A Big Earth Data Platform for Three Poles

**Normalized vegetation index and enhanced vegetation index post-processing products for the Tibetan Plateau in 2013 and 2018**

1、Description

The normalized difference vegetation index (NDVI) can accurately reflect the surface vegetation coverage. At present, NDVI time series data based on spot / vegetation and MODIS satellite remote sensing images have been widely used in the research of vegetation dynamic change monitoring, land use / cover change detection, macro vegetation cover classification and net primary productivity estimation at various scales. Evi is similar to the normalized difference vegetation index (NDVI) and can be used to quantify vegetation greenness. However, evi corrects for some atmospheric conditions and canopy background noise and is more sensitive in areas with dense vegetation. It contains an "L" value to adjust the canopy background, a "C" value as the atmospheric drag coefficient, and a value from the blue band (b). These enhancements allow the ratio between R and NIR values to be calculated exponentially while reducing background noise, atmospheric noise and saturation in most cases. This research work mainly focuses on post-processing NDVI and evi data, and gives a more reliable vegetation situation of the Qinghai Tibet Plateau in 2013 and 2018 through transformation of projection coordinate system, data fusion, maximum value synthesis method, elimination of outliers and clipping. The spatial resolution of the data is 0.05 °, and the temporal resolution is month.

2、Keywords

Theme：Vegetation,vegetation coverage,NDVI,Terrestrial Surface Remote Sensing
Discipline：Terrestrial Surface
Places：Tibetan Plateau
Time：2013, 2018

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：853.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.85 | - |
| west：73.45 | - | east：104.65 |
| - | south：26.0 | - |

5、Time frame:2013-05-30 16:00:00+00:00--2018-08-30 16:00:00+00:00

6、Reference method

References to data:

YE Aizhong. Normalized vegetation index and enhanced vegetation index post-processing products for the Tibetan Plateau in 2013 and 2018. A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2727342022

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

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