VnGP - Vietnam Gridded Precipitation dataset (0.25° ×0.25°)

1. IDENTIFICATION INFORMATION

Name	VnGP - Vietnam Gridded Precipitation dataset (0.25° ×0.25°)
DOI	doi:10.20783/DIAS.271 [https://doi.org/10.20783/DIAS.271]
Metadata Identifier	VnGP_02520240112082650-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

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2.2 CONTACT on PROJECT

2.2.1 Data Integration and Analysis System

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4. DATASET CREATOR

Name	REMOCLIC
Organization	VNU (Vietnam National University), University of Science

5. DATE OF THIS DOCUMENT

2024-01-12

6. DATE OF DATASET

creation : 2016-03-22

7. DATASET OVERVIEW

7.1 Abstract

This dataset was created based on the daily data of 481 rainfall stations over Vietnam using the SPHEREMAP method. The unit of rainfall data is mm/day.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

Begin Date	1980-01-01
End Date	2010-12-31
Temporal Characteristics	Daily

7.4 Geographic Bounding Box

North bound latitude	24.375
West bound longitude	101.125
Eastbound longitude	110.875
South bound latitude	7.625

7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit
row	40	15 (minute)
column	68	15 (minute)

7.6 Geographic Description

Asia

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Atmosphere > Precipitation > Precipitation Amount	GCMD_science
theme	HYDROLOGY > Precipitation, ATMOSPHERIC PROCESSES > Precipitation	AGU
theme	Water, Climate	GEOSS
place	Asia > South Eastern Asia > Viet Nam	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

file download : https://data.diasjp.net/dl/storages/filelist/dataset:271

Paper on the data details : https://www.jstage.jst.go.jp/article/sola/12/0/12_2016-057/_article

GRENE-ei CAAM webpage : https://grene.agrid.org/

7.9 Data Environmental Information

[Processing environment]: programs written by the data set creator in shell scripts, Fortran 90, Fortran 77 program "Spheremap" version 99.8a from the University of Delaware, on the linux cluster of the REMOCLIC group. [Data format]: netCDF

7.10 Distribution Information

name	version	specification
NetCDF	version 4.1.3	

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

VnGP is a daily gridded data set made from the data of 481 rain gauges in Vietnam. The "Spheremap" of Willmott et al. (1985) interpolation method was used. The Spheremap method is originally the weighted two-dimensional spatial interpolation algorithm proposed by Shepard (1968), but modified to work with the spherical coordinates. We have not taken into account of topographical effects, nor the systematic errors of the rain gauges' data.

8.1.2 Data Source

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

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

This data set requires permission by the data provider (contact person) before you can download. The content of this dataset should not be used for commercial purposes. The source should be properly acknowledged in any work obtained with this dataset. The creators of this dataset are not responsible for any loss or damage caused by using this dataset.

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

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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

Nguyen-Xuan, T., T. Ngo-Duc, H. Kamimera, L. Trinh-Tuan, J. Matsumoto, T. Inoue and T. Phan-Van, 2016. The Vietnam gridded precipitation (VnGP) dataset: Construction and validation. Scientific Online Letters on the Atmosphere (SOLA), 12, 291-296.

Shepard, D., 1968. A two-dimensional interpolation function for irregularly-spaced data. Proceedings, 1968 ACM National Conference, 517　524. (Reference of spatial interpolation algorithm)

Willmott, C.J., Rowe, C.M. and Philpot, W.D. 1985. Small-scale climate maps: a sensitivity analysis of some common assumptions associated with grid-point interpolation and contouring. The American Cartographer, 12, 5　16. (Reference of spatial interpolation algorithm)