

1. IDENTIFICATION INFORMATION

Name	FORP-NP10 version4.5
Edition	version 4_5
DOI	doi:10.20783/DIAS.662 [https://doi.org/10.20783/DIAS.662]
Metadata Identifier	FORP_NP10_version4_520231215151808-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

Name	Yoichi ISHIKAWA
Organization	Japan Agency for Marine-Earth Science and Technology
Address	3173-25 Syowa-machi, Kanazawa-ku, Yokohama-shi, Kanagawa, 236-0001, Japan
E-mail	ishikaway@jamstec.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	Center for Earth Information and Technology, JAMSTEC
------	--

4. DATASET CREATOR

Name	Center for Earth Information and Technology, JAMSTEC
------	--

5. DATE OF THIS DOCUMENT

2023-12-15

6. DATE OF DATASET

7. DATASET OVERVIEW

7.1 Abstract

Future Ocean Regional Projection (FORP) datasets were produced by high-resolution regional ocean model simulations with ensemble atmospheric forcings from Coupled Model Intercomparison Project Phase 5 (CMIP5) models and scenarios. These were developed by the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) and Meteorological Research Institute, Japan Meteorological Agency. The development of FORP were supported by Social Implementation Program on Climate Change Adaptation Technology (SI-CAT, grant no.: JPMXD0715667163) and Integrated Research Program for Advancing Climate Models (TOUGOU, grant no.: JPMXD0717935561), the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Further we expanded the FORP datasets with two other CMIP5 model used as forcing data in the Advanced Studies of Climate Change Projection (SENTAN Program). Meteorological Research Institute Community Ocean Model version 4 (MRI.COMv4; Tsujino et al. 2017) was used for the regional ocean models.

FORP-NP10 is a historical and future ocean projection dataset in the North Pacific Ocean with an approximately 10 km horizontal resolution, produced by continuous simulation from 1970 to 2100. In the version 4.5 dataset (FORP-NP10 version4.5), the atmospheric forcings for the FORP simulations were from two climate models from CMIP5, GFDL-ESM2M and IPSL-CM5A-MR, with historical (1981-2005), RCP2.6 (2006-2100), and RCP8.5 (2006-2100) scenarios. By using FORP version 4 and version 4.5 together, the number of ensembles increases and can be used to evaluate the uncertainty of future projections.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

environment

oceans

7.3 Temporal Extent

Begin Date	1970-01-01
End Date	2100-12-31
Temporal Characteristics	Monthly

7.4 Geographic Bounding Box

North latitude bound	63
West longitude bound	99
Eastbound longitude	-75
South latitude bound	-15

7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit
row	2049	1/11 (deg)
column	784	1/10 (deg)
vertical	60	variable (m)

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Oceans > Ocean Temperature, Oceans > Ocean Circulation, Oceans > Ocean Heat Budget	GCMD_science
theme	Models > GCM	GCMD_platform
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 > Data Integration and Analysis System	No_Dictionary

7.8 Online Resource

file download : <https://data.diasjp.net/dl/storages/filelist/dataset:662>

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
------	---------	---------------

8. DATA PROCESSING

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

1. The dataset can use under the public license CC BY 4.0.
2. The author should be cited following paper in scientific and technical papers, or publications: Nishikawa et al. 2021, Development of high-resolution future ocean regional projection datasets for coastal applications in Japan. Progress in Earth and Planetary Science, 8:7, <https://doi.org/10.1186/s40645-020-00399-z>
3. The source of the datasets should be duly acknowledged in scientific and technical papers, publications, and other communications regarding the datasets. Example: The dataset used for this study is from Future Ocean Regional Projection (FORP) project carried out by Japan Agency for Marine-Earth Science and Technology, and the Meteorological Research Institute, the Japan Meteorological Agency (JMA).
4. Individual users should provide JAMSTEC with a copy of their scientific or technical papers, publications, or other communications regarding these datasets.

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



CC-BY 4.0 : Creative Commons Attribution 4.0 International [<https://creativecommons.org/licenses/by/4.0/>]

12. DATA SOURCE ACKNOWLEDGEMENT

12.1 Acknowledge the Data Provider

This study utilized the dataset 'Future Ocean Regional Projection' (FORP), which was produced by the Japan Agency for Marine-Science and Technology (JAMSTEC) and the Meteorological Research Institute, the Japan Meteorological Agency under the 'SI-CAT' project (Grant Number: JPMXD0715667163) and the 'TOOUGOU' project (Grant Number: JPMXD0717935561), the 'SENTAN/Advanced Studies of Climate Change Projection' project of the Ministry of Education, Culture, Sports, Science and Technology, 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

Nishikawa et al. 2021, Development of high-resolution future ocean regional projection datasets for coastal applications in Japan. *Progress in Earth and Planetary Science*, 8:7, <https://doi.org/10.1186/s40645-020-00399-z>