A Big Earth Data Platform for Three Poles

**Dataset of soil relative humidity and drought index in 2014-2015**

1、Description

Water scarcity，food crises and ecological deterioration caused by drought disasters are a direct threat to food security and socio-economic development. Improvement of drought disaster risk assessment and emergency management is now urgently required. This article describes major scientific and technological progress in the field of drought disaster risk assessment. Drought is a worldwide natural disaster that has long affected agricultural production as well as social and economic activities. Frequent droughts have been observed in the Belt and Road area, in which much of the agricultural land is concentrated in fragile ecological environment. Soil relative moisture index is one of the indicators that characterize soil drought. It is the ratio of soil relative humidity to field water holding capacity, which can directly reflect the availability of water for crops.The soil moisture data is obtained from the SMAP remote sensing soil moisture data product through the downscaling method, and the field water holding capacity data comes from the Hamonized World Soil Database (HWSD). For detailed calculation formulas and methods, please refer to: "National Standard for Agricultural Drought Grades of China" No.: GB/T 32136-2015. The data covers 34 key node areas along the Belt and Road.

2、Keywords

Theme：Extreme drought,Natural Disaster
Discipline：Human-nature Relationship
Places：Pan-Third Pole
Time：2014-2015

3、Data details

1.Scale：20000

2.Projection：

3.Filesize：11000.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：82.0 | - |
| west：12.0 | - | east：180.0 |
| - | south：-11.0 | - |

5、Time frame:2014-01-10 16:00:00+00:00--2016-01-09 16:00:00+00:00

6、Reference method

References to data:

WU Hua. Dataset of soil relative humidity and drought index in 2014-2015. A Big Earth Data Platform for Three Poles, 2020

References to articles:

Zhang, Q., Zou, X., & Xiao, F. (2006). Classification of meteorological droughts. Standards Press of China Tech. Rep. GB/T20481-2006, 17.

7、Supporting project information

8、Data resource provider

name: WU Hua
unit: Institute of Geographic Sciences and Natural Resources Research, CAS
email: wuhua@igsnrr.ac.cn