

INFLUENCE OF MINING INDUSTRY ON ECOLOGICAL SITUATION ON THE URBANIZED AREA (IN GIS-TECHNOLOGIES)

Vladislav Zaalishvili

Center of Geophysical investigations VSC RAS and RNO-A, Vladikavkaz, Russia

vzaal@mail.ru

Problem of the negative impact of the results of the mining industry on the ecological hazards of modern urban area, the state of which, in turn, may significantly amplify any other external negative effects is considered.

Results of the areal distribution of heavy metals of various kinds on the urbanized territory (Vladikavkaz city) are given. It is shown that pollution is formed around a core of key industrial enterprises of the city. Evolution of the pollution area in the period of falling off in production is considered. A comparison of the area of pollution with the change of the area of closed enterprises in the mountainous region was performed.

Based on the data from all clinics in the city, a database of cancer disease of population is formed and its distribution is shown, depending on the local appearing of the disease. It is shown that the characteristics of the distribution of disease are determined by a number of factors. A number of markers that are closely related to the location of pollution sources in space are identified. Recommendations for reducing negative effects are given.

Possibilities of widely used GIS technologies, which are based on the use of a database of relevant indicators, were used. It is shown that in addition to the demonstrational GIS capabilities - this technology allows to directly investigate object and obtain valid results.