A Big Earth Data Platform for Three Poles

**Data on glacial lakes in the TPE (V1.0) (1990, 2000, 2010)**

1、Description

There are three types of glacial lakes: supraglacial lakes, lakes attached to the end of the glacier and lakes not attached to the end of the glacier. Based on this classification, the following properties are studied: the variation in the number and area of glacial lakes in different basins in the Third Pole region, the changes in extent in terms of size and area, distance from glaciers, the differences in area changes between lakes with and without the supply of glacial melt water runoff, the characteristics of changes in the glacial lake area with respect to elevation, etc.
Data source: Landsat TM/ETM+ 1990, 2000, 2010.
The data were visually interpreted, which included checking and editing by comparing the original image with Google Earth images when the area was greater than 0.003 square kilometres.
The data were applied to glacial lake changes and glacial lake outburst flood assessments in the Third Pole region.
Data type: Vector data.
Projected Coordinate System: Albers Conical Equal Area.

2、Keywords

Theme：Lake ice,Ice lake inventory,Surface Water,Lake ice,Glacier(Ice Sheet),Terrestrial Surface Remote Sensing,Runoff,Hydrological remote sensing products
Discipline：Terrestrial Surface,Cryosphere
Places：Pamir, Tibetan Plateau , Third Pole, Hindu Kush
Time：2000, 2010, 1990

3、Data details

1.Scale：None

2.Projection：Albers

3.Filesize：5.9MB

4.Data format：shp

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.0 | - |
| west：73.0 | - | east：104.0 |
| - | south：28.0 | - |

5、Time frame:1990-01-10 16:00:00+00:00--2010-12-10 16:00:00+00:00

6、Reference method

References to data:

ZHANG Guoqing. Data on glacial lakes in the TPE (V1.0) (1990, 2000, 2010). A Big Earth Data Platform for Three Poles, doi:10.11888/Hydrology.tpe.249459.file2018

References to articles:

Zhang, G.Q., Yao, T.D., Xie, H.J., Wang, W.C., Yang, W. (2015). An inventory of glacial lakes in the Third Pole region and their changes in response to global warming. Global and Planetary Change. 131, 148−157.

7、Supporting project information

8、Data resource provider

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