour interval: 50m (164 ft)
- Forest Boundary
- Ambiguity Area
- Included Chak
- Murree Forest Division
- Water Channel/Nullah
- Water Pond/Tank
- Encroachment



#### Sehadda

Sehadda is indicated with a flag symbol in the map. A sehadda is a point of tri- junction of three Mozas.



#### Spot Height

Different elevation points in the map are indicated with triangle marker. It tells the height of the point in metres.



#### Ambiguity Area

Ambiguity area is a line symbol that indicates the forest boundaries not delineated or have ambiguities in the delineation.



#### Contour (m)

Contour is a line that indicates the points of equal elevation on the map. Two different levels of contour lines are given on the maps. Major contours have 50m interval and have labels marked on them while small contours are of 10m interval and are thinner than the major contour line.



#### Water Channel

Water channels in the map are represented with the help of blue line.



#### Road

This line is used to represent the road feature on the map.



#### Forest Boundary

Forest boundary is marked with yellow thick solid line in the map. It is the boundary extent of the state owned forest including reserved and Protected Forest. The forest boundary connects two consecutive boundary pillars.



#### Water Pond/Tank

Water bodies are represented with this symbol in the map.



#### Internal Chak

Internal Chak is the locality residing within the state forest land and have legal ownership rights since time of forest declaration. This symbol indicates the extent of internal chaks within the forest.



#### Murree Forest Division

This symbol is used to indicate the Forest division boundary on the map.



#### Encroachment

This symbol indicates the estimated infrastructure (Settlements or any other construction). These are identified by overlay analysis of delineated boundary and Satellite image (2010/2009).

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**Map Page No.:** On the left part of the map, page number is given.

#### Main Map

Main map of each Map Tile presents detailed information of the Area of Interest. In this part, information is provided by using satellite image and different symbols given in the legend. Two different grids are given on this part to facilitate the user to locate the position on the ground. Forest pillars and boundary lines are displayed to provide the actual extent of Forest Division/ Sub Division/Forest Compartment. Contour lines help the user to understand the topography of the area. Typography on the map highlights the localities; forest names/forest compartment names and water channels.

#### Signature Segment

Signature segment is for the signatures of officials from the four departments. i.e. Punjab Forest Department, Survey of Pakistan, Punjab Revenue Department and World Wide Fund for Nature - Pakistan.