

# Visualising spatial data using UN Biodiversity Lab

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Violeta Munoz-Fuentes

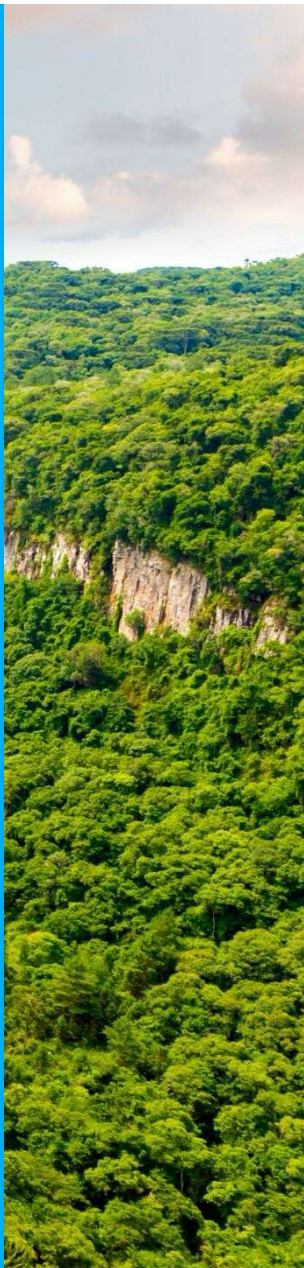
Digital Transformation Team, UNEP-WCMC

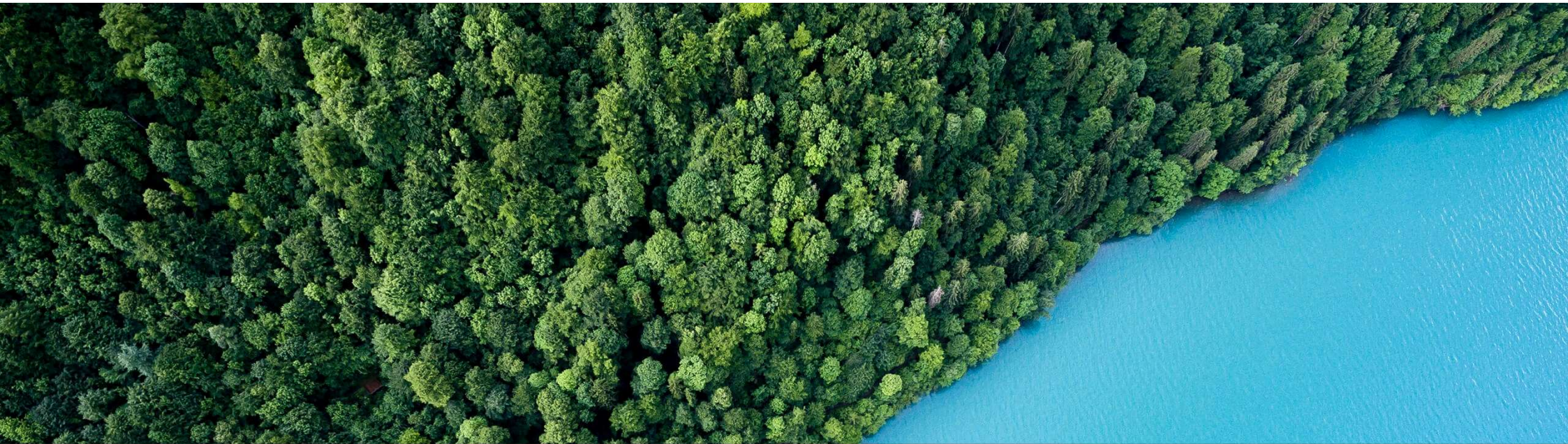
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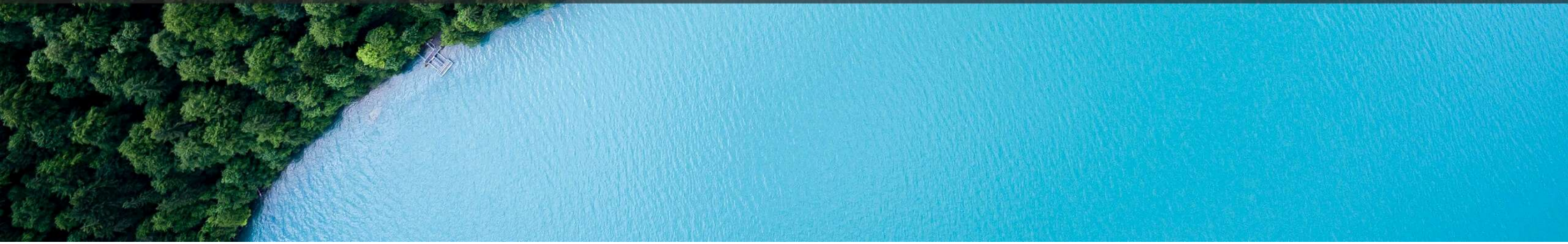
# Agenda:

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- What is UNBL?
  - UNBL website overview
  - UNBL demonstration
  - Future developments
  - Q & A
- 

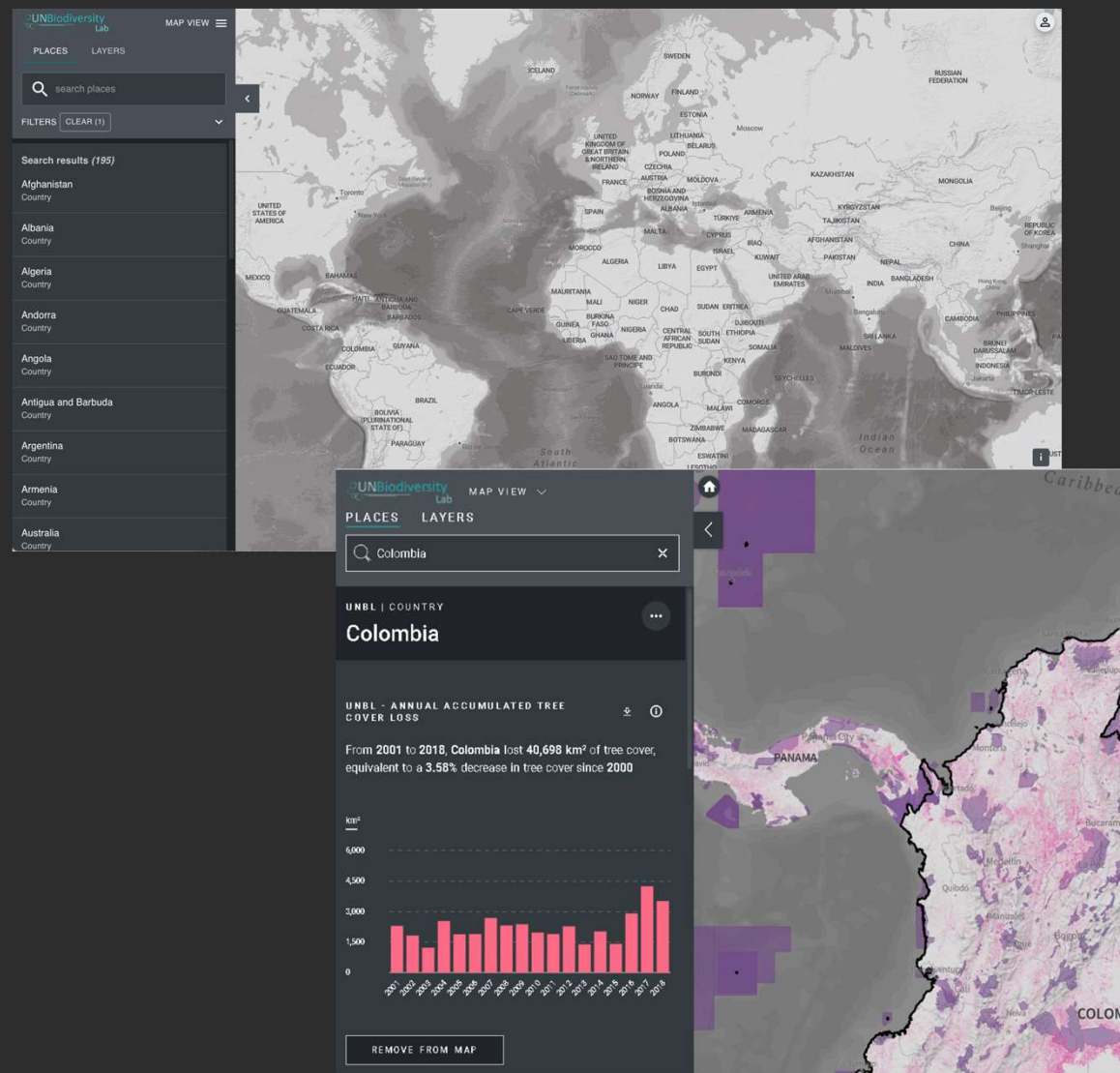


WHAT IS UNBL?



# UNBL | SPATIAL DATA TOOL FOR DECISION MAKING

- Facilitates access to the **best available global spatial data** and **custom-developed analytic tools** to generate insight >> impactful measures for conservation and sustainable development
- **Open-source** web platform
- **Visualize** global spatial data
  - More than 600+ data layers
  - Focused on biodiversity and sustainable development data
- **Generate** maps
- **Perform** one-click analyses
- **Support** users with no GIS expertise



## Slide 4

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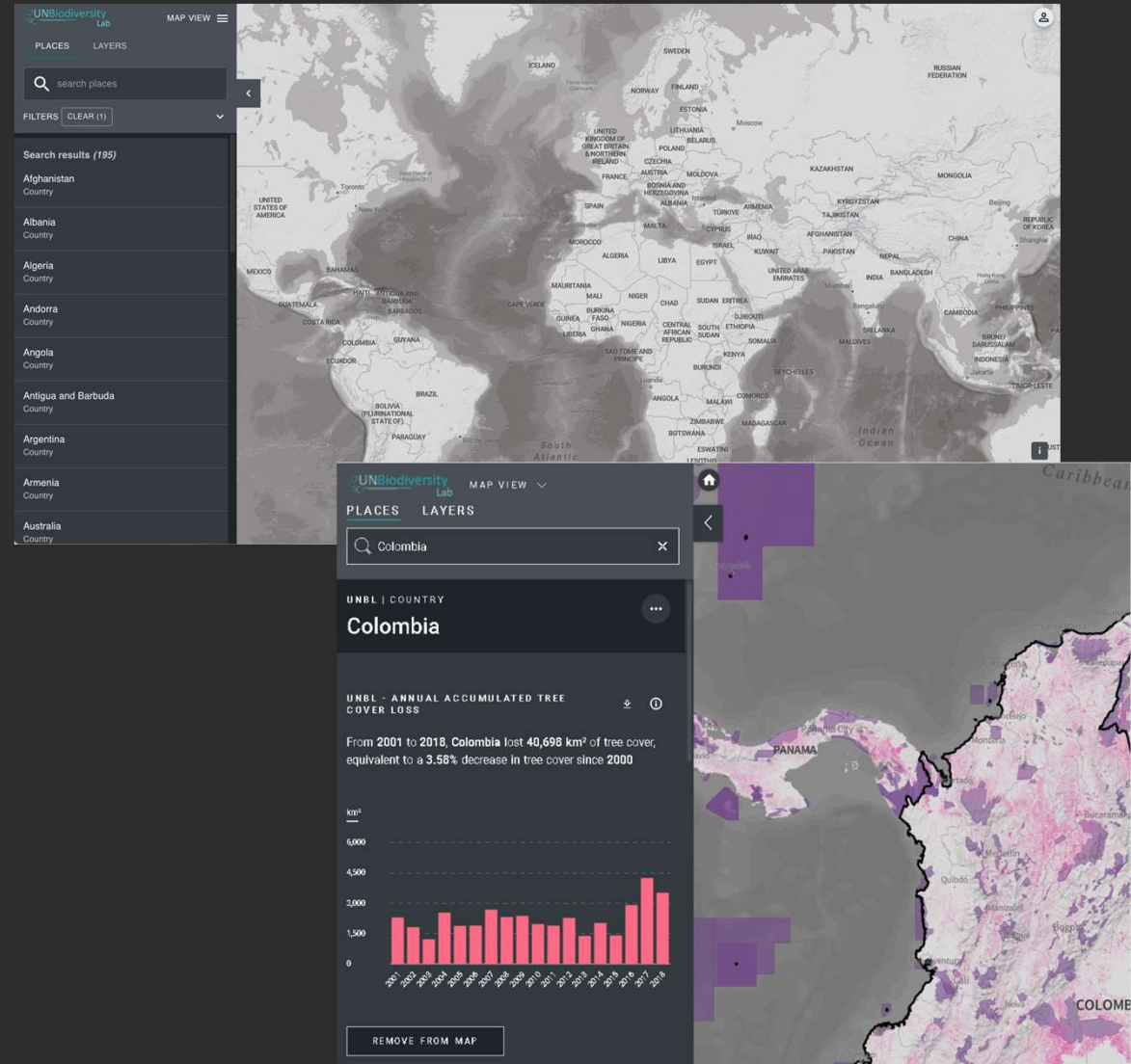
**M0**

When speaking please include some information specific to NEAs - how can UNBL be useful for the people in the room to undertake their NEAs, or other aspects of their work.

Melissa, 2024-09-19T14:59:44.635

# WHY UNBL?

- **Partnership** of UNEP-WCMC, UNDP, UNEP and CBD
- Created to support Parties in commitments to the CBD: led to a **2x** increase in the number of maps between **5NR and 6NR (55 countries)**
- In 2023, **funding** from the Betty and Gordon Moore Foundation is allowing to further develop UNBL to support countries in **spatial monitoring, planning processes and reporting needs** in relation to the KM Global Biodiversity Framework





## EXPLORE / VISUALIZE

### Nashulai Maasai Conservancy

*We are extremely grateful for new map of Nashulai Maasai Conservancy – and for opening our eyes to the ways spatial analysis, combined with our traditional knowledge systems, can be applied to support critical decisions for sustainability in our ancestral lands.*



## DATA ACCESS

### SDG 15: Maintaining Life on Land

*Colombia, Ecuador and Peru analysed scenarios of land use and climate change under The Life on Land project. Data identified as relevant will be regularly updated in UNBL through 2030 in response to requests from participating institutions in Colombia, Ecuador, and Peru.*



## SPATIAL PLANNING

**Costa Rica** - The ELSA methodology was impactful in supporting policies that get to the heart of our biodiversity and environmental challenges. These maps present us with three simple solutions: Protect, Restore, Manage. Maps of Hope can guide us to take action on nature for climate, on nature for life.

**Kazakhstan** - The ELSA methodology helped identify locations most amenable to planting drought-tolerant crop varieties, developing solar and wind technologies for irrigation and planning for protected areas commitments.



## NATIONAL REPORTING

*Uptake of UNBL by countries in the 6th National Report - 55 nations created at least one map using UNBL and 13 of these nations relied on UNBL to produce 70 percent or more of their maps.*

## RESEARCH AND ACADEMIA

*UNBL has contributed to maps in scientific publications and was praised for easiness and intuitiveness to use*

An aerial photograph showing a dense, lush green forest on the left side, which meets a bright blue lake on the right. The forest is composed of many small, rounded tree tops, creating a textured green canopy. The lake's surface is calm with subtle ripples, and its color is a vibrant, clear blue. A dark grey horizontal band is overlaid across the center of the image, containing the text 'UNBL WEBSITE OVERVIEW' in white, uppercase letters.

# UNBL WEBSITE OVERVIEW





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## UN Biodiversity Lab

Providing decision makers with the best available spatial data to put nature at the center of sustainable development.

[Launch map](#)

<https://www.unbiodiversitylab.org/en/>

ES

FR

PT

RU

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- [About us](#)
- [Our team](#)
- [The partnership](#)

- [Data collections](#)
- [Workspaces](#)
- [Maps of Hope](#)
- [Resources](#)

- [FAQs](#)
- [User guide](#)
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Data collections

Workspaces

Maps of Hope

Resources



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<https://www.unbiodiversitylab.org/en/>

Under “Resources” users may find annual reports, use cases, success stories, online courses and more

Una  
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- All
- Blog
- Event
- Featured Initiative
- Informational Document
- Online Course
- Press Release
- Report
- Success Story



Report

Accelerating The SDGs Through Digital Public Infrastructure: A Compendium of The Potential of Digital Public Infrastructure



Success Story

UNBL Case Study Brochure

English | Español | Français | Português | Русский



Report

Guía de formulación de proyectos SbN para la Acción Climática

Español



Report

UN Biodiversity Lab: 2022 Annual Report



Report

UN Biodiversity Lab: 2021 Annual Report



Report

Digital Public Goods for the SDGs



Blog

Putting Nature on the Map



Blog

Mapeo de la Esperanza: En el Corazón del Desarrollo Sostenible

at

# UNBL Case Study Brochure: user cases & user testimonials

**UNBL**

**Why Spatial Data?**

The use of spatial data can be transformative in the face of climate change, biodiversity loss, and development challenges. This is because it enables national governments, civil society organizations, Indigenous Peoples and local communities and researchers to make data-driven decisions to prioritize action and monitor progress towards their goals more accurately. Many countries request support when accessing high-quality spatial data so they can more meaningfully incorporate it into national planning, implementation, and monitoring. We created the UN Biodiversity Lab (UNBL) to meet this need.

[Learn more about UN Biodiversity Lab](#) [Watch the UNBL trailer](#)

**Get an overview of environmental trends without GIS expertise**

What is the state of biodiversity and human pressure in my area of interest?

**Understand ICCAs' biodiversity contributions**

**USER TYPE | UN AGENCY & INDIGENOUS PEOPLES AND LOCAL COMMUNITIES**

The SGP/CCA GSI (Global Support Initiative to territories and areas conserved by Indigenous Peoples and local communities, delivered by UNDP's Small Grants Programme) have used UNBL to visualize the prevalence of biodiversity in and around areas conserved by Indigenous Peoples and local communities (ICCAs) in Jordan.



**TESTIMONIALS**

**Governments & Government Research Institutions**

“ UNBL has facilitated the review and use of information that complement[s] national layers. [In our] project, UNBL has served as an open repository where users can easily review not only ELSA results but data used during the research and management process. Official national repositories are not so user friendly.”  
Susana Rodríguez Buitica  
Alexander von Humboldt Biological Resources Research Institute, Colombia

“ As the first country to pilot the ELSA methodology in 2019, Costa Rica has seen just how impactful it can be in supporting policies that get to the heart of our biodiversity and development challenges. We are proud to collaborate with UNDP to lend our expertise once again to the improvement of the ELSA tool, this time supporting a version on UNBL that can be scaled up to support all countries.”  
Rafael Monge  
Ministry of Environment and Energy, Costa Rica

“ Dynamic metrics via UNBL are critical for monitoring the status of nature in Uganda. The platform enables us to track trends in tree cover loss, fire activity, vegetation, and more to better plan interventions and assess the impact of our work at NEMA.”  
National Environmental Management Authority of Uganda

**UN Agencies and Intergovernmental Funds**

“ As a data scientist, I appreciate the openness of the platform. Every organization generates data and works hard to make it understandable. By sharing across organizations, we can unlock additional ways to use the same data and maximize return on investment.”  
Imad Jari-La Plante, Ph.D.  
Green Climate Fund

“ I think at GEF SGP [Global Environment Facility Small Grants Programme] and UNDP level, all interventions should have integration to UNBL as it will speak for them in a spatial way that is becoming the norm for location-relevant interventions.”  
Anas Khasawneh  
Small Grants Programme & ICCA Global Support Initiative, UNDP Jordan

“ The UN Biodiversity Lab has provided Peru with a central location to be able to access, visualize, and download spatial data layers produced by the NASA Life on Land project for Peru to support reporting on Sustainable Development Goal 15, Life on Land. UNBL offers us a user-friendly interface where policymakers across multiple government agencies can easily access and use the data to support national reporting and decision-making.”  
Patricia Huerta  
UNDP Peru

**Report**

How can my team access accurate data to report on biodiversity?



**Rio Convention reporting**

**USER TYPE | NATIONAL GOVERNMENT**

In Uganda, practitioners expect their use of UNBL to result in long-term improvements to reporting for Rio Conventions, including CBD, the UN Framework Convention on Climate Change (UNFCCC), and UN Convention to Combat Desertification (UNCCD). This is because Uganda has already used UNBL to guide its Environmental and Social Impact Assessments, informing the allocation of financing for protection, restoration, and management of ecosystems.

**Reporting on biodiversity agreements**

**USER TYPE | NATIONAL GOVERNMENT**

UNBL played a key role in supporting an 81% increase in the use of spatial data in official national reports on biodiversity. In the last report, 55 nations created at least one map using UNBL support. Thirteen of these nations relied on the UNBL to produce 70 percent or more of the maps they included in their GNR. New features coming in 2023 will support future reporting under the new Global Biodiversity Framework.

- All
- Blog
- Event
- Featured Initiative
- Informational Document
- Online Course
- Press Release
- Report
- Success Story



Success Story

UNBL Case Study Brochure

English | Español | Français | Português | Русский



Success Story

UN Biodiversity Lab: How the UN Champions Digital Public Goods for the Global Commons



Success Story

Using spatial data for biodiversity decision-making



Success Story

Mapeo de la esperanza: en el corazón del desarrollo sostenible

Español



Success Story

SDG 15: Maintaining life on land – Under scenarios of land use and climate change in Colombia, Ecuador, and Peru



Success Story

Nature for Life Hub: Mapping Nature for People and Planet in Uganda



Success Story

Nature for Life Hub: Mapping Nature for People and Planet in Peru



Success Story

Nature for Life Hub: Mapping Nature for People and Planet in Kazakhstan

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Under “Help” users may find FAQs, user manuals and how to create and use UNBL workspaces



[FAQs](#)  
[User guide](#)  
[Contact us](#)

## UN Biodiversity Lab

Providing decision makers with the best available spatial data to put nature at the center of sustainable development.

[Launch map](#)



<https://www.unbiodiversitylab.org/en/>

## Support

[FAQs](#)[User guide](#)[UNBL workspaces](#)[Contribute](#)[Contact us](#)

### User guide

This user guide has been developed to walk you through the key tools and functions of the UN Biodiversity Lab. Use the tabs below to find visual guides for our **public platform** and **secure workspaces**.

If you have any further questions please contact us at [support@unbiodiversitylab.org](mailto:support@unbiodiversitylab.org).

[Public Platform](#)[Secure Workspaces](#)

1. How do I register or log-in?
2. How do I manage my account?
3. How do I navigate between the UN Biodiversity Lab website and data app?
4. How do I change the language?
5. How do I adjust my map view?
6. How do I add/remove place labels, roads, and satellite view from the base map?
7. How do I find my country?
8. What dynamic metrics are available for my country?

Under “  
find FAQ  
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UNBL w

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[Submit a success story](#)[Share data](#)

# Contact us



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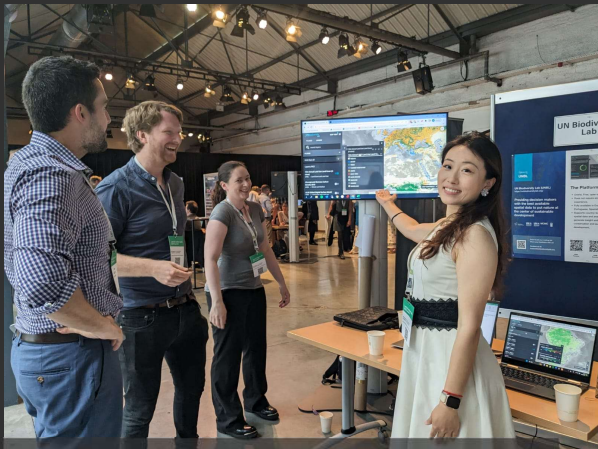
<https://www.unbiodiversitylab.org/en/>

# IMPACT

- 2,662+ registered users from 153 countries
- 204+ UNBL workspaces
- Users' questions: 250+ responses in 2023
- Selected to present in conferences and referenced in others



UNEA6, 26 Feb – 1 March 2024



Land and Carbon Lab Summit, Brussels, 27-29 June 2023



**15** **Life on Land**  
Protect, restore and promote the sustainable use of terrestrial ecosystems

**Power of Digital**  
Digital solutions have the potential to revolutionize and optimize data on the land for monitoring, for best decision-making, and tracking the efficiency of land use.

**Opportunities**

- Enable land monitoring, planning, and management by governments, businesses, and citizens
- Improve land use and management
- Increase land productivity

**Potential risks & digital issues**

- Environmental impact of digital technologies and IT infrastructure (e.g., energy consumption, e-waste)
- Data privacy and security

**Power of Digital**  
This tool is very helpful, as we no longer need to do lengthy reports and maps.

**1** **Private landowners by monitoring and management**  
How do you know the status of your land?

**2** **Scale-powered land-use monitoring, planning, and management**  
Examples of countries implemented: Peru, Brazil, France, and Mexico. Please learn from their experiences.

**3** **All explore the data to make better land-use decisions**  
Target achieved

**35** countries implemented

**Power of Digital**  
To appreciate the openness of the platform, by sharing private information, we can unlock additional ways to use the same data and maximize return on investment!

**1** **400+ global spatial data, and land-use, and land-cover data**  
Examples of countries implemented: Peru, Brazil, France, and Mexico. Please learn from their experiences.

**2** **Enables policy-making in the private sector, and the public sector**  
Examples of countries implemented: Peru, Brazil, France, and Mexico. Please learn from their experiences.

**3** **Enables monitoring for land-use, and land-cover data**  
Examples of countries implemented: Peru, Brazil, France, and Mexico. Please learn from their experiences.

**111,000+** platform users

UN Digital Event (UN SDG Summit), New York, 17 Sep 2023

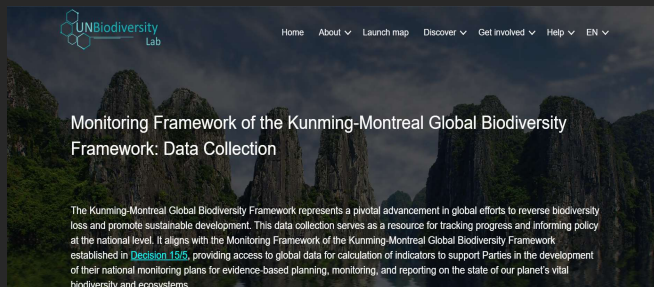


UNBL featuring in the Google Geo for Good Summit opening session, Mountain View (CA), 10-12 Oct 2023

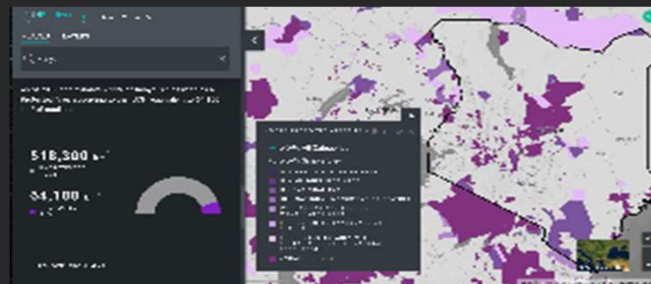
An aerial photograph showing a dense, lush green forest on the left side, which meets a bright blue lake on the right. The forest is composed of many small, rounded tree tops, creating a textured green surface. The lake's water is a vibrant, clear blue. A dark grey horizontal band is superimposed over the center of the image, containing the text 'UNBL DEMONSTRATION' in white, uppercase letters. In the lower-left corner, a small wooden dock or pier extends into the water.

# UNBL DEMONSTRATION

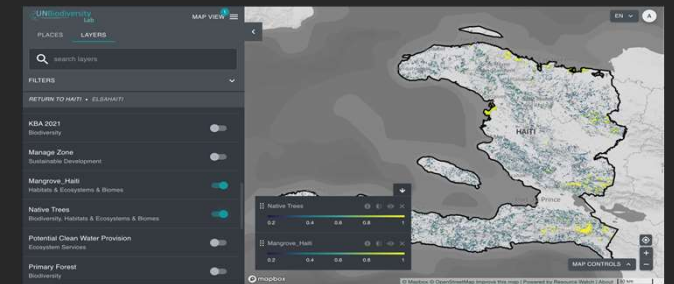
# UNBL | KEY FEATURES & FUNCTIONALITIES



1. Access spatial data



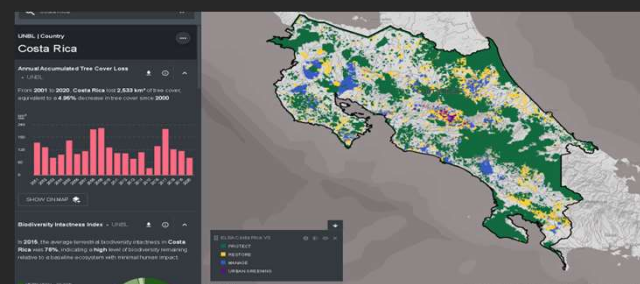
2. View & calculate the spatial metrics and (forthcoming) headline indicators



3. Create a UNBL workspace to support national monitoring systems



4. Create maps for national reports



5. Develop a prioritized spatial plan based using the ELSA Tool (forthcoming)



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Data collections

Workspaces

Maps of Hope

Resources

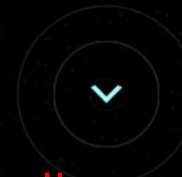
Access data through  
"Data collections"



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Providing decision makers with the best available spatial data to put nature at the center of sustainable development.

Launch map



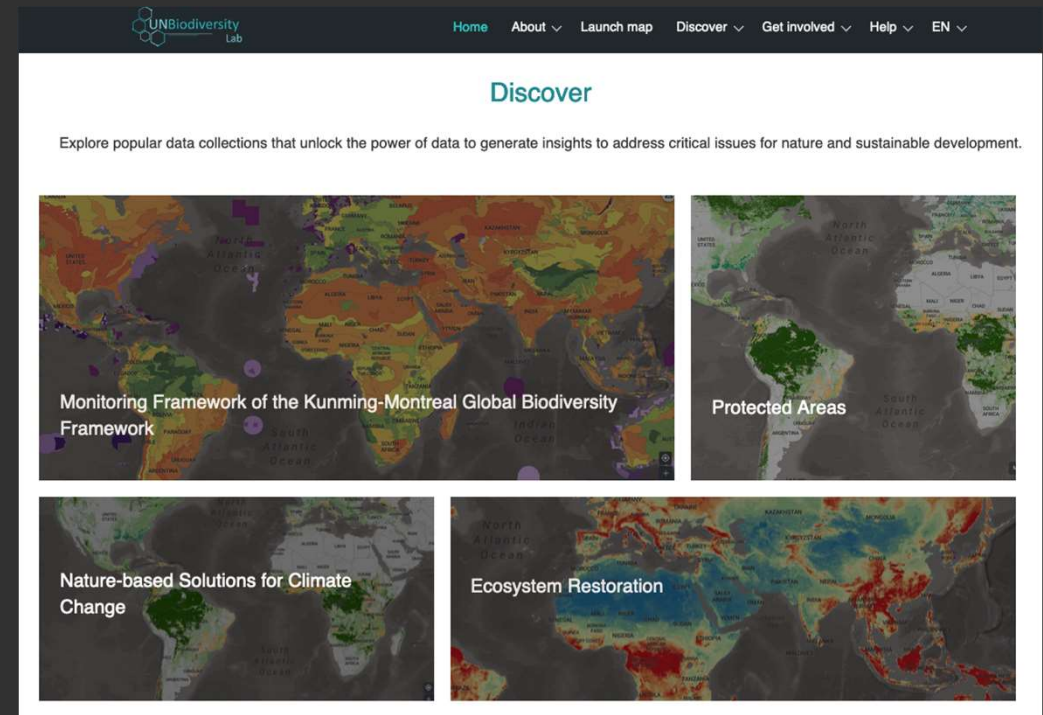
<https://www.unbiodiversitylab.org/en/>

# UNBL DATA COLLECTIONS

- Protected areas
- Nature based solutions for climate change
- Ecosystem restoration

## *NEW DATA COLLECTION:*

- Data to support the KM Global Biodiversity Framework



<https://unbiodiversitylab.org/en/#collections>

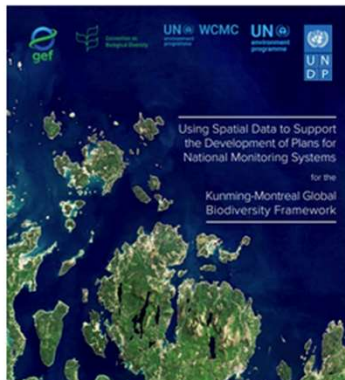


## About this data collection

This collection of datasets is a curated list of global spatial datasets that can be used at national and global scales to calculate selected headline, component, and complementary indicators of the Kunming-Montreal Global Biodiversity Framework, in instances where indicators are based on spatial data, and subject to national needs and priorities for monitoring. The UNBL team has identified that 41% of headline indicators and 34% of component indicators have methodology encouraging the use of spatial data. The list includes indicators that are reported as statistics at the country level, but are also visualizable as maps (e.g., a world map representing different country-level values). All data included in this data collection are the global spatial data referenced in the indicator metadata (available on the [Kunming-Montreal Global Biodiversity Framework Indicators website](#) and in [CBD/SBSTTA/26/INF/14](#)) associated with the recommendation on the monitoring framework for the Kunming-Montreal Global Biodiversity Framework ([CBD/SBSTTA/26/L.10](#)) as of June 2024.

These global spatial reference datasets can be used in the following ways:

1. The datasets could act as a data standard that countries could use to evaluate their own national datasets against.
2. The datasets could be used to supplement the national datasets proposed for calculating the headline, component and complementary indicators of the monitoring framework subject to national needs and circumstances.
3. In circumstances where no national data exists for monitoring national actions and target implementation, these global reference data can be used to enable monitoring and supplement gaps in national data.



UNBL also offers [workspaces](#) to visualise, manage, and analyse national datasets alongside these global datasets. Over the period 2023-2025, UNBL will further develop functionalities to support users in directly calculating indicators for their countries, as well as streamline connections to other relevant tools for monitoring and reporting, including the [DaRT](#), [Target Tracker](#), and the [CBD Online Reporting Tool](#).

For further information on accessing these selected global data layers for national use, and using relevant UNBL data and tools, please see the technical guidance [Using Spatial Data to Support the Development of Plans for National Monitoring Systems for the Kunming-Montreal Global Biodiversity Framework](#) developed by the GEF-funded Global Biodiversity Framework Early Action Support Project.



**THE BIODIVERSITY PLAN**  
For Life on Earth

## ① Data to calculate indicators at the national level

### Headline indicators

### Component indicators

### Complementary indicators

Headline indicators, as set out in Decision 15/5, are “a minimum set of high-level indicators, which capture the overall scope of the goals and targets of the Kunming-Montreal Global Biodiversity Framework to be used for planning and tracking progress. They are nationally, regionally and globally relevant indicators validated by Parties. These indicators can also be used for communication purposes.” Here we present a comprehensive list of spatial data that can be used for calculation of headline indicators as set out in the indicator metadata associated with Decision 15/5, which is available on the [Kunming-Montreal Global Biodiversity Framework Indicators website](#) and in [CBD/SBSTTA/26/INF/14](#).

- ▶ [Goal A: Protect and Restore](#)
- ▶ [Goal B: Prosper with Nature](#)
- ▶ [Goal D: Invest and Collaborate](#)
- ▶ [Target 1: Plan and Manage all Areas To Reduce Biodiversity Loss](#)
- ▶ [Target 2: Restore 30% of all Degraded Ecosystems](#)
- ▶ [Target 3: Conserve 30% of Land, Waters and Seas](#)
- ▶ [Target 4: Halt Species Extinction, Protect Genetic Diversity, and Manage Human-Wildlife Conflicts](#)
- ▶ [Target 5: Ensure Sustainable, Safe and Legal Harvesting and Trade of Wild Species](#)
- ▶ [Target 7: Reduce Pollution to Levels That Are Not Harmful to Biodiversity](#)
- ▶ [Target 9: Manage Wild Species Sustainably To Benefit People](#)
- ▶ [Target 10: Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries, and Forestry](#)
- ▶ [Target 11: Restore, Maintain and Enhance Nature's Contributions to People.](#)
- ▶ [Target 12: Enhance Green Spaces and Urban Planning for Human Well-Being and Biodiversity](#)
- ▶ [Target 18: Reduce Harmful Incentives by at Least \\$500 Billion per Year, and Scale Up Positive Incentives for Biodiversity](#)
- ▶ [Target 19: Mobilize \\$200 Billion per Year for Biodiversity From all Sources, Including \\$30 Billion Through International Finance](#)
- ▶ [Target 21: Ensure That Knowledge Is Available and Accessible To Guide Biodiversity Action](#)
- ▶ [Target 22: Ensure Participation in Decision-Making and Access to Justice and Information Related to Biodiversity for all](#)



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Click on “Launch map” to launch the mapping function



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# START EXPLORING UN BIODIVERSITY LAB

LAUNCH

- Country (193)
- Cross-Boundary Area (6)
- Other Jurisdiction (2676)

## Search results (193)

Afghanistan  
UNBL • Country

Albania  
UNBL • Country

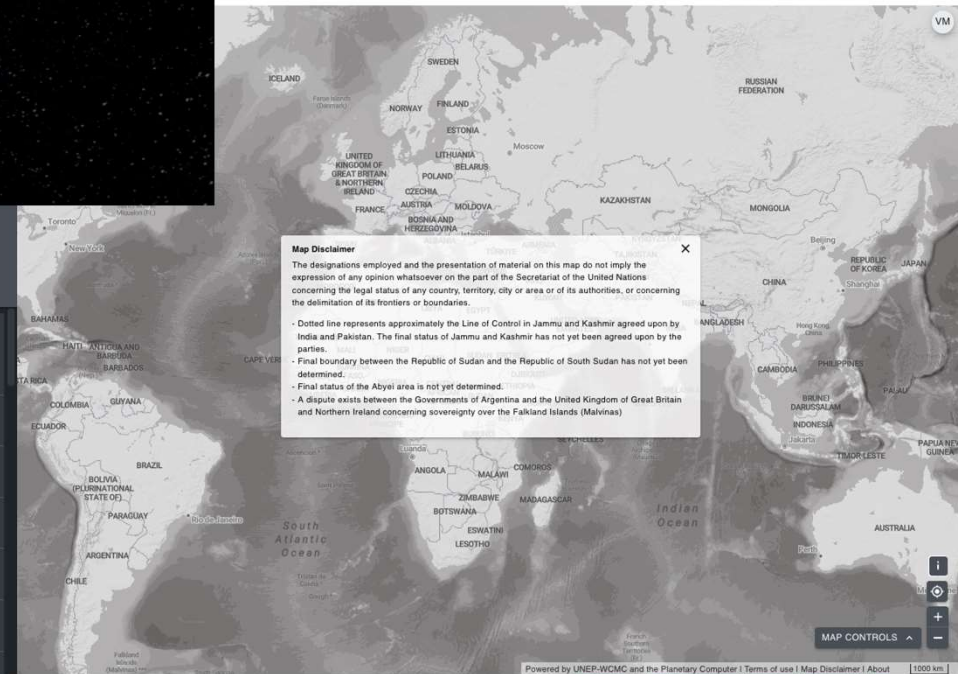
Algeria  
UNBL • Country

Andorra  
UNBL • Country

Angola  
UNBL • Country

Antigua and Barbuda  
UNBL • Country

Argentina



UNBiodiversity Lab

MAP VIEW

PLACES LAYERS

search places

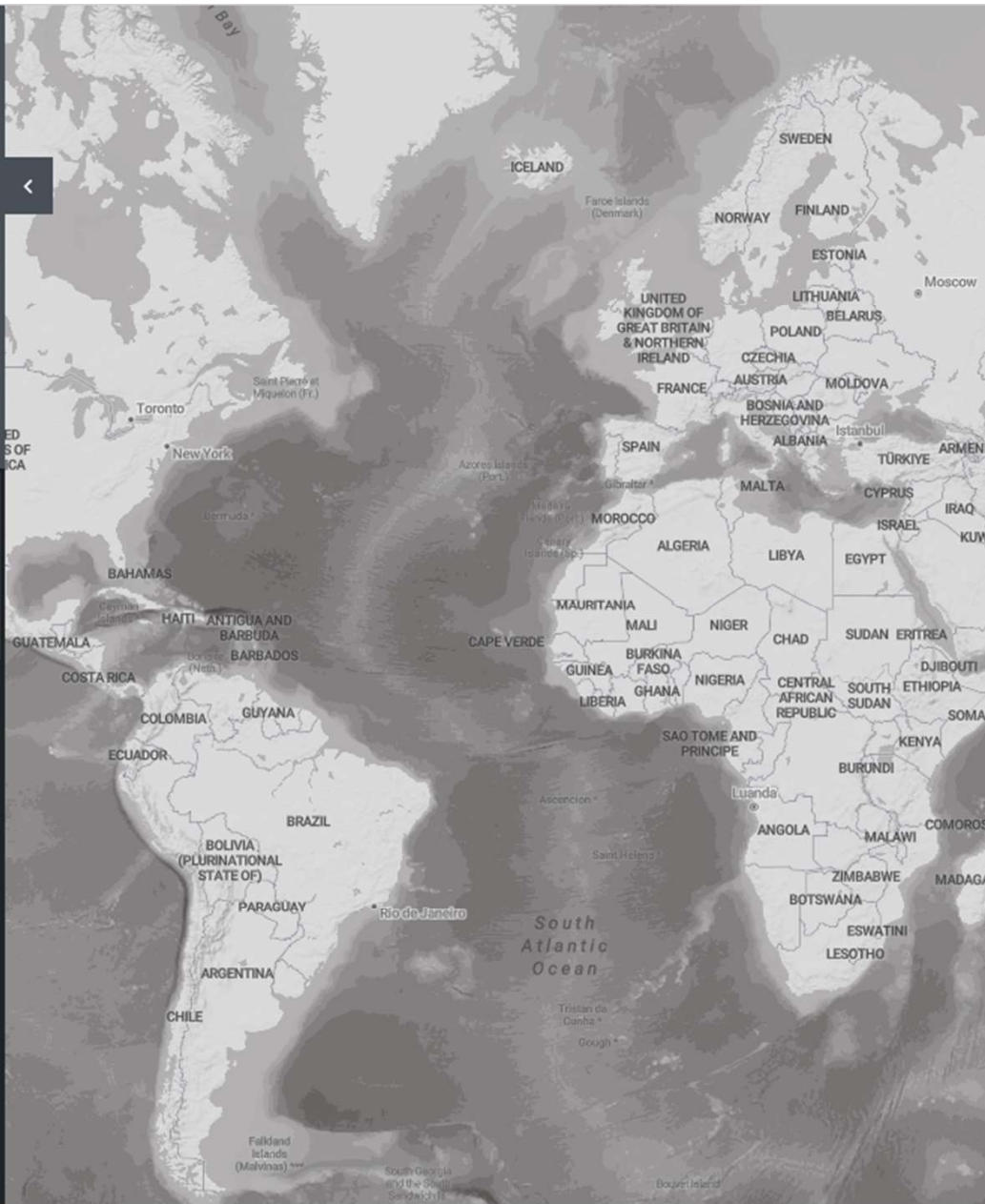
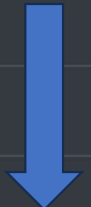
FILTERS CLEAR (1)

Place type

- Country (193)
- Cross-Boundary Area (5)
- Other Jurisdiction (2676)

Search results (193)

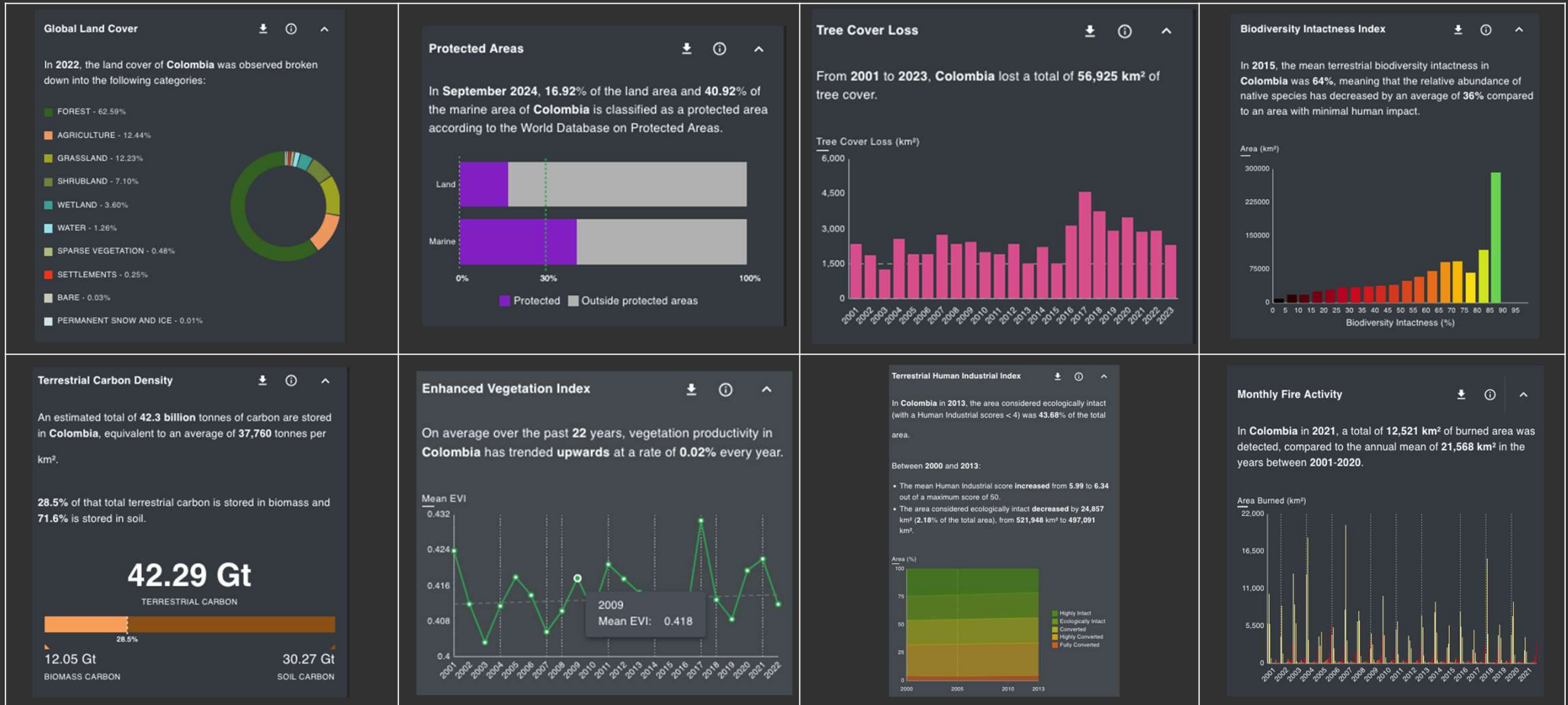
- Afghanistan Country
- Albania Country
- Algeria Country
- Andorra Country
- Angola Country
- Antigua and Barbuda Country
- Argentina Country
- Armenia Country



PLACES TAB |  
SELECT A COUNTRY OR  
OTHER AREAS

<https://map.unbiodiversitylab.org/earth/>

# UNBL DYNAMIC METRICS | NOW LIVE ON UNBL

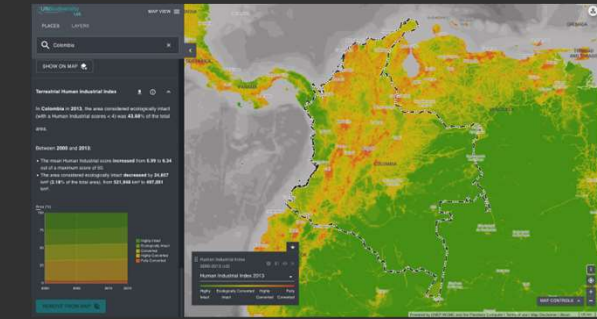
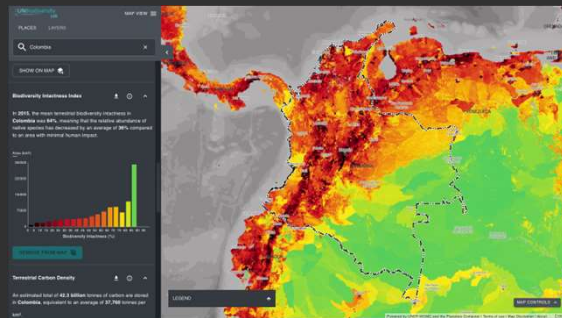
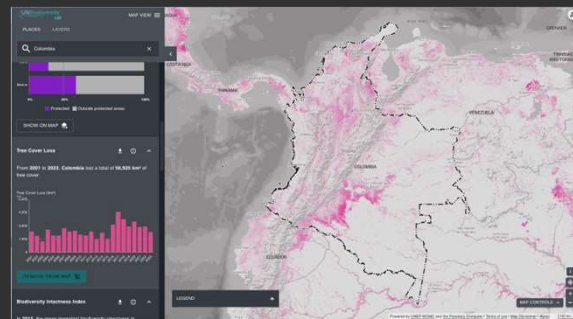
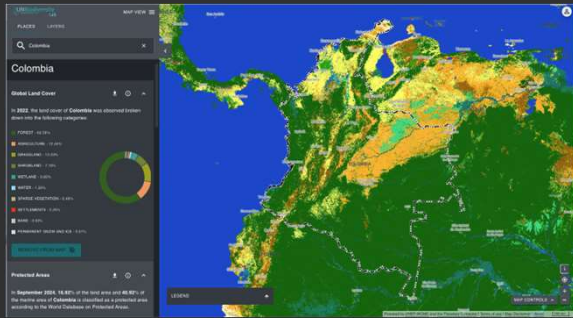


## UNBL DYNAMIC METRICS | KEY INFORMATION

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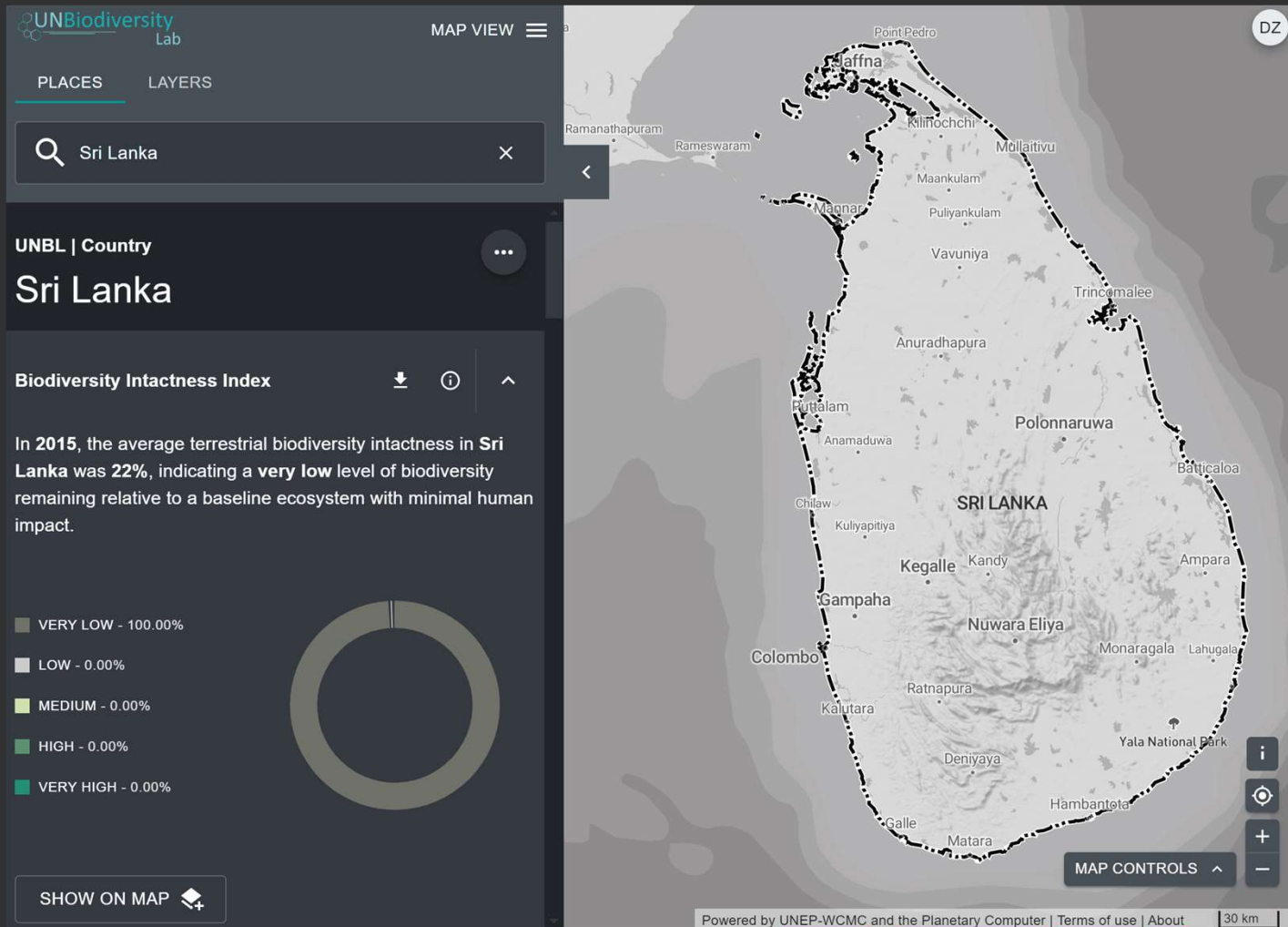
- Seven metrics: a robust approach using an [open-source library](#), *exactextract*.
- One metric, Protected areas: fully aligned with the Protected Planet website, [fetching results via API](#), updated monthly
- Detailed [documentation](#) in info boxes

# UNBL DYNAMIC METRICS | CALCULATIONS AND MAP VIEW

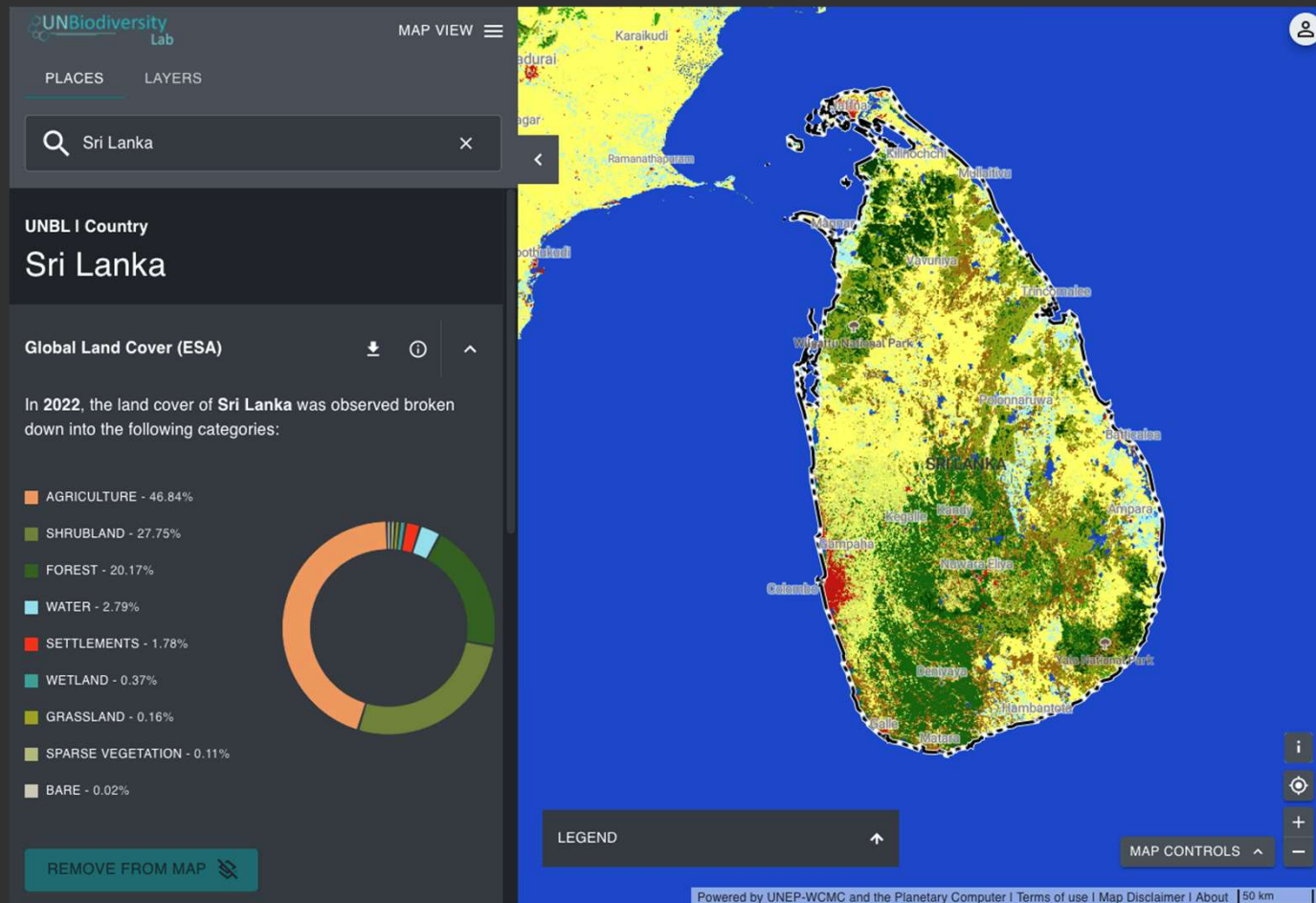




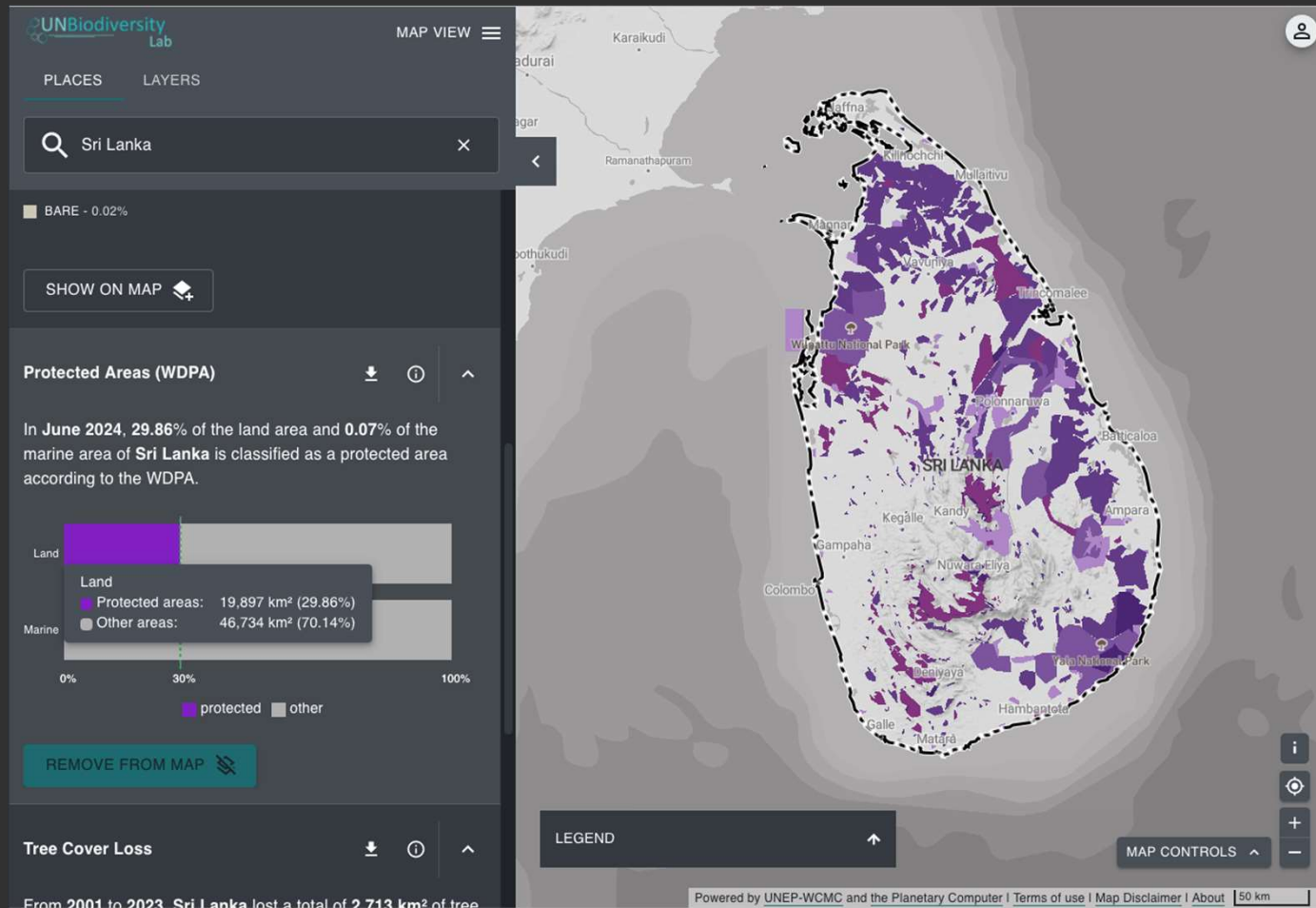
# UNBL DYNAMIC METRICS | RUN THROUGH



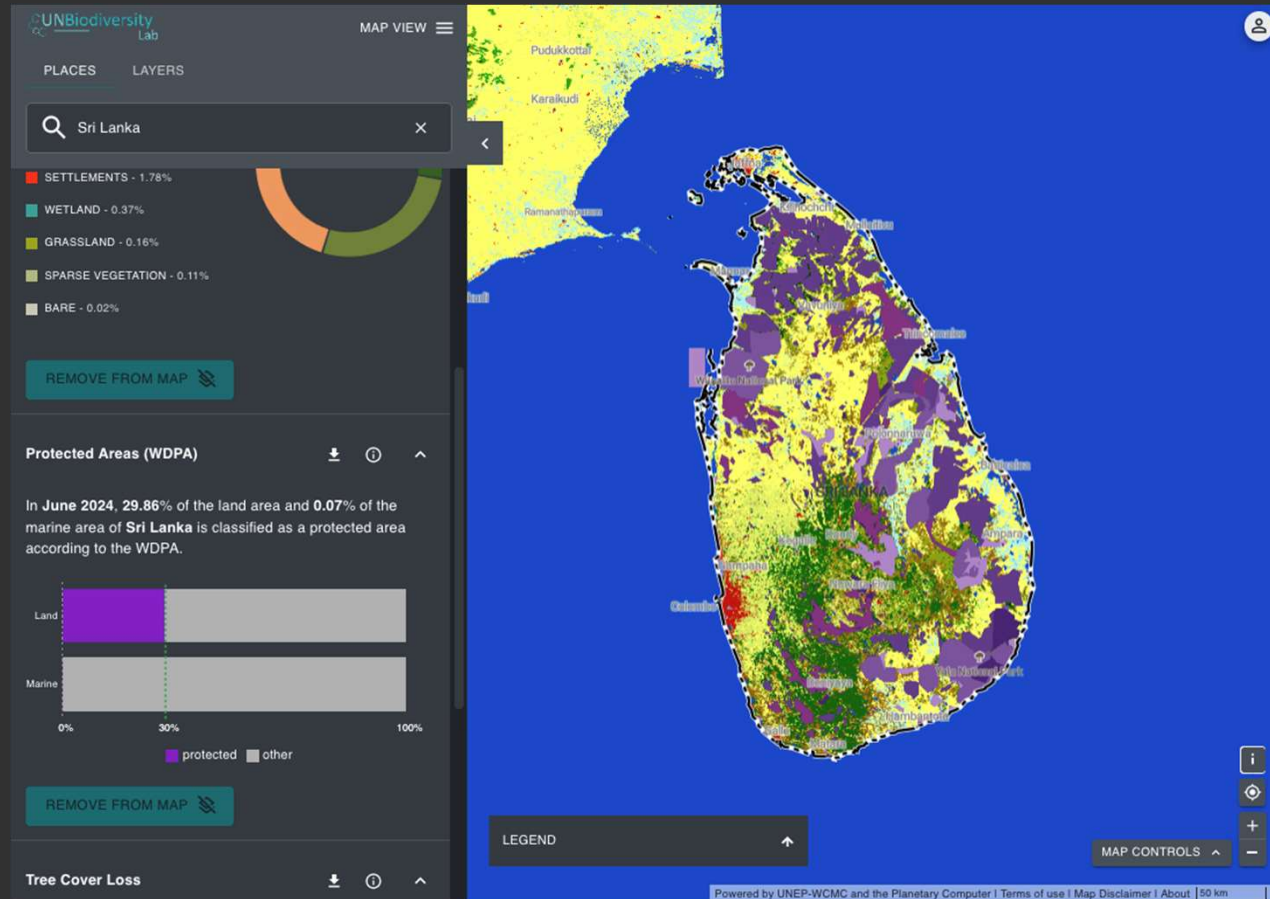
# UNBL DYNAMIC METRICS | SHOW ON MAP



# UNBL DYNAMIC METRICS | SHOW ON MAP



# UNBL DYNAMIC METRICS | COMBINE DATASETS



PLACES LAYERS

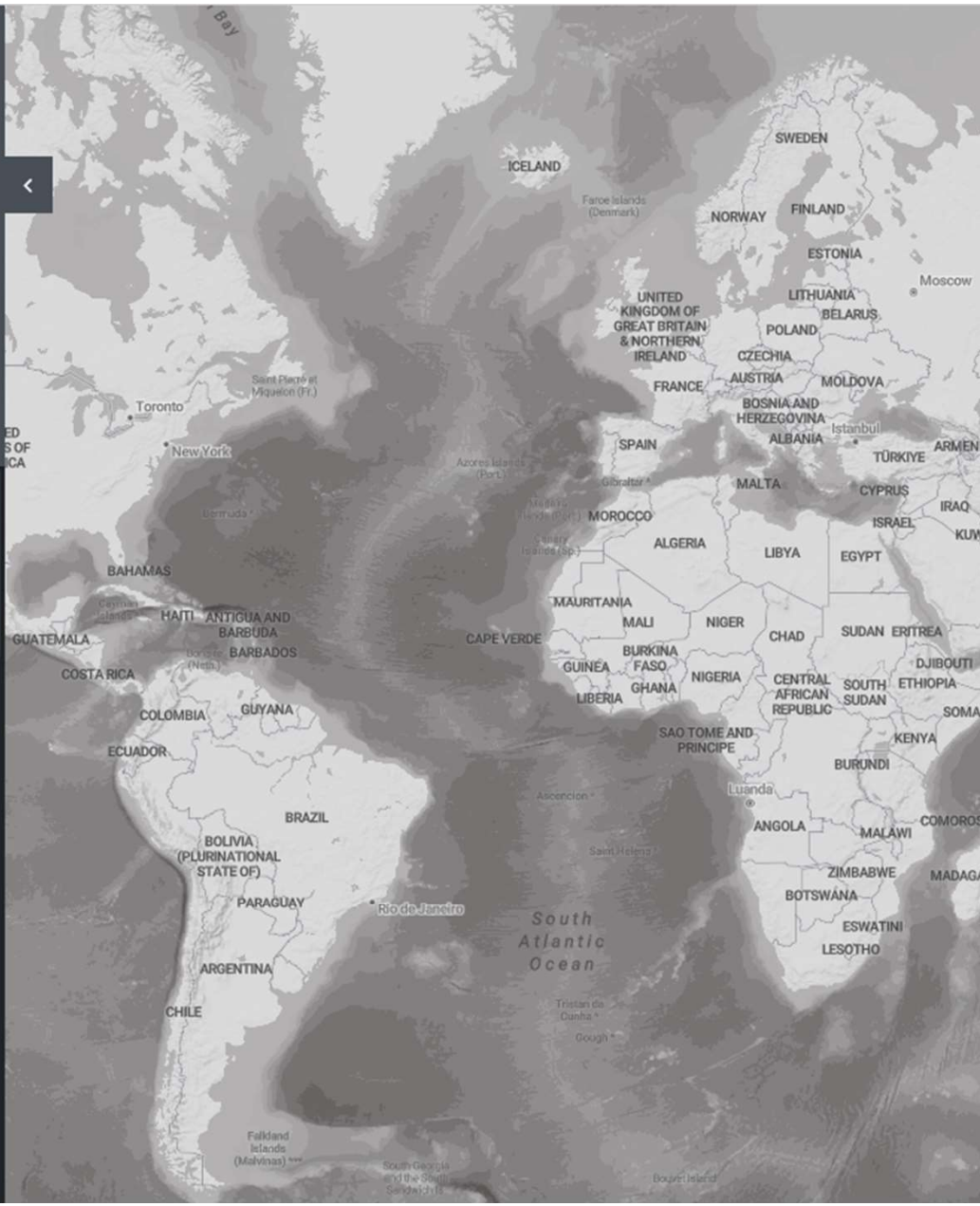
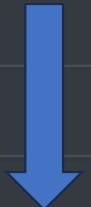
search places

FILTERS CLEAR (1)

- Place type
- Country (193)
- Cross-Boundary Area (5)
- Other Jurisdiction (2676)

Search results (193)

- Afghanistan Country
- Albania Country
- Algeria Country
- Andorra Country
- Angola Country
- Antigua and Barbuda Country
- Argentina Country
- Armenia Country



**PLACES TAB |  
SELECT ANY COUNTRY  
IN THE WORLD OR  
OTHER AREAS**

<https://map.unbiodiversitylab.org/earth/>

UNBiodiversity Lab

MAP VIEW

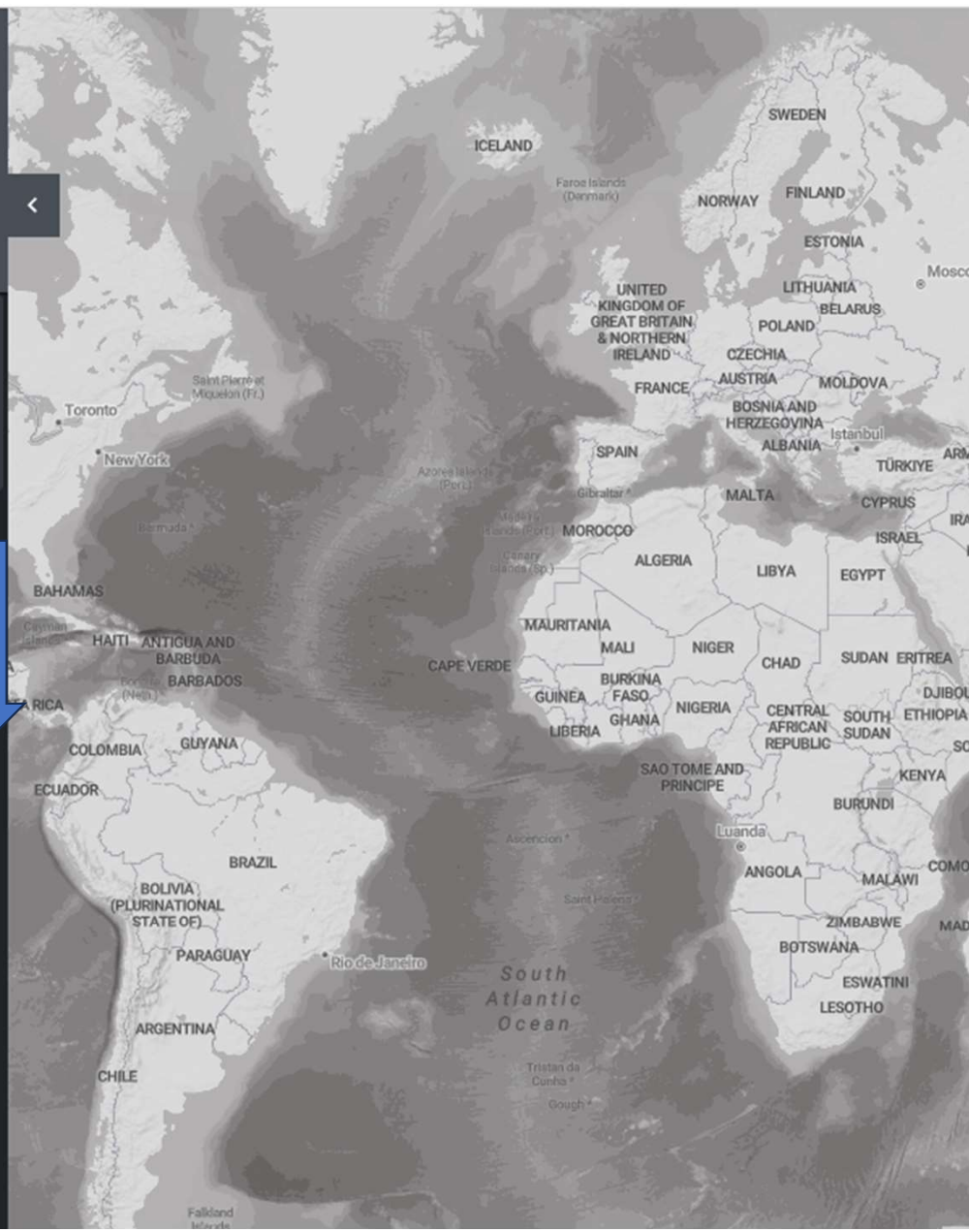
PLACES LAYERS

search layers

FILTERS

Layers (274)

- Aboveground Biomass Carbon Density 2010  
UNBL • Climate and Carbon
- Acceptance of lethal removal of wildlife (GWVS)  
UNBL • Social Behaviour (Society)
- Accessibility to Healthcare  
UNBL • Public Health (Society)
- Allen Coral Atlas  
UNBL • Ecosystem (Biodiversity), Oceans (Water)
- ALOS Global Digital Surface Model  
UNBL • Land Cover and Land Use
- Aqueduct 4.0 - Baseline Water Stress  
UNBL • Ecosystem Services, Freshwater (Water)
- Aqueduct 4.0 - Groundwater Decline  
UNBL • Ecosystem Services, Freshwater (Water)
- Areas of global significance for



**LAYERS TAB |**

**> 600 GLOBAL DATA LAYERS COMPRISING**

**> 200 DATASETS**

<https://map.unbiodiversitylab.org/earth/>

search layers

FILTERS CLEAR (4)

Layer tags

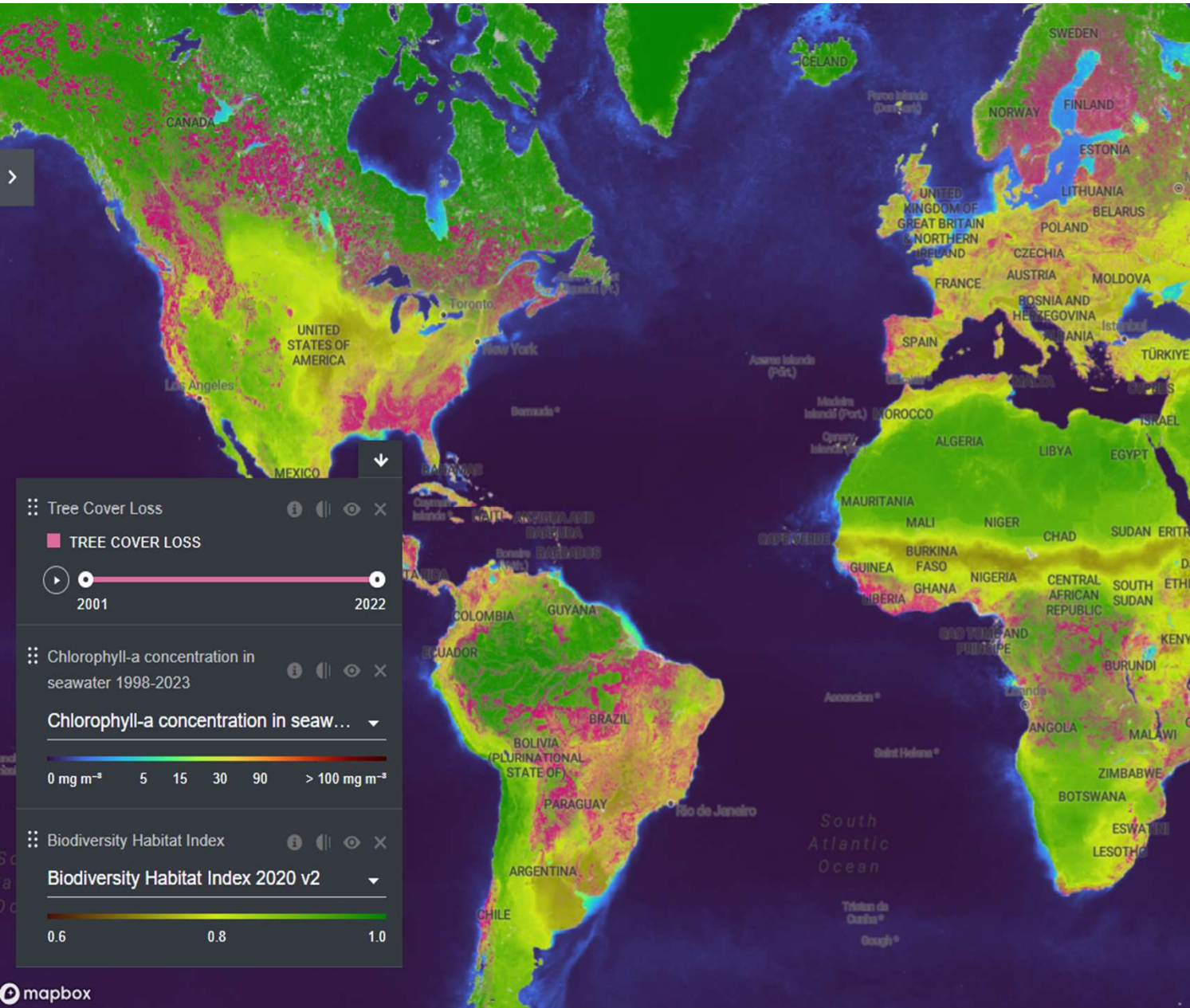
Layer category

- Agriculture (13)
- Biodiversity (121)
- Boundaries (7)
- Built Environment (10)
- Climate and Carbon (45)
- Ecosystem Services (46)
- Human Impact (46)
- Land Cover and Land Use (22)
- Natural Hazards (9)
- Nature Based Solutions (9)
- Policy (74)
- KM-GBF (74)
  - Goal A (37)
    - Headline Indicators (25)
    - Component Indicators (7)
    - Complimentary Indicators (5)
  - Goal B (3)
    - Component Indicators (1)



# LAYERS TAB | HIERARCHICAL FILTER

<https://map.unbiodiversitylab.org/earth/>



**ACCESS SPATIAL DATA**  
**>600 GLOBAL DATA**  
**LAYERS**

<https://map.unbiodiversitylab.org/earth/>

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MAP VIEW

PLACES LAYERS

search layers

FILTERS CLEAR (4)

UNBL • Oceans (Water), Ecosystem Services, Ecosystem (Biodiversity)

Coastal Protection: Mangrove Annual Expected Benefit to People (No.)

UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Coastal Protection: Number of People Avoiding Damage from Flooding per Decade

UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Coral Reef Connectivity

UNBL • Ecosystem (Biodiversity), Ecosystem Services, Oceans (Water)

Coral Reef Tourism - Highest Value Reefs (top 10%)

UNBL • Ecosystem (Biodiversity), Ecosystem Services, Oceans (Water)

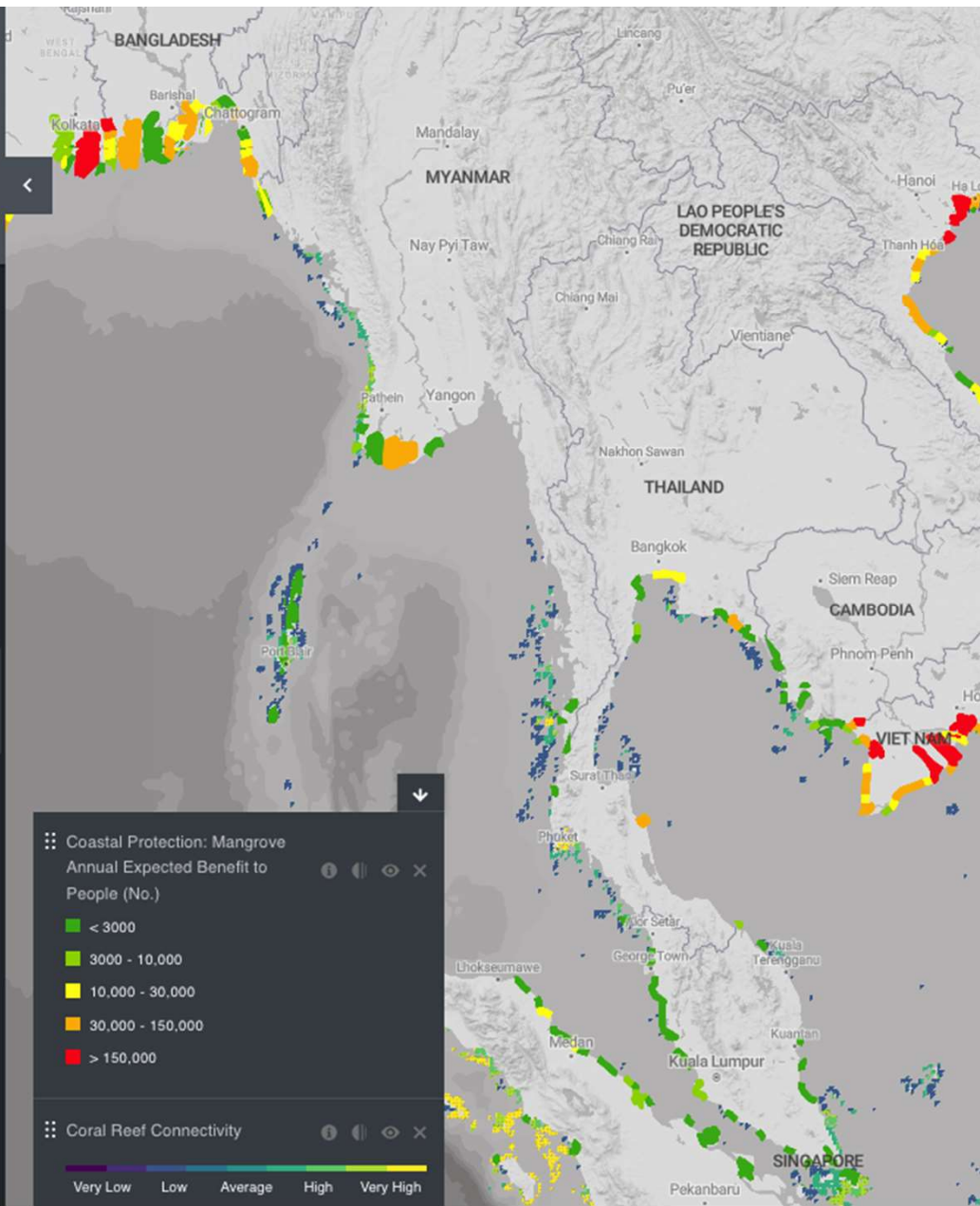
Coral Reef Tourism - Total Value

UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Coral Reef Tourism - Total Visitation Value

UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Ecological Intactness Index



# CREATE YOUR OWN MAPS

<https://map.unbiodiversitylab.org/earth/>

UNBiodiversity Lab

MAP VIEW

PLACES LAYERS

search layers

FILTERS CLEAR (4)

UNBL • Oceans (Water), Ecosystem Services, Ecosystem (Biodiversity)

Coastal Protection: Mangrove Annual Expected Benefit to People (No.) UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Coastal Protection: Number of People Avoiding Damage from Flooding per Decade UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Coral Reef Connectivity UNBL • Ecosystem (Biodiversity), Ecosystem Services, Oceans (Water)

Coral Reef Tourism - Highest Value Reefs (top 10%) UNBL • Ecosystem (Biodiversity), Ecosystem Services, Oceans (Water)

Coral Reef Tourism - Total Value UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Coral Reef Tourism - Total Visitation Value UNBL • Ecosystem Services, Ecosystem (Biodiversity), Oceans (Water)

Ecological Intactness Index

**COASTAL PROTECTION: MANGROVE ANNUAL EXPECTED BENEFIT TO PEOPLE (NO.)**

Mapping Ocean Wealth Explorer

This layer shows annual expected benefits from mangroves for flood protection, represented as the predicted flooding avoided to people by keeping mangroves intact. It is an annualised benefit of the role of mangroves in flood reduction that considers local factors such as mangrove condition, asset distribution, and storm frequency. For more details, visit [The Nature Conservancy's Mapping Ocean Wealth Explorer](#).

The Mapping Ocean Wealth Explorer data viewer is a live online resource for sharing understanding of the value of marine and coastal ecosystems to people. It includes global maps, regionally-specific studies, reference data, and a number of "apps" providing key data analytics. Maps and apps can be opened according to key themes or geographies. Information keys explain how the maps were made and provide additional links. Further information and resources can also be found on [Oceanwealth.org](http://Oceanwealth.org)

**LEARN MORE**

[Read the Paper](#)

**SOURCE(S)**

The Nature Conservancy

**SUGGESTED CITATION**

The Nature Conservancy. 2018. Mapping Ocean Wealth Explorer. <http://maps.oceanwealth.org/>

**LICENSE**

[The Nature Conservancy](#)

CLOSE

Coastal Protection: Mangrove Annual Expected Benefit to People (No.)

- < 3000
- 3000 - 10,000
- 10,000 - 30,000
- 30,000 - 150,000
- > 150,000

Coastal Protection: Mangrove Annual Expected Benefit to People (No.)

Very Low Low Average High Very High

# LEARN ABOUT THE DATA USING THE INFO BOXES

<https://map.unbiodiversitylab.org/earth/>

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MAP VIEW

PLACES LAYERS

WDPA

FILTERS

Layers (15)

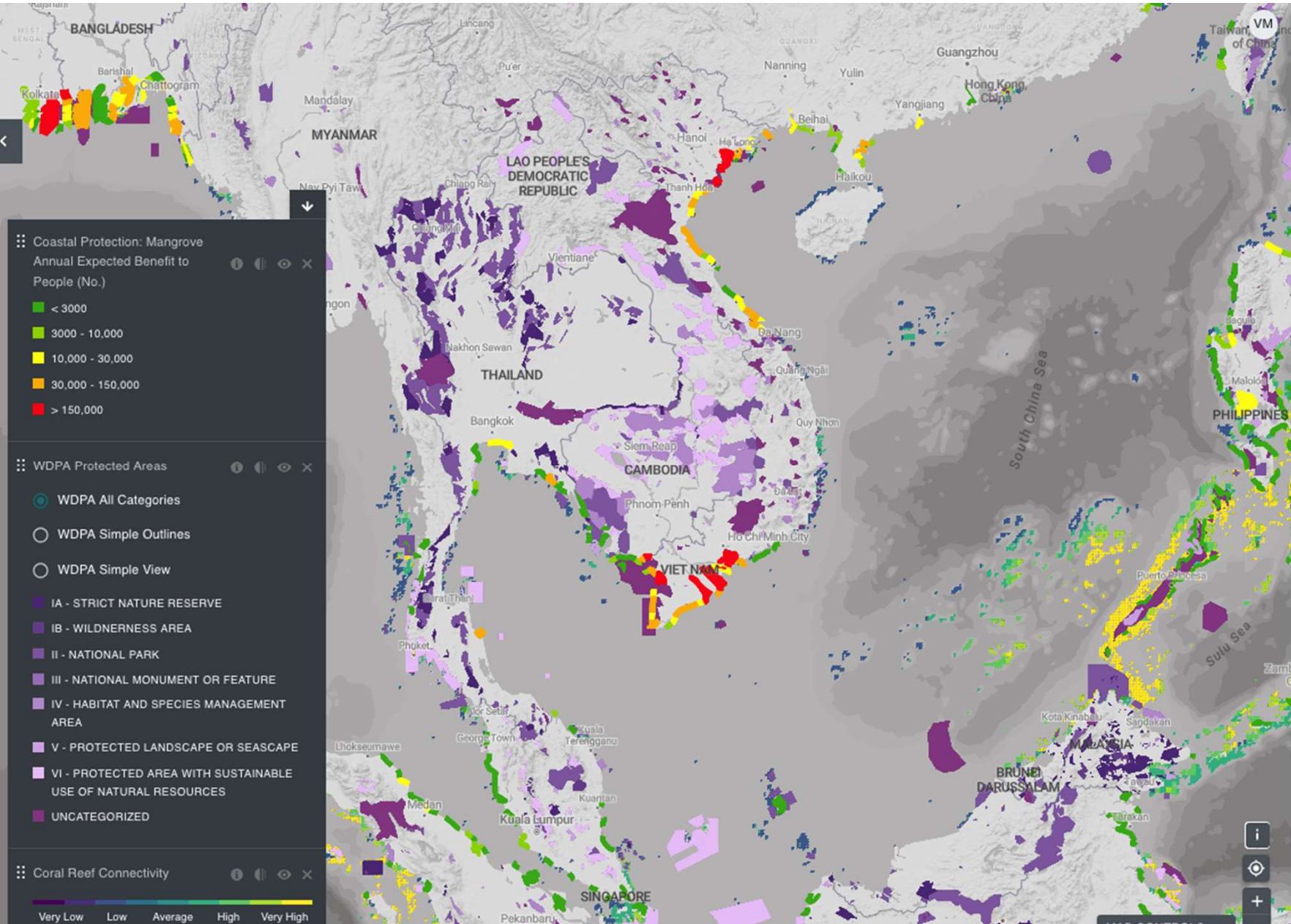
**WDPA Protected Areas**  
UNBL • KM-GBF (Policy), Protected and Conserved Areas  
The World Database on Protected Areas (WDPA) is the most up-to-date and complete source of information

**Terrestrial Protected Areas WDPA**  
UNBL • Protected and Conserved Areas  
The World Database on Protected Areas (WDPA) is the most comprehensive global database of marine and

**Marine Protected Areas WDPA**  
UNBL • Protected and Conserved Areas, Oceans (Water)  
Terrestrial Protected Areas are a subset of the World Database on Protected Areas (WDPA), the most

**UNESCO MAB Biosphere Reserves**  
UNBL • KM-GBF (Policy), Protected and Conserved Areas  
="https://api.protectedplanet.net/">Download the Data SOURCE(S) UNESCO, UNEP-WCMC WDPA

**Global Distribution of Seagrasses**  
UNBL • Ecosystem (Biodiversity), Oceans (Water)  
a> LICENSE



search layers

FILTERS

Production Landscape Restoration

Post-hoc Restoration Priority - Soil Restoration

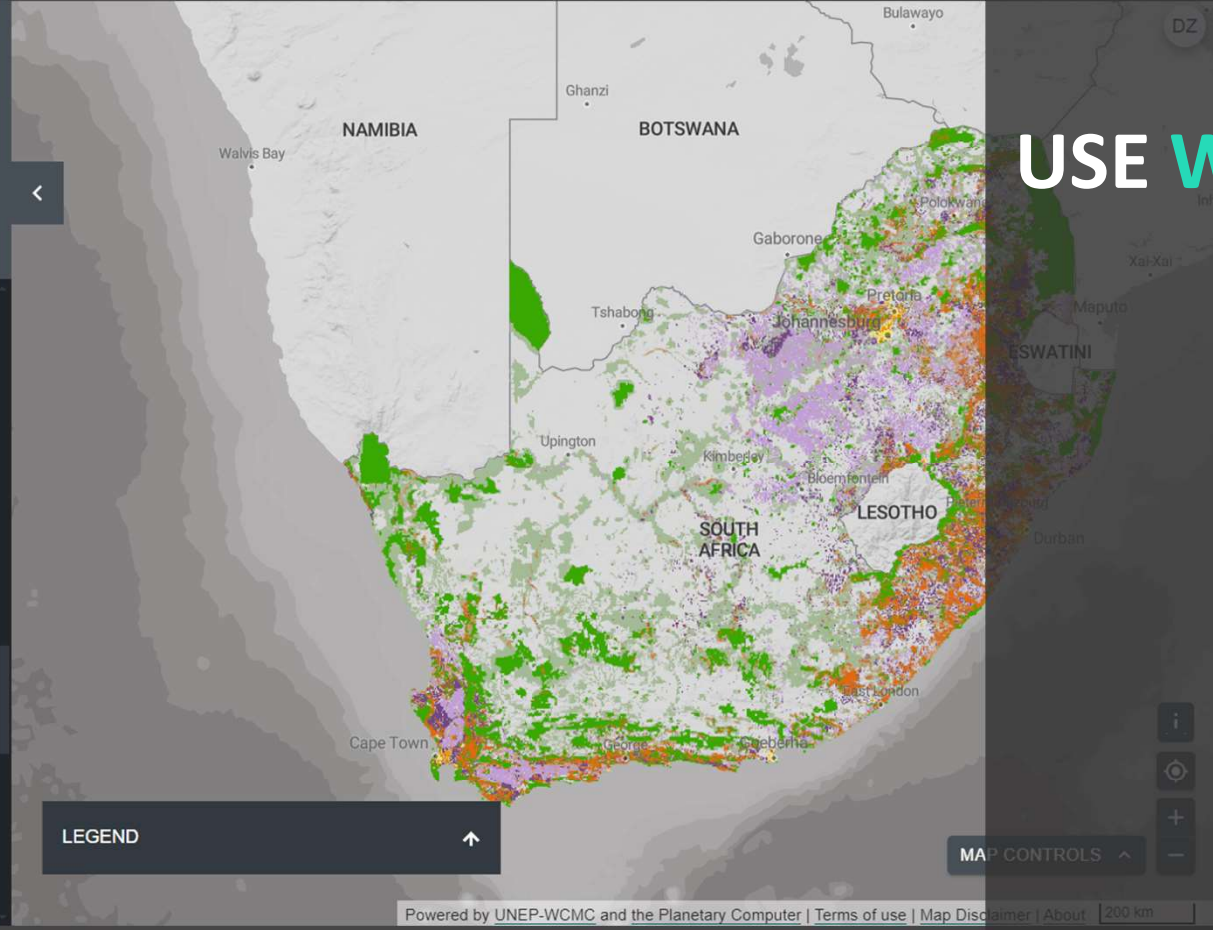
Post-hoc Restoration Priority - Water Restoration

Priority areas of invasive alien plants control Human Impact

Protect zone Protected and Conserved Areas

Protected area expansion heatmap Protected and Conserved Areas

Protected Areas Ecosystem Services

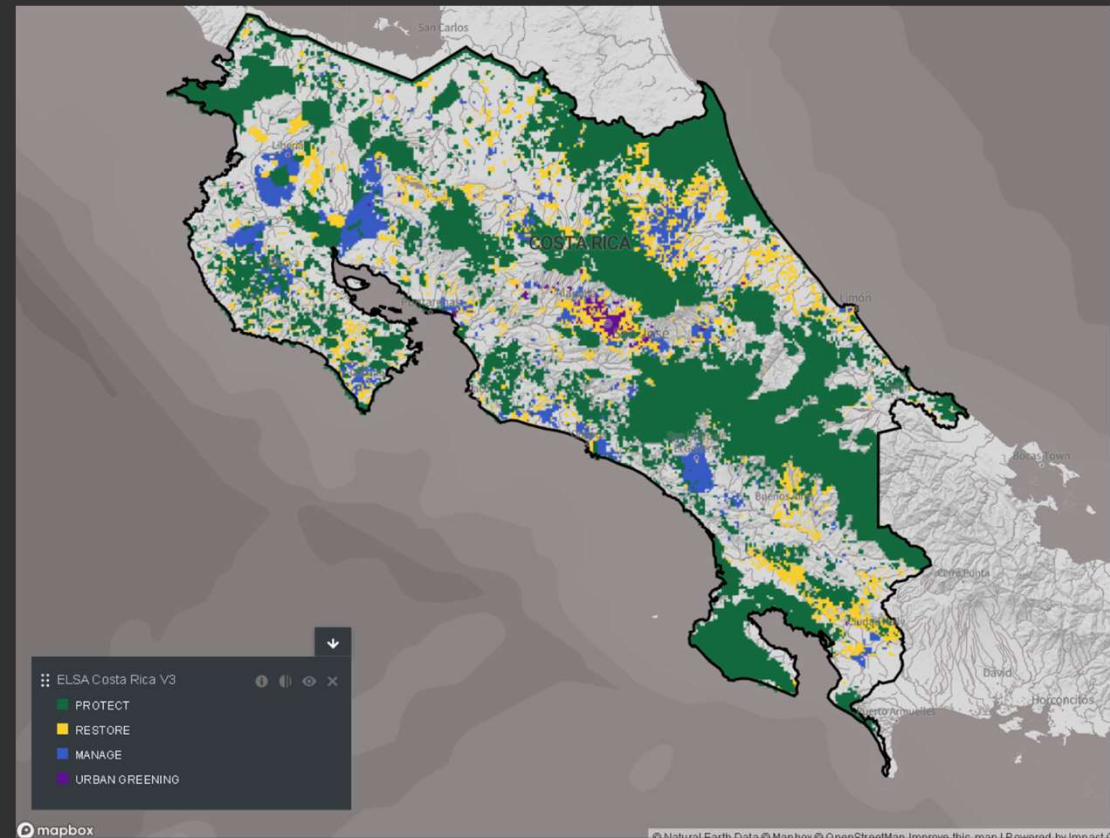


USE WORKSPACES

<https://map.unbiodiversitylab.org/earth/>

## MAP ESSENTIAL LIFE SUPPORT AREAS *(Under Construction)*

- Tool to allow decision-makers used these data to **take action based on their specific national priorities**
- Identify essential life support areas to maintain **key biodiversity and ecosystem services**
- Set of **selected countries** to test out the tool



Learn more: <https://unbiodiversitylab.org/en/maps-of-hope/>

# MAP ESSENTIAL LIFE SUPPORT AREAS *(Under Construction)*

The screenshot displays the 'ELSA Webtool Liberia' interface. On the left, the 'RUN OPTIMIZATION' section includes 'GLOBAL PARAMETERS' with a checkbox for prioritization, 'How to deal with protected areas' (set to 'Lock in Protected Areas'), and target values for 'Protect Target' (20.7), 'Restore Target' (10), 'Manage target' (15.6), and 'Urban Greening Target' (0.5). A 'Boundary Penalty Factor' is set to 0. On the right, a table titled 'Information about weights to go here' lists 26 items with columns for Data, Theme, Weight, and Policy Target(s).

	Data	Theme	Weight	Policy Target(s)
1	Underrepresented ecosystems	Biodiversity	5.67	3
2	Threatened ecosystems	Biodiversity	7.84	3
3	Accessible mangroves	Biodiversity	7.02	7
4	Ramsar sites	Biodiversity	7.47	7
5	Key Biodiversity Areas	Biodiversity	7.22	3
6	Conservation priority areas	Biodiversity	6.81	3
7	Mean area of forest patches	Biodiversity	5.73	4,9
8	Degraded forests	Biodiversity	6.58	4,9,10
9	Degraded wetlands	Biodiversity	6.81	7,10
10	Modeled tree taxonomic diversity	Biodiversity	5.56	3,4,6
11	Species richness	Biodiversity	6.15	3,6
12	Chimpanzee habitat suitability	Biodiversity	5.79	3
13	Chimpanzee connectivity	Biodiversity	6.37	3
14	High carbon in concessions	Climate Change Adaptation & Mitigation	6.84	5,2
15	Above ground biomass carbon density-NCER	Climate Change Adaptation & Mitigation	6.59	2
16	Sediment regulation	Climate Change Adaptation & Mitigation	4.98	1
17	Soil organic carbon	Climate Change Adaptation & Mitigation	4.35	1,2
18	Mangrove aboveground biomass	Climate Change Adaptation & Mitigation	10.00	2
19	Essential natural capital for food security	Human Well-being	9.00	1,6
20	Coastal protection	Human Well-being	10.00	6
21	Essential natural capital	Human Well-being	5.46	6
22	Important areas for water quantity	Human Well-being	6.78	6
23	Important areas for flow regulation	Human Well-being	5.82	6
24	Potential freshwater provision	Human Well-being	7.17	6,7
25	Flood regulation	Human Well-being	6.95	6,8
26	Urban Greening Opportunities	Human Well-being	6.79	8

Learn more: <https://unbiodiversitylab.org/en/maps-of-hope/>

## FUTURE DEVELOPMENTS

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- Continue to curate and add **high-quality global data layers**, as available
- Implement **key metrics** functionalities and provide access to GBF indicator calculations based on spatial data
- Implement new methodology to map **Essential Life Support Areas (ELSA)**
  - *We are interested to hear about use cases, how global data is useful at the national level*
- Integrate with **other mapping and reporting tools** (TargetTracker, Plangea, etc.)
- **Engage** with countries, UN agencies and others to understand needs and requirements of users

## 3 EASY STEPS TO GET INVOLVED

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1. **Sign up as our test users!** -> Drop your email into the chat
2. **Register today** -> [www.unbiodiversitylab.org](http://www.unbiodiversitylab.org), click on data tab
3. **Create a UNBL workspace** -> Email [violeta.munoz@unep-wcmc.org](mailto:violeta.munoz@unep-wcmc.org)



# UNBL MICROCOURSE


GBF TARGET 01: LAND AND SEA-USE PLANNING

## Using Spatial Data for Biodiversity

In this micro-course, you will learn about the value of remote sensing for monitoring biodiversity conservation and sustainable development, learn how to use the UN Biodiversity Lab (UNBL) to visualize and analyze spatial data, and gain an understanding of how countries around the world are using spatial data to take action for nature.

[View details](#) ▾







 + 12107 enrolled

Not enrolled

[Sign in to enroll](#)

### Course includes:

-  5 modules
-  11 activities
-  3 quizzes
-  Course certificate



© **Estimated effort:** 4 hours total for all course requirements

**Available in: EN | FR | PT | SP | RU**

<https://learningfornature.org/en/courses/using-spatial-data-for-biodiversity/>



Questions?

Thank you for  
your attention!

<https://www.unep-wcmc.org/en>

<https://unbiodiversitylab.org/en/>