

# IPCC climate zones 1985-2015

**Tags** world climate

## Summary

This is an updated demonstration of the world climate zones described by IPCC in 2019.

## Description

This is an updated demonstration of the world climate zones described by IPCC in 2019. These zones are featured in an updated version of Figure 3A.5.1 in Volume 4, Chapter 3 of *2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories*. They demonstrate a geospatial representation of the classification scheme presented in Figure 3A.5.2 of the same chapter.

## Credits

There are no credits for this item.

## Use limitations

There are no access and use limitations for this item.

## Extent

There is no extent for this item.

## Scale Range

Maximum (zoomed in) 1:5,000

Minimum (zoomed out) 1:150,000,000

## Topics and Keywords ►

Themes or categories of the resource Atmospheric Sciences, Environment, Imagery & Base Maps

## Citation ►

Title IPCC climate zones 1985-2015

## Citation Contacts ►

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## Resource Details ►

ArcGIS item properties

## Lineage ►

### Lineage statement

These climate zones were created by Philip Audebert (FAO), Jason Tullis (University of Arkansas), Stephen Ogle (Colorado State University), Martial Bernoux (FAO), and Laure-Sophie Schiettecatte (FAO). The zones are based on climate data from University of East Anglia Climate Research Unit et al. 2017 and global elevation data from USGS EROS Data Center 2008. The classification scheme found in Figure 3A.5.2 of Volume 4, Chapter 3 of "2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories" (Reddy et al. 2019) was first implemented using Google Earth Engine. To explore replicability, the same classification scheme was independently implemented using Esri's ArcGIS Pro 2.8.1 and Python 3.7.10. Strong correspondence was found in the results of the two workflows. The accompanying zones are based on the Esri/Python workflow. While Figure 3A.5.2 provides the logic used to generate the climate zones, the following workflow details are noted:

- 1) The USGS elevation data was spatially aggregated to the CRU TS4.00 half-degree resolution, and TS4.00 mean annual precipitation (MAP) areas not represented in the elevation data were assigned an elevation of 1 m.
- 2) While most decisions in Figure 3A.5.2 were implemented using standard tools available through ArcGIS 2.8.1 ModelBuilder (e.g., Aggregate Multidimensional Raster, Raster Calculator, etc.), the "All Months Average <10°C?" decision (interpreted as "each mean monthly temperature < 10°C?") was implemented using a custom Python script to average the temperature data (1985-2015) by month, resulting in twelve averages per pixel (Jan, Feb, Mar, ...Dec).

### Source data ►

#### Description

University of East Anglia Climatic Research Unit (CRU), Ian C Harris, and Philip D. Jones. 2017. "CRU TS4.00: Climatic Research Unit (CRU) Time-Series (TS) Version 4.00 of High Resolution Gridded Data of Month-by-Month Variation in Climate (Jan. 1901- Dec. 2015)." Application/xml. Centre for Environmental Data Analysis (CEDA).  
<https://doi.org/10.5285/EDF8FEBFDAAD48ABB2CBAF7D7E846A86>.

### Source data ►

#### Description

USGS EROS Data Center. 2008. "Global Digital Elevation Model (GTOPO30)." Esri Data & Maps. Redlands, California, USA.

### Source data ►

#### Description

Reddy, S., L. Panichelli, R.M. Waterworth, S. Federici, C. Green, I. Jonckheere, S. Kahuri, W. Kurz, R. de Ligt J.P. Ometto, H. Petersson, E. Takahiro, P. Thomas, J. Tullis, Z. Somogyi, M. Pandya, M.T. Rocha and K. Suzuki. 2019. "Consistent Representation of Lands" in 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Intergovernmental Panel on Climate Change Task Force on National Greenhouse Gas Inventories. Adopted at 49th Session of the IPCC, Kyoto, Japan, 8-12 May, 2019.

## Metadata Details ►

Metadata language English

Metadata character set utf8 - 8 bit UCS Transfer Format

Scope of the data described by the metadata dataset

Last update ⇔ 2021-07-22

### ArcGIS metadata properties

Metadata format ArcGIS 1.0

Standard or profile used to edit metadata NAP

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### Automatic updates

Have been performed No