A Big Earth Data Platform for Three Poles

**Datasets of total nitrogen, total phosphorus and total potassium in Muli coal mine area (2000-2020)**

1、Description

The dataset is the soil fertility data of Muli coal mine area on the Qinghai Tibet Plateau from 2000 to 2020. It is issued every five years, including five periods in 2000, 2005, 2010, 2015 and 2020; A total of 15 image data. The dataset covers a rectangular area (98.82 ° E-100.84 ° E, 37.5 ° N-38.25 ° N), defined by four vertexs of the southeast and northwest of Muli coal mine. The dataset is in grid format, with a spatial resolution of 30m, and the dataset format is GeoTIFF. The dataset takes the 30m surface albedo obtained by spatiotemporal fusion of GLDAS-2.1 albedo products and Landsat 5/8 albedo products, and the 30m surface temperature obtained by spatiotemporal fusion of GLDAS-2.1 surface temperature products and Landsat 5/8 surface temperature products as independent variables. Combined with the multiple regression model, the five-year dataset of total nitrogen（Unit: g / kg）, total phosphorus （Unit: g / kg）and total potassium （Unit: g / kg）in Muli coal mine area from 2000 to 2020 is regressed. The multiple regression model adopts the measured data of Huangshui River Basin stations in May 2018. On the premise that the independent variables are the albedo and surface temperature of Landsat 5/8, and the dependent variables are the total phosphorus, total nitrogen and total potassium observed in the field, the multiple regression model is established. These datasets fill the gap of high spatial resolution soil fertility dataset in Muli coal mine, and provide support for the study of temporal and spatial changes of soil fertility in Muli mining area.

2、Keywords

Theme：Remote Sensing Technology
Discipline：Remote Sensing Technology
Places：Muli coal mine area
Time：2000-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：934.5MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.25 | - |
| west：98.82 | - | east：100.84 |
| - | south：37.5 | - |

5、Time frame:2000-03-31 16:00:00+00:00--2020-12-30 16:00:00+00:00

6、Reference method

References to data:

CHEN Shaohui. Datasets of total nitrogen, total phosphorus and total potassium in Muli coal mine area (2000-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/RemoteSen.tpdc.2725002022

References to articles:

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program
Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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