

Earth Blox Dataset catalogue

The Earth Blox catalogue is designed to accelerate your work with quick, easy access to over 100 of the most reliable nature and climate datasets. Curated by our expert science team, the catalogue features data from globally recognised organisations known for their scientific excellence.

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Premium datasets

Access global, high-quality, high-resolution premium datasets to respond to CSRD, TNFD, EUDR and other regulatory or certification reporting requirements.



Chloris Geospatial Aboveground Biomass Stock, Change and Forest Cover

Annual data on above-ground biomass, carbon stock and change, and forest cover dynamics. Available since 2000 at 30m resolution and since 2017 at 10m resolution, with quantified uncertainty for every pixel. Licence: Commercial (at a cost)



IBAT STAR Metric - Species Threat Abatement and Restoration (5km)

Allows quantification of how much species threat abatement and restoration activities contribute towards reducing extinction risk across the world. Licence: Commercial (at a cost)



IBAT World Database of Key Biodiversity Areas

Database of sites contributing significantly to the global persistence of biodiversity in terrestrial, freshwater and marine ecosystems. Licence: Commercial (at a cost)



IBAT World Database on Protected Areas

The most up-to-date and complete source of data on protected areas and other effective area-based conservation measures (OECMs). Licence: Commerical (at cost)



Planet: Forest Carbon Due Diligence (30m)

Planet's global dataset of aboveground forest carbon, tree height, and canopy cover is provided in annual time steps. Licence: Commerical (at cost)



Planet: Soil Water Content (100m)

A measurement of the volume of water contained in the soil at a 5cm depth. Licence: Commerical (at cost)

To access these datasets on Earth Blox, contact sales@earthblox.io



EARTH Dataset catalogue



SRTM Digital Elevation Data 2000 (90m)

A near-global elevation map. Good for regional analysis of topography or visual hillshading. <u>License: Public Domain</u>

Sentinel-1 SAR GRD



Weekly near-global radar coverage of land surface and coastal zones. Suitable for mapping land cover, cropland classifications, detecting ships and sea ice, forest disturbance, etc. <u>License: Open Access</u>

Sentinel-2 MultiSpectral



Weekly near-global coverage of visible and infrared data of land surface and coastal zones, with missing data for cloudy areas. Suitable for land cover classification including cropland and forestry. <u>License: Open Access</u>



ESA WorldCover 2020 and 2021 (10m)

ESA land cover map for 2020/21 with global coverage. <u>License: CC-BY-4.0</u>

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JRC Global Surface Water Mapping Layers (30m)

Maps of the location and temporal distribution of surface water from 1984 to 2021 License: Open Access



Biomass Carbon Density Maps 2010 (300m)

Provides global baseline estimates of above and below-ground biomass for the year 2010. <u>License: Public Domain</u>

Copernicus Global Land Cover (100m)



Coverage of the Earth's surface by type (forest, wetland, urban etc.) for years 2015 – 2019. Suitable for showing land cover at a regional scales. License: Open Access



CHIRPS Daily Precipitation (5.5km)

Global rainfall dataset for years 1981-present. License: Public Domain



MODIS Land Cover Type Yearly Global (500m)

Global land cover types at yearly intervals for years 2001-2021, derived from five different classification schemes (MOD12Q1.061). <u>License: Open Access</u>



ERA5 Land Monthly - ECMWF Climate Reanalysis (~11 km)

Collection of land variables for years 1981-present with a monthly revisit period, useful for exploring changes in climate. <u>License: Open Access</u>



MODIS Burned Area Monthly Global (500m)

Burned Area product from both Terra and Aqua satellites at 500m for years 2000-present with global coverage (MCD64A1.061). <u>License: Open Access</u>



FIRMS: Fire Information for Resource Management System (1km)

Data from the LANCE fire detection product in raster form for years 2000-2023 with global coverage, useful for early identification of fires and recent fires. License: Open Access



MODIS Terra Snow Cover Daily Global (500m)

The MOD10A1 V6 Snow Cover Daily Global 500m product contains snow cover, snow albedo, fractional snow cover, and quality assessment (QA) data License: Open Access



Dynamic World Landcover (10m)

Coverage of the Earth Surface by type (water, trees, crops etc.). Suitable for detailed land cover mapping and change over time. <u>License: CC-BY-4.0</u>



PALSAR(-2) Yearly Mosaic (25m)

Annual global radar imagery for most years between 2007 and 2021. Suitable for estimating forest biomass trends. <u>License: Open Access</u>



MODIS Terra Thermal Anomalies & Fire Daily Global (1km)

Daily fire masks at 1km, useful for identification, monitoring, and detecting changes in fire distribution and frequency (MOD14A1.061). <u>License: Open Access</u>



GLDAS-2.1: Global Land Data Assimilation System (~30km)

A range of land surface variables for years 2000-present with global coverage. <u>License: Open Access</u>



Earth Blox GEDI Global Biomass 2020 (30m)

Global forest biomass estimate based on canopy height for the year 2020. <u>License: Open Access</u>



JRC Monthly Water History (30m)

Maps of the location of surface water with global coverage for years 1984-2021. <u>License: Open Access</u>



Large Scale International Boundary Polygons, Simplified 2017

Large Scale International Boundary of countries in 2017 <u>License: Public Domain</u>



NEX-GDDP: NASA Earth Exchange Global Daily Downscaled Climate Projections

The NASA NEX-GDDP dataset is comprised of daily global climate scenarios up to 2100. License: Public Domain



WWF HydroATLAS Basins Level 10

Detailed hydro-environmental information about the world's watersheds at high spatial resolution. <u>License: CC-BY-4.0</u>



Global Canopy Height 2020 (10m)

A high-resolution canopy height model of the Earth for the year 2020. <u>License: CC-BY-4.0</u>



CHIRPS Pentad Precipitation (5.5km)

Global rainfall dataset for years 1981-present. WARNING: No correction for the length of pentads which vary with the days in a particular month. License: Public Domain



NASADEM Digital Elevation (30m)

A near-global elevation map using data from STRM augmented with other data to improve accuracy and fill in missing data. Good for regional analysis of topography or visual hillshading. License: Open Access



ERA5-Land Daily Aggregated - ECMWF Climate Reanalysis

Daily aggregates of ECMWF ERA5-Land hourly assests, providing a consistent view of a range of land variables at an enhanced resolution compared to ERA5. Daily aggregated data is available from 1950 to three months from real-time with global coverage. License: Open Access



VIIRS Stray Light Corrected Nighttime Day/Night Band Composites (500m)



Monthly global map of nighttime lights at 500m from 2014 - present, with a three month delay, with some cloud impact. Can be used as a proxy for population density and development. <u>License: Public Domain</u>



Sentinel-5P NRTI NO2 – Near Real-Time Nitrogen Dioxide (1.1km)

Near real-time global maps of atmospheric NO2 concentrations. License: Open Access



WWF HydroSHEDS Void-Filled DEM 3 Arc-Seconds (90m)

A near-global elevation map. Good for regional analysis of topography or visual hillshading. This data has been optimised for hydrological studies. License: Open Access



WorldPop Global Project Population Data (93m)

Population distrubtion for years 2000-2021 with global coverage. License: CC-BY-4.0



Forest proximate people (100m)

Estimate of human population within 1km of forests for 2019. Suitable for development and social impact studies, and modelling forests at risk. License: CC-BY-4.0



DMSP Annual Nighttime Lights Time Series Version 4 (1km)

Annual global map of nighttime lights visible from space for years 1992-2013. Useful for investigating population density and development. License: Public Domain



PALSAR(-2) Forest/Non-Forest Map: 3 Class (25m)

Annual forest/non-forest map for most years between 2007 and 2021 from radar data. Suitable for vegetation monitoring and deforestation estimates License: Open Access



MODIS Terra Land Surface Temperature and Emissivity 8-Day Average

Global 8-day land surface temperature (LST) on ~1.2km grid for years 2000-present (MOD11A2.061). <u>License: Open Access</u>



MODIS Terra Leaf Area Index and FPAR 8-Day (500m)

8-day composites of Fraction of Photosynthetically Active Vegetation (FPAR) and Leaf Area Index (LAI) for years 2000-2023 with global coverage. License: Open Access



MODIS Terra Net Primary Productivity (500m)

Gross and Net Primary Productivity (GPP and NPP) at 500m for years 2001-2022 with global coverage (MOD17A3HGF.061). <u>License: Open Access</u>



MODIS Terra Vegetation Indices (250m)

Normalized Difference Vegetation Index (NDVI) and Enhanced Vegetation Index (EVI) at 250m for years 2000-2023 with global coverage (MOD13Q1.061). <u>License: Open Access</u>



NEX-GDDP-CMIP6: NASA Earth Exchange Global Daily Downscaled Climate Projections

The NASA NEX-GDDP-CMIP6 dataset is comprised of global downscaled climate scenarios <u>License</u>: <u>Various licenses</u>, <u>see link for more information</u>



GCOM-C/SGLI Leaf Area Index (~5km)

Leaf area index in 3-4 day intervals for years 2021-present at medium resolution, useful for monitoring the health and density of vegetation. License: Open Access



Global Habitat Heterogeneity 2015 (~25km)

A range of metrics based on the textural features of EVI for the year 2015 with global coverage. Useful for exploring variations in space, populations, and ecosystems. <u>License: CC BY-NC 4.0</u>



Global Industrial and Smallholder Oil Palm Map 2019 (10m)

Map of global industrial and smallholder oil palm plantations, covering areas where plantations were detected for the year 2019. <u>License:</u> CC-BY-4.0



WHRC Pantropical National Level Carbon Stock 2012 (500m)

Map of above-ground live woody biomass at 500m for tropical countries for the year 2012. License: Open Access



MODIS Aqua Net Primary Production (500m)

Annual Gross and Net Primary Productivity (GPP and NPP) for years 2001-2022 with global coverage. <u>License: Open Access</u>



MODIS Leaf Area Index and FPAR 4-Day (500m)

4-day composites of Fraction of Photosynthetically Active Vegetation (FPAR) and Leaf Area Index (LAI) for years 2002-2023 with global coverage (MCD15A3H.061). <u>License: Open Access</u>



MODIS Terra Vegetation Continuous Fields (250m)

Vegetation Continuous Fields (VCF) is a representation of surface vegetation cover at 250m for years 2000-2020 with global coverage (MOD44B.006). <u>License: Open Access</u>



MOD13A2.061 Terra Vegetation Indices 16-Day Global 1km

This dataset provides two Vegetation Indices (VI): the Normalized Difference Vegetation Index (NDVI) and the Enhanced Vegetation Index (EVI). <u>License: Open Access</u>



Ocean Color SMI: Standard Mapped Image MODIS Agua Data (~4.6km)

Ocean colour and satellite ocean biology for years 2002-2022 with global coverage. Useful for exploring biology and hydrology of coastal zones and marine habitats. <u>License: Public Domain</u>





The Total Ozone Mapping Spectrometer (TOMS) data on ~1 degree grid, for use in monitoring global and regional trends in total ozone over the past 25 years. <u>License: Open Access</u>



Native Lands - Indigenous territories

This dataset describes Indigenous territories and locate themselves and their favorite places on the map. <u>License: CC-BY-4.0</u>

Allen Coral Atlas (ACA) - Geomorphic Zonation and Benthic Habitat - v2.0



The Allen Coral Atlas dataset maps the geomorphic zonation and benthic habitat for the world's shallow coral reefs at 5 m pixel resolution. <u>License:</u> CC-BY-4.0



Global Habitat Type v4

This dataset provides a global, spatially explicit characterization of terrestrial and marine habitat types. License: CC-BY-4.0



Tropical Moist Forests - Transition Map Hybrid Subtypes (10m)

Global tropical moist forest transition map, useful for exploring forest cover change occurring in years 2012-2022. <u>License: Open Access</u>



Tropical Moist Forests - Transition Map Main Classes (30m)

Global tropical moist forest transition map with general classes, useful for exploring forest cover change occurring in years 2012-2022. <u>License: Open Access</u>



USFS Landscape Change Monitoring System (30m)

Change, land cover, and land use outputs from the LCMS data suite with US coverage only for years 1985-2022. <u>License: Open Access</u>



PAD-US Protected Areas Database

The official national inventory of U.S. terrestrial and marine protected areas. <u>License: Open Access</u>



Ecoregion Intactness Index

An intactness metric capturing both habitat loss, quality and fragmentation effects is calculated using continuous measures of habitat quality. License: CC BY 3.0



CIESIN Gridded Population of the World (~1km)

Distribution of human population for years 2000, 2005, 2010, 2015, and 2020. License: CC-BY-4.0



Sentinel-2: Cloud Probability

The S2 cloud probability created with the sentinel2-cloud-detector library. <u>License: Open Access</u>





'Offline' (not near real-time), high-resolution imagery of CO concentrations, which is useful for exploring combustion of fossil fuels, biomass burning, and atmospheric oxidation of methane and other hydrocarbons. <u>License</u>: Open Access

Sentinel-5P: Formaldehyde (1.1km)



'Offline' (not near real-time), high-resolution imagery of atmospheric formaldehyde (HCHO) concentrations, an intermediate gas in almost all oxidation chains of non-methane volatile organic compounds, leading eventually to carbon dioxide. <u>License: Open Access</u>



Sentinel-5P: Nitrogen Dioxide (1.1km)

'Offline' (not near real-time), high-resolution imagery of atmospheric NO2 concentrations. <u>License: Open Access</u>

Sentinel-5P: Sulfur Dioxide (1.1km)



'Offline' (not near real-time), high-resolution imagery of atmospheric sulfur dioxide (SO2) concentrations, which plays a role in chemistry on a local and global scale and its impact ranges from short-term pollution to effects on climate. <u>License: Open Access</u>

Sentinel-5P: Methane (1.1km)



'Offline' (not near real-time), high-resolution imagery of methane concentrations, which is the second most important contributor to the anthropogenically enhanced greenhouse effect after carbon dioxide. <u>License: Open Access</u>

Critical Natural Assets Map (~2km)

Critical natural assets, related to nature's contribution to people (NCP), of both land and oceans for the year 2020. Useful for ecosystem impact monitoring and management. <u>License: CC-BY-4.0</u>

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ERA5-Land Monthly Aggregated Reanalysis

ERA5-Land is a reanalysis dataset providing land variables mass and energy states and fluxes over several decades at monthly resolution License: Open Access



Biodiversity Hotspots

Collection of the Earth's 36 recognized biodiversity hotspots. <u>License:</u> CC-BY-4.0



State of Nature: Water Availability and Water Pollution

A combination of well-recognized and peer-reviewed global datasets on water availability and water pollution for a robust State of Nature assessment. License: CC-BY-4.0



MapBiomas Soil (30m)

Annual maps of soil organic carbon stocks in Brazil License: CC-BY-SA-4.0



NAIP: National Agriculture Imagery Program (1m)

Aerial imagery aquired during the agricultural growing seasons in the continental U.S.A. <u>License: Public Domain</u>



Global Forest Watch Soy Planted Area (30m)

Planted area of soybean across South America, from 2000 to 2022. <u>License:</u> <u>CC-BY-4.0</u>



WRI Aqueduct Floods Hazard Maps

Inundation depth in meters for coastal and riverine floods <u>License</u>: CC-BY-4.0



ESA Land Cover CCI Land Cover Map (300m)

A medium-resolution land cover time series produced under the European Space Agency's Climate Change Initiative <u>License</u>: <u>Prior approval needed for commercial use, see link</u>



FAO GSOC Global Soil Organic Carbon (1 km)

Global soil carbon map consisting of national SOC maps, developed as 1 km soil grids, covering a depth of 0-30 cm. License: CC-BY-4.0



OpenLandMap Soil Texture Class (250m)

Soil texture classes (USDA system) for 6 soil depths <u>License: CC BY SA 4.0</u>



Global Oil Palm Planting Year (30m)

Planting year detected using a Landsat time series from 1990 to 2021 License: CC-BY 4.0

Forest Landscape Integrity Index (300m)



Integrated dataset of observed and inferred forest pressures and lost forest connectivity to produce a global, continuous index of forest integrity as determined by degree of anthropogenic modification. <u>License: Unclear (Orbify say CC BY 4.0)</u>



ESRI Annual Land Cover (10m)

A global, nine-class land cover timeseries from 2017-2023. <u>License: CC BY</u> 4.0



Global Mangrove Soil Carbon (30m)

A global map of mangrove forest soil carbon at 30 m spatial resolution <u>License: CC0 1.0</u>



NOAA Atlantic Hurricane Catalog

Hurricane tracks for the Atlantic basin, 1851-2018. License:



NOAA Pacific Hurricane Catalog

Hurricane tracks for the Pacific basin, 1949-2018. License:



Indigenous and Community Natural Resource Rights

Locations where community groups have rights to harvesting, hunting, fishing, herding or grazing. License:



Indicative Areas of Indigenous and Community Land Rights

Indigenous Peoples' or local communities' lands known to exist, but lacking attribution or precise locational information. <u>License:</u>



Indigenous and Local Community Lands

Location of Indigenous Peoples, local communities / the land that they occupy and use.

License: CC BY-SA 4.0



Global Friction Surface 2019 (~1km)

Global friction surface measuring travel speed based on land cover type for the year 2019. Useful for investigating accessibility and travel times of infrastructure or areas. <u>License: CC-BY-4.0</u>



PALSAR(-2) Forest/Non-Forest Map: 4 Class (25m)

An annual 4-class map showing dense forest, non-dense forest, non-forest and water. License: Open



Terrestrial Human Footprint Map (100m)

A map indicating human footprint with a score between 0 and 50. <u>License:</u> <u>CC BY 4.0</u>



JRC Global Map of Forest Cover for 2020 v2 (10m)

Dataset showing state of standing forest cover by 31 December 2020, for EUDR compliance. <u>License:</u>



GLAD Land Cover (30m)

Global land cover map for 2000, 2005, 2010, 2015 and 2020. <u>License:</u> CC-BY-4.0



MoFuSS Non-Renewable Biomass (~1km)

For estimating avoided CO2e emissions due to a reduction in woodfuels use. <u>License</u>: CC-BY-4.0



SoilGrids v2.0 - Soil Properties (250m)

Globally consistent dataset of modelled soil properties License: CC-BY-4.0



ESA Above Ground Biomass (100m)

Forest above-ground biomass estimates for years 2010, 2015, 2016, 2017, 2018, 2019, 2020 and 2021 with global coverage. <u>License:</u>





Comprehensive dataset of over 70,000 mining features, useful for investigating global mine distribution patterns and their environmental impacts. <u>License: CC-BY 4.0</u>



Global Landslide Catalog

Database of locations and characteristics of all types of mass movements triggered by rainfall, compiled since 2007. <u>License: CC-BY 4.0</u>



Global Peatland Fractional Cover (~9km)

Global map of peatland fractional coverage, useful for assessing extent and distribution of peatlands. License: CC-BY 4.0



Local Nature Reserves (UK)

Areas of locally important natural heritage, designated and managed by local authorities. <u>License: OGL</u>