A Big Earth Data Platform for Three Poles

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

1、Description

Net Primary Productivity (NPP) refers to the total amount of organic matter produced by photosynthesis in green plants per unit time and area. As the basis of water cycle, nutrient cycle and biodiversity change in terrestrial ecosystems, NPP is an important ecological indicator for estimating earth support capacity and evaluating sustainable development of terrestrial ecosystems. This data set includes the monthly synthesis of 30m\*30m surface LAI products in Qilian mountain area in 2021. Max value composition (MVC) method was used to synthesize monthly NPP 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,Remote Sensing Technology,NPP,Visible remote sensing,Terrestrial Surface Remote Sensing
Discipline：Terrestrial Surface,Remote Sensing Technology
Places：Qilian Mountain Area
Time：January 1, 2021 to December 31, 2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：34100.0MB

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--2021-12-30 16:00:00+00:00

6、Reference method

References to data:

ZHONG Bo, LI Yi, WU Junjun . Landsat-based continuous monthly 30m NPP Dataset in Qilian mountain area in 2021 (V1.0). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2726642022

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

name: ZHONG Bo
unit:
email: zhongbo@radi.ac.cn

name: WU Junjun
unit: State Key Laboratory of Remote Sensing Science, Aerospace Information Research Institute, Chinese Academy of Sciences
email: wujj@aircas.ac.cn

name: LI Yi
unit: Xi’an University of Science and Technology
email: 20210061035@stu.xust.edu.cn