A Big Earth Data Platform for Three Poles

**Regional multimodal fusion of surface soil moisture data in China (1850-2100)**

1、Description

Monthly data of 7cm soil moisture in the surface layer of China. The time range includes the historical period 1850-2014 and the future period 2015-2100 (the future period includes four different shared socio-economic paths: ssp1-2.6, ssp2-4.5, ssp3-7.0 and ssp5-8.5). The spatial resolution is 0.25 °.  
This data is based on the deep learning method, taking the 7cm surface soil moisture data of era5 land as a reference, and integrating the surface soil moisture data of 25 scaled down cmip6 models. In the context of climate change, data can be used for drought and vegetation correlation analysis.

2、Keywords

Theme：Soil,Soil moisture  
Discipline：Terrestrial Surface  
Places：China  
Time：2015-2100, 1850-2014

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1771.63MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：53.75 | - |
| west：71.0 | - | east：136.75 |
| - | south：18.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

FENG Donghan . Regional multimodal fusion of surface soil moisture data in China (1850-2100). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2726992022

References to articles:

Feng, D.H., Wang, G.J., Wei, X.K., Amankwah, S.O.Y., Hu, Y.F., Luo, Z.C., Hagan, D.F.T., & Ullah, W. (2022). Merging and Downscaling Soil Moisture Data From CMIP6 Projections Using Deep Learning Method. Frontiers in Environmental Science, 10.

7、Supporting project information

8、Data resource provider

name: FENG Donghan   
unit: Nanjing University of Information Science & Technology  
email: donghan\_feng@nuist.edu.cn