A Big Earth Data Platform for Three Poles

**Data on glacial lakes in the western Nyainqentanglha range (1970s-2018)**

1、Description

Based on Landsat data (kh-9 data in 1976 as auxiliary data), glacial lake data of nearly 40 years (1970s-2018) in the western Nyainqentanglha range were obtained by manual digitization and visual interpretation. The variation characteristics of glacial lake over 0.0036 square kilometers in terms of type, size, elevation and watershed were analyzed in detail. The results show that, between 1976 and 2018, the number of glacial lakes increased by 56% from 192 to 299 and their total area increased by 35% from 6.75 ± 0.13 square kilometers to 9.12 ± 0.13 square kilometers ; the type of glacial lake is changing obviously; the smaller glacial lake is changing faster; the expansion of glacial lake is developing to higher altitude.

2、Keywords

Theme：Surface Water,Galactic System,Lake ice  
Discipline：Terrestrial Surface,Solar-Terrestrial Physics and Astronomy,Cryosphere  
Places：Western Nyainqentanglha Range  
Time：1976 1991 2001 2009 2018

3、Data details

1.Scale：None

2.Projection：Albers

3.Filesize：0.93MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：31.0 | - |
| west：89.8 | - | east：91.6 |
| - | south：29.8 | - |

5、Time frame:1976-07-15 08:00:00+00:00--2019-07-15 08:00:00+00:00

6、Reference method

References to data:

ZHANG Guoqing, LUO Wei. Data on glacial lakes in the western Nyainqentanglha range (1970s-2018). A Big Earth Data Platform for Three Poles, doi:10.1016/j.scitotenv.2020.1396072020

References to articles:

Luo, W., Zhang, G., Chen, W., & Xu, F. (2020). Response of glacial lakes to glacier and climate changes in the western Nyainqentanglha range. Science of the Total Environment, 139607. doi:10.1016/j.scitotenv.2020.139607

7、Supporting project information

8、Data resource provider

name: LUO Wei  
unit:   
email: luowei@itpcas.ac.cn  
  
name: ZHANG Guoqing  
unit:   
email: guoqing.zhang@itpcas.ac.cn