

Characteristic of glacier lakes and glacier lake outburst floods

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Analyzing satellite data revealed that extensive glacier shrinkage occurred between 1971 and 2007 in the outer ranges of the Tien Shan, where large cities are located. Most of the glacier lakes in this region have appeared since the 1980s, with the shrinkage of glaciers. The GLOF of Tien Shan is small compared to those that occur in the Himalayas. Nevertheless, with the recent development of glacier lakes, floods are becoming an increasing threat to local residents. We report the characteristic of glacier lakes and glacier lake outburst floods in Tien Shan, Central Asia.

Keywords: glacier lake, short-lived glacier lake, satellite data, GLOF, Tien Shan