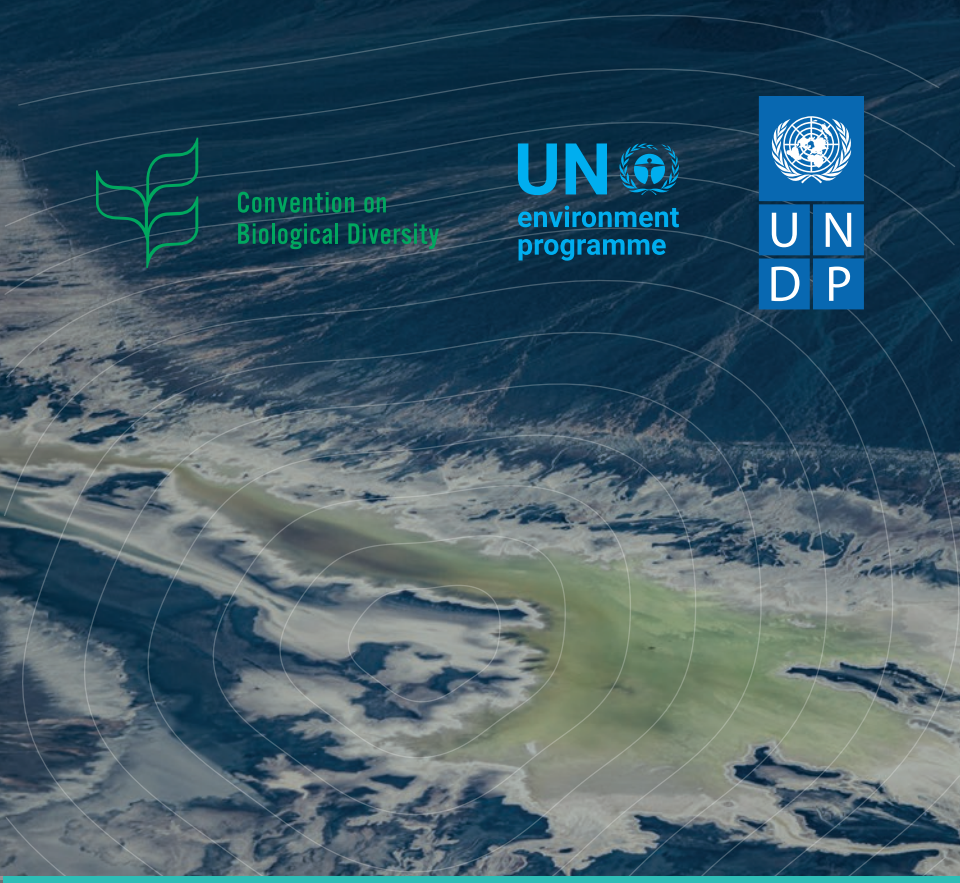


Convention on Biological Diversity

UN environment programme

UNDP

Key features in UNBL

Providing decision makers with spatial data and tools to take action for the Kunming-Montreal Global Biodiversity Framework

Powered by

UN environment programme WCMC

UNBiodiversity Lab



UNBL supports efforts to use spatial data and planning in the national implementation of the Kunming-Montreal Global Biodiversity Framework (GBF)

Spatial data enables stakeholders to visualize human-related activities and environmental trends on maps and monitor and report on trends over time. Together these data can enable decision makers to understand geographic contexts and prioritize action where it is needed most.

The UN Biodiversity Lab (UNBL) is a free, open-source platform that supports country-led efforts to use spatial data and analytic tools to generate insights to facilitate the implementation of impactful measures for nature, climate, and people. Recently, UNBL has been enhanced to include new features to support Parties around their commitments to the Convention on Biological Diversity (CBD), including for the landmark Kunming-Montreal Global Biodiversity Framework (GBF).

UNBL does not require GIS expertise to use and is available in English, Spanish, French, Russian and Portuguese.

PUBLIC PLATFORM FEATURES

DATA & MAPS

Visualize Data and Create Maps Using the UNBL Map View

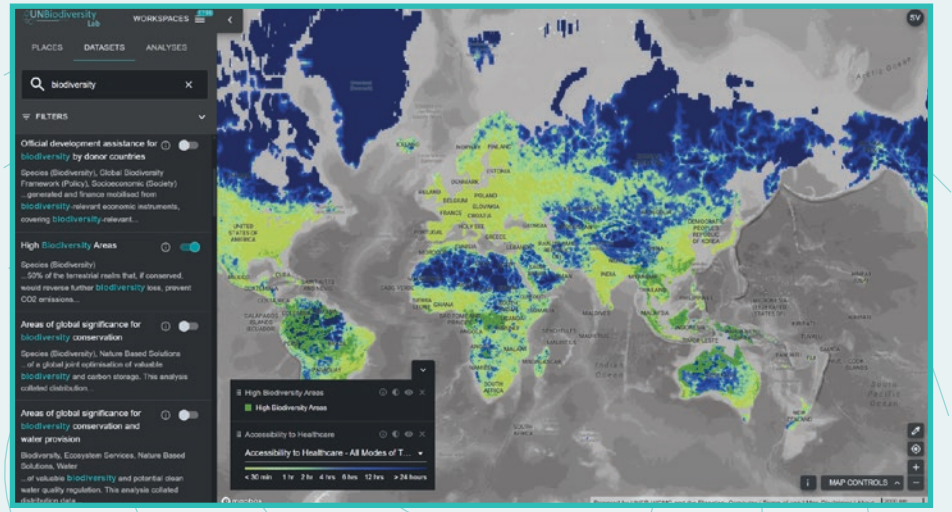
Global Map of High Biodiversity Areas and Accessibility to Healthcare

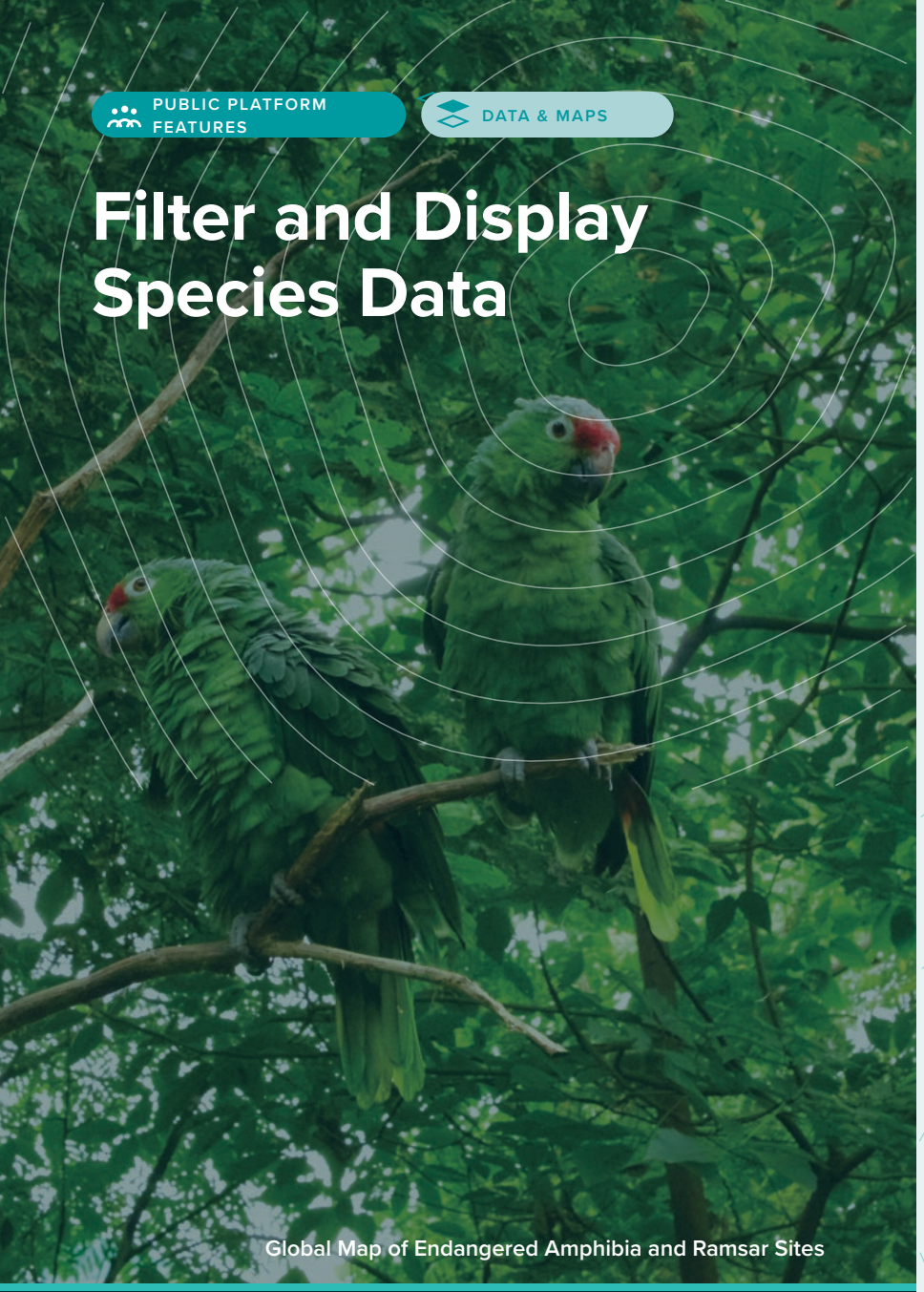
View on UNBL

UNBL's easy-to-use map view interface enables users to visualize and style multiple spatial data layers at the click of a button. You can navigate to the 'Datasets' menu to select from more than 2,000 global and regional data layers on biodiversity, carbon, and sustainable development, curated by our team of experts.

Users can use the UNBL map view to:

- Visualize and style 2,000+ global and regional data layers, including data recommended by CBD subregional Technical and Scientific Cooperation Support Centres (TSCCs).
- Clip and export layers with open license restrictions.
- Use keywords, data tags, and filters to find relevant data layers, including GBF-related data layers.
- Create customized maps for National Biodiversity Strategies and Action Plans (NBSAPs) and national reports.





PUBLIC PLATFORM FEATURES

DATA & MAPS

Filter and Display Species Data

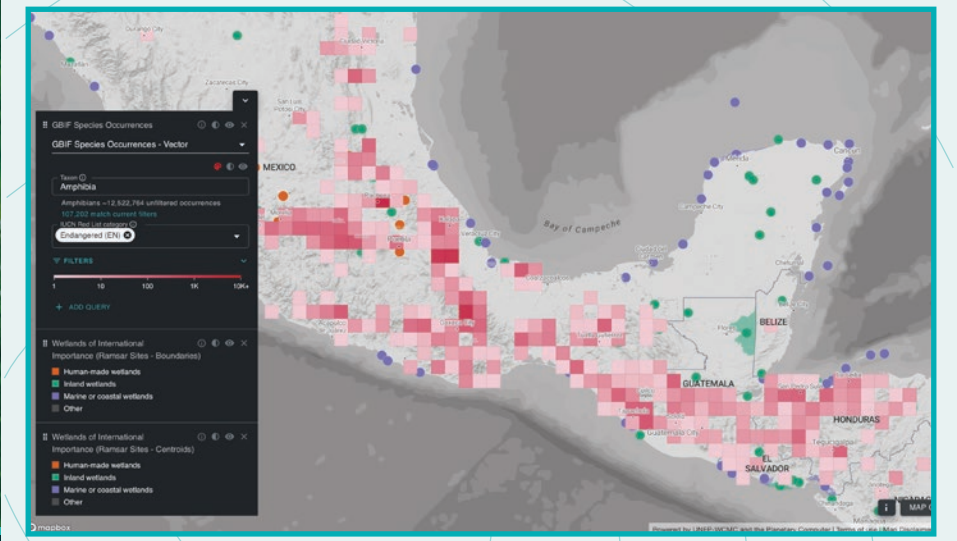
Global Map of Endangered Amphibia and Ramsar Sites

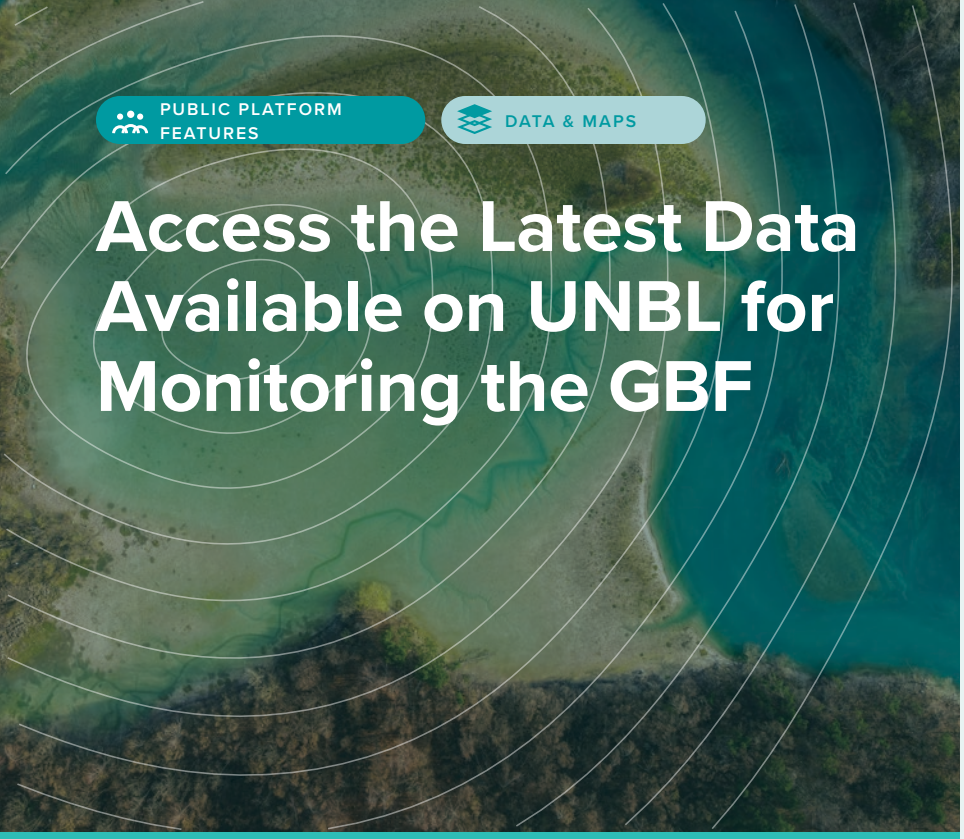
View on UNBL

Our new interactive species selector tool offers users a dynamic way to interact with and display species occurrence data from GBIF. Each GBIF occurrence record documents the presence of a species at a particular place and time. By using the available filters, users can focus in on the information they need to address conservation questions and priorities.

Users can use the species selector tool to:

- Filter by taxon (vernacular name, taxon ID, or subspecies to class), IUCN Red list category, year range, record type, publisher, or dataset.
- View occurrence records on the map for their area of interest.





PUBLIC PLATFORM FEATURES

DATA & MAPS

Access the Latest Data Available on UNBL for Monitoring the GBF

41% of the headline indicators have methodology encouraging the use of spatial data

36% of the component indicators have methodology encouraging the use of spatial data

50+ spatial datasets to identify, view and download

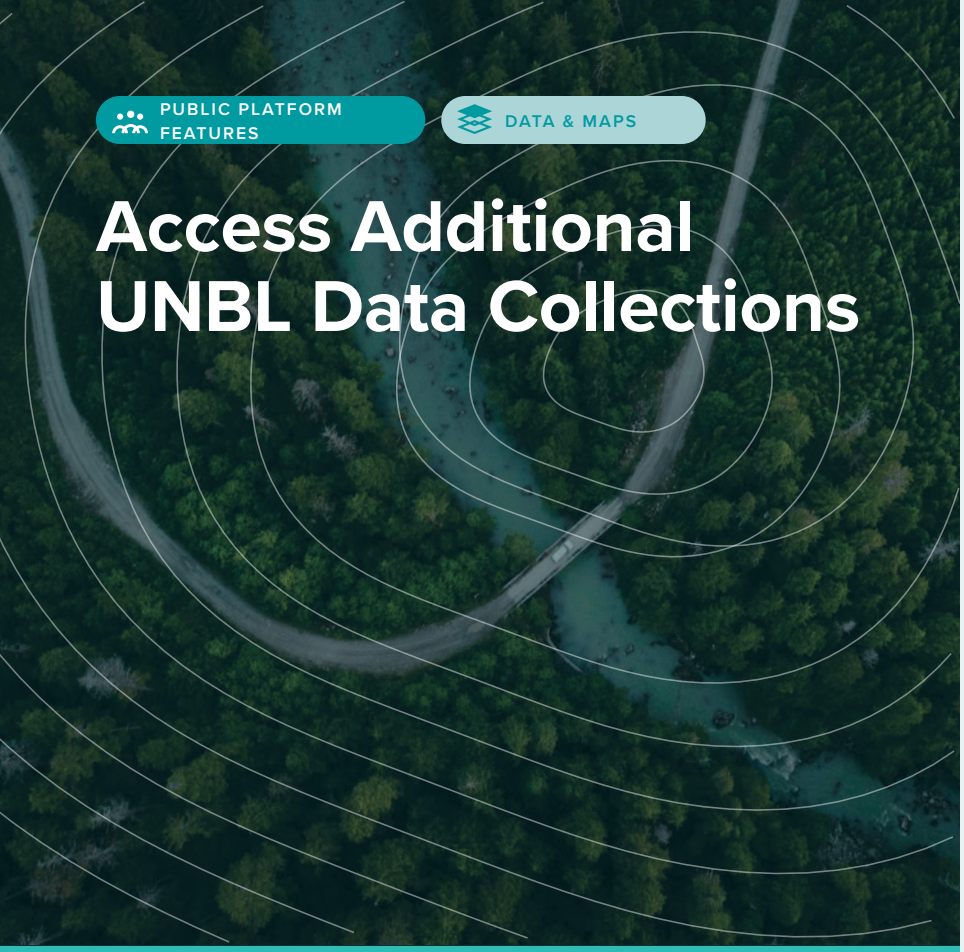
Spatial data is essential to planning, monitoring, and reporting on the GBF. UNBL has identified that 41% of the headline indicators and 36% of the component indicators have methodology encouraging the use of spatial data. These datasets are referenced in the GBF indicators website and in the 2024 revised guidance on using the indicators of the monitoring framework of the GBF associated with Annexes 1 and 2 of the Decision adopted by the Conference of the Parties to the Convention on Biological Diversity on 27 February 2025. The UNBL data collection on the GBF monitoring framework provides access to these datasets, thus constituting a curated list of global spatial datasets that can be used by decision makers at national, regional/transboundary, and global scales to calculate selected headline, component, and complementary indicators, subject to national needs and priorities.

Users can access this data collection to:

- Identify, view, and download more than 50 spatial datasets that can be used to calculate selected headline, component, and complementary indicators.
- Access global data that can be evaluated against national data for use in a national monitoring system.
- Select global data that could be used to fill national data gaps as part of a national monitoring system.

Learn more

UNBL Data Collection to Support the Monitoring Framework of the GBF



PUBLIC PLATFORM FEATURES

DATA & MAPS

Access Additional UNBL Data Collections

- Ecosystem Restoration
- Protected and Conserved Areas
- Nature-based Solutions for Climate Change, Biodiversity, and Human Well-Being

The UNBL Partnership ensures that the platform is updated to include data relevant to nature, climate, and sustainable development; that all UNBL data is up to date; and that all UNBL data meets our quality standards. These global data can be used to support countries to fill national data gaps, as needed, for work at the national level.

Users can access the UNBL data collections to:

- Find a list of curated datasets directly related to Ecosystem Restoration, Protected and Conserved Areas, and Nature-based Solutions for Climate Change, Biodiversity, and Human Well-Being.
- Access data that can be used to support national action around various GBF targets that are relevant to these data collections.

Learn more

UNBL Data Collections

PUBLIC PLATFORM FEATURES

SPATIAL ANALYTICS

Display Dynamic Metrics and GBF Headline Indicators on UNBL

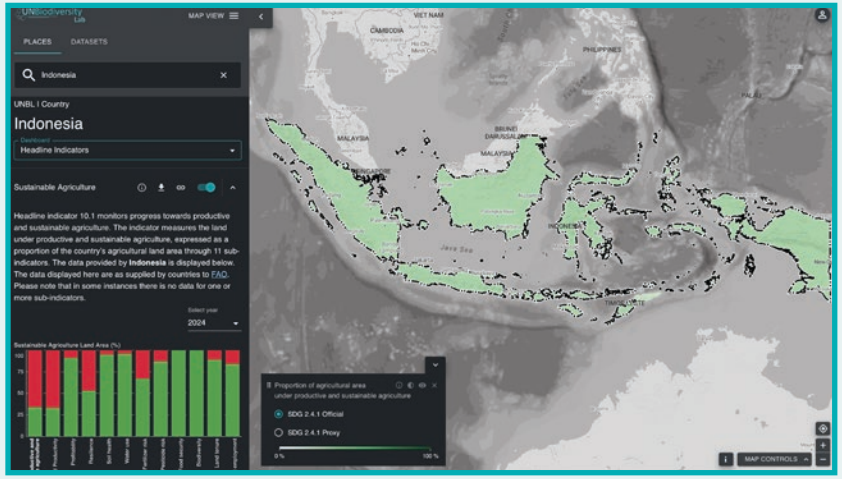
View Headline Indicator Metrics for Indonesia

View on UNBL

UNBL offers the ability for users to view dynamic metrics for any country in the world, as well as select subnational jurisdictions, to support monitoring and reporting. In addition to its suite of dynamic metrics, UNBL enables users to display selected headline indicators which are spatial and available as set out in the indicator metadata associated with the monitoring framework of the GBF. You can navigate to the 'Places' menu to select your country of interest and browse the available dynamic metrics and headline indicators.

Users can use the UNBL dynamic metrics and headline indicator displays to:

- Access 11 dynamic metrics and graphs using state-of-the-art global datasets, displayed at the click of a button for a place of interest.
- Access 2 headline indicators: Sustainable Agriculture (Headline Indicator 10.1) & Sustainable Forest Management (Headline Indicator 10.2).
- Access marine metrics, currently featuring the Coastal Eutrophication Potential metric.
- Visualize the underlying data for each metric and indicator.
- Download the indicator data as a .csv.





WORKSPACE FEATURES

SPATIAL DATA & ANALYTICS

Create a UNBL Secure Workspace

UNBL workspaces are secure online spaces allowing collaboration and access to additional spatial planning and spatial analytics tools.

Users can request a UNBL workspace to:

- Create a secure space for online collaboration, for example, for a whole-of-government approach to support the use of spatial data that can be used as part of a national monitoring system.
- Seamlessly bring external data into UNBL by connecting to existing national data repositories, or publicly available repositories (e.g., WMS, WMTS, GEE, STAC, XYZ Tile Service, Mapbox, Esri ArcGIS API, and vector tile services such as Martin), or by uploading national/subnational datasets (via raster GeoTIFF) and areas of interest (via vector polygon files).
- Tag users' own data to identify the goal, target, and indicator types to support monitoring and reporting efforts.
- Visualize national and subnational datasets configured in the workspace alongside global public data available on UNBL.
- Draw a polygon for an area of interest.
- Display any of UNBL's default dynamic metrics, or configure custom metrics using national data, for users' uploaded areas of interest.
- Invite a community of users to the workspace and customize the level of access for each user.

Learn more

User Guide on Secure Workspaces

WORKSPACE FEATURES

DATA & MAPS

Use the UNBL SpatioTemporal Asset Catalogue (STAC) to Access Data for Your Platform

Use the STAC Catalogue to Access Geospatial Data

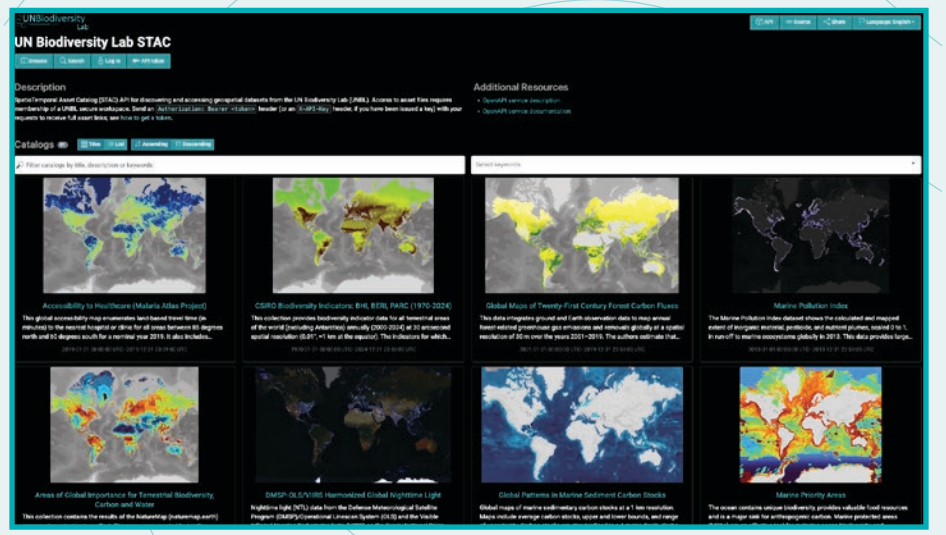
The UNBL STAC provides policymakers, conservationists, and biodiversity practitioners with a standardised, searchable, and fully documented library of environmental data. Built on open standards (OGC STAC) and guided by the FAIR principles (Findable, Accessible, Interoperable, Reusable), our catalogue democratizes geospatial data by reducing local storage demands and heavy processing requirements.

Users can access the UNBL STAC to:

- Explore over 70 STAC collections spanning more than 900 items and 3,200 assets using the web-based STAC Browser.
- Stream Cloud-Optimized GeoTIFFs (COGs) directly into their GIS applications without needing to download massive and entire datasets onto local hard drives.

Learn more

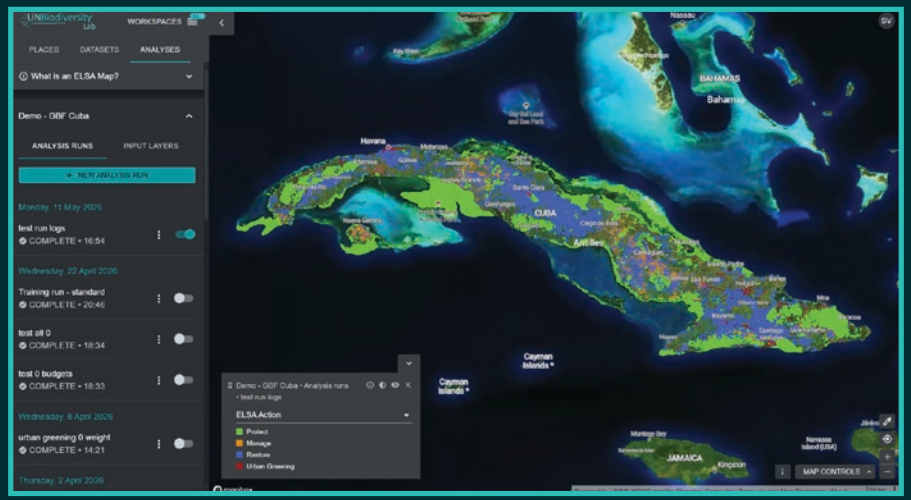
[UNBL STAC catalogue]



WORKSPACE FEATURES

SPATIAL PLANNING

Advance Biodiversity-Inclusive Spatial Planning Using the ELSA Integrated Spatial Planning Tool



National map of Cuba's Essential Life Support Areas (ELSA) in the official UNBL Cuba workspace.

Over the last seven years, UNBL has supported countries around the world in participatory spatial planning to identify where nature-based actions can safeguard Essential Life Support Areas (ELSAs) to contribute to national priorities for biodiversity, climate, and human well-being. Building on this science-based spatial prioritization framework, as well as the cloud-based functionalities of the UNBL platform, the ELSA Integrated Spatial Planning Tool is now available for all countries on UNBL.

Users can request an ELSA Integrated Spatial Planning Tool to:

- Access a custom spatial prioritization tool for their country, aligned with the KMGBF and UNCCD land degradation neutrality mitigation hierarchy and created with country size, ecosystems, and human footprint in mind.
- Set area-based targets for protection, management, restoration, and urban greening.
- Weight input datasets that map qualitative elements of KMGBF Targets 1-12 based on their importance to national priorities.
- Run a spatial optimization to identify where nature-based actions can best contribute to biodiversity, climate, and human well-being outcomes aligned with KMGBF targets 1-12.
- Review tradeoffs and adapt input parameters in real time with diverse stakeholders.

Learn more

User Guide on the ELSA Integrated Spatial Planning Tool

WORKSPACE FEATURES

SPATIAL ANALYTICS

Click to Create an Area of Interest and Calculate Metrics

View UNBL Dynamic Metrics for a Custom Study Area

In response to numerous requests, UNBL now allows workspace users to calculate metrics for a drawn area of interest. Users can tailor the geographic scope of a project by applying their analysis to defined small scale geographies or wider regional geographies.

Users can use this tool to:

- Draw a polygon on the map view around their area of interest.
- Check to ensure that it covers the correct area by activating the satellite base map.
- Save the area and calculate all available UNBL dynamic metrics for this particular location with the click of a button.



WORKSPACE FEATURES

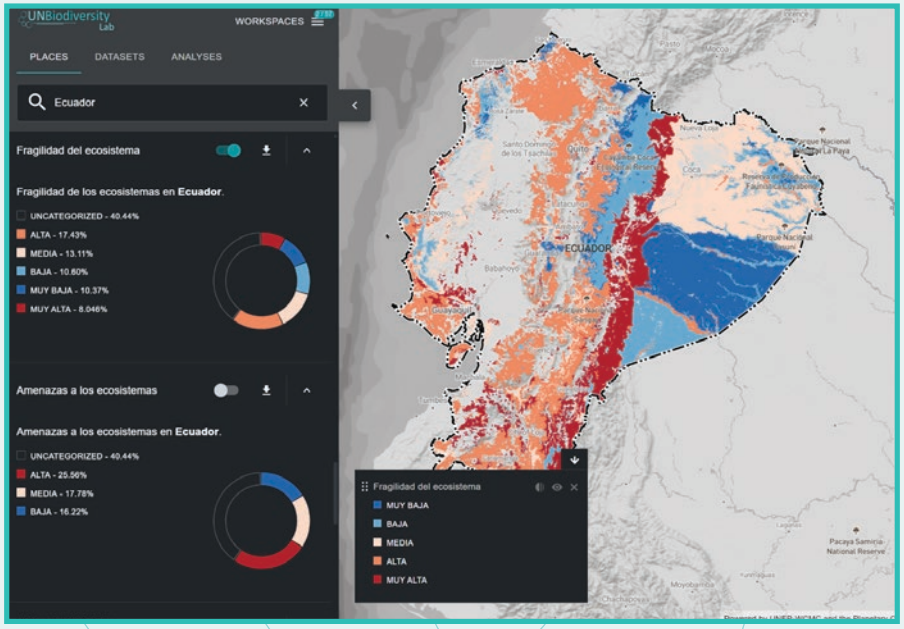
SPATIAL ANALYTICS

Build Custom Metrics for Your Own Data on UNBL

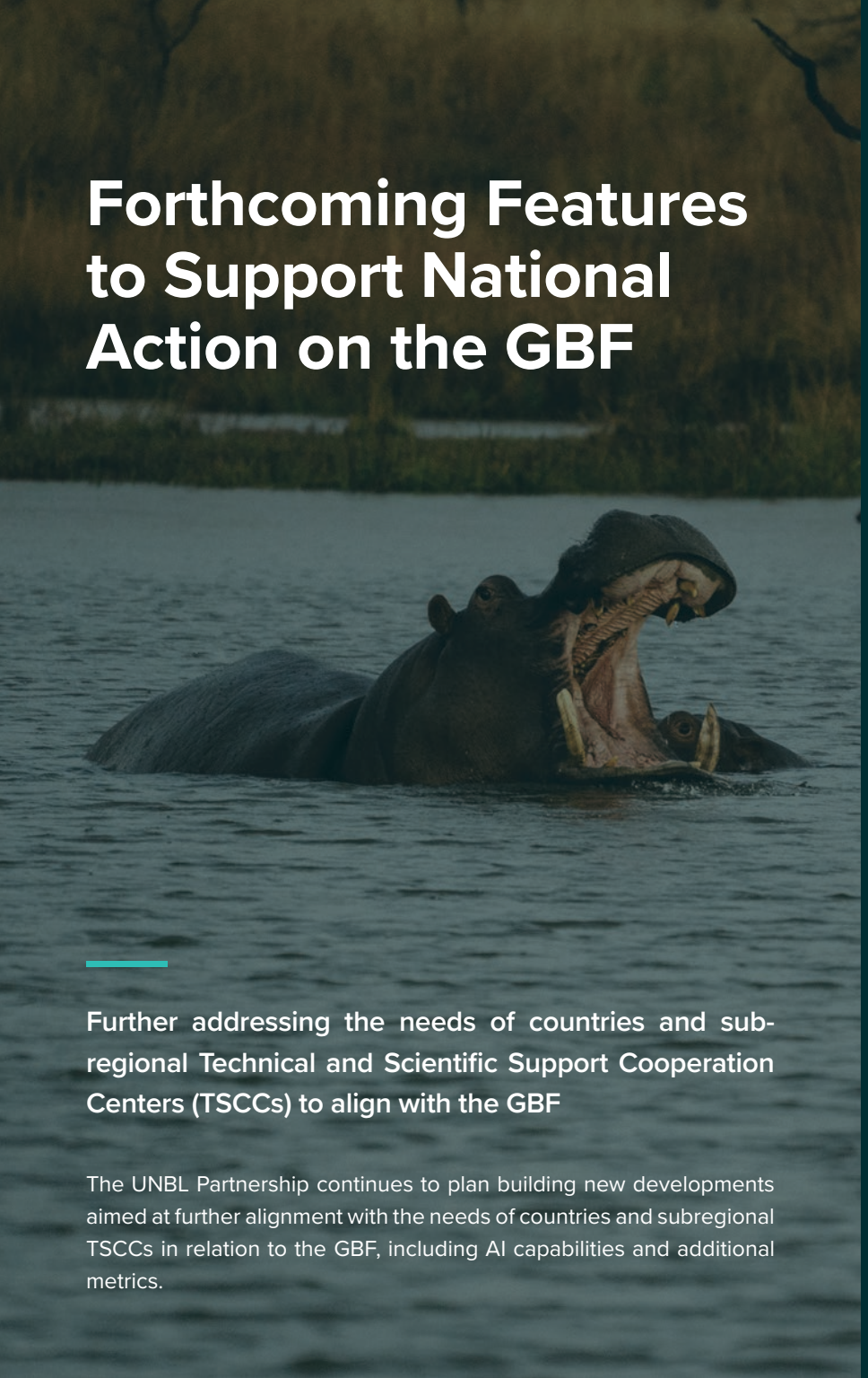
EXAMPLE

Custom metrics showing ecosystem fragility in Ecuador using national data provided by the Ministry of Environment

UNBL's latest development provides users with the ability to configure their own custom metrics to run on-the-fly calculations and display zonal statistics for their own areas of interest, derived from their own uploaded geospatial data layers. With this functionality, users are enabled to use data that is most relevant to their needs. Custom metrics can be used to obtain key monitoring information that can serve as inputs to update NBSAPs, national reports, and other priority policy documents.



Forthcoming Features to Support National Action on the GBF



Further addressing the needs of countries and sub-regional Technical and Scientific Support Cooperation Centers (TSCCs) to align with the GBF

The UNBL Partnership continues to plan building new developments aimed at further alignment with the needs of countries and subregional TSCCs in relation to the GBF, including AI capabilities and additional metrics.

STATISTICS BY THE END OF 2025

UNBL in Numbers

3,800+ registered users from **160** countries

256 UNBL workspaces that allow non-commercial users to incorporate national data alongside global data

2,000+ global data layers

250+ datasets

167 data providers

57,000+ attendees in UNBL events & trainings

1 accreditation as a digital public good by the Digital Public Goods Alliance

How Are Countries Using UNBL to Support Action on the GBF?

CUBA

This is a tool that could—and should—be used as a key input in the urban planning processes led by the Urban Territorial Planning Institute.

José Gerhartz
Territorial Planning Specialist at the Physical Planning Institute of Cuba (formerly IPF, now INOTU)

In 2025, UNBL engaged with nine countries through dedicated projects to support national needs around development and implementation of their NBSAPs and preparation of 7th national reports to the CBD. Here are some of their stories:

The government of Cuba worked with UNBL to produce a national spatial prioritization map, a customized ELSA tool configuration, and a national workspace serving as a centralized repository for 14 priority national datasets; all to support Cuba's implementation of their NBSAP and KMGBF.



ECUADOR

With this clear example, we can identify many specific needs for prioritization. This will help achieve national and international objectives. It is important to highlight the generation of local-level information to feed this tool. This will allow us to redefine national policy and align it with what territories truly need, with a focus on conservation.

Henry Guzmán
Technical Specialist at the Consortium of Provincial Autonomous Governments of Ecuador (CONGOPE)

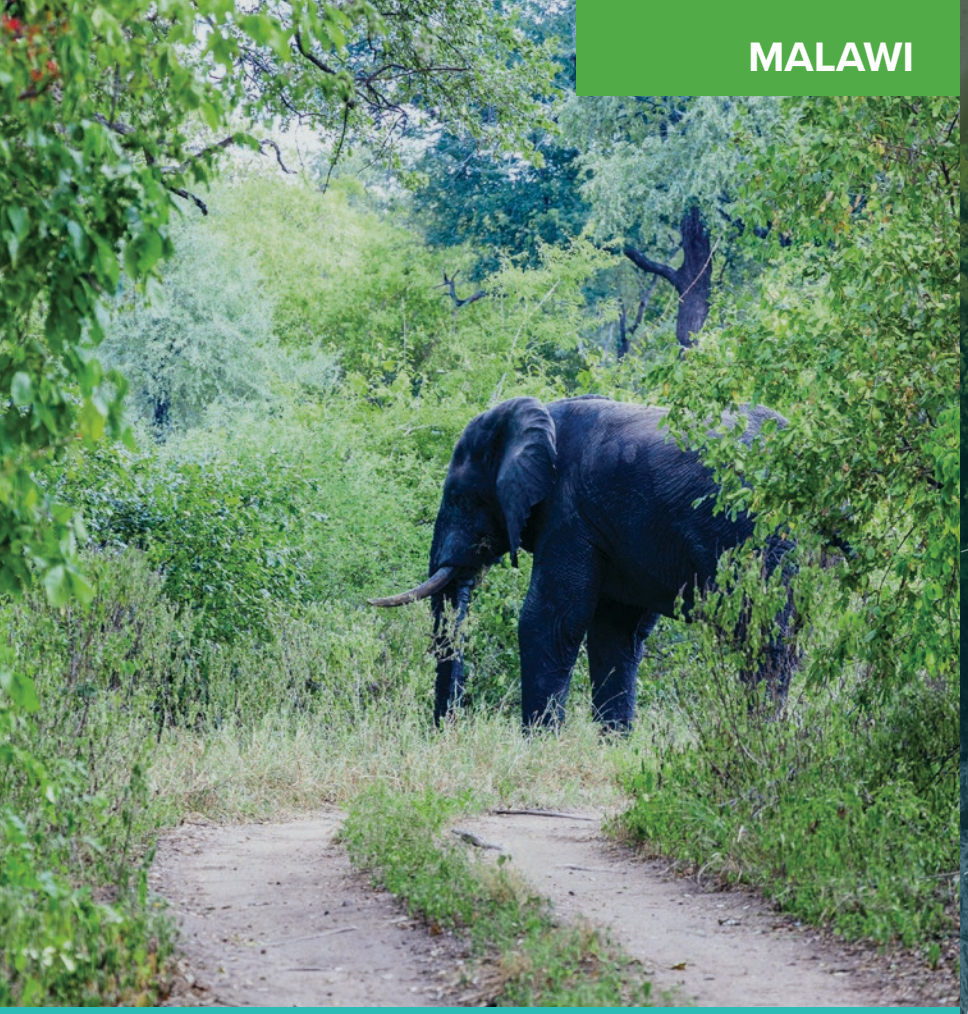
National and regional government actors, as well as relevant NGOs worked with UNBL to produce a spatial prioritization map guiding sub-national action on the KMGBF in the Carchi-Imbabura-Pichincha region, a customized ELSA tool configuration, a national workspace serving as a centralized repository for 24 priority national datasets, and a series of custom national metrics on land cover, above-ground forest biomass, human footprint and deforestation; all to support Ecuador's implementation of their NBSAP and 7th national report to the CBD.



KAZAKHSTAN

Through a spatial planning stream of the SPACES initiative, the Ministry of Ecology and Natural Resources, the Association for the Conservation of Biodiversity of Kazakhstan, UNDP, UNEP-WCMC, and a broad coalition of national stakeholders engaged in a series of technical workshops that involved using UNBL to generate two spatial prioritization maps, a customized ELSA tool configuration, a national workspace serving as a centralized repository for 45 priority national datasets, and a spatial analysis assessing potential OECMs; all to strengthen spatial planning in Kazakhstan for biodiversity conservation and NBSAP implementation.

MALAWI

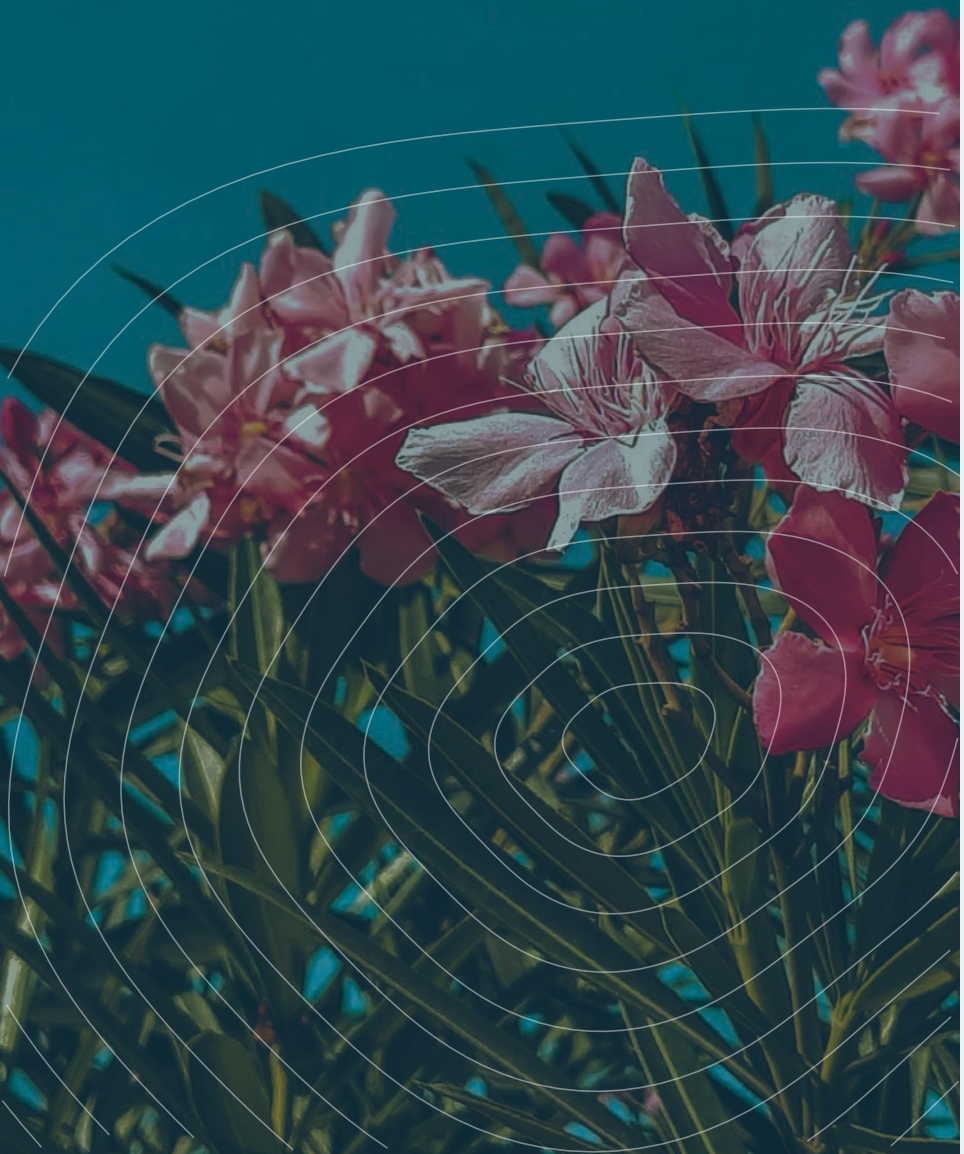


National and regional government stakeholders, as well as relevant NGOs worked with UNBL to produce a spatial prioritization map used in the country's updated NBSAP, a customized ELSA tool configuration, a national workspace serving as a centralized repository for 28 priority national datasets, and an updated ecosystem protection indicator for use as a national indicator in the 7th national report to the CBD.

To explore these use cases and more, check out our 2025 Annual Report and our feature brochure on UN use across sectors, available in:

EN | FR | SP | PT | RU

UNBL Resources



UNBL Website

Public Platform Features guidance:

FAQs

Full user guide
EN | FR | SP | PT | RU

UNBL workspace user guide
EN | FR | SP | PT | RU

ELSA Integrated Spatial Planning Tool user guide
EN | FR | SP | PT | RU

UNBL 2025 Annual Report

Technical Guidance on Developing National Monitoring Systems
EN | FR | SP

The UNBL 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, we strive to support all CBD Parties to have access to a platform that is designed based on user needs. Relationships with technical partners and data providers ensure the provision of cutting-edge tools and up-to-date data to take action for nature, climate and sustainable development.

Powered by:

UN environment programme WCMC

TECHNICAL PARTNERS

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

Thanks to Gurobi Optimization for providing a software license through their Gurobi Gives Back program, which provides free access to optimization software for qualifying non-profits.

GUROBI OPTIMIZATION

Data providers

























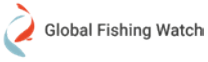
























































In addition to the logos shown above, we gratefully acknowledge the following data providers:

Esri

Food and Agriculture Organization of the United Nations (FAO)

Global Wind Atlas

NASA Oak Ridge National Laboratory (ORNL)

Socioeconomic Data and Applications Center (SEDAC)

United Nations Educational, Scientific and Cultural Organization (UNESCO)

United Nations Economic Commission for Europe (UNECE)

UN Global SDG Database

UN-Habitat

UN Water

United Nations Office for Disaster Risk Reduction (UNDRR)

United Nations Statistics Division (UNSD)

Commonwealth Scientific and Industrial Research Organisation (CSIRO) Australia

Zoological Society of London (ZSL)

WWF International

University of Sydney

Global Wildlife Values Survey (GWVS)

University of Exeter

Fundamental and Applied Biogeography Research Group (FABio)

Global Footprint Network

Footprint Data Foundation

Utrecht University

5 Gyres

The Ocean Cleanup

World Health Organization (WHO)

World Bank



MAP DISCLAIMER

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

UNBiodiversity Lab

www.unbiodiversitylab.org

Convention on Biological Diversity

UN environment programme

UNDP