A Big Earth Data Platform for Three Poles

**Vector dataset of glaciers and glacial lakes in the Boqu Basin in Central Himalaya (1976-2010)**

1、Description

This is the 1976, 1991, 2000, and 2010 vector data set of glaciers and glacial lakes in the Boqu Basin in Central Himalaya based on Landsat satellite images.
The data source is from Landsat remote images.
1976: LM21510411975306AAA05, LM21510401976355AAA04
1991: LT41410401991334XXX02, LT41410411991334XXX02
2000: LE71410402000279SGS00, LE71400412000304SGS00, LE71410402000327EDC00, LE71410412000327EDC00
2010: LT51400412009288KHC00, LT51410402009295KHC00, LT51410412009311KHC00, LT51410402011237KHC00.
The boundaries of glaciers and glacial lakes are extracted manually from the various remote sensing images.
The extraction error of the boundaries of glaciers and glacial lakes is estimated to be 0.5 pixels.
Data file:
Glacial\_1976: Glacier vector data in 1976
Glacial\_1991: Glacier vector data in 1991
Glacial\_2000: Glacier vector data in 2000
 Glacial\_2010: Glacier vector data in 2010
Glacial\_Lake\_1976: Glacial lake vector data in 1976年
Glacial\_Lake\_1991: Glacial lake vector data in 1991
Glacial\_Lake\_2000: Glacial lake vector data in 2000
Glacial\_Lake\_2010: Glacial lake vector data in 2010
The glacial lake vector data fields include
Number, name, latitude and longitude, altitude, area, orientation, type of glacial lake, length, width, and distance from the glacier.

2、Keywords

Theme：Ice lake inventory,Surface Water,Remote Sensing Technology,glacier inventory,Visible remote sensing,Glacier(Ice Sheet),Lakes
Discipline：Terrestrial Surface,Remote Sensing Technology,Cryosphere
Places：Tibetan Plateau , Boqu basin, Himalaya
Time：

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.712MB

4.Data format：shapefile

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.0 | - |
| west：74.0 | - | east：95.0 |
| - | south：29.0 | - |

5、Time frame:1976-01-10 00:00:00+00:00--2011-01-09 00:00:00+00:00

6、Reference method

References to data:

WANG Weicai. Vector dataset of glaciers and glacial lakes in the Boqu Basin in Central Himalaya (1976-2010). A Big Earth Data Platform for Three Poles, doi:10.11888/GlaciologyGeocryology.tpe.249418.file2018

References to articles:

Wang, W.C., Xiang, Y., Gao, Y., Lu, A.X., &Yao, T.D. (2015). Rapid expansion of glacial lakes caused by climate and glacier retreat in the Central Himalayas, Hydrological Processes, 29(6), 859-874.

7、Supporting project information

8、Data resource provider

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