A Big Earth Data Platform for Three Poles

**Data of river valley section near Zhengyi gorge in the middle reaches of Heihe River (2012-2013)**

1、Description

The dataset contains all individual glacial storage (unit: km3) over the Qinghai-Tibetan Plateau in 1970s and 2000s. It is sourced from the resultant data of the paper entitled "Consolidating the Randolph Glacier Inventory and the Glacier Inventory of China over the Qinghai-Tibetan Plateau and Investigating Glacier Changes Since the mid-20th Century". The first draft of this paper has been completed and is planned to be submitted to Earth System Science Data journal. The baseline glacier inventories in 1970s and 2000s are the Randolph Glacier Inventory 4.0 dataset, and the Glacier Inventory of China, respectively. Based on the individual glacial boundaries extracted from the above-mentioned two datasets, the grid-based bedrock elevation dataset (https://www.ngdc.noaa.gov/mgg/global/global.html, DOI: 10.7289/v5c8276m), and the glacier surface elevation obtained by a slope-dependent method, the individual glacier volumes in 1970s and 2000s are then calculated. In addition, the calculated results of individual glacier volumes in this study have been compared and verified with the existent results of several glacier volumes, relevant remote sensing datasets, and the global glacier thickness dataset based on the average of multiple glacier model outputs (https://www.research-collection.ethz.ch/handle/20.500.11850/315707, doi:10.3929/ethz-b-000315707), and the errors in the calculations have also been quantified. The established dataset in this study is expected to provide the data basis for the future regional water resources estimation and glacier ablation-involved researches. Moreover, the acquisition of the data also provides a new idea for the future glacier storage estimation.

2、Keywords

Theme：Topography,River valley section,Geomorphology,Landform  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, Zhengyixia,   
Time：2012, 2013

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：1.6MB

4.Data format：图片

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.88 | - |
| west：99.31 | - | east：99.7 |
| - | south：39.6 | - |

5、Time frame:2012-01-09 18:50:39+00:00--2014-01-08 18:50:39+00:00

6、Reference method

References to data:

PAN Baotian. Data of river valley section near Zhengyi gorge in the middle reaches of Heihe River (2012-2013). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.096.2014.db2014

References to articles:

7、Supporting project information

8、Data resource provider

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