Dataset of desertification related land cover distribution along China-Mongolia railway (Mongolia section) in 2015

Data Documentation

I. Dataset/atlas content features

i. Abstract

This dataset was the land cover distribution data related to desertification along the China-Mongolia railway (Mongolia section) in 2015. This dataset used the object-oriented remote sensing image interpretation method to obtain the desertification data with a resolution of 30 meters along the China-Mongolia railway (Mongolia section) in 2015. It was collected and organized by the Institute of Geographic Sciences and Natural Resources Research, CAS. It can be used to study the risk assessment of desertification in China-Mongolia railway, providing an important basis for preventing sandstorms, floods and other disasters caused by desertification and alleviating the negative impact of desertification.

ii. Elements (content fields)

This dataset was named as "Dataset of desertification related land cover distribution along China-Mongolia railway (Mongolia section) in 2015", which included 4 data files. There are mainly 1 data name 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
Desertification related land cover distribution along the China-Mongolia railway (Mongolia section)	Type of land cover	土地覆被类型			

iii. Temporal cover

2015

iv. Spatial cover

Within 200km of both sides of China-Mongolia railway (Mongolia section)

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

ii. Spatial reference, accuracy, and granularity

This dataset used the WGS1984 coordinate system with a minimum time interval of one year.

IV. Dataset/atlas storage management

i. Data quantity

The volume of the dataset is 130 MB.

ii. Type format

This dataset format was .shp.

iii. Update management

Unscheduled update.

V. Quality control of the dataset/atlas

i. Production mode

In this dataset, object-oriented remote sensing interpretation method was adopted to obtain the fine land cover data of the research area. This method made full use of texture features, spatial features and spectral features of ground objects, and can effectively avoid the phenomenon of "pepper and salt" in traditional remote sensing classification. The remote sensing classification system of Mongolia's 30-m resolution land cover product developed by Wang Juanle et al. was used to extract the information of forest, meadow steppe, real steppe, desert steppe, cropland, building area, water, barren, sand and desert along the China-Mongolia railway through remote sensing image interpretation. Then, according to the definition of relevant concepts of desertification, forest, meadow steppe, real steppe and other obvious non-desertification land features were classified as other (i.e., non-desertification areas), and desert steppe, barren land, sand, desert and other land features were extracted separately. Finally, a buffer zone of 5km, 10km, 30km, 50km, 100km and 200km on both sides of the China-Mongolia railway (Mongolia section) was established, with the China-Mongolia railway (Mongolia section) as the center. The land cover related to desertification in the areas along the China-Mongolia railway (Mongolia section) in 2015 was analyzed in steps.

ii. Data sources (condition selection)

The original data was Landsat 8 remote sensing images downloaded from the USGS website.

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 "Dataset of desertification related land cover distribution along China-Mongolia railway (Mongolia section) in 2015". Disaster Risk Reduction Knowledge Service of International Knowledge Centre for Engineering Sciences and Technology (IKCEST) under the Auspices of UNESCO, 2018.11.28.

If you refer to this dataset, please refer to the following article.

王卷乐,程凯,祝俊祥,等.蒙古国 30 米分辨率土地覆盖产品研制与空间分局分析[J].地球信息科学学报,2018,20(9):1263-1273. [Wang J L, Cheng K, Zhu J X, et al. Study and development of Mongolian land cover data products with 30 meters resolution and its pattern analysis, 2018,20(9):1263-1273.] **DOI:** 10.12082/dqxxkx.2018.180153

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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