

INTRODUCTION TO SOURCES OF CLIMATE DATA AND HOW TO ACCESS THESE DATA SOURCES

By

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SOURCES OF CLIMATE DATA

- There are numerous sources of climate data, each offering different types of information, from temperature and precipitation records to greenhouse gas concentrations and satellite imagery. Here are some key sources and how to access them:

1) National Oceanic and Atmospheric Administration (NOAA)

- NOAA offers extensive climate data, including historical temperature and precipitation records, sea level data, and ocean temperature readings.
- Data can be accessed through the NOAA National Centers for Environmental Information (NCEI) (<https://www.ncei.noaa.gov/>), which provides a variety of tools and platforms for data retrieval.

SOURCES OF CLIMATE DATA

2) European Centre for Medium-Range Weather Forecasts (ECMWF)

- Provides global climate data, including reanalysis datasets like ERA5 (ECMWF Reanalysis v5), which offer historical weather and climate data based on observations and modelling.
- The data is available via the Copernicus Climate Data Store (CDS) (<https://cds.climate.copernicus.eu/>), where users can download datasets and use tools for analysis.

SOURCES OF CLIMATE DATA

3) NASA Earth Observing System Data and Information System (EOSDIS)

- Provides satellite data on various aspects of Earth's climate, including temperature, atmospheric composition, and land cover.
- You can access the data through the NASA Earthdata website (<https://earthdata.nasa.gov/>), which offers tools like the Earthdata Search for finding and downloading datasets.

SOURCES OF CLIMATE DATA

4) Open Data Sources

➤ They have compiled a list of very useful open data sources:

<https://www.icpac.net/open-data-sources/>

You can access datasets like:

- a) RFE Rainfall Data
- b) CHIRPS Rainfall
- c) ECMWF S2S database
- d) GFS Forecast Rainfall
- e) IRI maproom and data library

