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Meteorological and climatological feature influenced on mass balance of Potanin glacier, Mongolian Altai

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. Introduction

Fluctuation of glacier mass balance can be an indicator of climate change. Asian glaciers show outstanding negative trend. There are many glaciers in Altai mountain range. Glaciers in western Mongolia are retreating. However, less information has been obtained for Mongolian Altai because there were few glaciological and climatological observations in and around the glaciated area. In order to understand climatological situation of glaciated area and show it in a climate model, climatological research has done for the glacier area in western Mongolia.

. Method

Ten years temperature fluctuation was examined with station data in Mongolia and Russia, observation at the glacier and NCEP/NCAR reanalysis data for the glaciated area in western Mongolia. Observational data are obtained from the meteorological observation conducted on Potanin glacier and some place between the glacier and Ulgi and compared with the other data.

. Result

.. Air temperature

Warming trend was seen in Mongolia as same as in Russia for last 50 years.

.. precipitation

Number of snow fall days were decreasing although long term snow quantity did not show remarkable tendency.

Keywords: glacier, climate, meteorology, mass balance, altai