



Man-made geodangers in Bulgaria

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A lot of man-made works provokes considerable changes in the balance of the superficial geostructures of Bulgaria. The effects of these works create considerable danger for the environment and the population.

The situation is especially complex and the danger increases when the man-made activities take place in the recently relatively mobile territories. Our country is in this kind of territories.

The dangers for the environment and the population could be provoked by various manifestations. These manifestations involve numerous activities: - mining, - quarry and cave exploration, - highway and tunnel construction, - creation of big and high dam lakes, - environmentally not adequate building's construction, - accumulation of waste with different degree of radio-activity in the upper crust, - irregular exploration of water and water sources, including the mineral ones, - technogenically, biogenically and socially induced contamination of the soil and the water, - technogenically, biogenically and socially provoked correction in the relief.

The salt mining in the Provadia region (NE Bulgaria) produces considerable increase of the local seismicity. The gypsy mining in Vidin area (NW Bulgaria) is related to landslide and land subsidence. In a number of areas of the country, the rare metal mining is related to changes in the quality of ground water and the contamination of the soils.

The big quarry and cave exploration (W Bulgaria) provokes local seismicity. In other cases the exploration is the case for land subsidence, rockfalls and landslides.

The highway and tunnel construction (W Bulgaria) is related to rockfalls and landslides. Sometimes this construction could provoke the local seismic activity.

The big lake of Sofia dam is a cause of the increase in the local tectonic activity. The

registration of earthquake epicenters takes place in and around the dam.

Numerous environmentally not adequate buildings in Sofia and Rouse Cities provoke land subsidence. In several localities there are manifestations of karst collapse and suffusion.

The accumulation of radio-active waste creates various ecological problems in W Bulgaria. The ecological problems concern the crust and the water. The decision of these problems needs scientifically responsible and financially possible decisions.

The water exploration in the big agglomeration and in the most significant mineral sources must be under control of the competent organizations. Its chaotic exploration provokes local land subsidence, karst collapse and several damages in Sofia City.

The contamination of the nature - the soil, the water, also the correction of the relief mainly in the industry centres of the country (Sofia, Pernik, Plovdiv, Bourgas, Rouse etc) is the cause of regional problems.

The above cited problems take in the peace time. We and a lot of countries have problems-heritage from the war time. Bombs from the past World and Balkan wars take place in several localities of our country.

A part of the man-made manifestations creates dangerous situation for the population of Bulgaria. The geodangers increase when the significant man-made activities take place in areas with considerable geological movements and processes. It is a case of Bulgaria, which territory represents a small fragment of the Mediterranean-Himalayan recent active belt.

Now state and private organizations take part in the studies and the cares for the environmental problems of the country. Several Bulgarian foundations with foreign participation, mixed Bulgarian-Foreign and world organizations are included in different environmental investigations.