

Abstract

In the context of changing climate retreat of mountain glaciers occurs at many places on the planet. One of the consequences is emergence or increase of the outburst risk at lakes situated in front of the glacier terminus. Flood caused by the glacial lake outburst often appear suddenly and can threaten settlements in lower parts of a valley. In the Kyrgyz mountains of Tien Shan there are about 350 lakes at risk of outburst, long-term monitored and dangerous locations are presented in this work. The highest attention is paid to Adygine area where several lakes of different genetic type and age can be found. The largest lake of the locality, the Upper Adygine lake, is subjected to more detailed survey aiming to asses its hydrological regime and to confirm or disprove speculation about outburst possibility of this lake.

Keywords: glacial lake, hydrological regime, glacier retreat, Tien Shan, Kyrgyzstan