A Big Earth Data Platform for Three Poles

**Glacial Runoff Dataset of Five Upstreams in the Tibetan Plateau in 1971-2015**

1、Description

The coverage time of glacier runoff data set in the five major river source areas of the Qinghai Tibet Plateau is from 1971 to 2015, and the time resolution is year by year, covering the source areas of five major rivers (Yellow River source, Yangtze River source, Lancang River source, Nu River source, Yarlung Zangbo River source).
The data is based on multi-source remote sensing and measured data. The glacier runoff data is simulated by using the daily scale meteorological data of five major river source areas and their surrounding meteorological stations, the global vegetation products of umd-1km, the igbp-dis soil database, the first and second glacier catalogue data, and the distributed hydrological model vic-cas coupled with the glacier module is used to simulate the glacier runoff data. The simulation results are verified by the site measured data to enhance the quality control.
Data indicators include: Glacier runoff (rate of glacier runoff:%), total runoff (mm / a), snow runoff (rate of snow runoff:%), and rainfall runoff rate (rainfall runoff rate:%).

2、Keywords

Theme：Glacial velocity,Glacier(Ice Sheet)
Discipline：Cryosphere
Places：Qinghai-Tibet Plateau
Time：1971-2015, year

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：0.03MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：27.0 | - |
| west：80.0 | - | east：104.0 |
| - | south：37.0 | - |

5、Time frame:1971-01-25 08:00:00+00:00--2016-01-24 08:00:00+00:00

6、Reference method

References to data:

WANG Shijin. Glacial Runoff Dataset of Five Upstreams in the Tibetan Plateau in 1971-2015. A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2709492020

References to articles:

Wang, S.J., Zhao, Q.D., & Pu, T. (2021). Assessment of Water Stress Level about Global Glacier-Covered Arid Areas: A Case Study in the Shule River Basin, Northwestern China. Journal of Hydrology: Regional Studies, 37, doi.org/10.1016/j.ejrh.2021.100895.

7、Supporting project information

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

8、Data resource provider

name: WANG Shijin
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
email: wangshijin@lzb.ac.cn