



Japan Meteorological Agency Regional Climate Projection Data for Japan

1. IDENTIFICATION INFORMATION

Name	Japan Meteorological Agency Regional Climate Projection Data for Japan
Abbreviation	JMA-GWP9
Metadata Identifier	JMA_GWP920250327170032-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

Name	Climate Prediction Division
Organization	Japan Meteorological Agency
Address	3-6-9, Toranomon, Minato City, Tokyo, 1058431, Japan
TEL	81334349123
FAX	81334349123
E-mail	clime@met.kishou.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	Climate Prediction Division
Organization	Japan Meteorological Agency
E-mail	clime@met.kishou.go.jp

4. DATASET CREATOR

Name	Climate Prediction Division
Organization	Japan Meteorological Agency
E-mail	clime@met.kishou.go.jp

5. DATE OF THIS DOCUMENT

2025-03-27

6. DATE OF DATASET

revision : 2022-12-22

7. DATASET OVERVIEW

7.1 Abstract

Climate change projection for Japan using a non-hydrostatic regional climate model with 5- and 2-km spatial resolutions under IPCC RCP8.5 and RCP2.6 emission scenarios

Note: In December 2022, the name of this dataset was updated from "Japan Meteorological Agency Global Warming Projection Volume 9" to "Japan Meteorological Agency Regional Climate Projection Data for Japan". At the same time, we have updated the information regarding latitude and longitude of observation points included in the csv files of 5-km spatial resolution in accordance with the latest format. There is no change in the values of projected information with a horizontal resolution of 5-km.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

Begin Date	1980-09-01
End Date	2096-08-31
Temporal Characteristics	daily, monthly, 3monthly and annual for binary data, monthly, 3monthly and annual for csv data

7.4 Geographic Bounding Box

North latitude bound	55.145286
West longitude bound	114.267517
Eastbound longitude	159.936218
South latitude bound	15.978979

7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit
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row	467	5 (km)
column	744	5 (km)
row	485	2 (km)
column	1681	2 (km)

7.6 Geographic Description

日本周辺域／ランベルト正角円錐図法により地図上に投影した座標系による

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Climate	GEOSS
theme	GLOBAL CHANGE > Regional climate change	AGU
theme	Atmosphere > Atmospheric Temperature > Air Temperature, Atmosphere > Precipitation > Precipitation Amount, Atmosphere > Precipitation > Snow	GCMD_science
place	Asia > Eastern Asia > Japan	Country

7.7.2 Keywords on Project

7.7.2.1 Data Integration and Analysis System

Keyword Type	Keyword	Keyword thesaurus Name
theme	DIAS > Data Integration and Analysis System	No_Dictionary

7.8 Online Resource

Climate Change in Japan 2025 (a report on the analysis of climate change projection over Japan using this dataset with 2-km spatial resolution) : <https://www.data.jma.go.jp/cpdinfo/ccj/index.html>

Climate Change in Japan 2020 (a report on the analysis of climate change projection over Japan using this dataset with 5-km spatial resolution) : https://www.data.jma.go.jp/cpdinfo/ccj/index_2020.html

The detail of data contents and format, consideration in use of this dataset [in Japanese] : <https://diasjp.net/ds2022/manual.html>

Data Download Site of the DIAS : <http://data.diasjp.net/dl/storages/filelist/dataset:543>

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
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2 or 4 Byte binary	FORTTRAN unformatted record	
text	CSV (comma-separated values)	

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

This dataset was produced by analyzing the result of global warming projection for Japan using the regional climate model MRI-NHRCM with horizontal resolutions of 5-km (Sasaki et al., 2011) and 2-km (Murata et al., 2017) developed by the Meteorological Research Institute (MRI) of the Japan Meteorological Agency (JMA) in cooperation with the SOUSEI and TOUGOU Programs of the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT).

8.1.2 Data Source

Data Source Citation Name	Description of derived parameters and processing techniques used
NHRCM05	The result of global warming projection for Japan using the regional climate model MRI-NHRCM (Sasaki et al., 2011) with a horizontal resolution of 5-km developed by the Meteorological Research Institute (MRI) of the Japan Meteorological Agency (JMA) in cooperation with the SOUSEI and TOUGOU Programs of the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT).
NHRCM02	The result of global warming projection for Japan using the regional climate model MRI-NHRCM with a horizontal resolution of 2-km (Murata et al., 2017) developed by the Meteorological Research Institute (MRI) of the Japan Meteorological Agency (JMA) in cooperation with the TOUGOU Program of the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT).

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

- Users shall register their name, affiliation, email address and purpose of use before access to this dataset will be permitted
- Users shall not download or use this dataset in whole or in part without express consent from the Japan Meteorological Agency (JMA).

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- Users shall not provide the content of this dataset to third parties.
 - In the event of using this dataset in a presentation, paper, article, or report, etc., users shall cite as follows:
 - (a) [In case of using 5-km spatial resolution] "Japan Meteorological Agency, Regional Climate Projection Data for Japan, which was produced under the SOUSEI and TOUGOU programs".
 - (b) [In case of using 2-km spatial resolution] "Japan Meteorological Agency, Regional Climate Projection Data for Japan, which was produced under the TOUGOU programs".
 - In the event of using this dataset in a presentation, paper, article, or report, etc., users shall submit a copy of the work to JMA.
 - Users shall adhere to other instructions by JMA.

[Disclaimer]

- Although JMA have taken every precaution with regard to this data, JMA does not guarantee its reliability. JMA is not liable for any losses or any damage when this dataset is used.
- The information including data may be changed or deleted without advanced notice. JMA is not liable for any loss or any damage caused from the change.

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

Japan Meteorological Agency Regional Climate Projection Data for Japan, which was produced under the SOUSEI and TOUGOU programs

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