

Remote Sensing Series of Loess Plateau Resources and Environment from 1987 to 1990**Data Documentation****I. Dataset content features****i. Abstract**

The datasets are remote-sensing data on the resources and environment of the Loess Plateau, and mainly record data on soil erosion, land use, land resources, soil, forest resources, vegetation, and grassland resources from 1987 to 1990. They are collected and organized by Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, and include Erosion Map (1987-1990), Land Use Map (1987-1990), Land Resource Map (1987-1990), Soil Map (1987-1990), Forest Map (1987-1990), Vegetation Map (1987-1990), Grassland resources map (1987-1990). There are totally 7 data files in .adf format. They can be used to study the changes in resources and the environment in the Loess Plateau, and government decision-making.

ii. Elements (content fields)

The datasets are named as “Remote Sensing Series of Loess Plateau Resources and Environment from 1987 to 1990”, which include 7 data files. There are mainly 7 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
Soil erosion	Soil erosion intensity	土壤侵蚀强度	power level		
Land use	Land use type	土地利用类型			
Land resources	Land resource type	土地资源类型			
Soil	Soil type	土壤类型			
Forest	Forest type	森林类型			
Vegetation	Vegetation type	植被类型			
Grassland resources	Grassland resources type	草地资源类型			

iii. Temporal cover

Time of the dataset from 1987 to 1990.

iv. Spatial cover

The datasets cover all of Loess Plateau.

II. Subject/industry scope of dataset/atlas**i. Subject scope**

Earth Science, environmental sciences, regional sustainable development, geography.

ii. Industry scope

Resource and environmental monitoring.

iii. Other classifications (optional)

III. Accuracy of dataset/atlas

i. Time frequency

Yearly

ii. Spatial reference, accuracy, and granularity

The spatial reference of the dataset is albers_conic_equal_area, the minimal granularity of the dataset is 500m.

IV. Dataset/atlas storage management

i. Data quantity

The volume of the dataset is 107.3 MB.

ii. Type format

The dataset is stored in hard disk with a format of ArcGIS GRIS.

iii. Update management

Unscheduled update.

V. Quality control of the dataset/atlas

i. Data sources (condition selection)

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

Through correction, shear and exponential calculations, data are obtained to obtain remote sensing data of resources and environment in the Loess Plateau. Data processing software includes ArcGIS and ENVI. First, the acquired remote sensing data is corrected and processed. Then, we use ArcGIS for index calculation and classification. Finally, we add the above result to get the rasterized resource environment data.

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: Yuan Yuele

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

Zip Code: 100101

E-mail: wdc-rre@lreis.ac.cn

iii. Conditions and methods of usage

The dataset can be read by ArcGIS software.

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

Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences. Remote Sensing Series of Loess Plateau Resources and Environment. Institute of Geographic Sciences

and Natural Resources Research, Chinese Academy of Sciences [Establishment organization], 2007.
 World Data Center for Renewable Resources and Environment [Communication agency], 2017-3-4.

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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