

# Streamline environmental data gathering

Build custom insights on Earth Blox using the most authoritative nature and climate data from globally recognised providers known for their scientific excellence.



*Biodiversity Intactness Index data layer by Impact Observatory, in collaboration with Vizzuality.*



# Introduction

Business leaders today face increasing pressure from stakeholders and regulators to mitigate and manage their environmental impacts and dependencies. The need to make decisions that benefit both the planet and your bottom line has never been more critical.

Geospatial data, including satellite data, play a vital role in analysing environmental and climatic phenomena, and informing effective sustainability strategies. However, finding the right data can be time-consuming and resource-intensive.

At Earth Blox, we take the hard work out of data gathering by curating the most authoritative nature and climate data and making it accessible to everyone in your organisation — from analysts and data scientists to CSOs and CFOs.

This paper explores the crucial role of geospatial data in understanding our environment and outlines our approach to curating data that delivers unparalleled insights and equips businesses like yours to drive impactful change worldwide.

## How geospatial data helps us understand our environment

Geospatial data is essential in understanding the localised impacts of climate change and human activities on the environment. While the contribution of greenhouse gases to global warming is broadly the same regardless of the emission location, the impacts of climate change are highly variable and location-specific. For example, some regions may experience increased droughts, while others may face more intense rainfall. Understanding these regional variations necessitates the use of geospatial data.

Location data is even more crucial when understanding nature. Ecosystem functions are location-specific, and human activities can have vastly different impacts depending on the ecological context. Without geospatial data, it is impossible to accurately assess and manage the variety of nature-related risks and dependencies.

# The Earth Blox approach to data

Earth Blox offers access to a range of datasets, each individually selected to provide critical insights into environmental and climate-related issues. However, no single dataset can fully capture the complexity of these challenges. That's why Earth Blox lets you create custom workflows that combine multiple datasets, giving you complete control over the data inputs as well as the outputs. This flexibility is crucial for both localised and large-scale assessments, ensuring that businesses can quickly gain actionable insights.

Transparency is a key pillar of our approach. Unlike "black box" solutions, Earth Blox provides full visibility into the datasets used and their processing methods. This gives you confidence in the insights generated, knowing that they are based on rigorous, scientifically validated data.

## The data we offer

We're building the most authoritative climate and nature data catalogue to give you quick and easy access to reliable data, all in one place. Today, the [Earth Blox dataset catalogue](#) features datasets from around the world, and we are adding new datasets every month.

We provide access to a wide range of data types, each essential for robust environmental and climate analyses. These datasets are sourced from globally recognised providers known for their scientific rigour, including IBAT, Chloris Geospatial, Planet, NASA, the European Space Agency (ESA), the World Resources Institute (WRI) and Global Forest Watch.

Our datasets cover various categories, including:

- Climate (historic and projections)
- Ecosystem metrics
- Elevation
- Forest biomass
- Human activity
- Land cover
- Optical and radar satellite imagery
- Political boundaries
- Water resources
- Wildfire

## How we select the most authoritative data

Selecting the right datasets is critical to delivering accurate, relevant, and timely insights. Our in-house science team, led by Iain H Woodhouse, Professor of Applied Earth Observation at the University of Edinburgh, review each dataset against a set of strict criteria to ensure that the data we offer meets the highest standards demanded by our customers.

Our selection criteria include:

- **Quality:** We choose data from reputable organisations with a history of peer-reviewed scientific contributions.
- **Relevance:** We focus on data that directly aids in understanding and managing nature and climate-related risks.
- **Timeliness:** Preference is given to recent datasets that reflect the current state of the planet and incorporate the latest methodologies.
- **Coverage:** We source datasets with global or extensive regional coverage, enabling broad comparative analyses.

## Data licensing and compliance


We understand that compliance with data licensing terms is non-negotiable for our customers. We ensure that licensing information is clearly presented alongside each dataset, making it easy for you to verify compliance. The catalogue includes datasets with open licences suitable for commercial use, such as those under the Creative Commons CC BY 4.0 licence.

The Earth Blox workflow log reports all the datasets used in an analysis, aiding in audit processes and ensuring adherence to licensing terms. Users should be aware of clauses like "share alike," which may require distributing outputs under the same licence as the original dataset.

←

Select dataset

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Biodiversity Intactness (100m)

Global terrestrial biodiversity intactness for years 2017-2020. Useful for exploring anthropogenic impact on biodiversity.

OVERVIEW

BANDS

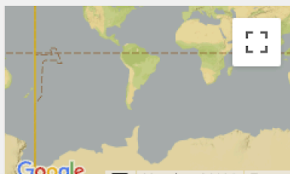
Date range

01/01/2017 – 31/12/2020

Pixel size

100 metres

Coverage



Biodiversity intactness is estimated as a combination of two metrics:

**Abundance** - the quantity of individuals

**Compositional Similarity** - how similar the composition of species is to an intact baseline.

Linear mixed effects models are fit to estimate the predictive capacity of spatial datasets of human pressures on each of these metrics and project results spatially across the globe. These methods, as well as comparisons to other leading datasets and guidance on interpreting results, are further explained in a methods [white paper](#) entitled Global 100m Projections of Biodiversity Intactness for the years 2017-2020.

☒ Add recommended blocks

SELECT DATASET

Dataset entries on Earth Blox provide links to the providers, scientific publications and licensing details.

## Custom datasets

Earth Blox also allows you to upload and securely store your own datasets. This capability is particularly useful for organisations that have invested in premium or localised data and need to integrate it with the broader insights provided by Earth Blox. All data is securely stored in Google Cloud, accessible only to you or your organisation.

The stakes have never been higher for business decision-makers. The ability to make informed, strategic decisions that benefit both business and the planet hinges on access to the right data. With Earth Blox, you get geospatial data that combines scientific rigour with unparalleled flexibility and transparency.

Explore the [Earth Blox dataset catalogue here](#).

For further information, contact [sales@earthblox.io](mailto:sales@earthblox.io)