

APPLICATION OF THE REGIONAL GEOCHEMICAL BASELINE DATA IN ENVIRONMENTAL GEOCHEMISTRY AND GEOMEDICINE

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Large amounts of the analytical data, which refer mostly to the chemical composition of the geological part of the environment, i.e. rocks, soils, waters and sediments, are nowadays available in Europe as well as world-wide. They are especially Geochemical Atlases that can provide extensive amounts of the raw data related to the distribution of the chemical elements in the various media of the environment. These analytical data can be used as an environmental-geochemical basis to assess the regional contamination level of the environment, as well as geochemical basis for evaluating the influence of the geochemical background on the aspect of the human health and risk. There is a direct connection between the naturally occurring health related geochemical background which is determined by the local geology and the health of the people living in that area. Various documentation of this exists. There were confirmed statistically significant relations between contamination of the environment and the state of the health of the population from the evaluation of the geochemical baseline data and the medicinal statistical data from the territory of the Slovak Republic. Consequently in chosen region with the high level of the contamination of the environment is contemporary realised project solving geomedicinal aspects - mainly the forms of the presence and bioavailability of the individual toxic elements and their influence at the human health.