A Big Earth Data Platform for Three Poles

**Landsat-based continuous monthly 30m NDVI Dataset in Qilian mountain area in 2021 (V1.0)**

1、Description

Normalized Difference Vegetation Index (NDVI) is the sum of the reflectance values of the NIR band and the red band by the Difference ratio of the reflectance values of the NIR band and the red band. Vegetation index synthesis refers to the selection of the best representative of vegetation index within the appropriate synthesis cycle, and the synthesis of a vegetation index grid image with minimal influence on spatial resolution, atmospheric conditions, cloud conditions, observation geometry, and geometric accuracy and so on. This data set includes the monthly synthesis of 30m\*30m surface vegetation index products in Qilian mountain area in 2021. Max value composition (MVC) method was used to synthesize monthly NDVI products on the surface using the reflectivity data of Landsat 8 and sentinel 2 channels from Red and NIR channels.

2、Keywords

Theme：Near infrared remote sensing,NDVI,Remote Sensing Technology,Visible remote sensing,Terrestrial Surface Remote Sensing
Discipline：Terrestrial Surface,Remote Sensing Technology
Places：QiLianShan area
Time：January 1, 2021 to December 31, 2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：26133.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：89.0 | - | east：107.0 |
| - | south：34.0 | - |

5、Time frame:2020-12-31 16:00:00+00:00--2021-12-31 03:59:59+00:00

6、Reference method

References to data:

ZHONG Bo, LI Yi, WU Junjun . Landsat-based continuous monthly 30m NDVI Dataset in Qilian mountain area in 2021 (V1.0). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2726652022

References to articles:

Cihlar, J., Manak, D., & D'Iorio, M. (1994). Evaluation of Compositing Algorithms for AVHRR Data over Land. IEEE Transactions on Geoscience and Remote Sensing, 32(2), 427-437.

Huete, A., Didan, K., Miura, T., Rodriguez, E.P., Gao, X., & Ferreira, L.G. (2002). Overview of The Radiometric and Biophysical Performance of The MODIS Vegetation Indices. Remote Sensing of Environment, 83(1-2), 195–213.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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