

NATURAL AND TECHNOGENIC DISASTERS PREDICTION IN MOUNTAIN AREAS OF CENTRAL ASIA

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In scales, diversity and consequences, modern technogenic impact to geological environment become commensurable with hazardous natural and geological phenomena. This statement is clearly expressed for mountain ecosystems characterised by slightly stable balance and heightened vulnerability.

Alpine ecosystems state is determined by two factors: climate change and anthropogeneous impact. Anthropogeneous pressing in contrast to climatic variations has more directional nature and located on the relatively small area. Exogenous geological processes are stimulated in Alpine areas when changing climatic and natural conditions and intensive technogenic impacts coincide in time and space. These hazardous natural processes due to mountain relief can foster multy-stage natural and technogenic catastrophes, when a natural disaster results in another, including technogenic accidents. Natural and technogenic disasters prediction and prevention should be used as a modern strategy basis for their combating. To realise it, the complex of measures is necessary, incorporating risk and vulnerability appraisal, creation of geomonitoring methods and tools, preventive measures development, notification and providing preparedness for disasters. Methods and ways of these issues solution with due regard for Kyrgyzstan mountain territories specificity and with modern geoinformation technologies use (GPS, remote sounding of geological environment) were under consideration. On the basis of endogenic and exogenous geological processes analysis, a series of maps with territories of heightened risk of natural and technogenic catastrophes occurrence indication was drawn up. Results of many-years observations and monitoring of exogeneous and endogenic processes in the areas influenced the intensive technogenic impact have been adduced.