



# NIAES agro-meteorological data (simulations of past and future projections over Central Thailand)

## 1. IDENTIFICATION INFORMATION

Name	NIAES agro-meteorological data (simulations of past and future projections over Central Thailand)
Edition	1.0
Abbreviation	NIASES agro-meteorological data of Central Thailand
DOI	doi:10.20783/DIAS.272 [ <a href="https://doi.org/10.20783/DIAS.272">https://doi.org/10.20783/DIAS.272</a> ]
Metadata Identifier	JP_NIAES_AgroMet_StationData_Thailand20230727074102-DIAS20221121113753-en

## 2. CONTACT

### 2.1 CONTACT on DATASET

Name	Dr. Kazunori Minamikawa
Organization	National Institute for Agro-Environmental Sciences, Agro-Meteorology Division
Address	3-1-3 Kanondai, Tsukuba-shi, Ibaraki, 305-8604, Japan
TEL	+81-29-838-8234
FAX	+81-29-838-8199
E-mail	minakazu@affrc.go.jp

Name	Dr. Toshichika Iizumi
Organization	National Institute for Agro-Environmental Sciences, Agro-Meteorology Division
Address	3-1-3 Kanondai, Tsukuba-shi, Ibaraki, 305-8604, Japan
TEL	+81-29-838-8235
FAX	+81-29-838-8199
E-mail	iizumit@affrc.go.jp

### 2.2 CONTACT on PROJECT

#### 2.2.1 Data Integration and Analysis System

Name	DIAS Office
Organization	Japan Agency for Marine-Earth Science and Technology
Address	3173-25, Showa-Cho, Kanazawa-ku, Yokohama-shi, Kanagawa, 236-0001, Japan
E-mail	dias-office@diasjp.net

---

### 3. DOCUMENT AUTHOR

Name	Dr. Kazunori Minamikawa
Organization	National Institute for Agro-Environmental Sciences, Agro-Meteorology Division
E-mail	minakazu@affrc.go.jp

Name	Dr. Toshichika Iizumi
Organization	National Institute for Agro-Environmental Sciences, Agro-Meteorology Division
E-mail	iizumit@affrc.go.jp

### 4. DATASET CREATOR

Name	Dr. Kazunori Minamikawa
Organization	National Institute for Agro-Environmental Sciences, Agro-Meteorology Division
E-mail	minakazu@affrc.go.jp

Name	Dr. Toshichika Iizumi
Organization	National Institute for Agro-Environmental Sciences, Agro-Meteorology Division
E-mail	iizumit@affrc.go.jp

### 5. DATE OF THIS DOCUMENT

2023-07-27

### 6. DATE OF DATASET

creation : 2016-03-01

### 7. DATASET OVERVIEW

#### 7.1 Abstract

Simulated agro-meteorological data of past (1981-2005) and future (2006-2060) over Central Thailand.

Stations: Chai Nat, Suphan Buri, Bang Na, Ratchaburi

Temporal coverage: 1981-2005(past simulations), 2006-2060 (future projections)

Variables: daily maximum and minimum of air temperature (degC), precipitation (cm/d), solar radiation (MJ/m<sup>2</sup>/d)

File format

Line 1: Station name, year and atmospheric CO2 concentration (ppmv)

Line 2 to the end of file: day-of-year, daily minimum of air temperature, daily maximum of air temperature, precipitation and solar radiation. Leap years are accounted for.

## Method

Data were generated by means of regional downscaling from seven global climate models (GCMs) under four representative concentration pathways (RCPs). The seven GCMs used were GFDL-ESM2M, HadGEM2-ES, IPSL-CM5A-LR, MIROC5, MIROC-ESM-CHEM, MRI-CGCM3 and NorESM1-M.

## 7.2 Topic Category(IS019139)

climatologyMeteorologyAtmosphere

## 7.3 Temporal Extent

Begin Date	1981-01-01
End Date	2060-12-31
Temporal Characteristics	Daily

## 7.4 Geographic Bounding Box

North latitude bound	15.20
West longitude bound	99.80
Eastbound longitude	100.62
South latitude bound	13.49

## 7.5 Grid

## 7.6 Geographic Description

## 7.7 Keywords

### 7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Surface Air Temperature, Surface Radiation Budget, Precipitation	GEO_COP

### 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 page in the DIAS : <https://data.diasjp.net/dl/storages/filelist/dataset:272>

## 7.9 Data Environmental Information

## 7.10 Distribution Information

name	version	specification
Plain text format	1.0	Detailed data format is described in Abstract section.

## 8. DATA PROCESSING

## 9. DATA REMARKS

## 10. DATA POLICY

### 10.1 Data Policy by the Data Provider

### 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

Whenever this data set is used for any academic presentations, and any publication of scientific results, the author(s) shall specify the following acknowledgement.

Authors are asked to refer No. [1]-[3] when

publish the results using maximum/minimum temperature and/or precipitation.

Authors are asked to refer No. [1]-[4] when

---

publish the results using the solar radiation data.

[1] Iizumi, T. M. Nishimori, Y. Ishigooka, and M. Yokozawa, 2010: Introduction to climate change scenario derived by statistical downscaling. *Journal of Agricultural Meteorology*, 66, 131-143 (in Japanese with English Abstract).

[2] Iizumi, T., M. Nishimori, K. Dairaku, S. A. Adachi, and M. Yokozawa, 2011: Evaluation and intercomparison of downscaled daily precipitation indices over Japan in present-day climate: Strengths and weaknesses of dynamical and bias-correction-type statistical downscaling methods. *Journal of Geophysical Research*, 116, D01111, doi:10.1029/2010JD014513.

[3] Iizumi, T., I. Takayabu, K. Dairaku, H. Kusaka, M. Nishimori, G. Sakurai, N. N. Ishizaki, S. A. Adachi, and M. A. Semenov, 2012: Future change of daily precipitation indices in Japan: A stochastic weather generator-based bootstrap approach to provide probabilistic climate information. *Journal of Geophysical Research*, 117, D11114, doi:10.1029/2011JD017197.

[4] Iizumi, T., M. Okada, and M. Yokozawa (2014) A meteorological forcing dataset for global crop modeling: development, evaluation, and intercomparison. *Journal of Geophysical Research-Atmospheres*, 119, 363-384.

## 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

[1] Iizumi, T. M. Nishimori, Y. Ishigooka, and M. Yokozawa, 2010: Introduction to climate change scenario derived by statistical downscaling. *Journal of Agricultural Meteorology*, 66, 131-143 (in Japanese with English Abstract).

[2] Iizumi, T., M. Nishimori, K. Dairaku, S. A. Adachi, and M. Yokozawa, 2011: Evaluation and intercomparison of downscaled daily precipitation indices over Japan in present-day climate: Strengths and weaknesses of dynamical and bias-correction-type statistical downscaling methods. *Journal of Geophysical Research*, 116, D01111, doi:10.1029/2010JD014513.

[3] Iizumi, T., I. Takayabu, K. Dairaku, H. Kusaka, M. Nishimori, G. Sakurai, N. N. Ishizaki, S. A. Adachi, and M. A. Semenov, 2012: Future change of daily precipitation indices in Japan: A stochastic weather generator-based bootstrap approach to provide probabilistic climate information. *Journal of Geophysical Research*, 117, D11114, doi:10.1029/2011JD017197.

[4] Iizumi, T., M. Okada, and M. Yokozawa (2014) A meteorological forcing dataset for global crop modeling: development, evaluation, and intercomparison. *Journal of Geophysical Research-Atmospheres*, 119, 363-384.