



Prediction of several geological hazards in Bulgaria

M. Matova

Geological Institute, BAS, Bulgaria (m_matova@geology.bas.bg)

The geological hazards depend on the recent and previous geological development, also on the human impact. The prediction of several natural hazards could be based on the knowledge for the geology and the human activities. The human activities increase more rapidly than the geological one. The human activity depends mainly from the population knowledge, needs, traditions and financial resources. The population needs are enormous in territories of the planet and partially in Bulgaria. Respectively the human impacts increase. Several geological hazards have larger distribution than in the past when the human impacts were more limited. The possibilities for actions against the geological hazards depend significantly from the good education or the popular information, also from the financial possibilities of the people. My country has generally well educated inhabitants and insufficient finances. The human impacts have moderate intensity. The geological information permits to indicate territories with different degrees of natural hazards. In the SW Bulgaria there are regions with very high recent seismic activities. These regions represent spaces with significant geological hazards. The cited regions are only fragments from recent active structures. It is possible to predict analogical seismic activities in several other fragments of the active structures where the main geological characteristics are similar, but the earthquake data are limited. There are territories along the Black Sea coast, in the S and in the N Bulgaria with numerous old and young landslides, rockfalls debrisflows. On the base of the various geological data it is not very risky to predict the occurrence of slope processes in areas with recent tectonic activity and not well stabilized slopes. Now the combination of the geological one and man-made factors creates considerable probability for the appearance, the evolution or the intensification of the dangerous geological processes. The high degree of the technical-scientific development, the good knowledge for the geology and the rapid social development could be applied for the creation of successful spatial prediction for the possible natural hazards. The prediction should play an important role for the future evolution of the country and the population.