A Big Earth Data Platform for Three Poles

**Landsat normalized difference moisture index (NDWI) products over the Tibetan Plateau (1980s-2019)**

1、Description

The dataset is the normalized difference moisture index (NDMI) products from 1980s to 2019 over the Tibetan Plateau。The dataset is producted based on Landsat surface reflectance dataset. It is calculated by the NDMI equation which use the difference ratio between the NIR band and SWIR2 band to quantitatively reflect the water content of vegetation canopy .And the corresponding production of quality identification documents (QA) is also generated to identify the cloud, ice and snow.NDMI is highly correlated with canopy water content and can be used to estimate vegetation water content, and it is also used to analyze the change of land surface temperature because it is strongly correlated with land surface temperature.

2、Keywords

Theme：Desert
Discipline：Terrestrial Surface,Remote Sensing Technology
Places：Qinghai-Tibet Plateau
Time：1980s-2019

3、Data details

1.Scale：None

2.Projection：UTM

3.Filesize：6354370.56MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：40.4 | - |
| west：73.4 | - | east：106.7 |
| - | south：24.6 | - |

5、Time frame:None--None

6、Reference method

References to data:

PENG Yan. Landsat normalized difference moisture index (NDWI) products over the Tibetan Plateau (1980s-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2717242021

References to articles:

HARDISKY, M.A., KLEMAS, V., SMART, R.M. (1983). The influence of soil salinity , growth form , and leaf moisture on the spectral radiance of Spartina alterniflora canopies. Photogrammetric Engineering and Remote Sensing, 49, 77-83.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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