



# Climate projection dataset in Japan with 2km-mesh NHRCM by SOUSEI and TOUGOU programs

## 1. IDENTIFICATION INFORMATION

Name	Climate projection dataset in Japan with 2km-mesh NHRCM by SOUSEI and TOUGOU programs
Metadata Identifier	NHRCM02_SOUSEI20230727100237-DIAS20221121113753-en

## 2. CONTACT

### 2.1 CONTACT on DATASET

Name	Izuru Takayabu
Organization	Program for Risk Information on Climate Change (SOUSEI) and Integrated Research Program for Advancing Climate Models (TOUGOU)
E-mail	takayabu@mri-jma.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	Akihiko Murata
Organization	Program for Risk Information on Climate Change (SOUSEI) and Integrated Research Program for Advancing Climate Models (TOUGOU)
E-mail	amurata@mri-jma.go.jp

## 4. DATASET CREATOR

Name	Meteorological Research Institute
------	-----------------------------------

Organization	Program for Risk Information on Climate Change (SOUSEI) and Integrated Research Program for Advancing Climate Models (TOUGOU)
--------------	---

## 5. DATE OF THIS DOCUMENT

2023-07-27

## 6. DATE OF DATASET

publication : 2017-10-30

## 7. DATASET OVERVIEW

### 7.1 Abstract

(1) This is the dataset simulated by high resolution non-hydrostatic regional climate model of which horizontal grid spacing is 2km over Japan and surroundings. The dataset consists of the present climate (20 years) and the future climate over the end of the 21st century (20 years) under the RCP8.5 and RCP2.6 scenarios (4 members for each scenario).

(2) High resolution simulations enable to estimate the future change of extreme events, such as typhoons and localized torrential downpours, with high accuracy.

(3) This dataset provides the climate projections which adaptations against global warming are based on in various fields, for example, disaster prevention, urban planning, environmental protection, and so on. It would realize the global warming adaptations consistent not only among issues but also among regions.

Detailed information can be found in /NHRCM02\_SOUSEI/SOUSEI\_NHRCM\_metadata\_DIAS\_5km\_2km.pdf

### 7.2 Topic Category(IS019139)

climatologyMeteorologyAtmosphere

### 7.3 Temporal Extent

Begin Date	1980-09-01
End Date	2095-80-31
Temporal Characteristics	Hourly

### 7.4 Geographic Bounding Box

North latitude bound	40
West longitude bound	105
Eastbound longitude	170
South latitude bound	15

## 7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit
row		2 (km)
column		2 (km)
column		from 40 to 904 (m)
time		1 (hour)

## 7.6 Geographic Description

## 7.7 Keywords

### 7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	GLOBAL CHANGE > Regional climate change	AGU
theme	Climate	GEOSS

### 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 : <https://data.diasjp.net/dl/storages/filelist/dataset:591>

:  
:  
:

## 7.9 Data Environmental Information

## 7.10 Distribution Information

name	version	specification
grib	2	

---

## 8. DATA PROCESSING

## 9. DATA REMARKS

## 10. DATA POLICY

### 10.1 Data Policy by the Data Provider

Data Release Policy of Climate Projection Data in Japan with 2km-mesh NHRCM by SOUSEI and TOUGOU Programs

This dataset was produced by the joint project of Meteorological Research Institute of Japan Meteorological Agency and The University of Tokyo, under the support of the Program for Risk Information on Climate Change (SOUSEI, FY2012-2016), Integrated Research Program for Advancing Climate Models (TOUGOU, FY2017-2021), and the Data Integration and Analysis System (DIAS), funded by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). The Earth Simulator was used for building up the dataset. Users can access the dataset via the data server maintained by DIAS.

Terms and Conditions:

1. Individual users must register their name, affiliation, email-address and purpose of use before access to the database will be permitted.
2. Individual users should not redistribute the data to any third party.
3. The source of the database should be duly acknowledged in scientific and technical papers, publications, press releases and other communications in case of using the data.

Example:

This study used data produced with the Earth Simulator by the Program for Risk Information on Climate Change (SOUSEI) and Integrated Research Program for Advancing Climate Models (TOUGOU) from the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan.

Disclaimer:

Meteorological Research Institute of Japan Meteorological Agency is not responsible for any damage that may result from the use of this dataset. The intellectual property rights of the dataset belong exclusively to Meteorological Research Institute of Japan Meteorological Agency.

### 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

This study used data produced with the Earth Simulator by the Program for Risk Information on Climate Change (SOUSEI) and Integrated Research Program for Advancing Climate Models (TOUGOU) from the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan.

### 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

(RCP8.5)

Murata, A., H. Sasaki, H. Kawase, M. Nosaka, T. Aoyagi, M. Oh'izumi, N. Seino, F. Shido, K. Hibino, K. Ishihara, H. Murai, S. Yasui, S. Wakamatsu, and I. Takayabu, 2017: Projection of future climate change over Japan in ensemble simulations using a convection-permitting regional climate model with urban canopy. SOLA, 13, 219–223, doi:10.2151/sola.2017-040.

(RCP2.6)

Kawase, H., A. Murata, K. Yamada, T. Nakaegawa, R. Ito, R. Mizuta, M. Nosaka, S. Watanabe, H. Sasaki, 2021: Regional characteristics of future changes in snowfall in Japan under RCP2.6 and RCP8.5 scenarios, SOLA, 17, 1–7, doi:10.2151/sola.2021-001.

Murata, A., H. Sasaki, H. Kawase, M. Nosaka, T. Aoyagi, M. Oh'izumi, N. Seino, F. Shido, K. Hibino, K. Ishihara, H. Murai, S. Yasui, S. Wakamatsu, and I. Takayabu, 2017: Projection of future climate change over Japan in ensemble simulations using a convection-permitting regional climate model with urban canopy. SOLA, 13, 219–223, doi:10.2151/sola.2017-040.