时空三极环境大数据平台

**Glacial lake inventory of High Mountain Asia**

英文标题：Glacial lake inventory of High Mountain Asia

1、摘要

The dataset 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 studies in the mountain cryosphere region.

2、关键词

主题关键词：冰湖编目,湖冰,水资源,冰川（含冰盖）  
学科关键词：人地关系,冰冻圈  
地点关键词：High Mountain Asia  
时间关键词：2018, 1990

3、数据细节

1.比例尺：None

2.投影：Albers

3.文件大小：63.23MB

4.数据格式：None

4、空间范围

|  |  |  |
| --- | --- | --- |
| - | 北：55.0 | - |
| 西：68.0 | - | 东：104.0 |
| - | 南：27.0 | - |

5、时间范围None--None

6、引用方式

数据的引用:

WANG Xin, GUO Xiaoyu, YANG Chengde, LIU Qionghuan, WEI Junfeng, ZHANG Yong, LIU Shiyin, ZHANG Yanlin, JIANG Zongli, TANG Zhiguang. Glacial lake inventory of High Mountain Asia. 时空三极环境大数据平台, DOI:10.11888/Glacio.tpdc.270919, CSTR:18406.11.Glacio.tpdc.270919, 2019.[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.270919, CSTR:18406.11.Glacio.tpdc.270919, 2019]

文章的引用:

7、资助项目信息

喜马拉雅山地区冰湖变化及其潜在灾害评价与预警研究(41571061)  
冰碛湖坝温度场与内部结构变化的耦合机制及其对坝体稳定性的影响研究(41271091)  
冰湖对冰川融水的滞留作用及其灾害效应研究(41771075)

8、数据资源提供者

姓名: WANG Xin  
单位: 1.Hunan University of Science and Technology 2.State Key Laboratory of Cryospheric Science, Northwest Institute of Ecology and Environmental Resources, Chinese Academy of Sciences  
电子邮件: xinwang\_hn@163.com  
  
姓名: GUO Xiaoyu  
单位: School of Resource Environment and Safety Engineering, Hunan University of Science and Technology  
电子邮件: 15873240528@163.com  
  
姓名: YANG Chengde  
单位: State Key Laboratory of Cryospheric Science, Northwest Institute of Ecology and Environmental Resources, Chinese Academy of Sciences  
电子邮件: yangchengde@lzb.ac.cn  
  
姓名: LIU Qionghuan  
单位: Key Laboratory of Land Surface Pattern and Simulation, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences  
电子邮件: liuqh.16b@igsnrr.ac.cn  
  
姓名: WEI Junfeng  
单位: School of Resource Environment and Safety Engineering, Hunan University of Science and Technology  
电子邮件: weijunfeng@lzb.ac.cn  
  
姓名: ZHANG Yong  
单位: School of Resource Environment and Safety Engineering, Hunan University of Science and Technology  
电子邮件: drzhangy@ustb.edu.cn  
  
姓名: LIU Shiyin  
单位: Institute of International Rivers and Eco-security, Yunnan University  
电子邮件: liusy@lzb.ac.cn  
  
姓名: ZHANG Yanlin  
单位: School of Resource Environment and Safety Engineering, Hunan University of Science and Technology  
电子邮件: zhangyan102@163.com  
  
姓名: JIANG Zongli  
单位: School of Resource Environment and Safety Engineering, Hunan University of Science and Technology  
电子邮件: jiangzongli@lzb.ac.cn  
  
姓名: TANG Zhiguang  
单位: School of Resource Environment and Safety Engineering, Hunan University of Science and Technology  
电子邮件: tangzhg11@lzb.ac.cn