The dataset of risk assessment of ice-snow disaster in southern China

Data Documentation

I. Dataset/atlas content features

i. Abstract

Risk assessment of ice-snow disaster contributed to understand the probability and spatial distribution of that, which was of great significance for disaster prevention and reduction work. In this dataset, five indicator factors including daily average temperature, daily average precipitation, elevation, slope direction, and slope were selected to participate in the assessment work. The expert knowledge score method was used to determine the weights of the four indicators of precipitation, elevation, slope, and aspect. The average temperature was regarded as the most critical factor, which decided whether the area suffered from ice-snow disaster. The risk assessment value of ice-snow disaster was calculated, which was normalized. The dataset could be used for post-disaster related research.

ii. Elements (content fields)

Table 1 Description of data element content

Data name	Item	Field name	Field measure	Field code	Remarks
	(field)	in Chinese	unit	description	
anhui.tif			Nu11	0-1: the value	
				of risk	
				assessment	
chongqing.tif			Nu11	0-1: the	
				value of risk	
				assessment	
fujian.tif			Nu11	0-1: the	
				value of risk	
				assessment	
guangdong.tif			Nu11	0-1: the	
				value of risk	
				assessment	
guangxi.tif			Nu11	0-1: the	
				value of risk	
				assessment	
guizhou.tif			Nu11	0-1: the	
				value of risk	
				assessment	
hubei.tif			Nu11	0-1: the	
				value of risk	
				assessment	
hunan.tif			Nu11	0-1: the	
				value of risk	
				assessment	

jiangxi.tif	Nu11	0-1: the
		value of risk
		assessment
zhejiang.tif	Nu11	0-1: the
		value of risk
		assessment

iii. Temporal cover

The dataset coverage is 2008/01/10 to 2008/02/02.

iv. Spatial cover

The dataset covers Anhui, Chongqing, Fujian, Guangdong, Guangxi, Guizhou, Hubei, Hunan, Jiangxi and Zhejiang Province.

II. Subject/industry scope of dataset/atlas

i. Subject scope

Earth Science

ii. Industry scope

Natural science research and experiment development

iii. Other classifications (optional)

(Other categories can be applied, but should reflect the dataset/atlas characteristics.)

III. Accuracy of dataset/atlas

i. Time frequency

The dataset is produced for the southern snowstorm disaster in early 2008, the specific time of which is from 2008/01/10 to 2008/02/02.

ii. Spatial reference, accuracy, and granularity

The spatial reference is Albers Equal Area Conic; spatial resolution is 250m; province;

IV. Dataset/atlas storage management

i. Data quantity

The data quantity is 77.7 MB.

ii. Type format

The dataset is stored as a hard disk, and the data structure type is a raster TIF file.

iii. Update management

No update plan

V. Quality control of the dataset/atlas

i. Production mode

First, the data of daily average temperature and precipitation was spatially discretized. The four indicators of precipitation, elevation, slope, and aspect with the expert knowledge scoring methods were

given the weights of those. The daily average temperature was multiplied by the weighted sum of the other four indicator factors. And the calculation result was normalized.

ii. Data sources (condition selection)

The meteorological data came from Chinese Meteorological Science Data Center;

The elevation data sources from Google Earth.

iii. Methods of the data acquisition and processing (condition selection)

In the process of data processing, it was necessary to spatially discretize the weather station data and normalize the final risk assessment results.

VI. Sharing and usage method of the dataset/atlas

i. Sharing methods and restrictions

Fully shared

ii. Contact information of the sharing service (condition selection)

The service is as follows: Name: Wang xuecheng

Mailing address: Chaoyang District, Beijing Datun Road on the 11th

Zip code: 100101

E-mail: wangxc.15s@igsnrr.ac.cn

iii. Conditions and methods of usage

(The environmental conditions when to use the datasets/atlas should be provided, including the necessary software tools, hardware requirements, and operation of the steps, methods, or precautions.)

VII. Intellectual property rights of the dataset/atlas

i. Property rights (optional)

"The dataset of risk assessment of ice-snow disaster in southern China" owned by institute of geographic sciences and natural resources research, CAS.

ii. Reference method of the dataset/atlas

The dataset of risk assessment of ice-snow disaster in southern China. Disaster Risk Reduction Knowledge Service of International Knowledge Centre for Engineering Sciences and Technology (IKCEST) under the Auspices of UNESCO,2018.5.20.http://drr.ikcest.org/info/993ab.

iii. Usage contacts of the datasets/atlas

Contact person

Name: Wang xuecheng

Mailing address: Chaoyang District, Beijing Datun Road on the 11th

Zip code: 100101

E-mail: wangxc.15s@igsnrr.ac.cn

VIII. Others (optional)

In addition to the above, other information must also be explained.

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