A Big Earth Data Platform for Three Poles

**Land Cover Dataset at Qilian Mountain Area from 1985 to 2019 (V2.0)**

1、Description

This data set includes land cover classification products of 30 meters in Qilian mountain area from 1985 to 2019. Firstly, the product uses Landsat-8/OLI to construct the 2015 time series data. According to the different NDVI time series curves of various ground features, the knowledge of different features is summarized, the rules are set to extract different features, and the land cover classification map in 2015 is obtained. The classification system refers to IGBP classification system and from\_ LC classification system can be divided into 10 categories: cultivated land, woodland, grassland, shrub, wetland, water body, impervious surface, bare land, glacier and snow. According to the accuracy evaluation of Google Earth HD images and field survey data, the overall accuracy of land cover classification products in 2015 was as high as 92.19%. Based on the land cover classification products in 2015, based on the Landsat series data and strong geodetic data processing ability of Google Earth engine platform, the land cover classification products from 1985 to 2019 are produced by using the idea and method of change detection. By comparing the classification products, it is concluded that the land cover classification products based on Google Earth engine platform have good consistency with the classification products based on time series method. In short, the land cover data set in the core area of Qilian Mountain has high overall accuracy, and the method based on Google Earth engine platform sample training can expand the existing classification products in time and space, and can reflect more land cover type change information in a long time series.

2、Keywords

Theme：Galactic System
Discipline：Solar-Terrestrial Physics and Astronomy
Places：QiLianShan area
Time：1985,1990,1995,2000,2005,2010,2015,2016,2017,2018,2019

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：85.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：40.0 | - |
| west：93.0 | - | east：104.0 |
| - | south：35.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

ZHONG Bo, JUE Kunsheng, YANG Aixia, WU Junjun. Land Cover Dataset at Qilian Mountain Area from 1985 to 2019 (V2.0). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2709162020

References to articles:

Zhong, B., Yang, A., Nie, A., Yao, Y., Zhang, H., Wu, S., & Liu, Q. (2015). Finer resolution land-cover mapping using multiple classifiers and multisource remotely sensed data in the Heihe river basin. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing. 8(10), 4973-4992.

Zhong, B., Ma, P., Nie, A., Yang, A., Yao, Y., Lü, W., & Liu, Q. (2014). Land cover mapping using time series HJ-1/CCD data. Science China Earth Sciences, 57(8), 1790-1799

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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