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>
<thead>
<tr>
<th>Data name</th>
<th>Item (field)</th>
<th>Field name in Chinese</th>
<th>Field measure unit</th>
<th>Field code description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>anhui.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
<tr>
<td>chongqing.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
<tr>
<td>fujian.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
<tr>
<td>guangdong.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
<tr>
<td>guangxi.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
<tr>
<td>guizhou.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
<tr>
<td>hubei.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
<tr>
<td>hunan.tif</td>
<td></td>
<td>Null</td>
<td></td>
<td>0–1: the value of risk assessment</td>
<td></td>
</tr>
</tbody>
</table>
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

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.

<table>
<thead>
<tr>
<th>Data documentation author information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data documentation author</td>
</tr>
<tr>
<td>Update time</td>
</tr>
<tr>
<td>Organization</td>
</tr>
<tr>
<td>Contact information</td>
</tr>
<tr>
<td>Address</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Telephone</td>
</tr>
</tbody>
</table>