



# Bias-corrected CMIP5 GCM daily data

## 1. IDENTIFICATION INFORMATION

Name	Bias-corrected CMIP5 GCM daily data
DOI	doi:10.20783/DIAS.524 [ <a href="https://doi.org/10.20783/DIAS.524">https://doi.org/10.20783/DIAS.524</a> ]
Metadata Identifier	CMIP5_CDFDM_S14FD20230727092847-DIAS20221121113753-en

## 2. CONTACT

### 2.1 CONTACT on DATASET

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#### 2.2.1 Data Integration and Analysis System

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## 5. DATE OF THIS DOCUMENT

2023-07-27

## 6. DATE OF DATASET

creation : 2017-08-08

## 7. DATASET OVERVIEW

### 7.1 Abstract

The CMIP5\_CDFDM\_S14FD dataset is bias-corrected CMIP5 GCM daily data developed using CDFDM as the bias-correction method and S14FD as the reference. The dataset offers daily data of 11 climatic variables over the globe from 1961 to 2100 under 4 RCPs and 8 GCMs. The data over the sea and Antarctica are not bias-corrected (i.e., the raw GCM data were used), whereas those over the land are bias-corrected. Variables include daily mean 2m air temperature (tave2m, ° C), daily maximum 2m air temperature (tmax2m, ° C), daily minimum 2m air temperature (tmin2m, ° C), daily total precipitation (precsfc, mm d-1), daily mean downward shortwave radiation flux (dswrfsfc, W m-2), daily mean downward longwave radiation flux (dlwrfsfc, W m-2), daily mean 2m relative humidity (rh2m, %), daily mean 2m specific humidity (spfh2m, kg kg-1), daily mean 2m vapor pressure (vap2m, hPa), daily mean 10m wind speed (wind10m, m s-1) and daily mean surface pressure (pressfc, hPa).

### 7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

### 7.3 Temporal Extent

Begin Date	1961-01-01
End Date	2100-12-31
Temporal Characteristics	Daily

### 7.4 Geographic Bounding Box

North latitude bound	90
West longitude bound	-180
Eastbound longitude	180
South latitude bound	-90

### 7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit
column	720	0.5 (deg)

row	360	0.5 (deg)
vertical	1	1 (level)

## 7.6 Geographic Description

## 7.7 Keywords

### 7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	GLOBAL CHANGE > Impacts of global change	AGU

### 7.7.2 Keywords on Project

#### 7.7.2.1 Data Integration and Analysis System

Keyword Type	Keyword	Keyword thesaurus Name
theme	DIAS &gt; Data Integration and Analysis System	No_Dictionary

## 7.8 Online Resource

File download from DIAS : <https://data.diasjp.net/dl/storages/filelist/dataset:524>

## 7.9 Data Environmental Information

## 7.10 Distribution Information

name	version	specification
NetCDF	4	

# 8. DATA PROCESSING

## 8.1 Data Processing (1)

### 8.1.1 General Explanation of the data producer's knowledge about the lineage of a dataset

CMIP5\_CDFDM\_S14FD dataset is the bias-corrected GCM daily data using S14FD as the reference and CDFDM as the bias-correction method. Eight GCMs from CMIP5 are included.

### 8.1.2 Data Source

Data Source Citation Name	Description of derived parameters and processing techniques used

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## 9. DATA REMARKS

## 10. DATA POLICY

### 10.1 Data Policy by the Data Provider

The reference (Iizumi et al., 2017) should be cited when the dataset is used.

### 10.2 Data Policy by the Project

#### 10.2.1 Data Integration and Analysis System

If data provider does not have data policy, DIAS Terms of Service (<https://diasjp.net/en/terms/>) and DIAS Privacy Policy (<https://diasjp.net/en/privacy/>) apply.

If there is a conflict between DIAS Terms of Service and data provider's policy, the data provider's policy shall prevail.

## 11. LICENSE

## 12. DATA SOURCE ACKNOWLEDGEMENT

### 12.1 Acknowledge the Data Provider

Please consider citing the following DOI when this dataset was used.

doi:10.20783/DIAS.524

### 12.2 Acknowledge the Project

#### 12.2.1 Data Integration and Analysis System

If you plan to use this dataset for a conference presentation, paper, journal article, or report etc., please include acknowledgments referred to following examples. If the data provider describes examples of acknowledgments, include them as well.

” In this study, [Name of Dataset] provided by [Name of Data Provider] was utilized. This dataset was also collected and provided under the Data Integration and Analysis System (DIAS), which was developed and operated by a project supported by the Ministry of Education, Culture, Sports, Science and Technology. ”

## 13. REFERENCES

Iizumi, T., H. Takikawa, Y. Hirabayashi, N. Hanasaki, and M. Nishimori, 2017: Contributions of different bias-correction methods and reference meteorological forcing data sets to uncertainty in projected temperature and precipitation extremes. *Journal of Geophysical Research-Atmospheres*, doi: 10.1002/2017JD026613.