A Big Earth Data Platform for Three Poles

**Data set of ecological adjustment value of Arctic permafrost change on ecology system from 1982 to 2015**

1、Description

The data set of ecological adjustment value of Arctic permafrost change from 1982 to 2015, with the time resolution of 1982, 2015 and the change rate of two phases, covers the entire Arctic tundra area, with the spatial resolution of 8km. Based on multi-source remote sensing, simulation, statistics and measured data, and combined with GIS and ecological methods, it quantifies the adjustment service value of Arctic permafrost to the ecosystem, The unit price refers to the correlation (0.35) between the active layer thickness and NDVI changes after excluding precipitation and snow water equivalent, and the grassland ecosystem service value (the unit price of tundra ecosystem service is based on 1/3 of the grassland ecosystem service value).

2、Keywords

Theme：Frozen Ground
Discipline：Cryosphere
Places：Arctic permafrost
Time：From 1982 to 2015

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：213.64MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：37.0 | - |
| west：81.0 | - | east：104.0 |
| - | south：27.0 | - |

5、Time frame:1981-12-31 16:00:00+00:00--2015-12-30 16:00:00+00:00

6、Reference method

References to data:

WANG Shijin. Data set of ecological adjustment value of Arctic permafrost change on ecology system from 1982 to 2015. A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2728592022

References to articles:

Peng, X., Zhang, T., Frauenfeld, O.W., Wang, S., Qiao, L., Du, R., & Mu, C. (2020). Northern hemisphere greening in association with warming permafrost. Journal of Geophysical Research: Biogeosciences, 125, e2019JG005086. https://doi.org/ 10.1029/2019JG005086.

7、Supporting project information

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

8、Data resource provider

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