A Big Earth Data Platform for Three Poles

**Glacial lake inventory of High Mountain Asia**

1、Description

The data set integrated glacier inventory data and 426 Landsat TM/ETM+/OLI images, and adopted manual visual interpretation to extract glacial lake boundaries within a 10-km buffer from glacier terminals using ArcGIS and ENVI software, normalized difference water index maps, and Google Earth images. It was established that 26,089 and 28,953 glacial lakes in HMA, with sizes of 0.0054–5.83 km2, covered a combined area of 1692.74 ± 231.44 and 1955.94 ± 259.68 km2 in 1990 and 2018, respectively.The current glacial lake inventory provided fundamental data for water resource evaluation, assessment of glacial lake outburst floods, and glacier hydrology research in the mountain cryosphere region

2、Keywords

Theme：Ice lake inventory,Lake ice,Water Resources,Glacier(Ice Sheet)  
Discipline：Human-nature Relationship,Cryosphere  
Places：High Mountain Asia  
Time：2018, 1990

3、Data details

1.Scale：None

2.Projection：Albers

3.Filesize：63.23MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：55.0 | - |
| west：68.0 | - | east：104.0 |
| - | south：27.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

LIU Shiyin, TANG Zhiguang, LIU Qionghuan, YANG Chengde, ZHANG Yong, WEI Junfeng, WANG Xin, JIANG Zongli, ZHANG Yanlin, GUO Xiaoyu. Glacial lake inventory of High Mountain Asia. A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2709192019

References to articles:

7、Supporting project information

National Natural Science Foundation of China  
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8、Data resource provider

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