

# Package ‘RClimChange’

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**Type** Package

**Title** A package to manipulate Global Climate Models from NCCS THREDDS  
NEX-GDDP-CMIP6

**Version** 2.0.0

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**Description**

This package contain simple tools for downloading and subsetting daily GCM data from CMIP6.

**License** GPL (>= 2)

**Encoding** UTF-8

**Depends** R (>= 3.6),

**Imports** ncdf4, RCurl, tictoc

**RoxygenNote** 7.1.2

**RemoteType** github

**RemoteHost** api.github.com

**RemoteRepo** RClimChange

**RemoteUsername** hllauca

**RemoteRef** HEAD

**RemoteSha** f33dfea6c7604cc927a7fbd9976983b74eb0ae42

**GithubRepo** RClimChange

**GithubUsername** hllauca

**GithubRef** HEAD

**GithubSHA1** f33dfea6c7604cc927a7fbd9976983b74eb0ae42

**NeedsCompilation** no

## R topics documented:

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gcm_download_data	<i>Download CMIP6 daily data from NCCS THREDDS NEX-GDDP-CMIP6</i>
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## Description

Download CMIP6 daily data from NCCS THREDDS NEX-GDDP-CMIP6

## Usage

```
gcm_download_data(
  location,
  model = NULL,
  scenario,
  variable,
  years,
  roi,
  method = "libcurl"
)
```

## Arguments

location	Work directory to store downloaded data.
model	Model names from " <a href="https://ds.nccs.nasa.gov/thredds/catalog/AMES/NEX/GDDP-CMIP6/catalog.html">https://ds.nccs.nasa.gov/thredds/catalog/AMES/NEX/GDDP-CMIP6/catalog.html</a> ". If NULL, all 35 models will be downloaded.
scenario	Choose the scenario to be downloaded ('historical', 'ssp245', 'ssp585'). More information in " <a href="https://www.nccs.nasa.gov/sites/default/files/NEX-GDDP-CMIP6-Tech_Note.pdf">https://www.nccs.nasa.gov/sites/default/files/NEX-GDDP-CMIP6-Tech_Note.pdf</a> ".
variable	Choose the variable to be downloaded ('pr': precipitation, 'tas': mean air temperature, 'tasmin': minimum air temperature, 'tasmax': maximum air temperature). 'pr' as default.
years	Choose data years to be downloaded (from 1950 to 2014 for the 'historical' scenario, and from 2015 to 2100 for 'ssp245' and 'ssp585' scenarios).
roi	Region of interest coordinates for subsetting data. Please insert c(xmin, xmax, ymin, ymax). If NULL, data with the original extension will be downloaded.
method	Method to be used for downloading files. Current download methods are 'internal', 'wininet' (Windows only), 'libcurl', 'wget' and 'curl'. 'libcurl' as default.

## Value

CMIP6 daily data (in netCDF format) for the region of interest.

## Examples

```
require(RClimChange)

# Download daily precipitation (in mm/d) from the BCC-CSM2-MR model for 1990 and the Peruvian domain
gcm_download_data <- function(location=getwd(),
                               model='BCC-CSM2-MR',
                               scenario='historical',
```

```
variable='pr',  
years=1990,  
roi=c(-86,-66,-20,2), # extent for the Peruvian domain  
method='libcurl')
```

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