



UN Biodiversity Lab 2.0

Public Platform User guide

February 2021



Convention on
Biological Diversity



Impact
Observatory



UN
environment
United Nations
Environment Programme

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programme

WCMC



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This downloadable user guide has been developed to walk you through the key tools and functions of the UN Biodiversity Lab. If you have any further questions, please visit our [support page](#) or contact us at support@unbiodiversitylab.org.

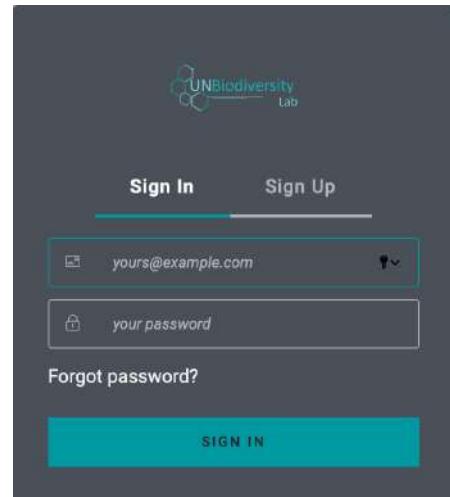
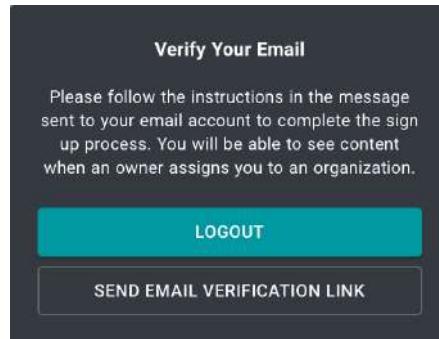
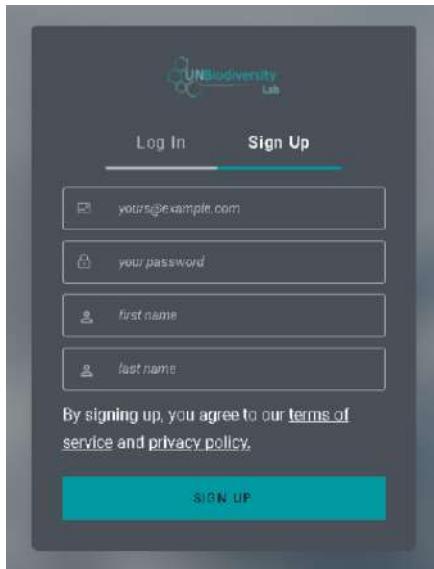
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Logging In and Registering

How do I register or log-in?

Before you begin exploring the data, register for the UN Biodiversity Lab (www.unbiodiversitylab.org):

1. Click the ‘data’ page of the UN Biodiversity Lab website to launch the data app.
2. Once this has loaded, select the account icon in the top right hand corner and choose ‘sign up’. Enter your email, name, country, and institution (optional), and set your password to sign up.
3. You will receive an email within a few minutes. Follow the instructions in this email to then follow the email to verify your account.
4. Once your account is verified, you can log-in using your email address and password each time you access the platform.
5. You can log-out at any time by clicking on your user icon and selecting Sign Out.



Logging In and Registering

How do I manage my account?

Once registered on the UN Biodiversity Lab, you will be able to manage your account, including editing your user name, email, password, country, and institution. You will also be able to view and edit the private workspaces you belong to.

To manage your account:

1. Click on the account icon with your initials on the top right, then click on profile.
2. Click on the edit icon to edit your username, email, country, and institution.
3. To reset your password, click on SEND RESET EMAIL, then follow the instructions in the email.
4. To leave any of the private workspaces you belong to, click on edit, then on leave workspace. Save your changes.
5. If this account is no longer in use, you can click on DELETE YOUR ACCOUNT at the bottom of this page. After deleting the account, you will need to sign up again to gain registered user privileges on UN Biodiversity Lab.
6. After saving your changes, click on RETURN TO MAP VIEW.

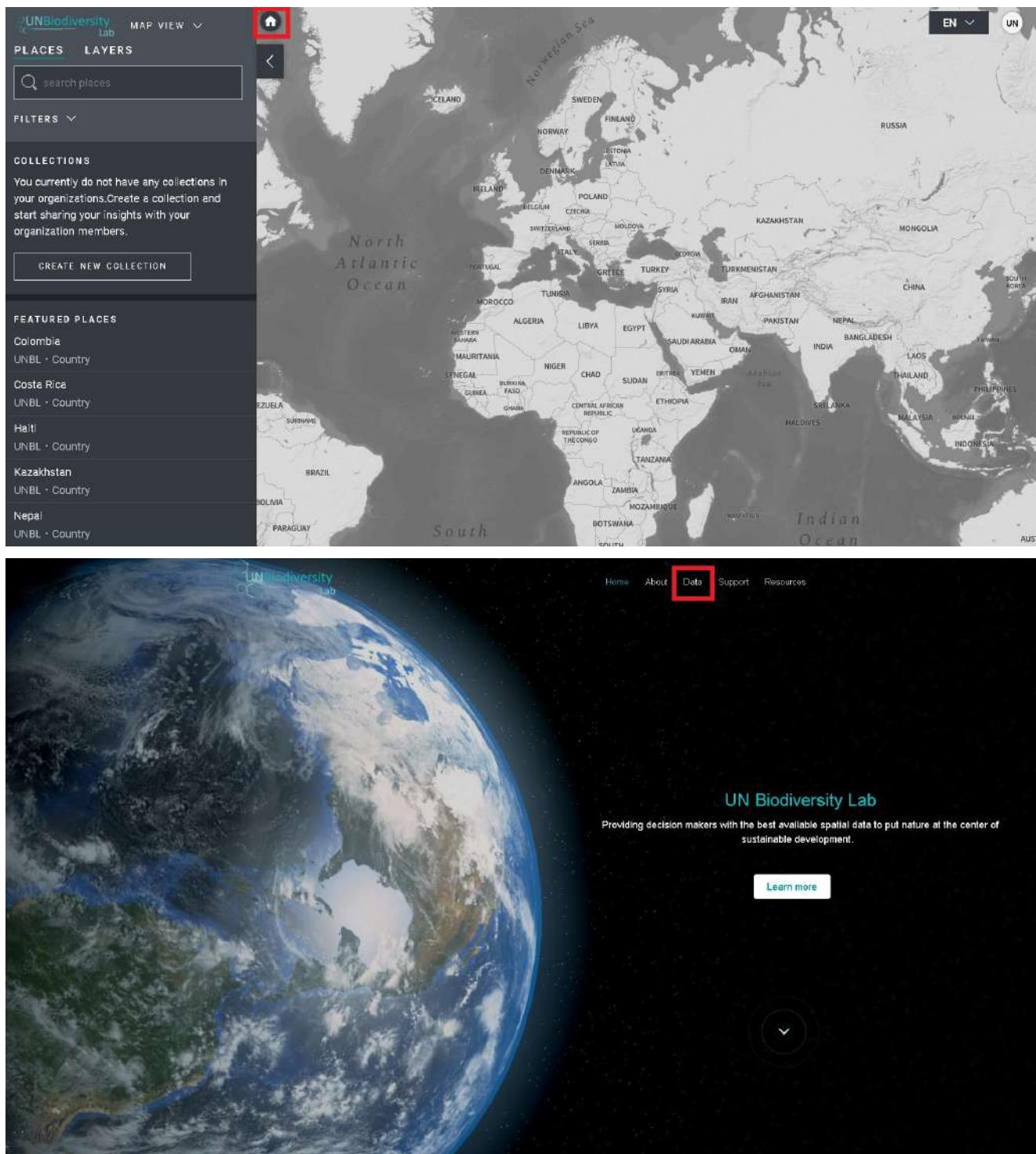
The screenshot shows the 'MANAGE YOUR ACCOUNT' page. At the top left is the UNBiodiversity Lab logo and a 'RETURN TO MAP VIEW' button. At the top right are language ('EN') and user ('UN') dropdown menus. The main area contains several sections: 'NAME' (UNBL, edit link), 'EMAIL' (di.zhang@undp.org, edit link), 'PASSWORD RESET' (button 'SEND RESET EMAIL' highlighted with a red box), 'COUNTRY OR REGION' (No country provided, edit link), 'INSTITUTION' (UNDP, edit link), 'ORGANIZATIONS' (Organization name: UNBL; Role: Editor, Admin; User: user-test-a, edit link), and 'ACCOUNT ACCESS' (button 'DELETE YOUR ACCOUNT' highlighted with a red box).

Logging In and Registering

How do I navigate between the UN Biodiversity Lab website and data app?

Navigating between the two pages is simple:

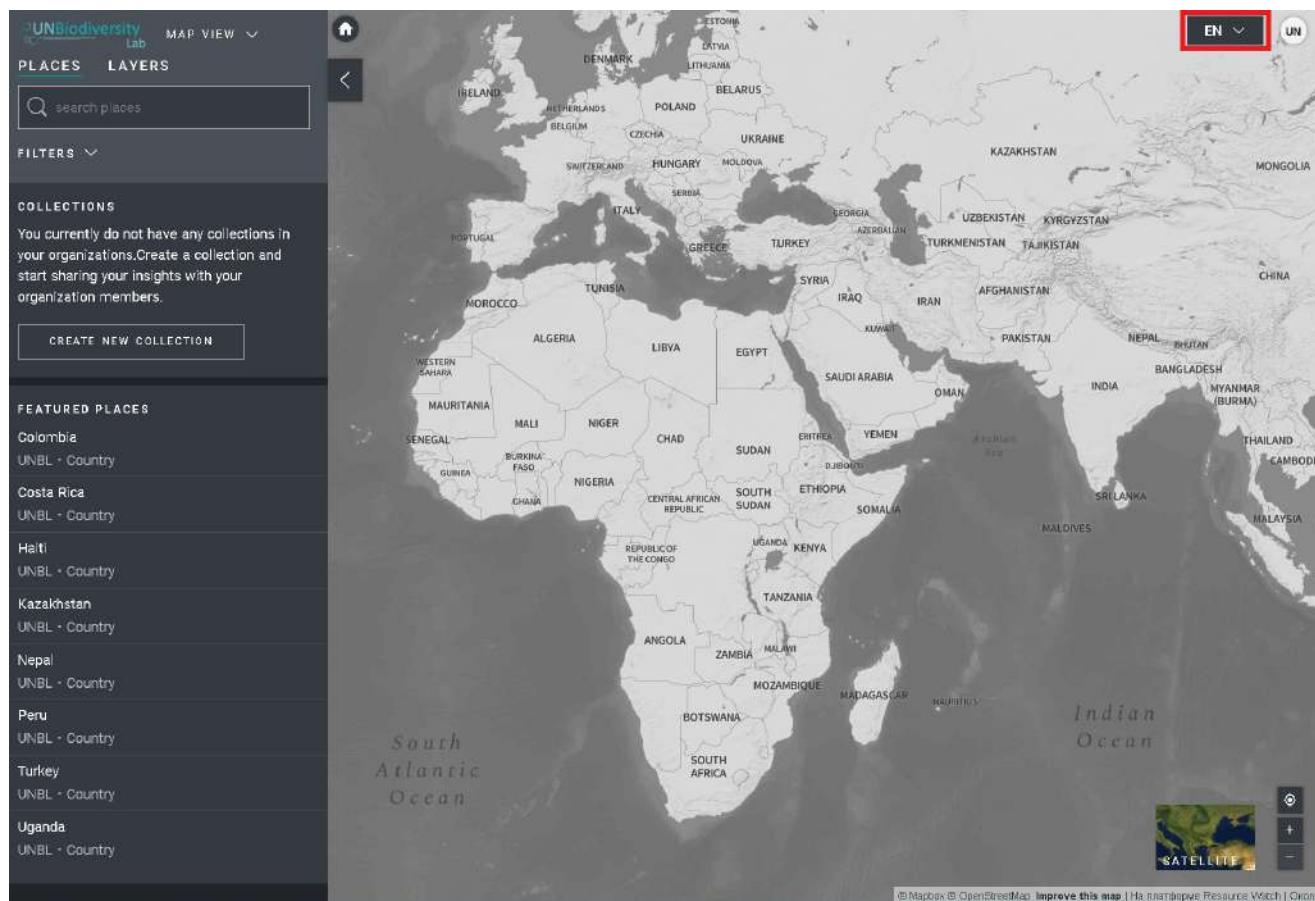
1. To return to the UN Biodiversity Lab website from the data app, click the home icon on the top left of the map.
2. To navigate to the data app from the UN Biodiversity Lab website, click on Data.



Logging In and Registering

How do I change the language?

The UN Biodiversity Lab is currently available in English, French, Spanish, Portuguese, and Russian. The default language is English. To change the language, click on the EN icon on the right corner of the map and select the language you prefer. You can change your language on either the UN Biodiversity Lab website or data app.



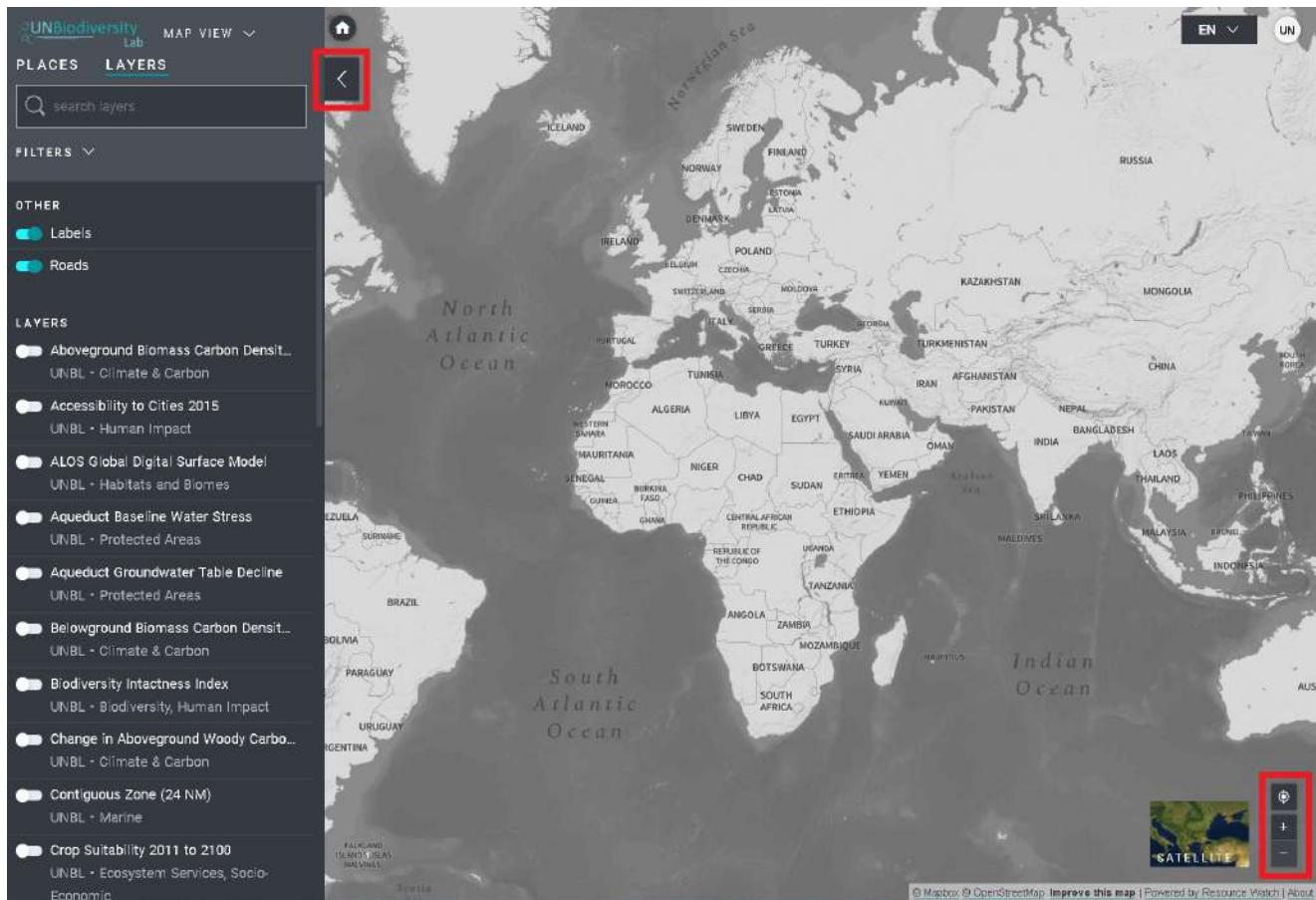
Map View Basics

How do I adjust my map view?

There are several features that can assist you to navigate the map screen. These include:

1. Move map: Use your mouse to drag the portion of the map you would like to view into the middle of the screen.
2. Zoom in/out: Click on the +/- icons at the bottom right of the map.
3. Center place: Click on the center place button above +/- . This will re-center the map over the selected place.

Hide left menu bar: Click on the arrow at the top of the left menu to collapse the layer panel for a larger map view. Click again to expand the panel.

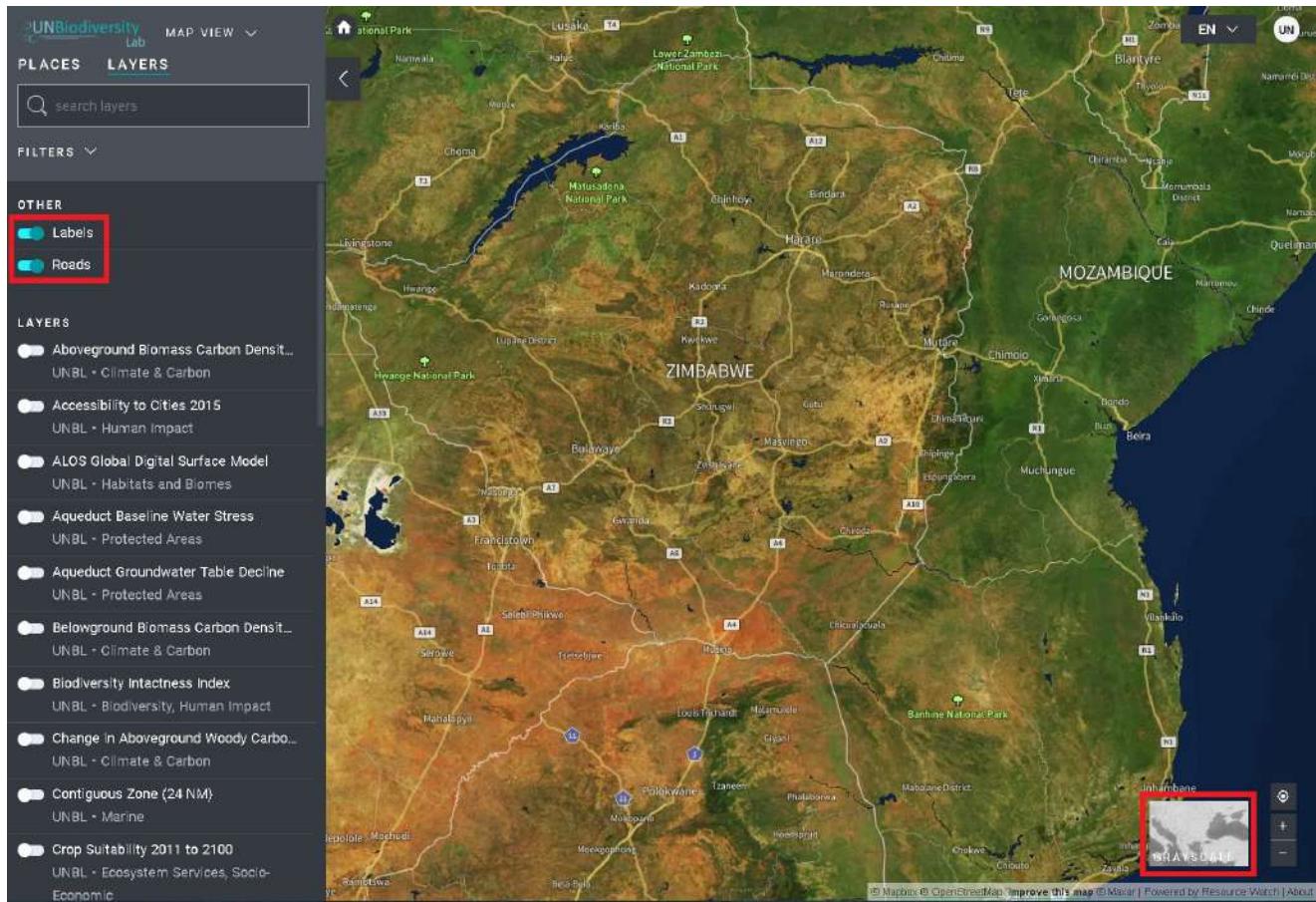


Map View Basics

How do I add/remove place labels, roads, and satellite view from the base map?

There are several options for you to customize the base map. These include:

1. Labels: The labels show the name of the places, including countries, states, cities, and representative landmarks. Click the toggle on to activate labels, and click off to hide.
2. Roads: Click on the toggle to show roads; toggle off to hide roads.
3. Map background: We offer grayscale and satellite options for the map background. To toggle between these options, click the small window at the left bottom right of the screen.



Dynamic Metrics for Your Country

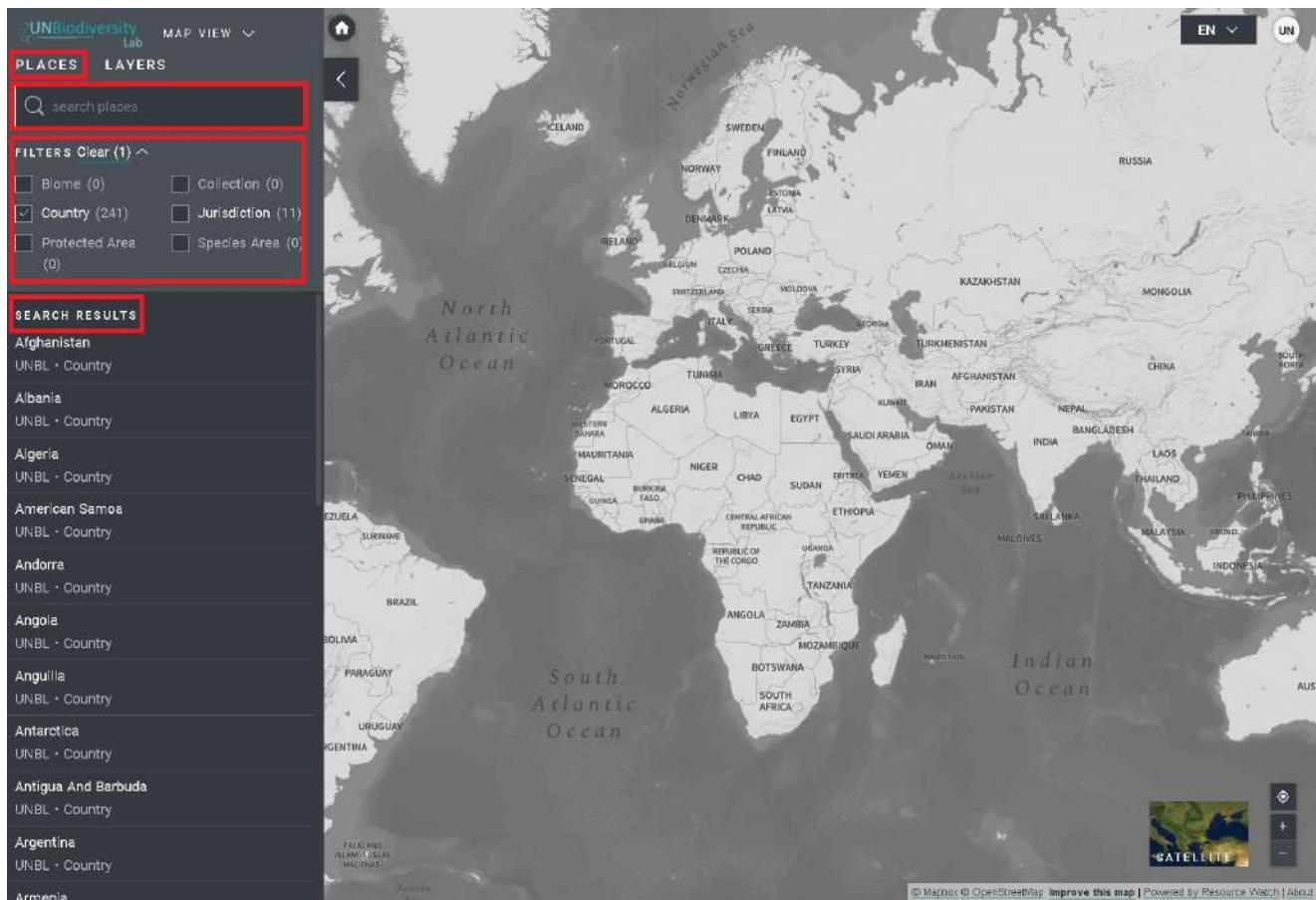
How do I find my country?

The UN Biodiversity Lab can help you to navigate to a specific area of interest and access datasets and dynamic metrics for this area. On our public platform, areas of interest include countries, jurisdictions, and select transboundary areas. To search for an area of interest, you can either:

- Click on the PLACES icon, type the name of the country or jurisdiction you want to view into the search box, and select the desired result in the search result list.

OR

- Click on the PLACES icon, click to expand the filters box, and select your filter of interest. You then can select the desired place from the search result list.



Dynamic Metrics for Your Country

What dynamic metrics are available for my country?

UN Biodiversity Lab offers at-a-glance metrics based on the best available UN-certified global spatial datasets. These metrics can be used to report on the state of nature and human development in your country. Available metrics include:

- Tree cover loss (2001-2018)
- Biodiversity intactness index (2015)
- Enhanced vegetation index (2000-2019)
- Global Land cover (2015)
- Monthly fire activity(2018)
- Protected areas (2019)
- Terrestrial carbon density (2010)
- Terrestrial human footprint (1993 & 2009)

To learn more about the datasets underlying each of these metrics and how they can be used for monitoring and reporting, please see the table in page #11.

Widget name	What metric does this widget calculate?	What dataset is used to calculate this metric?	How can this be used for monitoring?
Annual Accumulated Tree Cover Loss	Sq km of tree cover loss per year within location; % change (-/+) since 2000 within location	This metric is derived from the Global Forest Watch Annual Accumulated Tree Cover Loss dataset (UMD), at 30m resolution, from the year 2000 through 2019.	This information can help monitor when and where deforestation is occurring as well as whether it is increasing or decreasing over your area of interest.
Biodiversity Intactness Index	Percentage within location that is very low intactness (0-20%), low intactness (20-40%), medium intactness (40-60%), high intactness (60-80% intact), and very high intactness (80-100%)	This metric is derived from the Biodiversity Intactness Index dataset (UNEP-WCMC, NHML), at 1 km resolution, from the year 2015.	This information illustrates whether habitat is becoming more intact or less intact, therefore affecting biodiversity over the area of interest. It can give insight into habitat destruction, fragmentation, or restoration.
Global Land Cover (ESA)	Percentage of each land cover classification represented within location	This metric is derived from the Global Land Cover dataset (ESA), at 300m resolution, from the year 2015.	This information can be used to monitor land cover change from year to year.
Monthly Fire Activity	Sq km of burned area within location; amount of weeks with "unusually high" amount	This metric is derived from the NASA MODIS Version 6 Burned Area data product, at 500m resolution, from the year 2001 through 2020.	Monthly fire activity can be analyzed to monitor seasonal fire trends and report on increases or decreases in human-made fire.

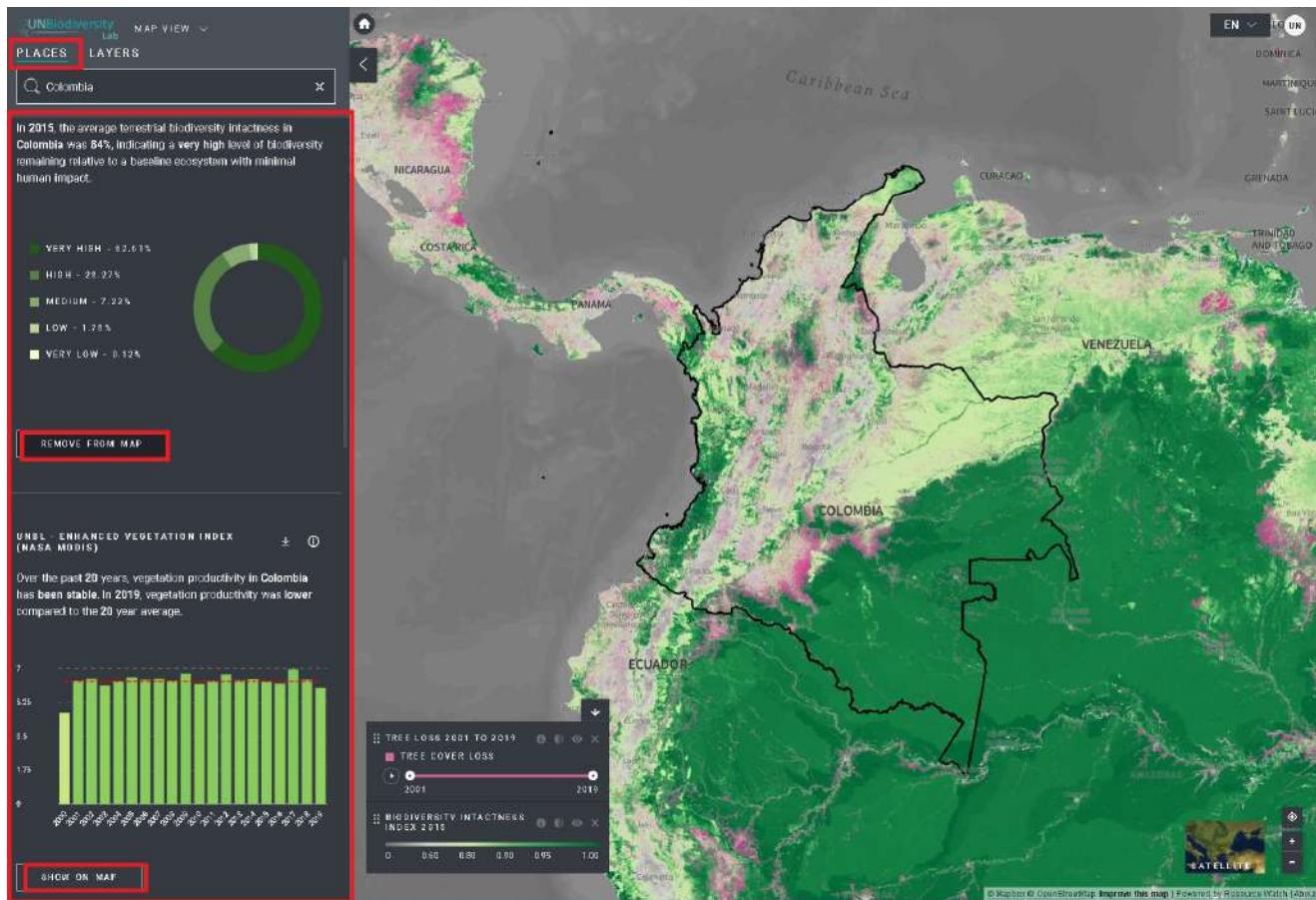
Dynamic Metrics for Your Country

Widget name	What metric does this widget calculate?	What dataset is used to calculate this metric?	How can this be used for monitoring?
Protected Areas (WDPA)	Sq km of protected area within location	This metric is derived from protected area area information provided by national governments to the World Database on Protected Areas (IUCN, UNEP-WCMC).	The WDPA is updated monthly and can be used to monitor changes in legally protected areas or, in conjunction with other datasets, monitor activity within and around protected areas.
Terrestrial Carbon Density	Sum of total carbon within location; average of this number per sq km; proportion of this number biomass and/or soil	This metric is derived from the Terrestrial Carbon Density dataset (NatureMap, UNEP-WCMC), at 300m resolution, from the year 2010.	A time series of this dataset enables monitoring of carbon stored through nature based solutions (vegetation and soil).
Terrestrial Human Footprint	Average score within location calculated for both 1993 and 2009; difference of above averages	This metric is derived from the Terrestrial Human Footprint (WCS, UNBC) from the years 1993 and 2009.	The Human Footprint dataset can be used to monitor the impact of development and human infrastructure, on surrounding environments and areas of interest.
Enhanced Vegetation Index	Cumulative Vegetation Productivity over a given location per year	This metric is derived from the Enhanced Vegetation Index (EVI) dataset (NASA MODIS), measuring the annual cumulative vegetation productivity from 2000 to 2019.	EVI can be used to monitor vegetative health over an area as an indicator of various abnormal conditions such as drought and changes in land use.

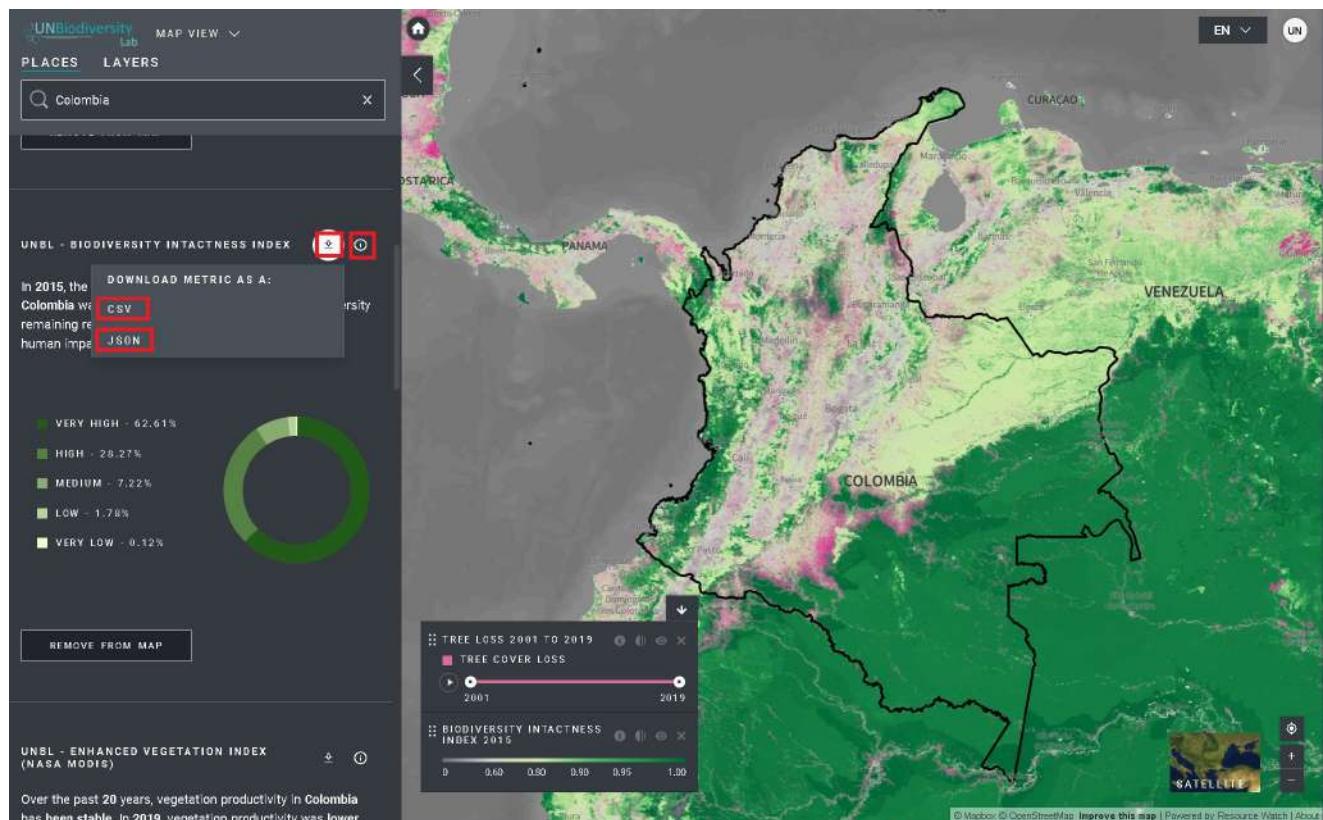
Dynamic Metrics for Your Country

To view the metrics on UN Biodiversity Lab:

1. Select an area of interest.
2. Review the metrics in the left panel.
3. Click on the SHOW ON MAP icon if you want to view this layer on the map. Click on the REMOVE FROM MAP icon or the remove layer icon on the legend to clear the screen.
4. Click on the  icon to view layer info, the info pages provide a brief description of the data, related paper to read and source links.
5. To download summary data for the metric in .csv or .json format, click on the arrow  icon. You can also download the data from source links on the layers' info pages.



Dynamic Metrics for Your Country

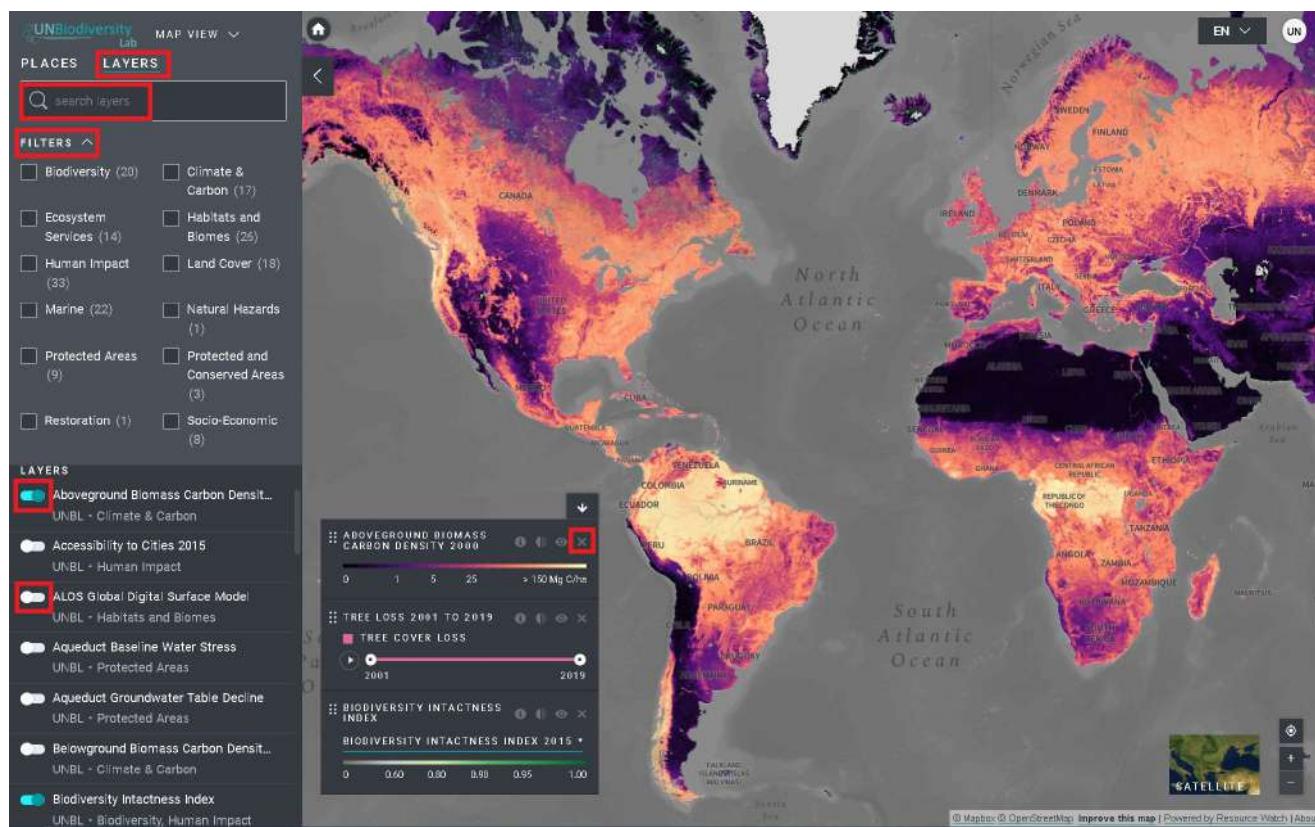


Additional Data for Your Country

How do I find additional data layers for my country?

Data layers on UN Biodiversity Lab include the best available UN-certified global datasets related to nature and sustainable development, ranging from biodiversity, to ecosystem services, to socio-economic data. You can view these layers globally or for an area of interest:

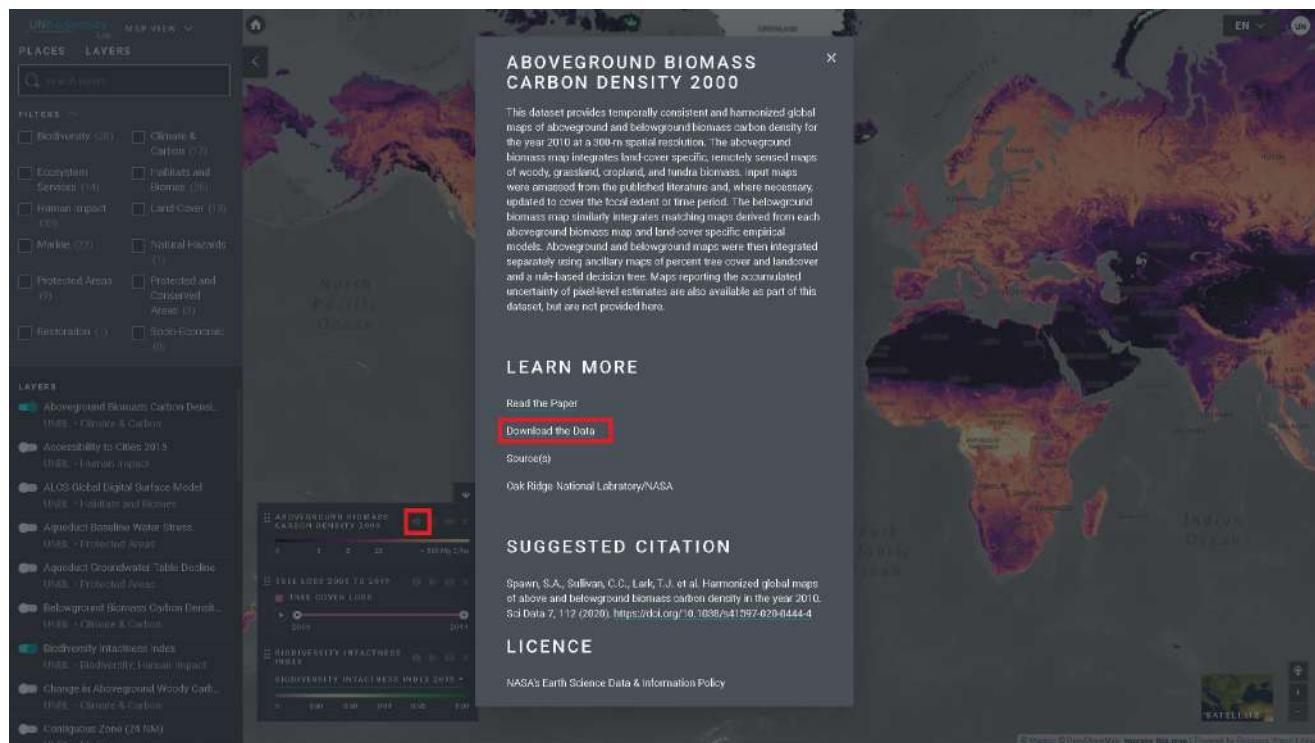
1. Navigate to your area of interest, if preferred. You can also stay on the global view.
2. Click on the LAYERS icon.
3. To search for a layer, you can either:
 - Type the name of the layer you want to view into the search box, and select the desired result in the layer list.
 - OR
 - Click to expand the filters box, and select your filter of interest. You then can select the desired place from the search result list.
4. Click the toggle to the left of the layer name to load this layer to the map.
5. Click the toggle again or click the X icon on the layer info to remove this layer.



Additional Data for Your Country

How do I find more information about each layer?

1. Select the layer and load it to the map.
2. On the left corner of the map, there will be a legend showing the name and symbology of the data layers on the map. Click on the i icon to view the layer information. The information provides a description of the layer, source organization, citations, and links to download the data.

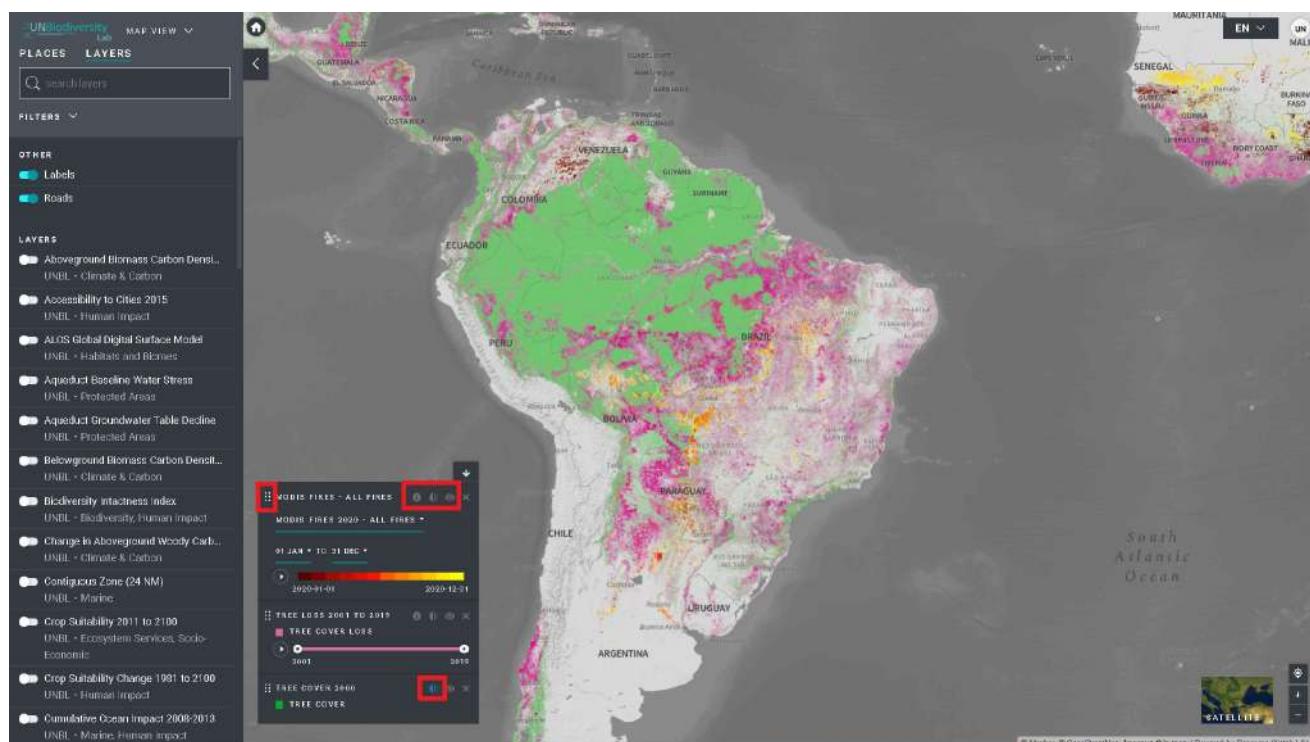


Additional Data for Your Country

How do I customize the layer views?

When selecting multiple layers, you can customize the map by adjusting their overlay order and opacity:

1. To change the overlay order, click on the icon on the left of the layer name in the legend and move the icon up or down, as preferred. The top layer on the legend will be the top layer on the map.
2. To change the opacity, click on the icon. Reducing the opacity increases the transparency of the layer. For example, to visualize both tree cover loss and protected areas, you can position the tree cover loss layer above the protected areas layer, and adjust the opacity of protected areas to 60%. This creates a map that shows tree cover loss within the protected areas, as well as the overall loss across the country.
3. To temporarily hide a layer on the map, click on the icon. To make it visible again, click on the icon.



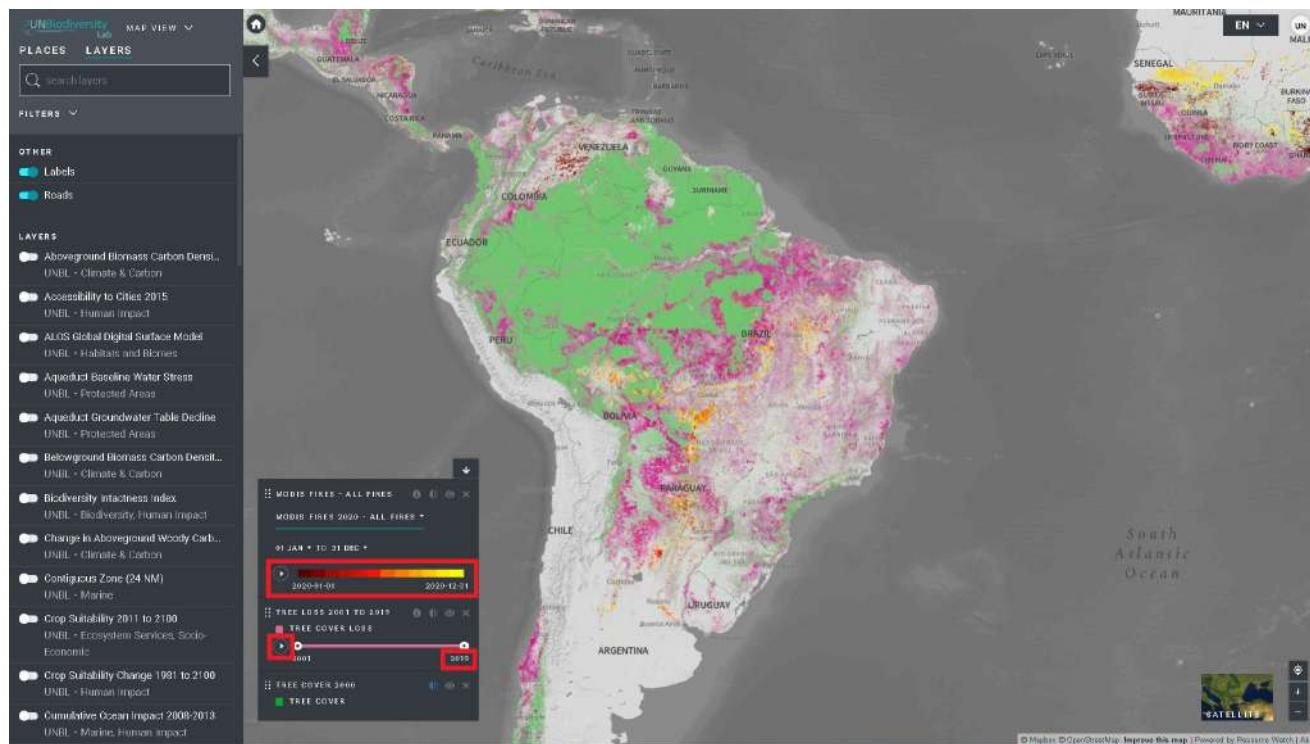
Additional Data for Your Country

What options do I have to visualize time series layers?

UN Biodiversity Lab provides you with access to layers that show change over time. Some time series layers are visualized over multiple years with animation, others can be visualized by specific year via the dropdown menu, and some are a combination of both with the ability to visualize animations of particular years that can be chosen from the dropdown menu.

To visualize time series layers:

1. Review our [data list](#) to confirm which layers are available as time series.
2. Select the layer of interest.
3. Customize based on the options available:
 - a. Animation only: Click on the play icon to the left to see the animation of changes over this time period.
 - b. Specific year only: Select the time (year, month, or date) you want to show on the map by clicking on the timeline bar.
 - c. Customized animation: Select the time range (year, month, or date) you want to show on the map by clicking on the timeline bar. Click on the play icon to the left to see the animation of changes over this time period.



Sharing and Exploring Data

How do I share a data layer?

Sharing data layers is easy. To do so:

1. Activate the layer(s) of interest on your map viewer.
2. Copy the URL displayed in your browser.
3. Share! Any data layers on our public platform will be accessible by anyone, regardless of whether they are a registered user.

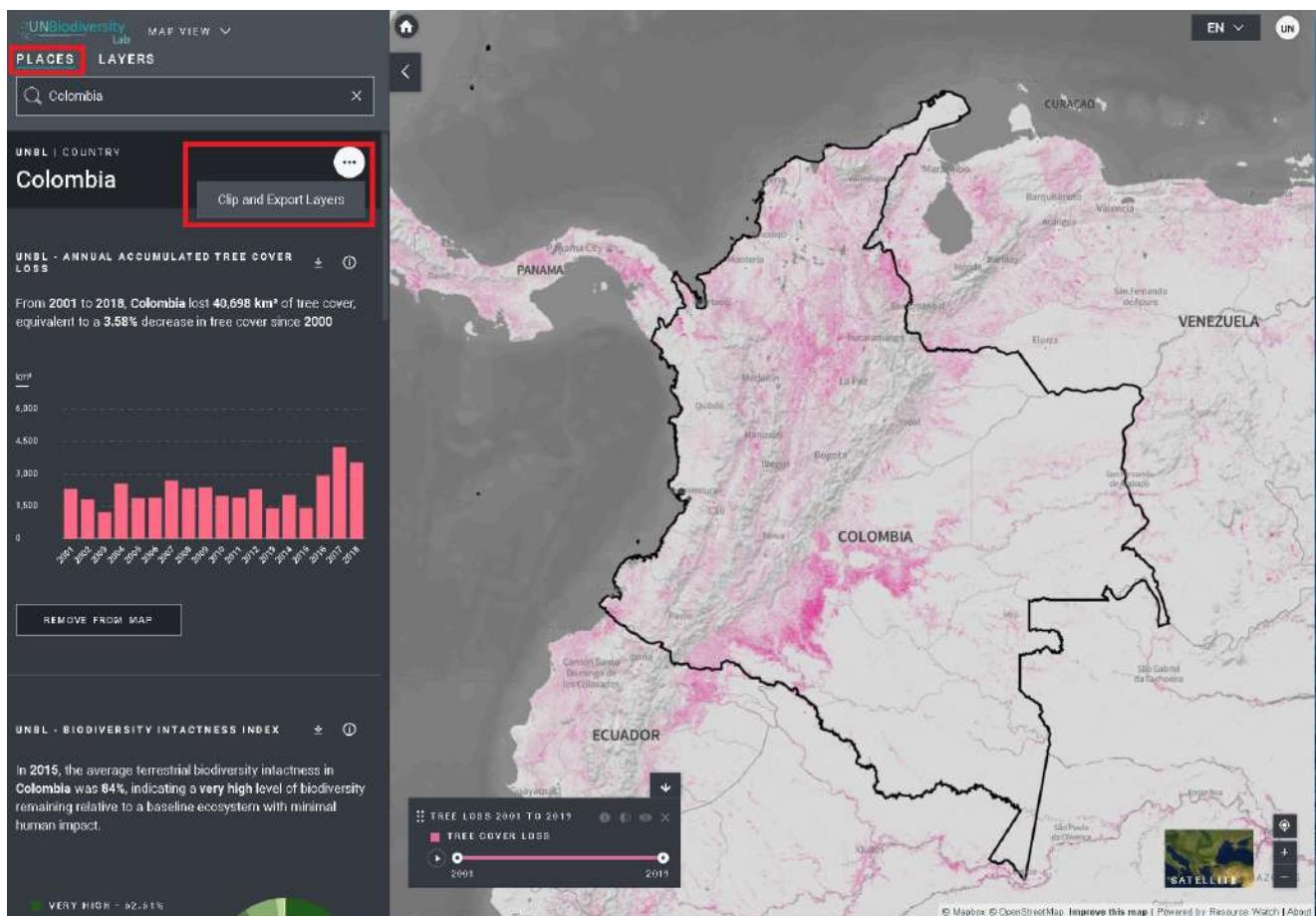
How do I clip and export layers?

Registered users on UN Biodiversity Lab are able to clip raster layers to an area of interest and download them for use in an offline GIS software. This function allows users to access the underlying data while avoiding the bandwidth and storage required to download and work with a global dataset.

To clip a layer to your area of interest and download:

1. Click on the PLACES icon and select your places of interest.
2. Click on the ... icon on the right of the country's name, and click on Clip and Export Layers.
3. Type the name or select the data you want to download. If the data contains layers of multiple years, select the year you want to download.
4. Click download.
 - a. The selected data source will be clipped to the bounding box around the country.
 - b. There is a small buffer added to the bounding box, which will slightly enlarge the area of the clipped raster. This helps to ensure that any incongruities between the national boundary used in UNBL and the official national boundary file you may wish to use do not result in loss of data. This assumes that differences are potentially small. If this is not the case, please contact us at support@unbiodiversitylab.org for assistance.
 - c. Note: this is the raw data and will not include styling information.
5. Access the downloaded .zip compressed file in your downloads folder once the download is complete.
6. The downloaded data can be opened in any GIS software for further analysis.

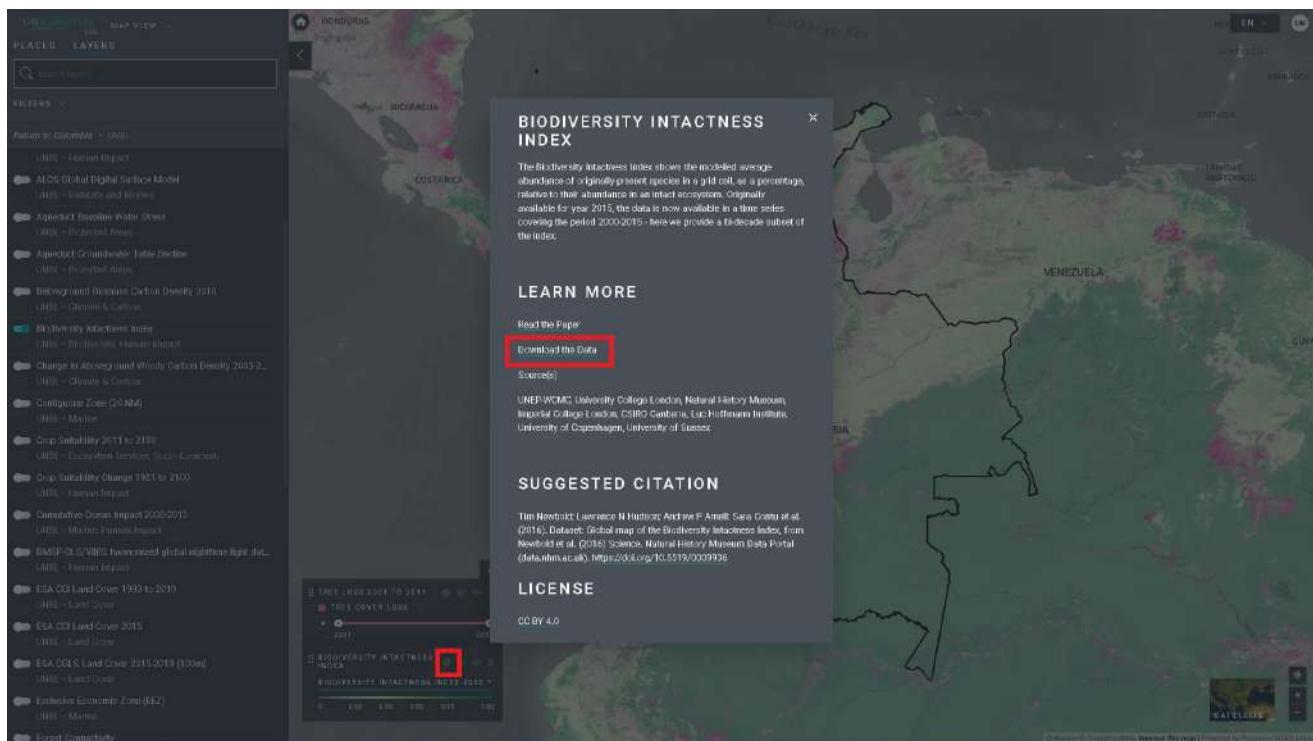
Sharing and Exploring Data



Sharing and Exploring Data

How do I download unclipped global data layers?

1. Select the layer of interest.
2. Click on the layer info icon.
3. Click on the link under LEARN MORE to download the data from its original source.
4. If you encounter any issues in accessing the data, please contact support@unbiodiversitylab.org for further support.



Sharing and Exploring Data

How do I make a map for inclusion in reports and communication products?

1. Customize the view of the layers you selected, as desired.
2. Use the screenshot function on your computer to capture the map.
3. For inclusion in formal reports or publications, please ensure you meet mapping standards:
 - Maps should be clear and concise.
 - Important text on maps should be clear and legible (e.g., cities, place names, legend items, etc.).
 - The map should include basic mapping elements, including: a legend of relevant data layers and scale bar.
 - The map must provide correct attribution(s) and citation(s) for the data source(s) used in its creation, either on the map itself or in a caption describing the map, e.g.:

Example (if within the map):

Sources: Sanderman, et al., 2018; UNEP-WCMC and IUCN, 2021.

Example (if in a caption):

Figure 2 shows the estimated soil organic carbon present in mangroves (from Sanderman, et al., 2018) within protected areas in Vietnam (UNEP-WCMC and IUCN, 2021).

- Also be sure to include full citations for datasets used in the references section of the document, e.g.:

Sanderman, J. et al. (2018) ‘A global map of mangrove forest soil carbon at 30 m spatial resolution’, Environmental Research Letters, 13(5), p. 055002. doi: 10.1088/1748-9326/aabe1c.

UNEP-WCMC and IUCN (2021), Protected Planet: The World Database on Protected Areas (WDPA) [On-line], 02/2021, Cambridge, UK: UNEP-WCMC and IUCN Available at: www.protectedplanet.net.

- Include information on the map (or in the citation describing the map) on: who created the map; the date the map was produced on UN Biodiversity Lab; and a note indicating that the map was created using UN Biodiversity Lab.

Example:

Created by James Bond using UN Biodiversity Lab (www.unbiodiversitylab.org) on 14 February 2021.

- Finally, ensure that you also include a citation for the map in the references section of the document. We recommend this format:

Author. “Map title” [format]. Scale. (Date of Production). Map Generated on the UN Biodiversity Lab [web]. Version 2. UNDP and UNEP, 2021.

Example:

Bond, James. “Mangrove Forest Soil Organic Carbon within Vietnam’s Protected Areas” [map]. Scale not given. (14 Feb 2021). Map Generated on the UN Biodiversity Lab (www.unbiodiversitylab.org) [web]. Version 2. UNDP and UNEP, 2021.

Additional Questions

How do I suggest more data for inclusion in the UN Biodiversity Lab?

We welcome suggestions on data that would enrich the UN Biodiversity Lab! If your data addresses biodiversity, conservation, or sustainable development at local, national, or international levels, please fill out [this form](#).

Our team will receive suggestions as they are received. UNDP, UN Environment, and UN Environment-WCMC have formalised criteria for data published on the public platform to assist in identifying and curating the best available data layers on these themes in order to enable more streamlined and standardised analyses and reporting. These selection criteria will place data into one of three data tiers, and consider aspects like data relevance, open-licensing and availability, transparency, and geographic coverage. The criteria are available [here](#).

To upload data for your institution's use in a private workspace, please see the next question on requesting a private workspace.

What are private workspaces? How do I request a private workspace?

Private workspaces provide a secure work area where national or subnational data can be added and shared with a set of specified users. They offer a secure area to collaborate on your projects, regardless of GIS experience.

Private workspaces are granted at the discretion of the UN Biodiversity Lab partners. To request a private workspace please click on the private workspaces tab on our [support page](#) and fill out the form.

You can access our user guide on private workspaces [here](#).

What are private workspaces? How do I request a private workspace?

For further questions, please don't hesitate to reach out to us at support@unbiodiversitylab.org.



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