A Big Earth Data Platform for Three Poles

**Glacier distribution over the High-mountain Asia since the last glacial maximum**

1、Description

This data is the simulated data of glacier distribution in the alpine region of Asia since the last glacial maximum, It includes the annual resolution glacier area change sequence of typical regions (High mountain Asia, Tianshan Mountains, Himalayas and Pamir Plateau) and typical periods (LGM (20000 ~ 19000ka), HS1 (17000 ~ 16000ka), BA (~ 14900 ~ 14350ka), yd (12900 ~ 12000ka), eh (9500 ~ 8500ka), MH (6500 ~ 5500ka), LH (3500 ~ 2500ka) and modern (1951 ~ 1990)) 1 km resolution glacier distribution in High Mountain Asia. This data are created by taking the trace full forcing simulation based on ccsm3 climate model as the external forcing field to drive the 1 km resolution PISM ice sheet model. This data can be used to study the changes of glacier distribution in the alpine region of Asia since the last glacial maximum and its impact on environmental and climatic factors such as lake water level, runoff and landform.

2、Keywords

Theme：Glacier(Ice Sheet)
Discipline：Cryosphere
Places：High Mountain Asia
Time：Last Glacial Maximum

3、Data details

1.Scale：None

2.Projection：

3.Filesize：293.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：67.0 | - | east：108.0 |
| - | south：25.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

Glacier distribution over the High-mountain Asia since the last glacial maximum. A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2719282021

References to articles:

Yan, Q., Owen, L. A., Zhang, Z., Jiang, N., & Zhang, R. (2020). Deciphering the evolution and forcing mechanisms of glaciation over the Himalayan-Tibetan orogen during the past 20,000 years. Earth and Planetary Science Letters, 541, 116295.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider