

# Environmental data sources

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António Câmara

March 20th, 2019



[SNIG Evolution](#)

# Digital Portugal

## Expo98

Virtual flyover and thematic databases

connections in real time

1.5 million users



# Environmental data sources

An international perspective

A national perspective

Data analysis tools

# An international perspective

US environmental data infrastructures

European environmental data infrastructures

Global environmental data infrastructures

# US environmental data infrastructures

[EPA](#)

[USGS](#)

[NOOA](#)

[NASA](#)

[NPS](#)

[NWS](#)

[NCBI](#)

# Environmental Topics



Find the most popular pages in your topic of interest, or search the [A-Z index](#) for specific terms.

- [Air:](#)

- pollution and your impact
- indoor air issues like asbestos
- air quality research and data
- emissions, greenhouse gases

- [Chemicals and Toxics:](#)

- formaldehyde, mercury, other substances
- how EPA handles spills
- safer chemicals, TSCA
- databases such as IRIS and SRS

- [Environmental Information by Location:](#)

- conditions in your state or community
- nearby facilities or cleanup sites

- [Greener Living:](#)

- sustainable energy
- transportation choices
- food waste and recycling
- home and business

- [Health:](#)

- effects of common pollutants
- risk and exposure studies
- asthma, children in school buildings

- [Land, Waste, and Cleanup:](#)

- landfills
- hazardous waste
- plastic and waterways
- superfund, cleanups

- [Science:](#)

- methods, modeling, data and tools
- research grants and opportunities

- [Water:](#)

- drinking water quality
- watersheds and rivers
- wastewater, stormwater, runoff
- infrastructure finance and resilience

## Narrower Topics

- [Bed Bugs](#)
- [Lead](#)
- [Mold](#)
- [Pesticides](#)
- [Radon](#)

EPA's Environmental Dataset Gateway

# USGS Science Data Catalog (SDC)



Home



Search



Browse



About



Help

## By Mission Area

- Core Science Systems
- Ecosystems
- Energy and Minerals
- Environmental Health
- Land Resources
- Natural Hazards
- Regional Offices
- Water Resources

## By Science Topic

Aquatic Biology	Hydrology
Botany	Information Sciences
Climatology	Land Use Change
Ecology	Marine Geology
Energy Resources	Mineral Resources
Environmental Health	Planetary Sciences
Forestry	Remote Sensing
Genetics	Seismology
Geochemistry	Soil Sciences
Geography	Volcanology
Geomorphology	Wildlife Biology
Geophysics	Wildlife Disease

## By Data Source

Alaska Science Center	National Phenology Network
Arizona Water Science Center	National Research Program
Astrogeology Science Center	National Wildlife Health Center
California Water Science Center	Nebraska Water Science Center
Caribbean-Florida Water Science Center	Nevada Water Science Center
Central Energy Resources Science Center	New England Water Science Center
Central Midwest Water Science Center	New Jersey Water Science Center
Chief Cooperative Research Units	New Mexico Water Science Center
Climate Adaptation Science Centers	New York Water Science Center
Climate and Land Use Research & Development Program	Northern Prairie Wildlife Research Center
Coastal and Marine Hazards and Resources Program	Northern Rocky Mountain Science Center
	Office of Land Remote Sensing
	Office of the Alaska Regional Director

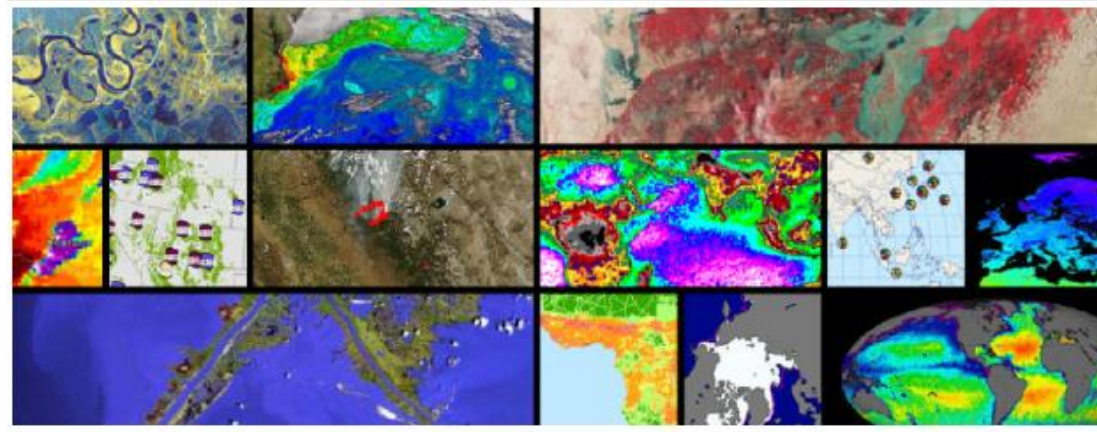
USGS Data Catalog





NOAA Data Discovery Portal

## Getting Started with NASA Earth Science Data



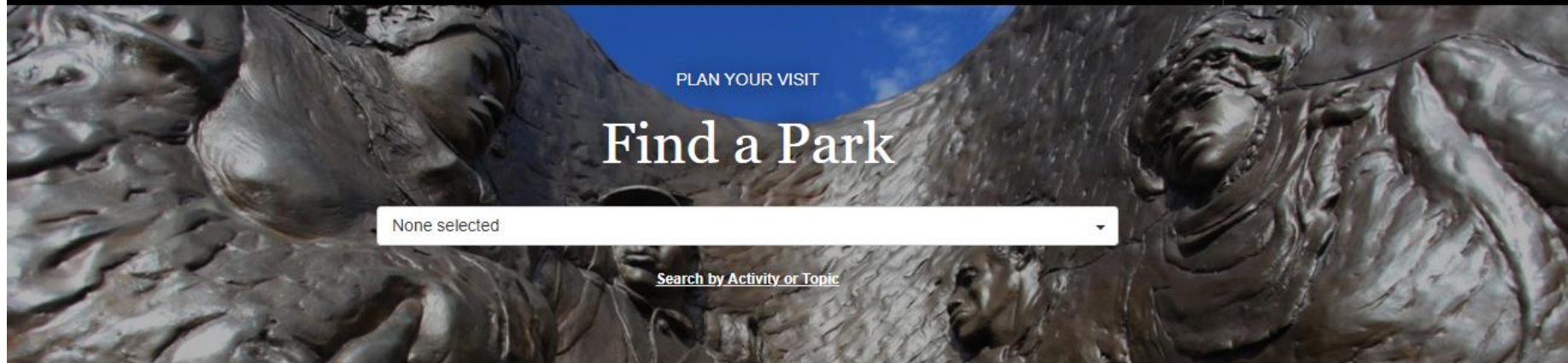
For more than 30 years, NASA's Earth Observing System Data and Information System (EOSDIS) has provided long-term measurements of our dynamic planet. The thousands of unique data products in the EOSDIS collection come from a variety of sources including the International Space Station, satellites, airborne campaigns, field campaigns, in-situ instruments, and model outputs.

### Learn about Data

The [Learn](#) section includes information and guides to help you find and use NASA Earth science data, services, and tools.

- [Earth Science Disciplines](#)
- [Data Formats and Standards](#)
- [Webinars and Tutorials](#)
- [Data Toolkits](#)
- [Data Pathfinders](#)
- [Data User Profiles](#)
- [Feature Articles](#)

# NASA Open Data Portal



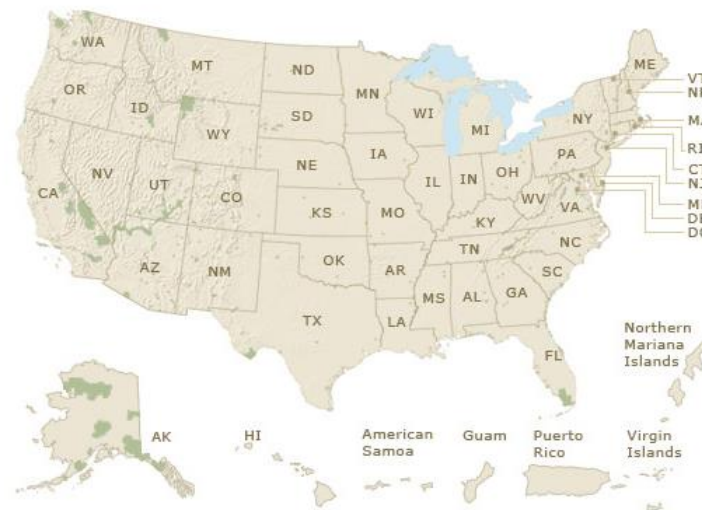
None selected

[Search by Activity or Topic](#)

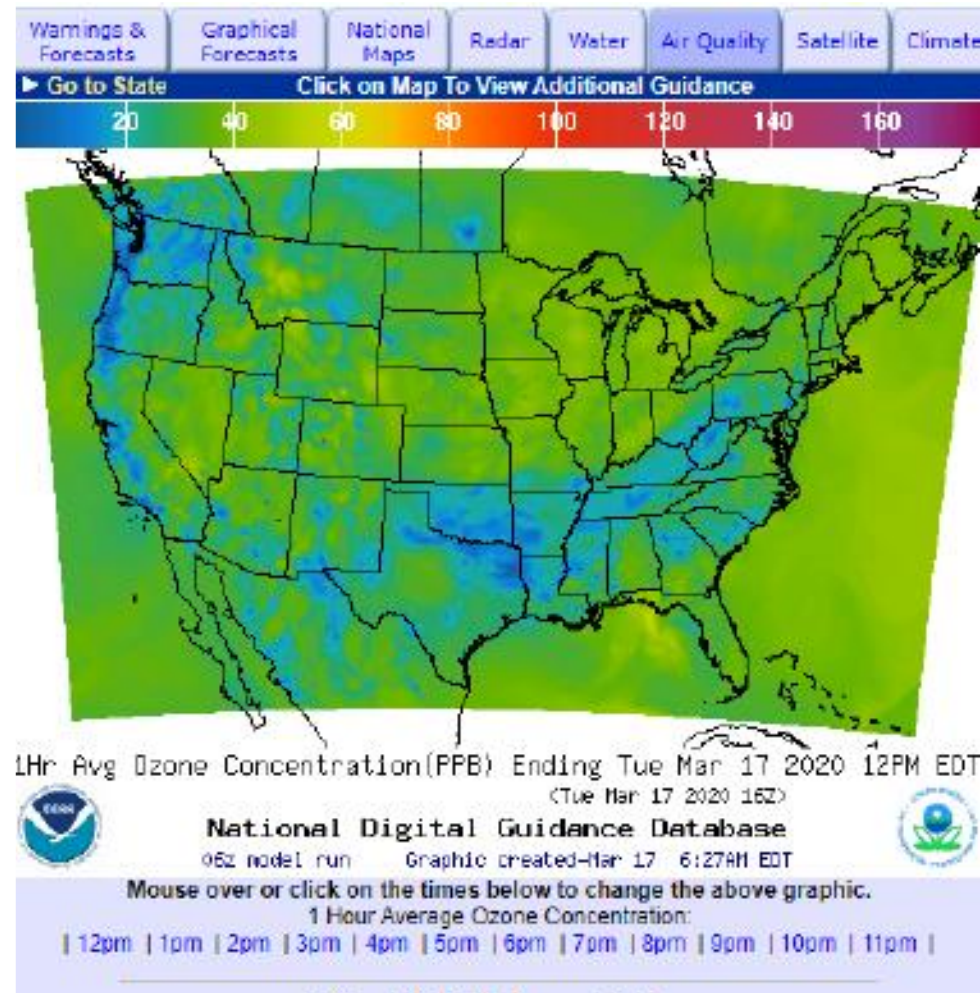
[NPS.gov / Home](#)

## FIND A PARK BY STATE

Select a State: None Selected







[National Weather Service](#)

NCBI Home
Resource List (A-Z)
All Resources
Chemicals & Bioassays
Data & Software
DNA & RNA
Domains & Structures
Genes & Expression
Genetics & Medicine
Genomes & Maps
Homology
Literature
Proteins
Sequence Analysis
Taxonomy
Training & Tutorials
Variation

## Welcome to NCBI

The National Center for Biotechnology Information advances science and health by providing access to biomedical and genomic information.

[About the NCBI](#) | [Mission](#) | [Organization](#) | [NCBI News & Blog](#)

### Submit

Deposit data or manuscripts into NCBI databases



### Download

Transfer NCBI data to your computer



### Learn

Find help documents, attend a class or watch a tutorial



### Develop

Use NCBI APIs and code libraries to build applications



### Analyze

Identify an NCBI tool for your data analysis task



### Research

Explore NCBI research and collaborative projects



[National Center for Biotechnological Information](#)

# European environmental data structures

[ESA](#)

[Inspire](#)

[EEA](#)

[Eurostat](#)

## • Browse data by Earth Topics



Agriculture



Atmosphere



Land



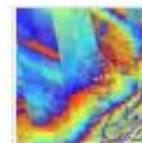
Natural Disasters



Ocean and Coast



Snow and Ice



Solid Earth



Water

## • Browse data by instrument type



Atmospheric



Gravimetry



Hi Res. Optical  
Multispectral



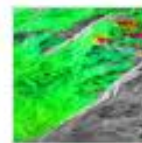
Low Res. Radiometry



Orbit Parameters



Radar Altimetry



Radar Imagery

## • Browse data by mission



WorldView-2



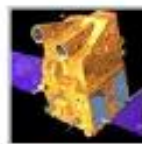
WorldView-3



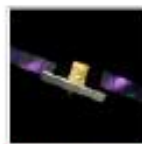
ALOS



Aura



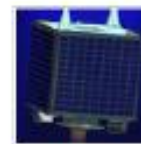
CartoSat-1



COSMO-SkyMed



CryoSat



Deimos-1



[European Space Agency data](#)



## INSPIRE GEOPORTAL

Enhancing access to European spatial data









European Commission > INSPIRE > Geoportal

[Home](#) [Priority Data Sets Viewer](#) [Thematic Viewer](#) [Harvesting status](#) [Find out more about](#)

### INSPIRE Data Themes

Explore all Member States' INSPIRE data sets by selecting an INSPIRE data theme.

#### Annex I

 <b>Addresses</b> — Def.: Location of properties based on address identifiers, usually by road name, house number, postal code. <a href="#">1</a> 2223   <a href="#">40</a>   <a href="#">99</a>	 <b>Administrative units</b> — Def.: Units of administration, dividing areas where Member States... <a href="#">1</a> 845   <a href="#">77</a>   <a href="#">132</a>	 <b>Cadastral parcels</b> — Def.: Areas defined by cadastral registers or equivalent. <a href="#">1</a> 11671   <a href="#">16</a>   <a href="#">40</a>	 <b>Geographical grid systems</b> — Def.: Harmonised multi resolution grid with a common point of origin... <a href="#">1</a> 150   <a href="#">12</a>   <a href="#">12</a>
 <b>Geographical names</b> — Def.: Names of areas, regions, localities, cities, suburbs... <a href="#">1</a> 1271   <a href="#">56</a>   <a href="#">61</a>	 <b>Hydrography</b> — Def.: Hydrographic elements, including marine areas and all other water bodies and items related... <a href="#">1</a> 1586   <a href="#">160</a>   <a href="#">171</a>	 <b>Protected sites</b> — Def.: Area designated or managed within a framework of international, Community and Member States' ... <a href="#">1</a> 1738   <a href="#">277</a>   <a href="#">341</a>	 <b>Coordinate reference systems</b> — Def.: Systems for uniquely referencing spatial information in... <a href="#">1</a> 136   <a href="#">11</a>   <a href="#">5</a>

## Inspire Data Themes



## Interactive data viewers

[See all](#)

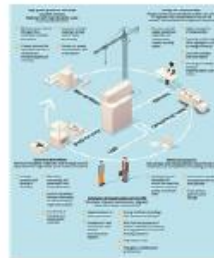
### General information on Natura 2020 network

This dashboard provides information at the national level on the numbers and surface area of Natura 2000 sites and associated legal measures in place.

[Read more](#)

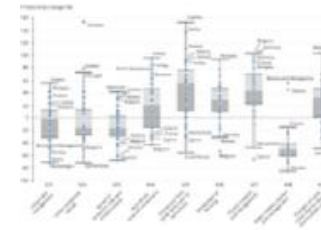
## Infographics

[See all](#)

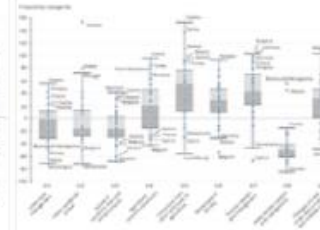


Examples of circular actions that improve the management of construction and demolition waste

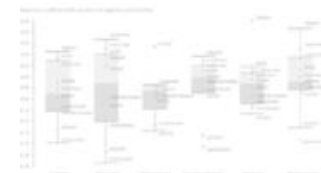
[Read more](#)



Effect of land use change on vegetation productivity



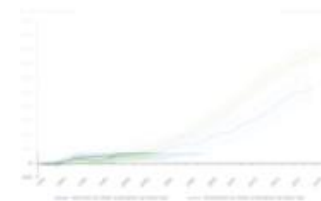
Vegetation productivity



Effect on vegetation productivity: number of frost days



Free flowing rivers in Europe



Greenland and Antarctic ice sheets



Climate change impacts in Europe

[European Environmental Agency data and maps](#)



#### EXPLORE FURTHER



#### Climate change

Browse this section of our website dedicated to statistics on climate change.



#### Circular economy

## Eurostat environmental statistics

# Global environmental data infrastructures

[Google Earth](#)

[Amazon Data Sustainability Initiative](#)

[Protected Planet](#) (UN)

[Climate Change](#) (UN)

[IPCC](#)

[FAO](#) (UN)

[Lifecycle initiative](#) (UN)

[Environmental statistics](#) (UN)

[Remote sensing data market map](#)



### Exploring Earth's Ecosystems

Have 6th graders read and watch examples of how ecologists study different aspects of ecosystems, including their function and relationship with humans.

[INQUIRY GUIDE](#) →

[HHMI BIOINTERACTIVE](#) →



### Extreme Biodiversity on the High Seas

Join Mission Blue on a high seas adventure to the Costa Rica Thermal Dome Hope Spot where we follow marine biologists in the field tagging turtles, tracking sharks and more.

[HOP ABOARD](#) →



### Follow India's Lifelines

Follow the paths of Indian rivers and learn how they shape landscape, culture, and life.

[RIVERS OF INDIA](#) →

[DOWNLOAD KML \(TELUGU\)](#) →



### Geo VR

Explore from an immersive viewpoint through in Street View VR galleries, Google Expeditions, Earth VR and more.

[ENTER INTO VIRTUAL REALITY](#) →

[LEARN MORE](#) →

# Google Earth



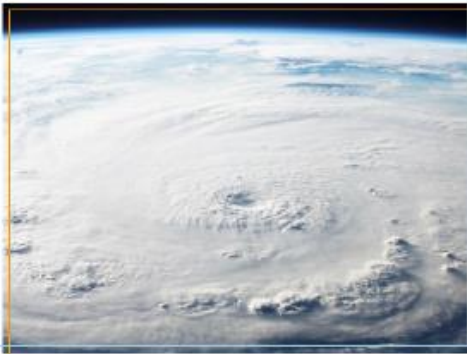
### Cloud grants to improve understanding of our planet

Access to cloud services helps national governments realize the potential of earth observations for sustainable development.



### Unlocking sustainability insights around the world

The Amazon Sustainability Data Initiative is leveling the playing field to allow researchers to access and analyze massive datasets at a scale like never before.



### Featured data sets

The Amazon Sustainability Data Initiative catalog offers several sustainability-oriented datasets through the AWS Public Dataset program.



### Registry of open data on AWS

The Amazon Sustainability Data Initiative helps people discover and share datasets through the AWS open data registry.

# Amazon Data Sustainability Initiative

## Discover our Thematic Areas

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### Aichi Target 11 Dashboard

Dive into the summary of our progress towards Aichi Target 11 at global, regional and national scales with the Dashboard.

[Learn more →](#)



### WDPA

The World Database on Protected Areas (WDPA) is the most comprehensive global database on terrestrial and marine protected areas.

[Learn more →](#)



### Marine Protected Areas

Explore the World's marine protected areas

[Learn more →](#)



### ICCAs

The ICCA Registry is an online platform for indigenous peoples' and community conserved territories and areas, where communities themselves provide data, case studies, maps, photos and stories.

[Learn more →](#)



### PAME

PAME is a global database, comprising many thousands of assessments of how well a protected area is being managed – primarily the extent to which it is protecting values and achieving goals and objectives.



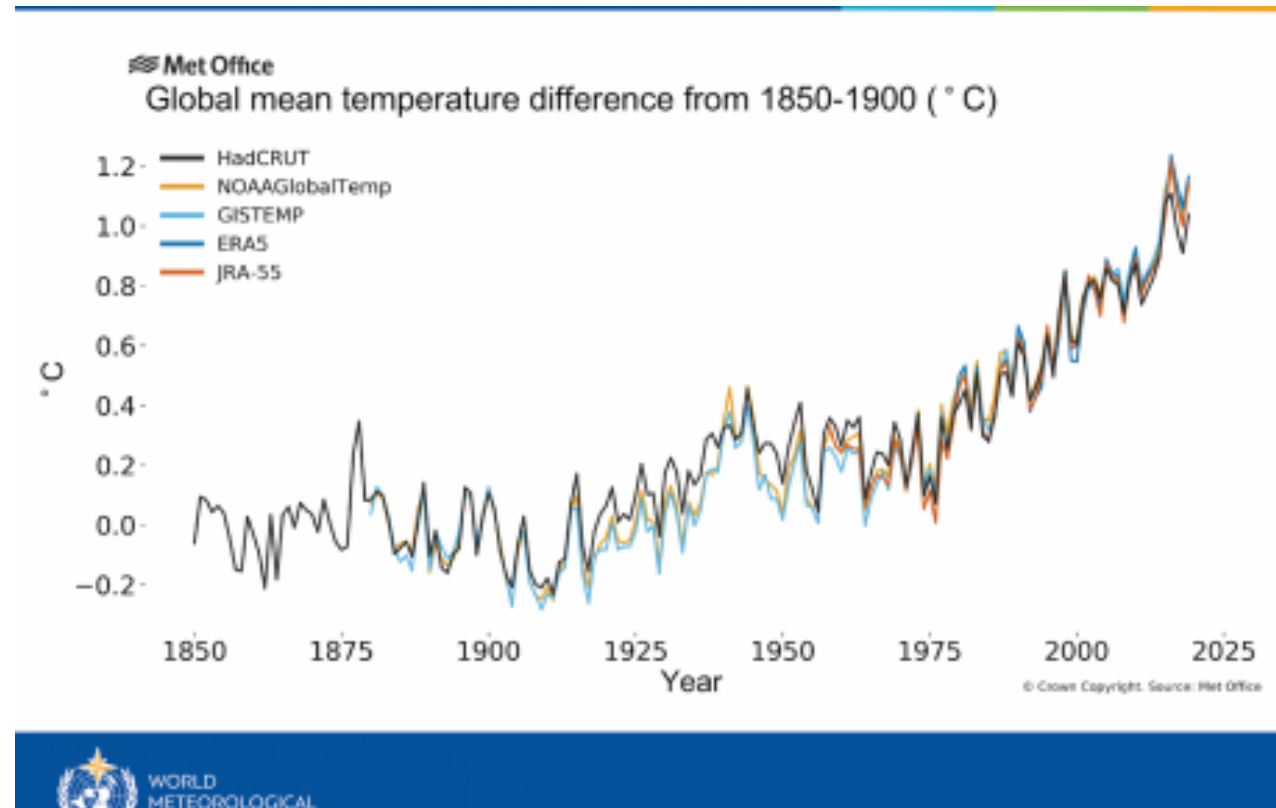
### PARCC

The PARCC project's main objective was to assess the vulnerability of West African protected areas to climate change and help design more resilient protected area networks.

[Learn more →](#)

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## Protected Planet (UN)



Climate Change (UN)

## Observations

- [Observations of the climate](#)
- [Socio-Economic Baseline Dataset](#)
- [IPCC AR5 Observed Climate Change Impacts](#)
- [IPCC AR4 Observed Climate Change Impacts](#)
- [Carbon Dioxide: observed atmospheric concentrations](#)

## Computer Simulations

Computational models play an increasingly central role in underpinning our understanding of the environment, society. The DDC contains data produced from Integrated Assessment Models (IAMs), Carbon-cycle Models, General Circulation Models, and Earth System Models.

- [Global climate model output](#)
- [Global climate model output: period-averages](#)
- [Global climate model output: global-means \(AR4\)](#)
- [SRES Emissions scenarios](#)
- [IS92 Emissions scenarios](#)
- [Carbon Dioxide: Projected emissions and concentrations](#)

## Analyses

- [Regional scatter-plots](#)

## Data visualisation

- [Visualise global climate model data and climate observations](#)

IPCC





### FAOSTAT

FAOSTAT provides free access to food and agriculture statistics (including crop, livestock, and forestry sub-sectors) for over 245 countries and territories and covers all FAO regional groupings from 1961 to the most recent year available.



### SDG Indicators

FAO's Sustainable Development Goals (SDG) Data Portal provides access to the 21 SDG Indicators under FAO custodianship as well as key information to support countries in tracking progress towards SDGs.



### AMIS

The Agricultural Market Information System (AMIS) is an inter-agency platform to enhance food market transparency and policy response for food security. It provides market information on four grains particularly important in international food markets: wheat, maize, rice and soybeans.



### Food and Agriculture Microdata Catalogue (FAM)

The Food and Agriculture Microdata (FAM) Catalogue provides access to micro datasets collected through farm and household surveys which contain information related to agriculture, food security and nutrition.



### FPMA

Food prices



### DAD-IS

Domestic Animal Diversity



### WIEWS

Plant Genetic Resources

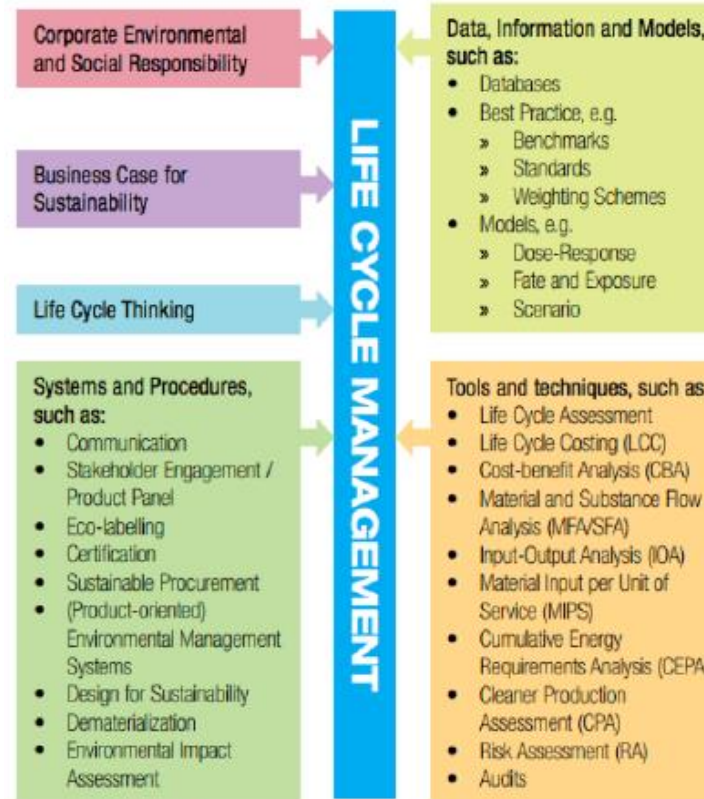


### INFOODS

Food Composition

FAO (UN)

## Elements of Life Cycle Management



Source: UNEP/SETAC. Life Cycle Management: A Business Guide to Sustainability. Paris, 2007.

## Lifecycle initiative (UN)



## Environmental statistics (UN)



Remote sensing data market map

# Public Environmental Datasources in Portugal

[SNIAMB](#)

GIS database

[SNIRH](#)

Water Resources

[SIAIA](#)

Environmental assessment

[QUALAR](#)

Air Quality

ERSAR

Utilities data

PENSAAR

Strategical Monitoring

Let's Play

[datastudio.google.com](https://datastudio.google.com)