

# **HYDROLOGICAL RISK MAPS IN THE ATLAS OF NATURAL HAZARDS IN ALTAI KRAI**

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In the light of global climate change, its manifestations for Russia and its potential environmental and socio-economic impacts especially important are changes in the hydrological regime in basins of Siberian rivers. Vulnerability of water resources due to the high sensitivity and immediate response of the hydrological regime on climate change.

For the Altai region the problem of natural hazards is very important. In the Altai state University are working to create a regional Atlas of natural hazards.

The structure of the sections of the Atlas include: an Introductory section; Section I. General Geographical characteristics; Section II. Climatic and hydrological conditions, Section III. Natural hazards and risks; Section IV. Nosological risks; Section V. Organization of prevention and liquidation of consequences of dangerous natural phenomena and emergencies.

In developing the Atlas considerable attention is paid to hydrological hazards, particularly extreme. The thematic maps of the Atlas devoted to the hydrological conditions of the territory of the Altai territory, and hydrological hazards and risks. Among the subjects of maps reflecting the hydrological risk, the Atlas presents: the hydrological network in Altai region, the hydrological regime of rivers and lakes, mean annual time of appearance of ice formations on the rivers, the timing of the establishment of ice cover, timing of ice cover break-up and purification by ice, high water, low water, spring tide, floods and floods, the icy events, etc.

A major focus for the Atlas is given not only the performance characteristics of hydrological hazards, but some hydrological objects, the most typical and extreme cases. One of the watersheds, where the most frequently occurring extreme hydrological situation is the catchment of the river Charysh – left, one of the largest, tributary of the Ob river in the Altai territory. Geoinformation maps of extreme hydrological situations in the basin of the river Charysh.

Atlas of natural hazards in Altai region is created for the first time. It is the product of synthesizing and systematizing accumulated a vast amount of material. Work for its establishment are the logical continuation of research devoted to the study of natural hazards in the region.