Convention on
Biological Diversity

gef

UN
environment
programme

UN WCMC
environment
programme

UNDP

UNBiodiversity
Lab

Using Spatial Data to Transform Our Planetary Emergency

The use of spatial data can be transformative in the face of climate change, biodiversity loss, and development challenges — enabling countries to make data-driven decisions and more accurately monitor progress towards their goals. Many countries request support to access high-quality spatial data and to meaningfully incorporate it into national planning, implementation, and monitoring.

We created the UN Biodiversity Lab to meet this need.

Our
Mission

UNBL provides access to global spatial data and analytics for insight and impact to support national stakeholders to deliver on the post-2020 global biodiversity framework and the 2030 Agenda for Sustainable Development. Our mission is three-fold:

◗ To democratize access to spatial data and analytic tools as a global public good;

◗ To support decision-makers to leverage spatial data for insight, priority-setting, and implementation; and

◗ To empower stakeholders to use spatial data for monitoring and reporting.

What's New in UNBL 2.0?

- Available in English, French, Portuguese, Russian, and Spanish.

- Modern web app design and enhanced usability.

- Expanded and updated global data list.

- Secure workspaces available to any non-commercial actor.

- Analytics to calculate dynamic indicators for any area of interest.

- Curated data collections on key thematic areas.
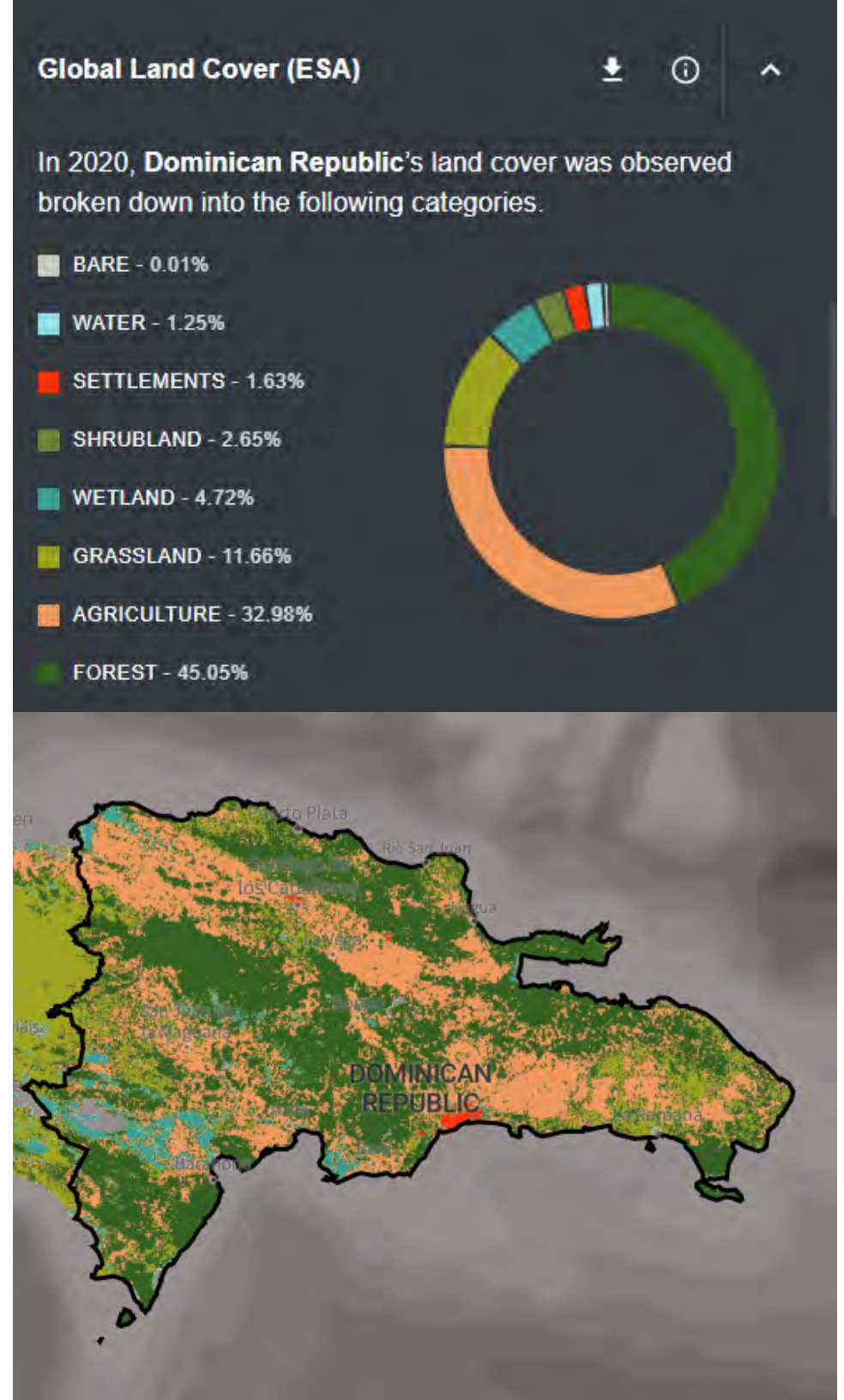
- Hosted on UN servers.

UNBL Functionalities

UNBL is a free, open-source platform that provides non-commercial users with access to over 400 of the world's best global data layers on nature, climate change, and sustainable development. Relaunched in 2021 based on user feedback, UNBL does not require any GIS experience. Users can:

▮ Visualize **core global public good datasets** at the heart of decision-making on nature and sustainable development.

▮ Access **curated collections** that integrate spatial data for insight and action.

▮ View and download **dynamic indicators of change** for any country in the world.

▮ Create workspaces to **securely upload national data for analysis** alongside global data.

▮ Develop **communities of practice** that nurture data transparency and cross-sectoral collaboration.

▮ Draw on **the expertise of UNBL partners** to develop national strategies and plans.

UNBL provides data visualizations on eight key metrics, including Global Land Cover, as featured above for the Dominican Republic.

Source: European Space Agency Climate Change Initiative, Land Cover project. (2017). '300 M Annual Global Land Cover Time Series from 1992 to 2015.'

Global Land Cover (ESA)

In 2020, **Dominican Republic**'s land cover was observed broken down into the following categories.

- BARE – 0.01%
- WATER – 1.25%
- SETTLEMENTS – 1.63%
- SHRUBLAND – 2.65%
- WETLAND – 4.72%
- GRASSLAND – 11.66%
- AGRICULTURE – 32.98%
- FOREST – 45.05%

UNBL by the Numbers

400+

global data layers.

100+

UNBL workspaces created for non-commercial users.

35+ million

impressions for #UNBiodiversityLab.

1,200+

registered users from 125 countries.

37,000+

platform visits.

11,000+

attendees to UNBL events & trainings.

All data as of June 2022.

Photo credit: UNDP Fiji

Use Cases

UNBL led to an 81 percent increase in the number of maps used in countries' national reports on biodiversity to the CBD. Explore how different countries have used the platform.

Colombia

Colombia is using UNBL to survey key global datasets and identify opportunities to integrate them within nation-wide analyses, including new efforts to estimate total carbon stocks in dry tropical forest areas, one of the most critically endangered ecosystems in Colombia.

Learn more here.

Photo credit: UNDP Colombia

Ecuador

The government of Ecuador has used UNBL's spatial data to monitor deforestation and biodiversity loss, determine which ecosystems should be set aside for protected areas, and to define six intervention zones to implement its REDD+ Action Plan.

Learn more here.

Haiti

The use of UNBL has improved the mastery of tools for better forest management in Haiti, while using existing spatial data to strengthen government decisions and make Haiti's forest policy more effective; UNBL helps Haiti make decisions on where restoration efforts should be intensified, in common agreement with institutions working in this sector.

Learn more here.

Photo credit: UNDP Logan Abassi (UN/MINUSTAH)

Viet Nam

Geospatial data from UNBL is seen as an effective tool in supporting Viet Nam to create maps that show pressure on key forests and protected areas.

Learn more here.

Photo credit: Pham Hoang Nam | FAO-AFP

Aligning to the Post-2020 Global Biodiversity Framework

UNBL strives to engage with partners to provide a comprehensive suite of services to support Parties to deliver on the emerging post-2020 global biodiversity framework.

- **Baselines:** UNBL builds relationships with authoritative global data providers and enables users to compile essential national data in our workspaces to support spatialized biodiversity baselines.

- **Planning and Implementation:** UNBL collections and collaborations with key partners involved in systematic conservation planning enable users to explore key questions and generate actionable maps based on their national context, including to support updates of National Biodiversity Strategies and Action Plans (NBSAPs).

- **Monitoring and Reporting:** UNBL has the potential to help countries automatically calculate spatial headline indicators for national reporting, including for the seventh national report to the CBD.

As Parties move towards implementing and monitoring progress towards the ambitions of the post-2020 framework, UNBL will work with partners to create data collections and functionalities that are most aligned with Parties' needs, from planning to implementation and reporting.

Photo credit: UNDP Guatemala
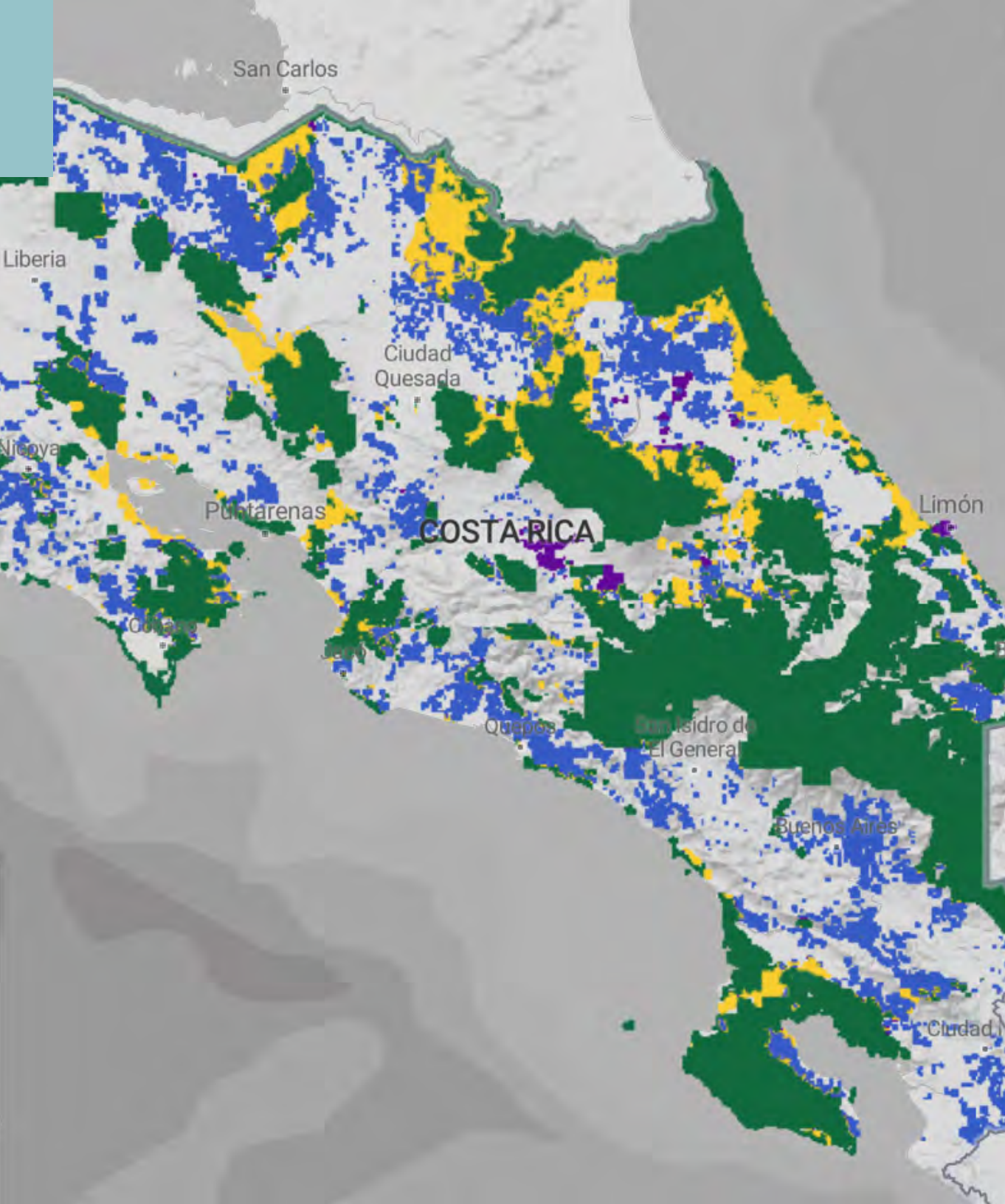
The Future: Mapping Hope

In 2022, UNDP and its partners will also release a prototype that creates the opportunity for any country in the world to create a 'Map of Hope'. Initially available as a proof-of-concept for three countries, these maps use globally agreed targets and data to provide initial insights into where nature-based actions could help to safeguard essential life support areas (ELSAs) to maintain key biodiversity and ecosystem services.

The ELSA tool on UNBL aims to provide foundational support to countries for Target 1 of the emerging post-2020 framework. These same approaches can be further customized at the national level based on national priorities and data.

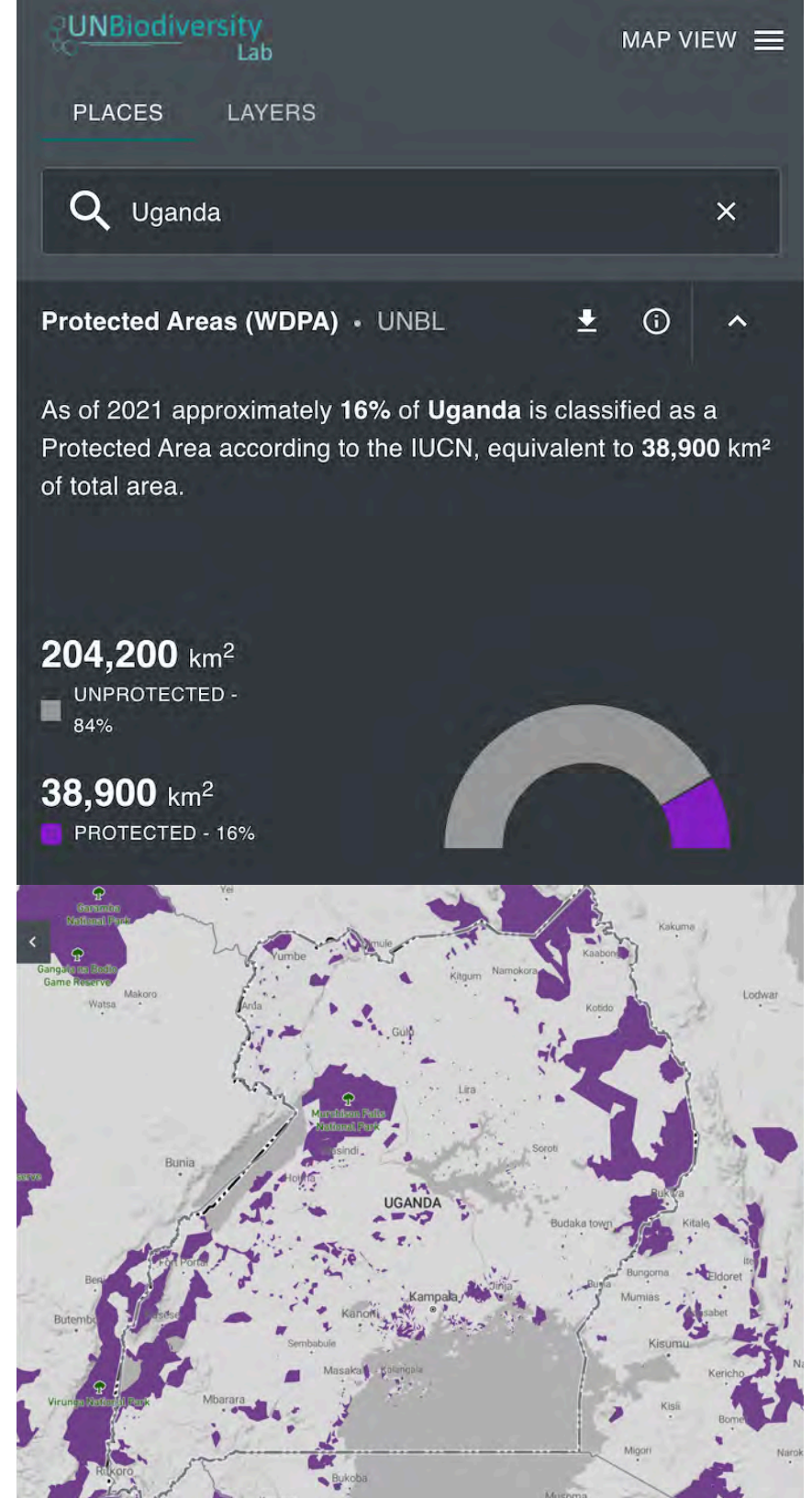**Costa Rica's Map of Hope visualized on UNBL.**

Three Easy Ways
to Get Involved

1. [Register for the platform](#) to access more than 400 data layers that spark insights on nature, climate, and sustainable development. *Follow the link and click on the account icon at the top right.*

2. [Request a private workspace](#) to securely upload and analyze national-level data, calculate dynamic indicators, and create your community of practice.

3. Explore our training materials:
- [UNBL Public Platform Guidance](#)
- [UNBL Workspace Guidance](#)
- [UNBL Microcourse](#)
- [Intermediate and Advanced Trainings on UNBL](#)

Protected areas in Uganda visualized on UNBL.

Source: UNEP-WCMC and IUCN (2022), "The World Database on Protected Areas (WDPA)." (June 2022), Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net.

UNBiodiversity Lab   MAP VIEW ≡

PLACES   LAYERS

🔍 Uganda ✕

Protected Areas (WDPA) · UNBL

As of 2021 approximately **16%** of **Uganda** is classified as a Protected Area according to the IUCN, equivalent to **38,900** km² of total area.

204,200 km²
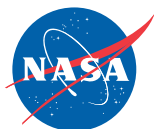UNPROTECTED - 84%

38,900 km²
PROTECTED - 16%

The
Partnership

UNDP and UNEP, with its specialist biodiversity centre UNEP-WCMC, and the CBD Secretariat bring together data and users to create innovative solutions to address our planetary emergency. Through our partnership, all CBD Parties have access to dynamic updates on the platform designed based on user needs. Relationships with technical partners and data providers ensure the provision of cutting-edge tools and data to take action for nature, climate, and sustainable development.

Convention on Biological Diversity

gef

UN environment programme

UN environment programme WCMC

UNDP

Technical Partners

Impact Observatory

Microsoft

NASA

UNICC

Donors

Flanders State of the Art

gef

GORDON AND BETTY MOORE FOUNDATION

Microsoft

one earth

PERMANENT MISSION OF DENMARK TO THE UN IN NEW YORK
Ministry of Foreign Affairs of Denmark

Sida

SVENSKA POSTKOD STIFTELSEN

Photo credit: Grégoire Dubois

Data Providers

Anthroecology Lab · BirdLife INTERNATIONAL Partnership for nature and people · CBCS Centre for Biodiversity & Conservation Science · CIFOR · CENTER FOR MACROECOLOGY, EVOLUTION AND CLIMATE UNIVERSITY OF COPENHAGEN · COLUMBIA CLIMATE SCHOOL CENTER FOR INTERNATIONAL EARTH SCIENCE INFORMATION NETWORK

DOPA · European Commission · European Commission Joint Research Centre · VLIZ Marineregions.org towards a standard for georeferenced marine names · FLORIDA MUSEUM · GEO BON

GLAD GLOBAL LAND · Global Fishing Watch · IIASA · IIS INTERNATIONAL INSTITUTE FOR SUSTAINABILITY · IUCN · JAXA Explore to Realize · KING'S College LONDON · map THE MALARIA ATLAS PROJECT

Microsoft · MONTANA STATE UNIVERSITY · NASA · NCEAS · knb · NATIONAL GEOGRAPHIC · The Nature Conservancy · NAU NORTHERN ARIZONA

one earth · OpenGeo HUB Connect · Create · Share · Repeat · Ramsar · RESOURCEWATCH · SOLARGIS · UN environment programme WCMC · USGS science for a changing world

UCLouvain · UNBC UNIVERSITY OF NORTHERN BRITISH COLUMBIA · UNIVERSITY OF OXFORD · THE UNIVERSITY OF QUEENSLAND AUSTRALIA · Utrecht University · WCS WorldPop

www.unbiodiversitylab.org