A Big Earth Data Platform for Three Poles

**Inventory of Glacial Lakes in the Nepal Himalaya (1977–2017)**

1、Description

Glacial lake inventory from 1977-2017, based on Landsat MSS/TM/ETM+/OLI imagery, uses a semi-automatic water body classification method to distinguish between water body and non-water body information, then extracts the lake boundaries and visually checks and manually edits them by comparison with the original Landsat images. The MSS sensor data was used in 1977 with a resolution of 60 m. Image data used after 1987 had a resolution of 30 m.The relationship between glacial meltwater and glacial lake recharge was determined from RGI 6.0 and Google Earth.

2、Keywords

Theme：Cryosphere remote sensing products,Surface Freeze-thaw Cycle/state Remote Sensing  
Discipline：Cryosphere  
Places：Nepal, glacial lake  
Time：fifty years

3、Data details

1.Scale：None

2.Projection：UTM

3.Filesize：1.21MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.0 | - |
| west：80.0 | - | east：88.0 |
| - | south：26.0 | - |

5、Time frame:1976-12-31 16:00:00+00:00--2017-12-30 16:00:00+00:00

6、Reference method

References to data:

KHADKA Nitesh , ZHANG Guoqing. Inventory of Glacial Lakes in the Nepal Himalaya (1977–2017). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2729382022

References to articles:

Khadka, N., Zhang, G., & Thakuri, S. (2018). Glacial lakes in the Nepal Himalaya: Inventory and decadal dynamics (1977–2017). Remote Sensing, 10(12), 1913.

7、Supporting project information

Natural Science Foundation of China

8、Data resource provider

name: ZHANG Guoqing  
unit:   
email: guoqing.zhang@itpcas.ac.cn  
  
name: KHADKA Nitesh   
unit: Institute of Mountain Hazards and Environment,CAS  
email: nkhadka@imde.ac.cn