

UN BIODIVERSITY LAB (UNBL)

Giving access to the best available global spatial data
for reporting and support evidence-based action
for nature, climate and sustainable development

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UNEP-WCMC



Convention on
Biological Diversity



WCMC





Convention on
Biological Diversity



Using Spatial Data to Support
the Development of Plans for
National Monitoring Systems

for the

Kunming-Montreal Global
Biodiversity Framework



41%

of headline indicators have
methodology encouraging the use of
spatial data

34%

of component indicators
have methodology encouraging the
use of spatial data

Spatial planning is essential to the GBF



Kunming-Montreal

GLOBAL BIODIVERSITY FRAMEWORK

Target 1 – calls Parties to “plan and manage all areas to reduce biodiversity loss”.

“Ensure that all areas are under participatory, integrated, and **biodiversity inclusive spatial planning** and/or effective management processes addressing land and sea use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities.”¹

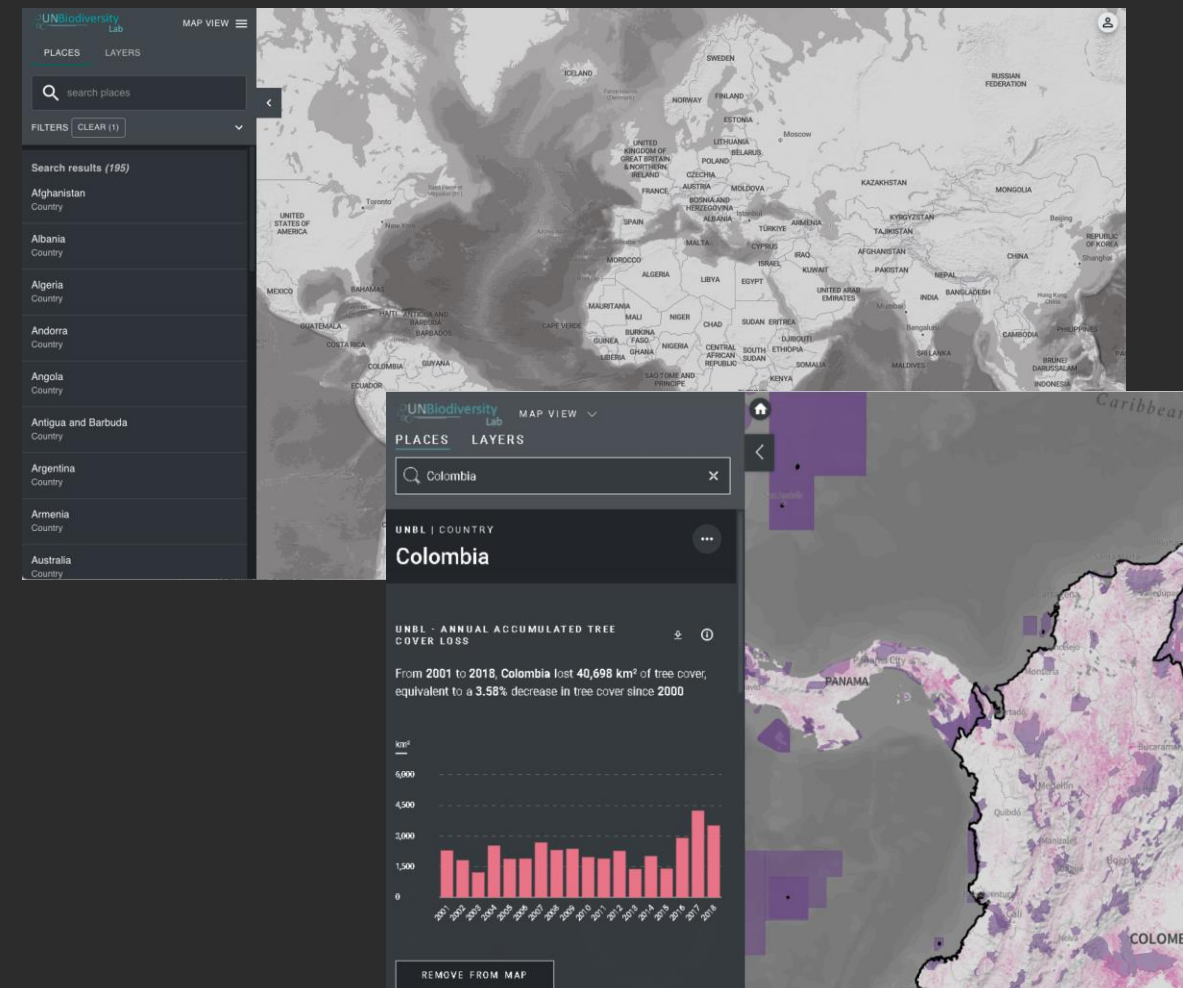


1- <https://www.cbd.int/gbf/targets/1>

UNBL | SPATIAL DATA FOR INFORMED DECISION MAKING

- A free open-source platform
- Access to high-quality **spatial data & analytic tools**
- Facilitates the use of the best available spatial data for **planning, implementing, monitoring, and reporting** for the Kunming-Montreal Global Biodiversity Framework (KM GBF)
- Does **NOT** require GIS expertise
- Available in **5 languages** EN | FR | PT | RU | SP
- Created in partnership by **CBD, UNDP, UNEP, UNEP-WCMC**

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



HOW IS UNBL BEING USED?

EXPLORE / VISUALIZE

Nashulai Maasai Conservancy

We are extremely grateful for the 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

Researchers from 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. These maps 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.

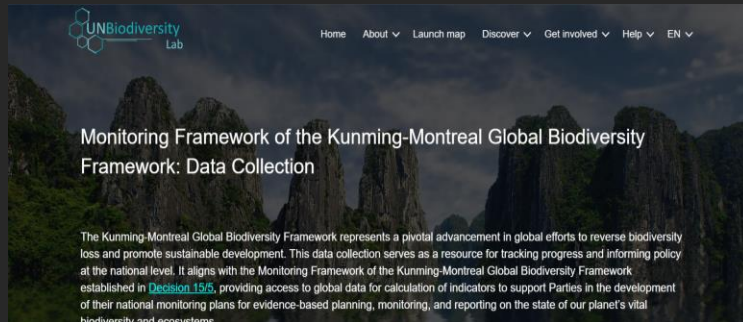
NATIONAL REPORTING

Uptake of UNBL by countries in the 6th National Report - 55 countries created at least one map using UNBL and 13 of these countries 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

UNBL | KEY FEATURES



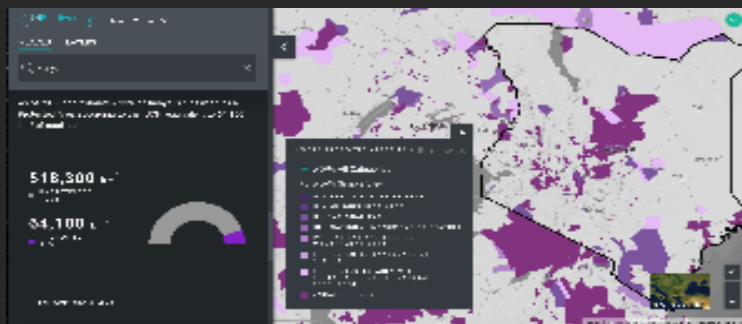
1. Access spatial data via the UNBL Data Collections



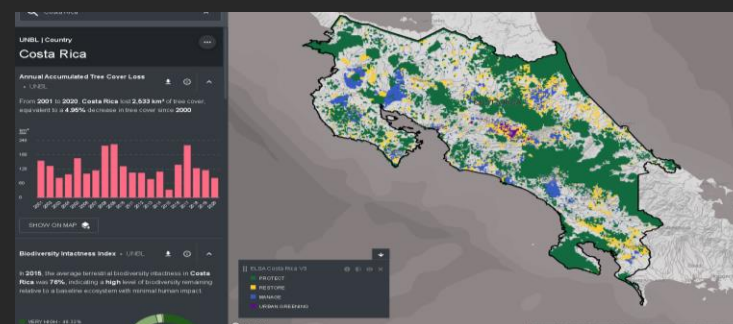
2. Create maps to visualize data and support national reports



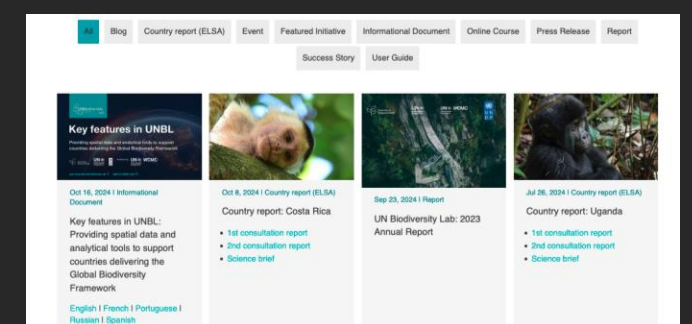
3. Create a UNBL workspace to work collaboratively and support national monitoring systems



4. Display spatial headline indicators and other pre-calculated metrics



5. Develop spatial prioritization maps with the Integrated Spatial Planning Tool (Venter *et al.* *bioRxiv* 2024)



6. Find available tailored resources e.g. brochures, reports, your success stories

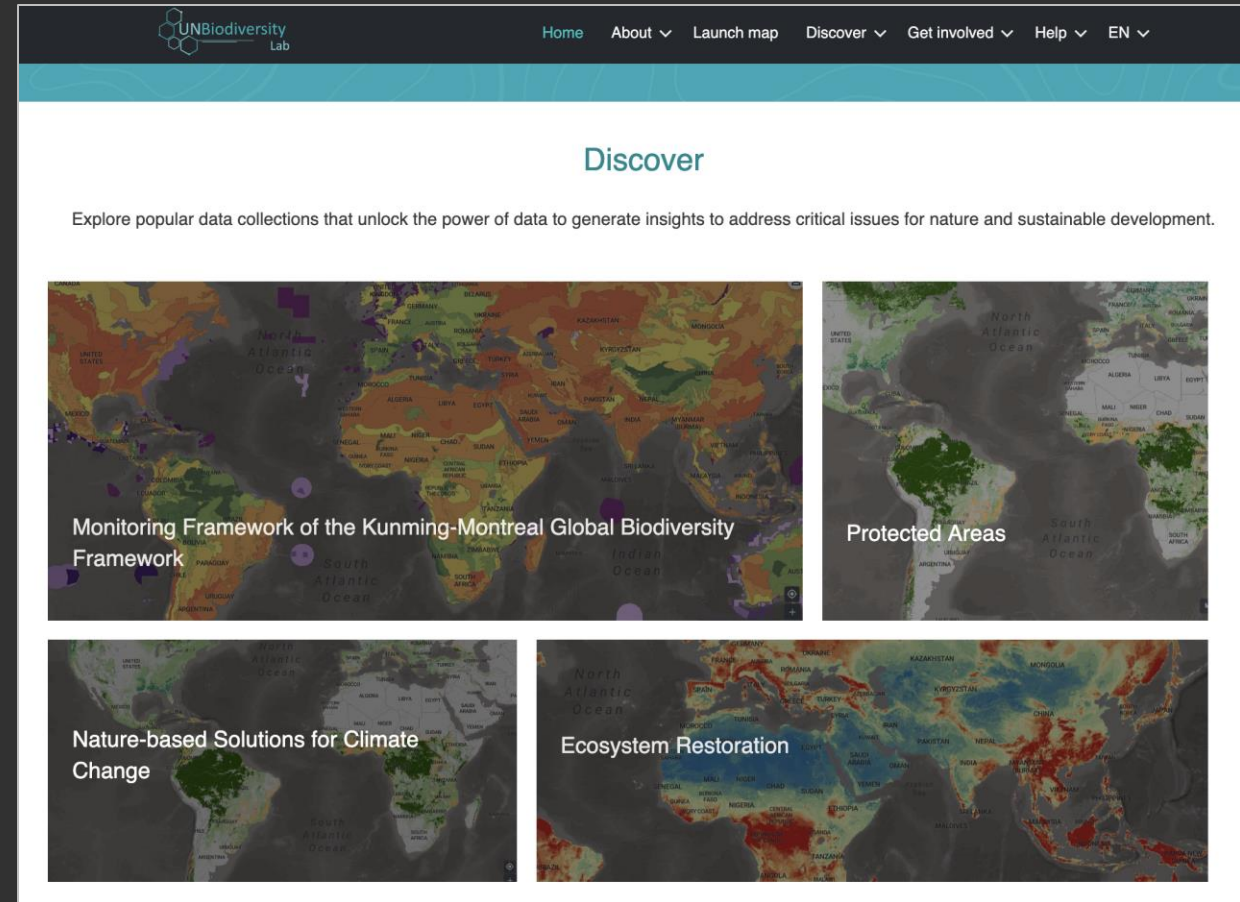
UNBL DATA COLLECTIONS

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

MOST RECENT COLLECTION:

- The Kunming-Montreal Global Biodiversity Framework

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



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MAP VIEW

PLACES LAYERS

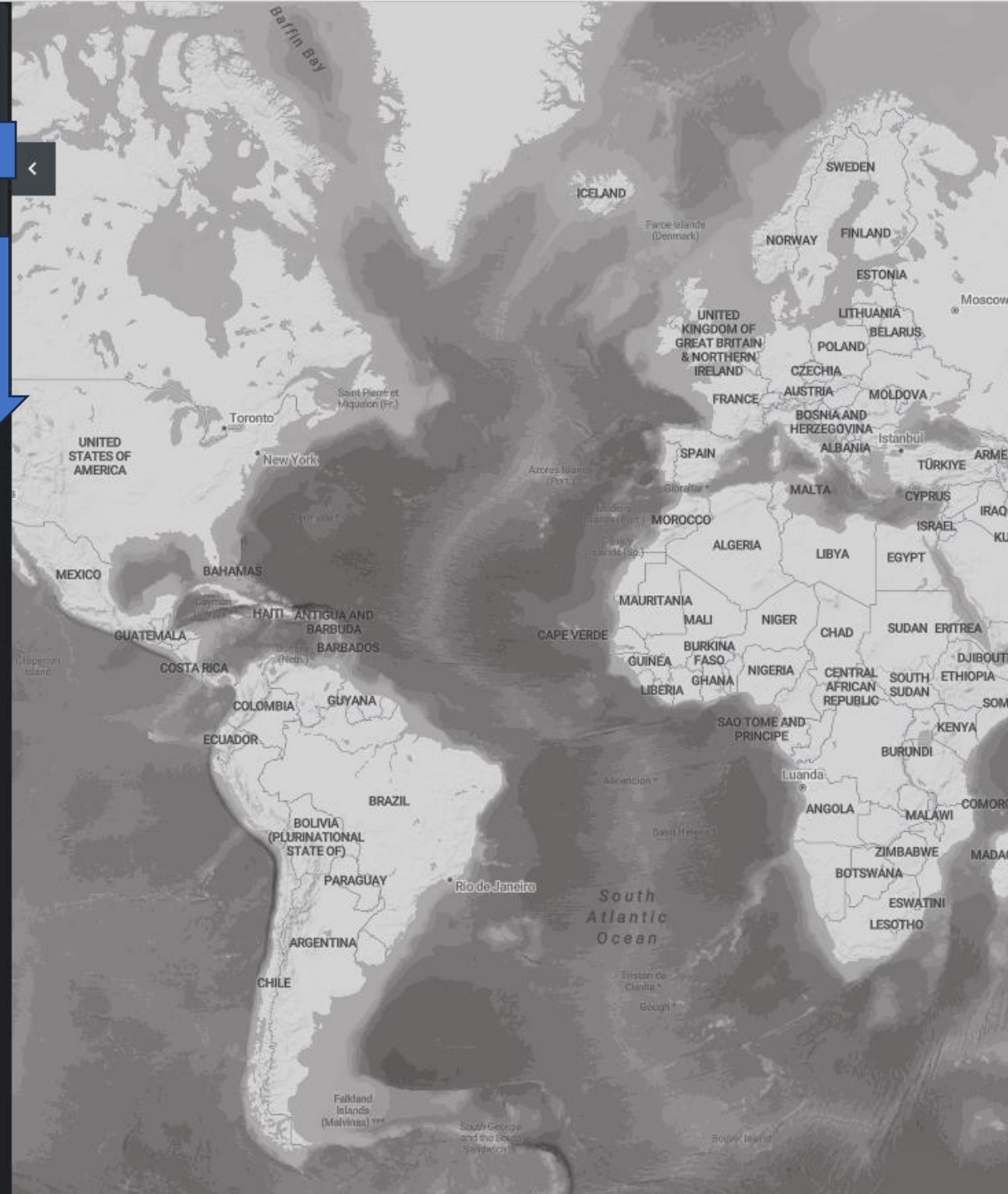
search layers

FILTERS CLEAR (4)

Layer tags

Layer category

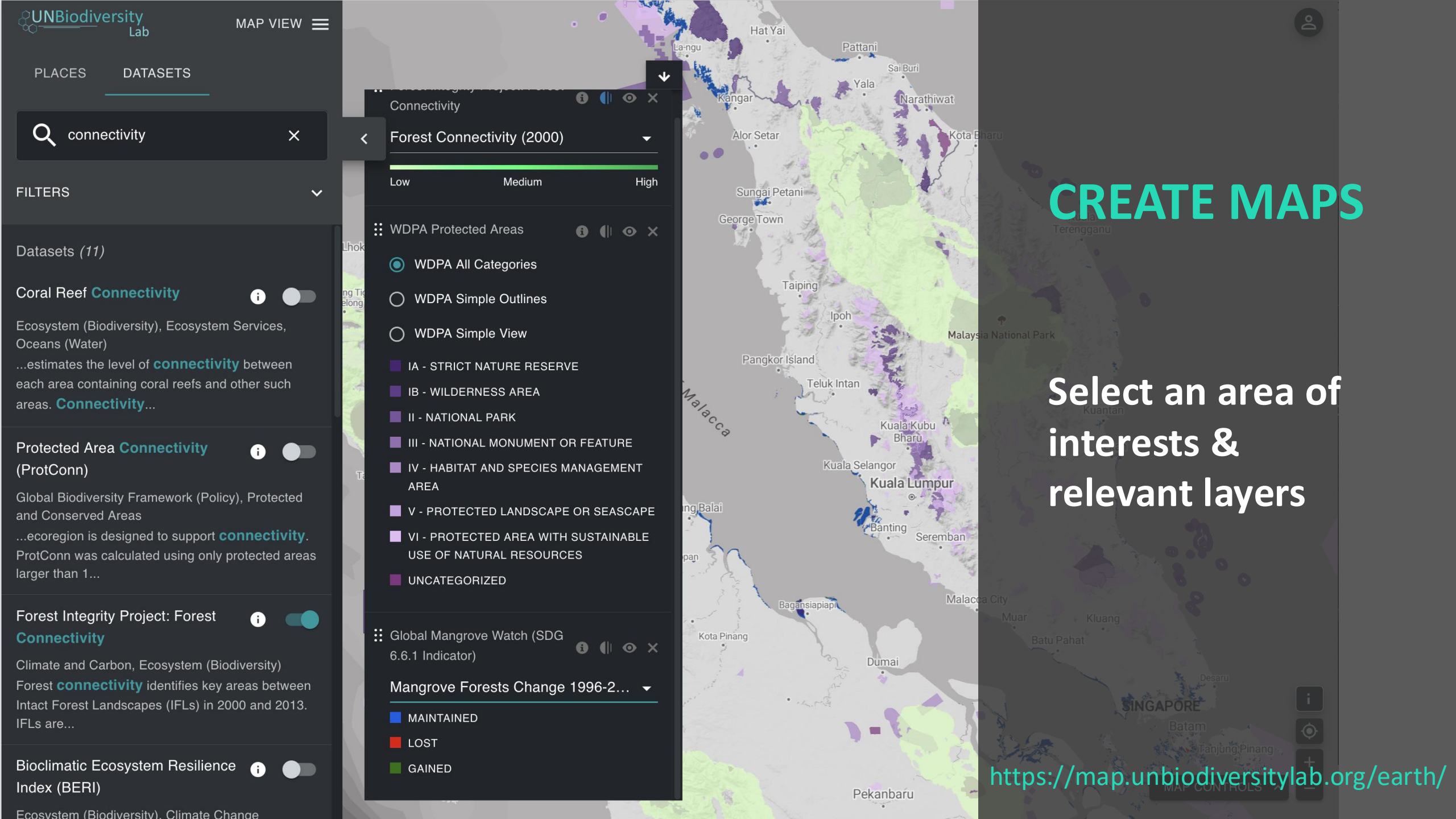
- ☐ Agriculture (13)
- ☐ Biodiversity (121)
- ☐ Boundaries (7)
- ☐ Built Environment (10)
- ☐ Climate and Carbon (45)
- ☐ Ecosystem Services (46)
- ☐ Human Impact (46)
- ☐ Land Cover and Land Use (22)
- ☐ Natural Hazards (9)
- ☐ Nature Based Solutions (9)
- ☐ Policy (74)
- ☐ KM-GBF (74)
 - ☒ Goal A (37)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



**FIND SPATIAL DATA
>900 GLOBAL
SPATIAL DATA
LAYERS**

**Use key words or the
hierarchical filter to find
relevant data**

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



CREATE MAPS

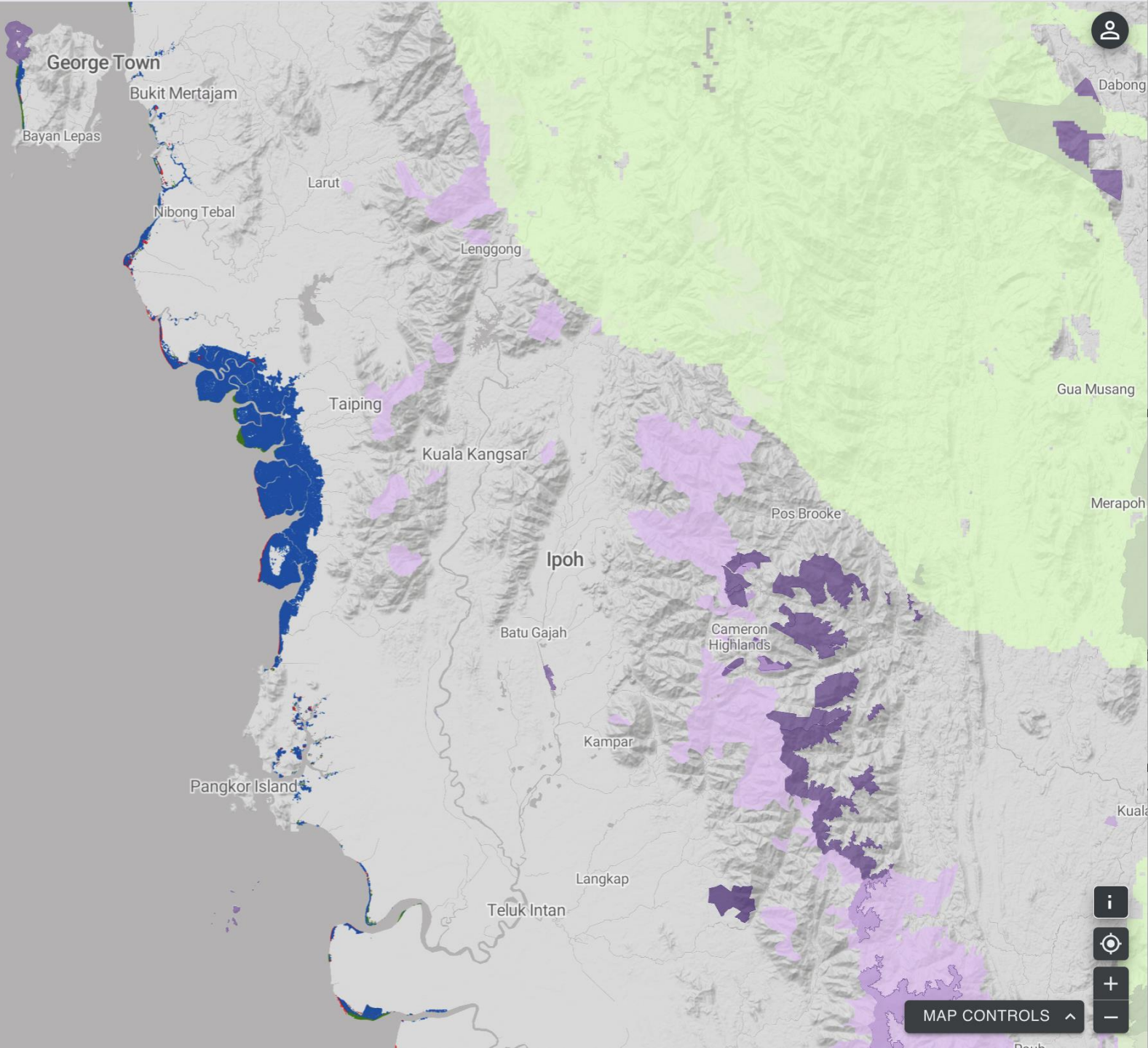
Select an area of
interests &
relevant layers

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



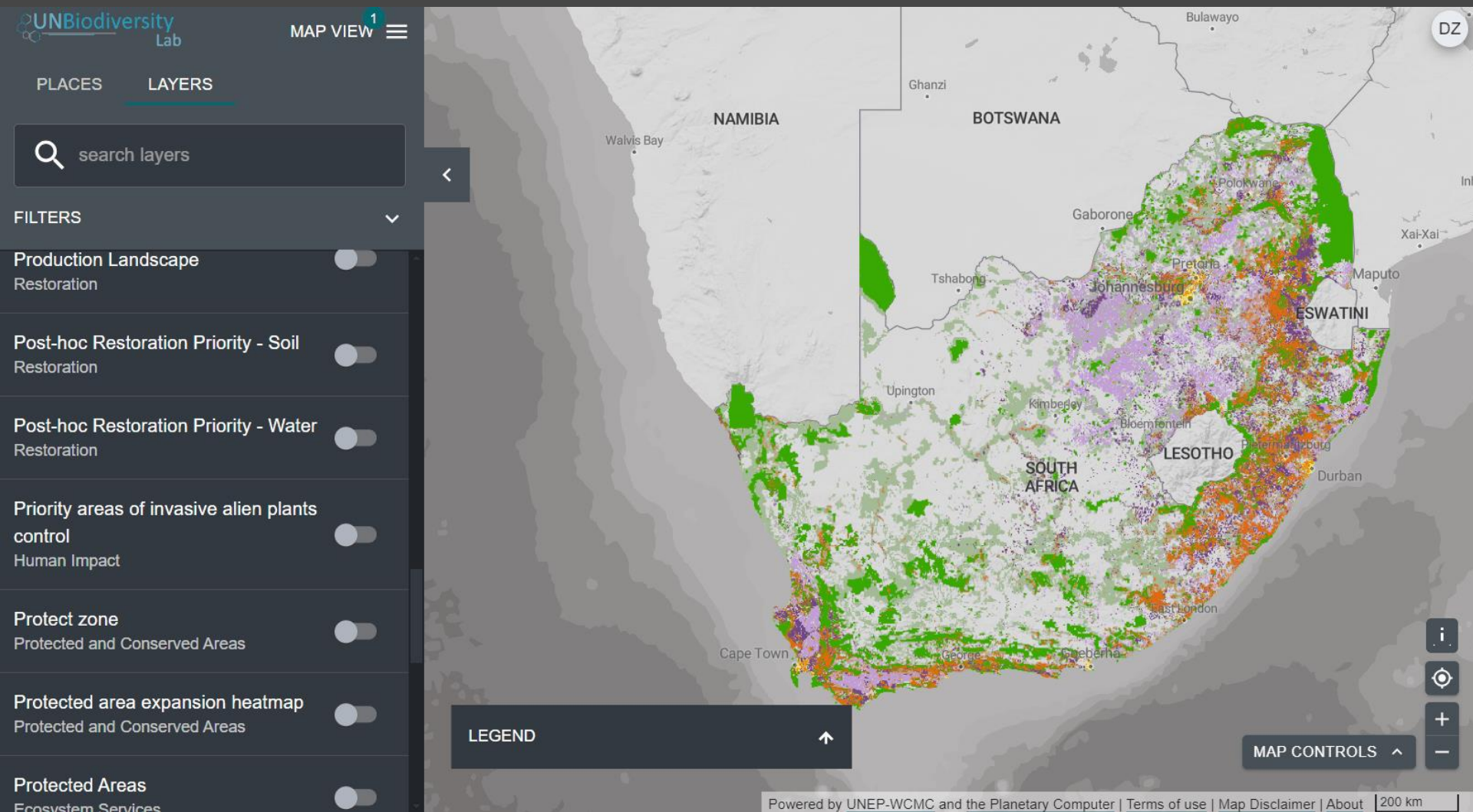
LEGEND

↑



MAP CONTROLS

^



UNBL WORKSPACES

Enabling users to
upload national
data and work
collaboratively

UNBiodiversity Lab

WORKSPACES

PLACES DATASETS

ghana

FILTERS CLEAR (1)

Place type

☒ Country (1)

Search results (1)

Ghana

UNBL • Country



DISPLAY
SPATIAL METRICS

Select a country of
interest

PLACES

DATASETS

ANALYSES

What is an ELSA Map?

Moore - Malawi

ANALYSIS RUNS

INPUT LAYERS

+ NEW ANALYSIS RUN

Tuesday, 29 July 2025

Equal Weights - BPF 0 - No
lockin

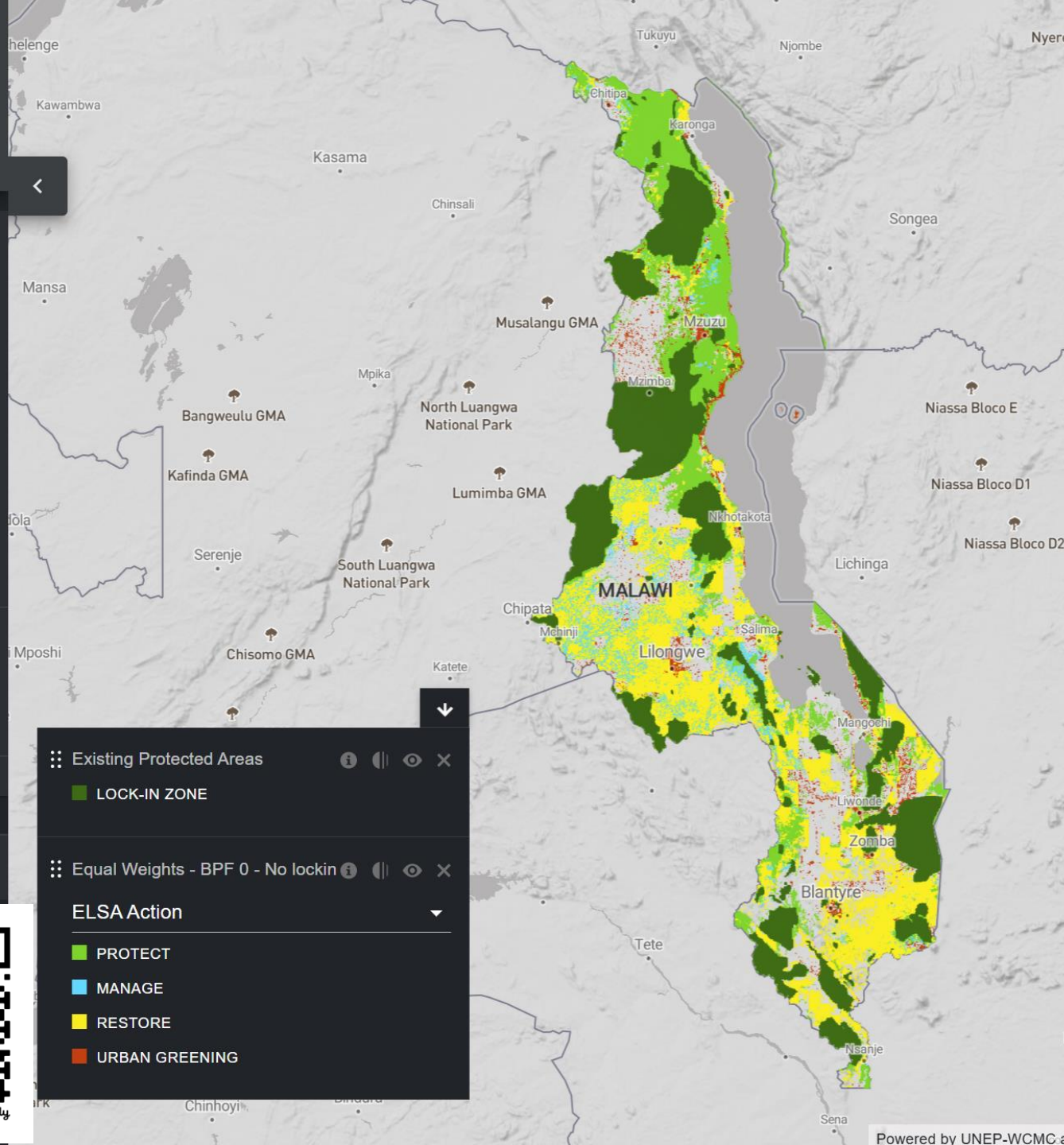
COMPLETE • 10:06

Tuesday, 15 July 2025

Equal Weights - BPF 0

COMPLETE • 12:40

Moore - Ghana



ELSA INTEGRATED SPATIAL PLANNING TOOL

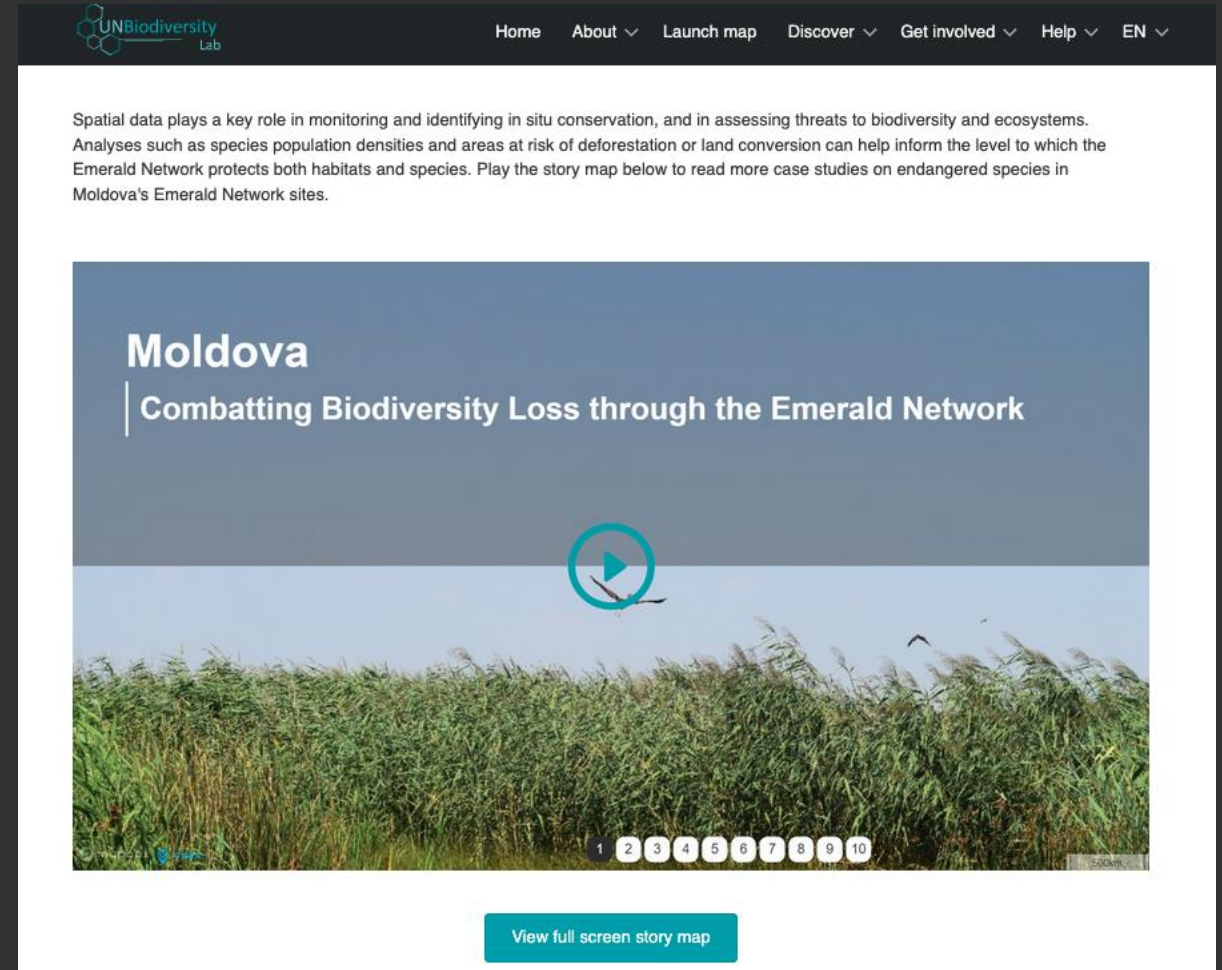
Available to any
user within the
UNBL workspaces
to create **Spatial
Prioritization
Maps**

RESOURCES COLLECTION

- Share *your* story
- Relevant infographics and pictures
- Maps and links to data
- Create a story map

<https://unbiodiversitylab.org/en/moldova-increases-protected-areas-in-the-emerald-network-2/>

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



The screenshot shows the UNBiodiversity Lab website. The header includes the logo and navigation links: Home, About, Launch map, Discover, Get involved, Help, and EN. The main content area features a paragraph about spatial data and a story map titled "Moldova | Combatting Biodiversity Loss through the Emerald Network". The story map is a video player showing a field of tall grass with a play button overlay. Below the video is a progress bar with 10 numbered segments. A button at the bottom right says "View full screen story map".

UNBiodiversity Lab

Home About ▾ Launch map Discover ▾ Get involved ▾ Help ▾ EN ▾

Spatial data plays a key role in monitoring and identifying in situ conservation, and in assessing threats to biodiversity and ecosystems. Analyses such as species population densities and areas at risk of deforestation or land conversion can help inform the level to which the Emerald Network protects both habitats and species. Play the story map below to read more case studies on endangered species in Moldova's Emerald Network sites.

Moldova

Combatting Biodiversity Loss through the Emerald Network

1 2 3 4 5 6 7 8 9 10

View full screen story map

THANK YOU

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www.unbiodiversitylab.org



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Biological Diversity



WCMC

