

Temperature Vegetation Dryness Index 1-km Grid Dataset in Amur River Basin
(2007-2018)

Data Documentation

I. Dataset/atlas content features

i. Abstract

This dataset described the spatial distribution of temperature vegetation dryness index in the Amur River basin, which is a cross-border basin including the cities of China, Mongolia, Russia and North Korea. They were collected and organized by the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences. This dataset was composed of 84 raster files. It can be used to study vegetational condition and provide important basis for disaster prevention and reduction and reducing the negative effects of meteorological disasters.

ii. Elements (content fields)

This dataset was named as “disaster database of " Belt and Road" China-Mongolia-Russia economic corridor”, which included 84 data files. There are mainly 1 data name for different months and they are described as table 1.

Table 1 Description of data element content

Data name	Item (field)	Field name in Chinese	Field measure unit	Field code description	Remarks
Climate disaster	Temperature Vegetation Dryness Index	Class			

iii. Temporal cover

2007-2018

iv. Spatial cover

This dataset covered a northeastern cross-border basin in the belt and road ($41^{\circ} 45' \sim 53^{\circ} 33' N$, $115^{\circ} 13' \sim 135^{\circ} 05' E$). Countries involved China, Mongolia, Russia and North Korea.

II. Subject/industry scope of dataset/atlas

i. Subject scope

Basic Disaster information

ii. Industry scope

Environmental and Textile

iii. Other classifications (optional)

III. Accuracy of dataset/atlas

i. Time frequency

monthly

ii. Spatial reference, accuracy, and granularity

This dataset used the WGS-1984 coordinate system with a minimum time interval of one year.

IV. Dataset/atlas storage management

i. Data quantity

The volume of the dataset is 319MB.

ii. Type format

This dataset was stored in hard disk with formats of .tif.

iii. Update management

Unscheduled update.

V. Quality control of the dataset/atlas

i. Production mode

First, we downloaded the data products of monthly normalized differential vegetation index (NDVI) MODIS13A3 and 8-day synthesized land surface temperature (LST) MOD11A2 through the NASA website. Then, we combine the two data through the TVDI calculation model and use ArcGIS software to load the obtained data and made corresponding thematic maps according to the year. Finally exported the map.

ii. Data sources (condition selection)

The products of monthly NDVI and 8-day LST were obtained from the NASA website (<https://ladsweb.modaps.eosdis.nasa.gov/>), and Digital elevation model (DEM) data with a spatial resolution of 90 m were obtained from the system of Shuttle Radar Topography Mission (SRTM), as jointly measured by National and Space Administration (NASA) and National Imagery and Mapping Agency (NIMA).

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

Acquisition method: Down on the net.

Processing method: Data registration and classification method.

VI. Sharing and usage method of the dataset/atlas

i. Sharing methods and restrictions

Full and open sharing.

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

Online link address:

Contact Information for Service:

Name: Service group of Disaster Risk Reduction Knowledge Service System of IKCEST

Address: 11A, Datun Road, Chaoyang District, Beijing, 100101, China, Institute of Geographic Sciences and Natural Resources Research, CAS.

Zip Code: 100101

E-mail: ikcest-drr@lreis.ac.cn

iii. Conditions and methods of usage

This dataset can be opened using ArcGIS.

VII. Intellectual property rights of the dataset/atlas

i. Property rights (optional)

Intellectual property of the dataset belonged to Institute of Geographic Sciences and Natural Resources Research, CAS.

ii. Reference method of the dataset/atlas

Inversion dataset of Meteorological resource database of " Belt and Road" China-Mongolia-Russia economic corridor. Disaster Risk Reduction Knowledge Service of International Knowledge Centre for Engineering Sciences and Technology (IKCEST) under the Auspices of UNESCO, 2019.5.21.

iii. Usage contacts of the datasets/atlas

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VIII. Others (optional)

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

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