

## USER GUIDE

# Regional Land Cover Monitoring System

The Regional Land Cover Monitoring System (RLCMS) provides easy access to the harmonized land cover database of the entire Hindu Kush Himalaya (HKH) region from 2000–2021. It provides user-friendly tools to generate maps, charts and statistics that help understand change processes better and aid informed decision-making. Users can generate land cover maps and associated charts of the entire HKH region or supply different parameters to generate annual land cover maps for pre-defined regions – [biodiversity hotspots](#) and ecoregions. Alternatively, users can also draw a polygon to supply an area of interest. The system also allows users to generate trends in land cover changes for a defined area of interest.

### RLCMS user interface

The RLCMS has different sections in the user interface. Each section hosts multiple tools to aid user interaction with the system.

**Parameters:** This section hosts different input fields to allow users to interact with the RLCMS

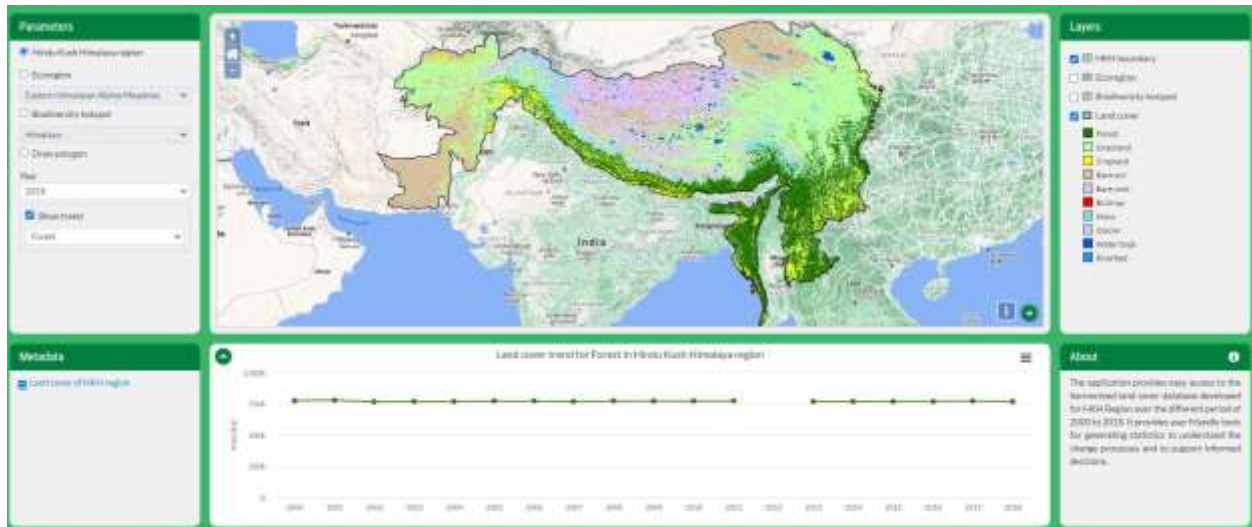
**Layers:** Users can toggle different layers –HKH boundary, ecoregion boundary, biodiversity hotspot boundary, and different land cover classes – on and off.

**Map:** The map window occupies the largest real estate in the RLCMS user interface. The map displays the land cover maps for a chosen area of interest. Standard map controls allow users to zoom in and out and pan the map.

**Chart:** This section is updated automatically to display corresponding charts for a selected area of interest.

**Metadata:** Users can click on the Land cover of HKH region in the Metadata section to download the entire data set. After a simple sign-up process, users can download the data set from **ICIMOD's RDS portal**.

About: The about section provides users with additional information on the RLCMS.



### HKH land cover (2000–2021)

The RLCMS shows the land cover of the HKH region for 2021 by default. Users can select different years from the drop-down menu available in the Parameters section. The corresponding map and chart are automatically updated with the statistics for different land cover classes in a given year (Figure 1).

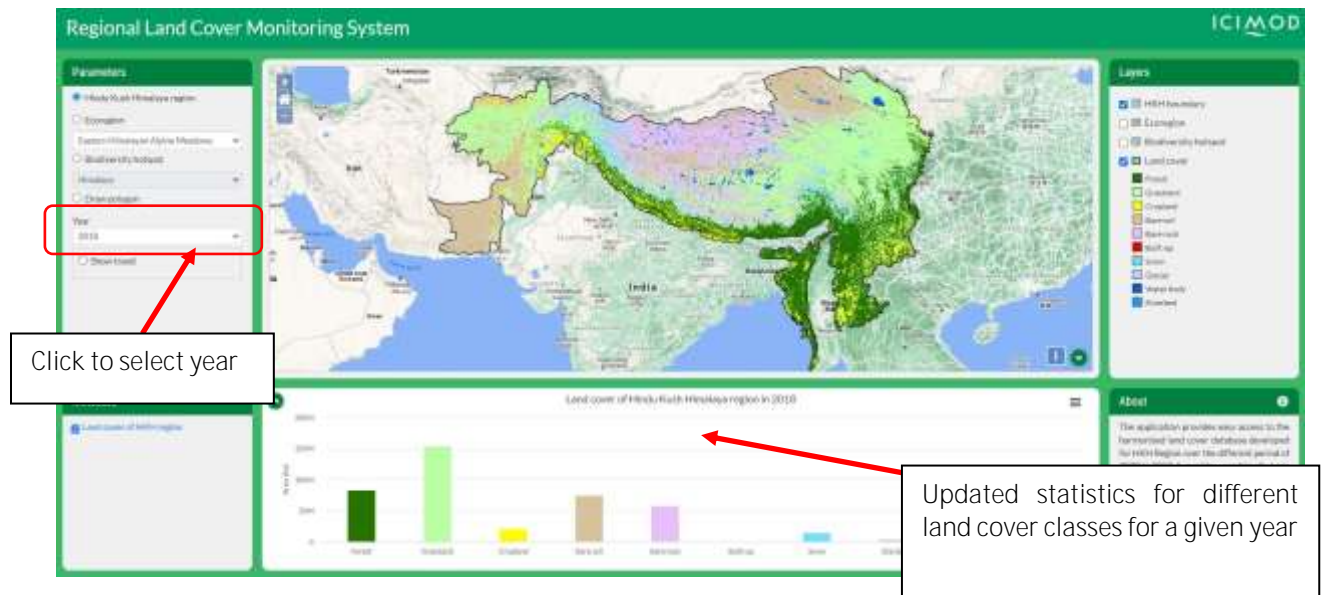


Figure 1 Users can select a year from the drop-down menu to visualize land cover data for the HKH region in a given year

## Land cover data – ecoregions and biodiversity hotspots

Besides the land cover map of the HKH region, the RLCMS also allows users to generate land cover maps for a pre-defined area of interest for a particular year.

In the Parameters section, users can select pre-supplied parameters to visualize land cover data for different ecoregions or biodiversity hotspots (Figure 2). The corresponding maps and charts for the selected region are automatically updated in the map and chart sections. An example is given in Figure 3.

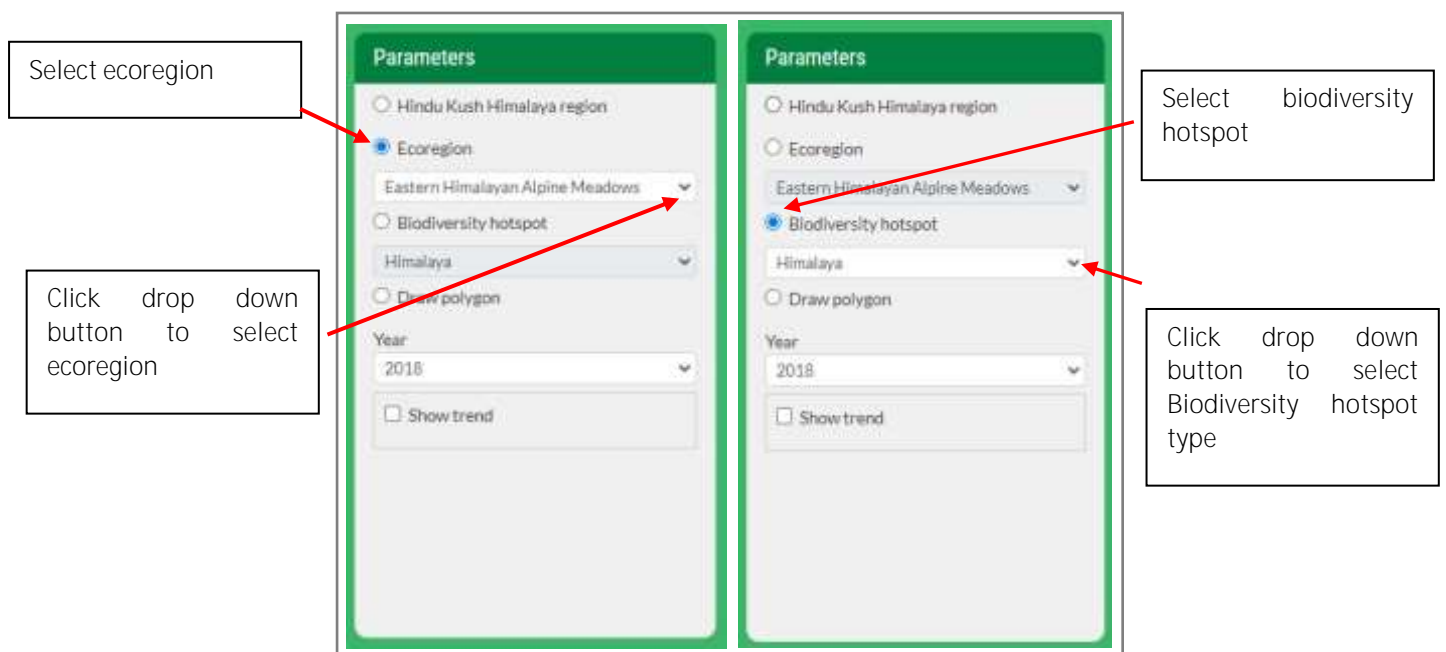


Figure 2 Users can select different pre-supplied parameters to visualize land cover data for a particular ecoregion or biodiversity hotspot in a given year

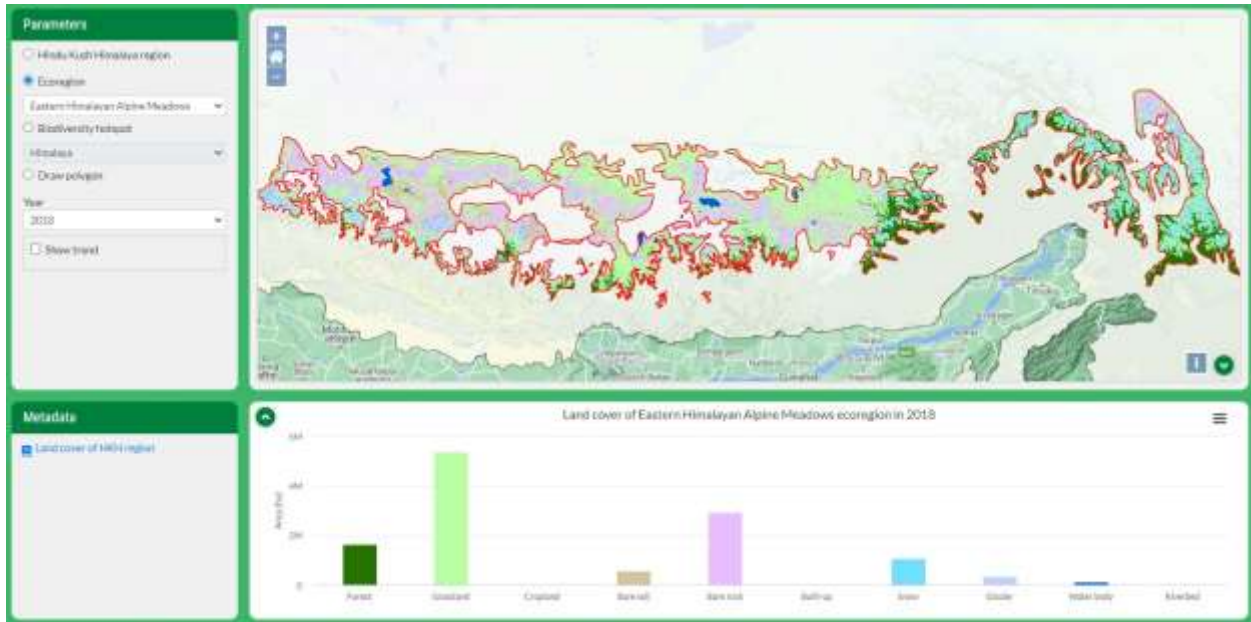


Figure 3 The RLCMS updates to showcase land cover map and associated chart of the chosen ecoregion

### User-defined area of interest

Under the Parameters section, users can also use the “Draw polygon” feature to define an area of interest (Figure 5).



Figure 3 **The RLCMS offers a “Draw polygon” feature that allows users to draw a polygon to supply an area of interest** After a user completes drawing a polygon on the map window, the Compute button appears just below the “Draw polygon” radio button. (Figure 5). The land cover data for the selected polygon is automatically updated by clicking the Compute button (Figure 7).

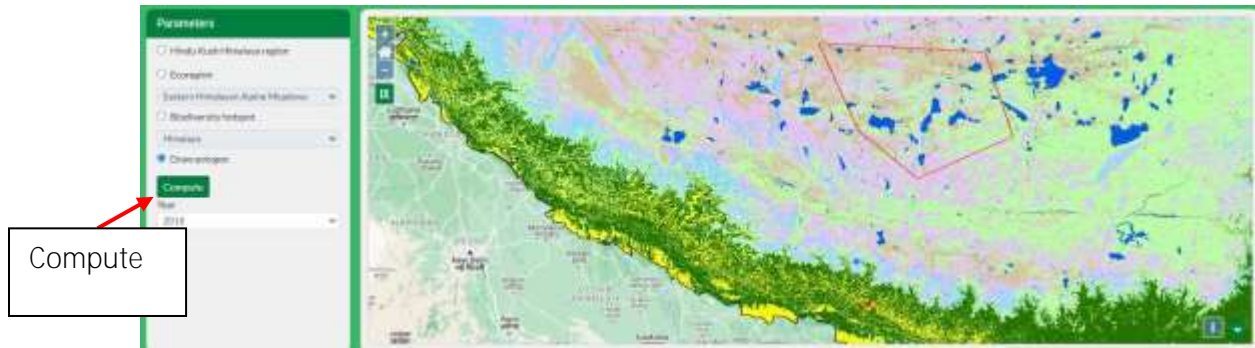


Figure 5 The Compute button appears after users complete drawing a polygon on the map window.

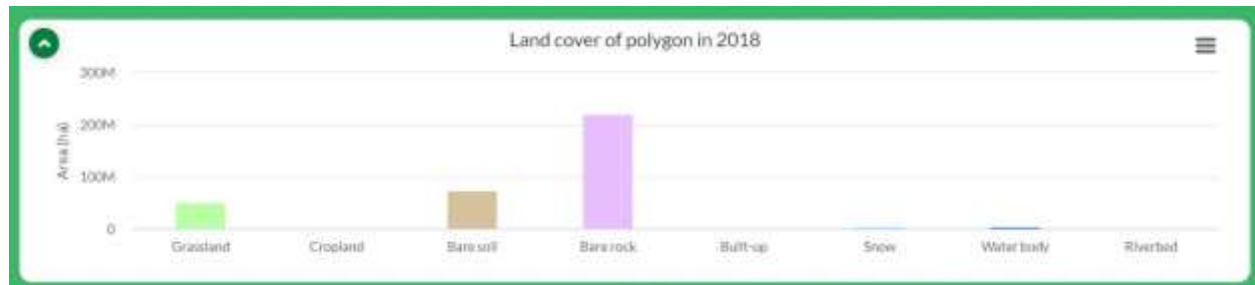


Figure 6 By clicking on the Compute button, users can generate land cover statistics for the selected polygon.

## Land cover trends

Users can also visualize trends for any land cover class. A drop-down menu appears after users check the Show trend check box. Users can select any land cover class to visualize the land cover trend for a particular area of interest (Figure 7). Users can also generate land cover trends for the HKH region, an ecoregion, a biodiversity hotspot or a drawn polygon.

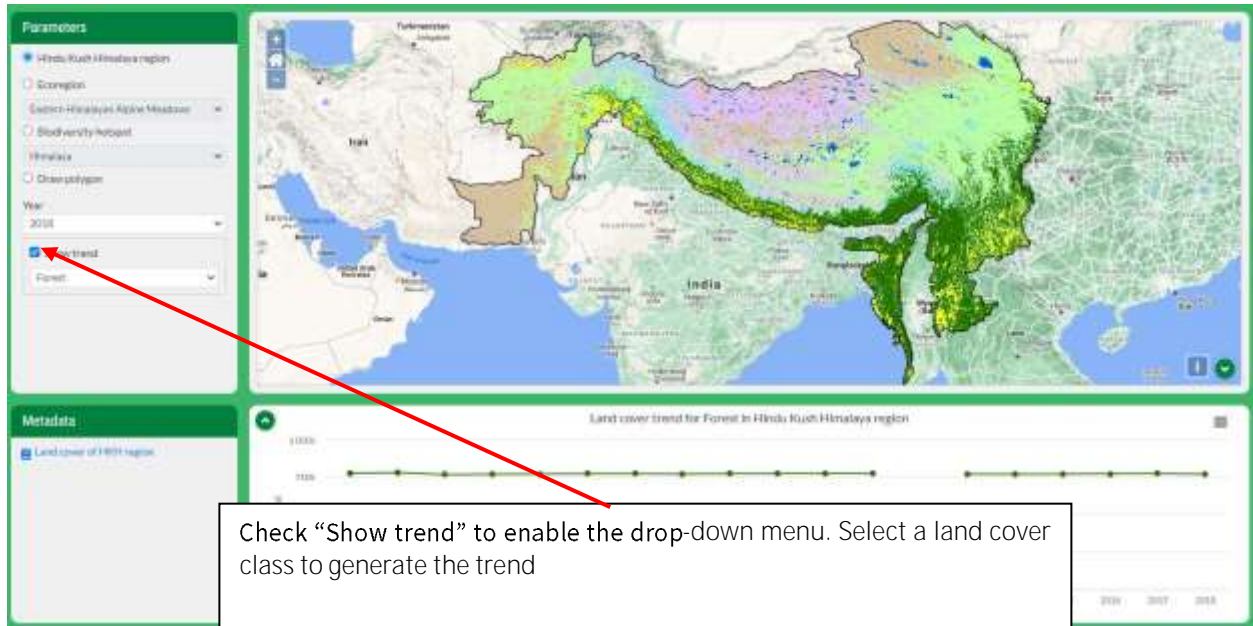


Figure 7 The Show trend check box allows users to generate land cover trends for a particular land cover class.

\* This user guide was last updated on 9 February 2023.