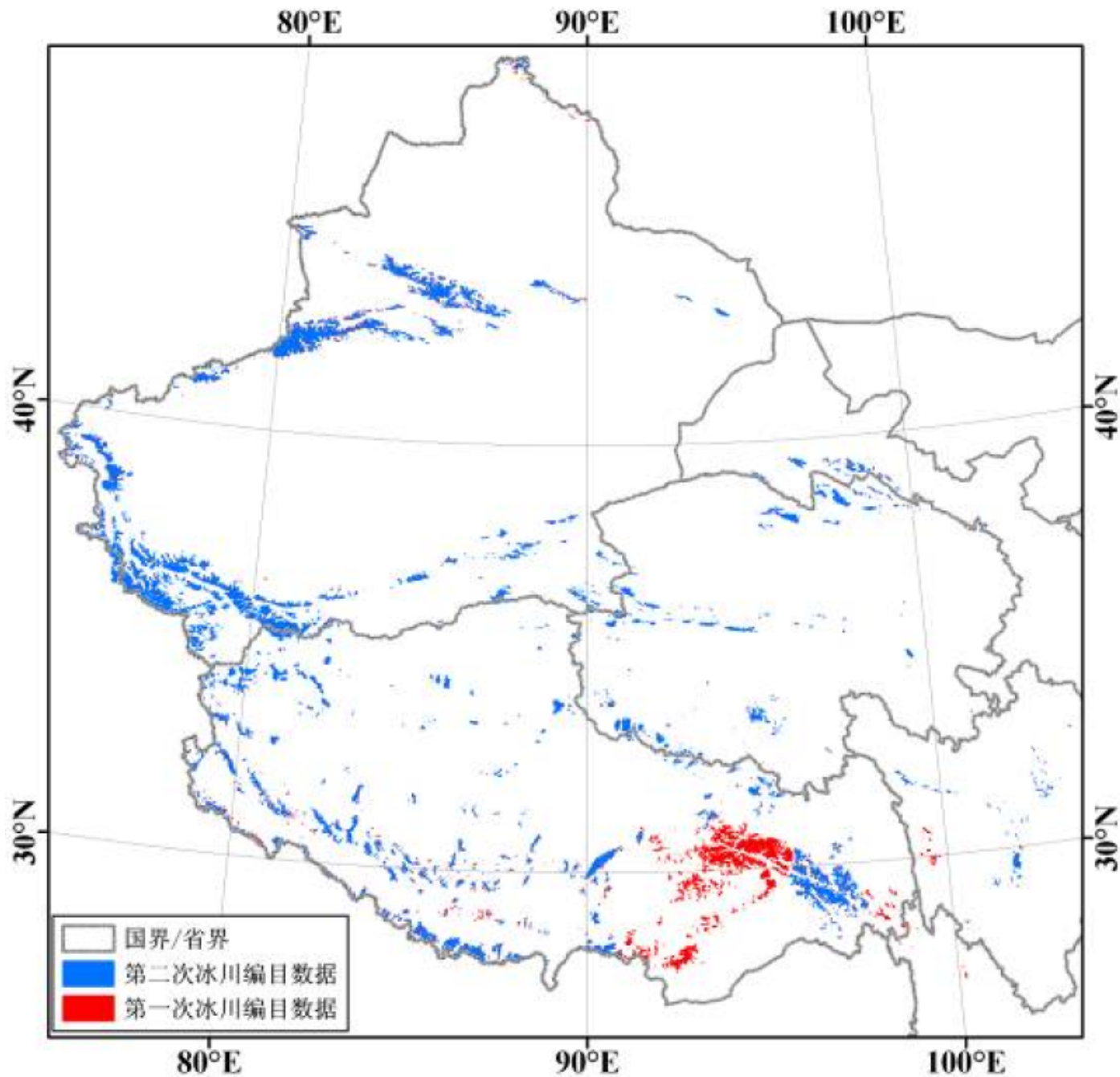




Cold and Arid Regions Science Data Center

The Second Glacier Inventory Dataset of China (Version 1.0)

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Abstract

This dataset contains the contemporary glacier inventory of China, which was compiled totally based on Landsat TM/ETM+ imageries acquired around 2007. All the Landsat imageries were obtained from USGS websites (<http://glovis.usgs.gov>, and <http://earthexplorer.usgs.gov>). The glacier outlines in this dataset were semi- automatically extracted by widely used band ratio segmentation methods and improved by multi-rounds manual works.

In current version (V1.0), this dataset includes 42,359 glaciers with a total area of 42,938 km², distributing in seven large exorheic river basins (i.e. Ertix River, Yellow River, Yangtze River, Mekong River, Salween River, Ganges River, and Brahmaputra River) and six inland basin systems (i.e. Hexi basins, Qadam basins, Tarim basins, Jungar basins, Turpan- Hami basins, and Tibetan Plateau interior basins). The dataset includes a set of attributes characterizing each glacier, includes GLIMS ID, drainage basin code, first glacier inventory ID, glacier area and perimeter, latitude and longitude of glacier central point, maximum, mean, minimum, and median area elevation in glacier-covered topographies, mean slope and aspect, primary and auxiliary data source, and date tag of the glacier. The glacier topographical parameters were calculated from SRTM V4 DEMs.

Keywords

Theme: Glacier, Glacier Inventory, Glacier change,
Place: China, Glacier Area,
Temporal: 2005,
Discipline: Geography,
Statrum:

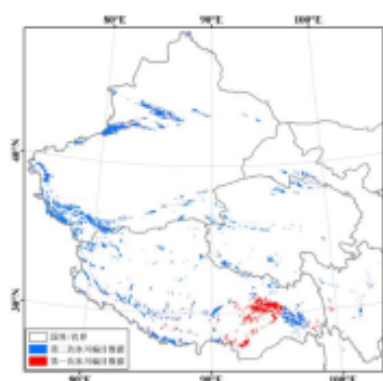
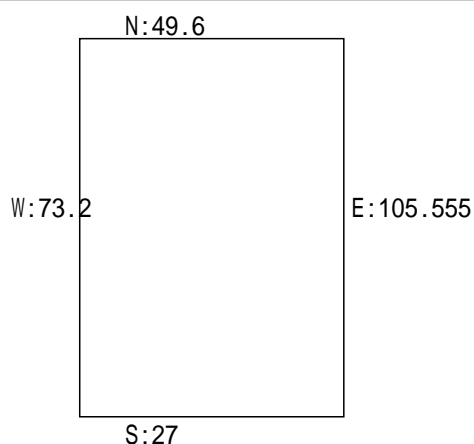
ISO 19115 Category

Category: geoscientificInformation

Detail

Project: +proj=longlat +datum=WGS84 +no_defs
Data Volume(MB): 158
Data Format: SHP

Position and Thumbnail



Temporal Range

Start: 2005-01-01
End: 2005-12-31

Citation

文章引用: Wei Junfeng, Liu Shiyin, Guo Wanqin, Yao Xiaojun, Xu Junli, Bao Weijia, Jiang Zongli. 2014. Surface-area changes of glaciers in the Tibetan Plateau Interior Area since 1970s using recent Landsat images and historical maps. *Annals of Glaciology*.

数据的引用: 郭万钦, 许君利, 刘时银, 上官冬辉, 吴立宗, 姚晓军, 赵井东, 刘巧, 蒋宗立, 李萍, 魏俊峰, 鲍伟佳, 余蓬春, 丁良福, 李刚, 盖春梅, 王媛. The Second Glacier Inventory Dataset of China (Version 1.0). 寒区旱区科学数据中心, 2014. doi:10.3972/glacier.001.2013.db [Wanqin GUO, Junli XU, Shiyin LIU, Donghui SHANGGUAN, Lizong WU, Xiaojun YAO, Jingdong ZHAO, Qiao LIU, Zongli JIANG, Ping LI, Junfeng WEI, Weijia BAO, Pengchun YU, Liangfu DING, Gang LI, Chunmei GE, Yuan WANG. . Cold and Arid Regions Science Data Center at Lanzhou, 2014. doi:10.3972/glacier.001.2013.db]

Recommended Publications

1. Wanqin GUO, Shiyin LIU, Junli XU, Lizong WU, Donghui SHANGGUAN, Xiaojun YAO, Junfeng WEI, Weijia BAO, Pengchun YU, Qiao LIU, and Zongli JIANG. 2015. The second Chinese glacier inventory: data, methods and results. *Journal of Glaciology*, 61(226): 357-372
2. 刘时银, 张勇, 刘巧, 孙美平. 2017. 气候变化对冰川影响与风险研究. 科学出版社
3. Wei Junfeng, Liu Shiyin, Guo Wanqin, Yao Xiaojun, Xu Junli, Bao Weijia, Jiang Zongli. 2014. Surface-area changes of glaciers in the Tibetan Plateau Interior Area since 1970s using recent Landsat images and historical maps. *Annals of Glaciology*.

DOI

10.3972/glacier.001.2013.db

Funding

Limitation

1. Users of this dataset must have a clear statement in their publications (papers, books, reports, etc.) of the original data source and adopt the references style provided in the reference section. The suggested data source citation is as follows: This dataset is provided by "Investigation on glacier resources and their changes in western China" (2006FY110200) and "Glacier change monitoring and its impact assessment research in western China" (KZCX2-YW-301).
2. This dataset is the main products of the MOST (Ministry of Science and Technology of China) project "Investigation on glacier resources and their changes in Western China" (2006FY110200), which was launched at 2006 and finished at 2011. This project is directed and executed by Cold and Arid Regions Environmental and Engineering Research Institute (CAREERI), Chinese Academy of Sciences (CAS). Participants of this project include Institute of Geographic Sciences and Natural Resources Research (IGSNRR), Institute of Tibetan Plateau Research (ITP), and Institute of Remote Sensing and Digital Earth (RADI) of CAS, and Lanzhou University (LZU) of Ministry of Education (MOE) of China. The compilation of contemporary glacier inventory of China is one of its objectives. The dataset was released for open use after the end of this project to fulfill the wide demands of the glacier data in different fields.

Online Resources

1. CARD <http://westdc.westgis.ac.cn/glacier>

Contacts