

## The impact of geological environment on health status of residents of the Slovak Republic

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Beneficiary organization: State Geological Institute of D. Štúr ([www.geology.sk](http://www.geology.sk))

Project background:

The geological environment of Slovakia is particularly varied. Diverse geochemical conditions also have various (positive and negative) impacts on human health. Up-to-date surveys show significant correlations between the presence of elements in the geological environment and health impacts.

This project will focus on assessing the negative impacts of both natural (geological) conditions and anthropogenic contamination on human health.

Project objectives:

The project's main objective is to reduce the negative impact of geological conditions on the health of the population of the Slovak Republic. Specific objectives are:

- To compile data on environmental indicators for groundwater and soil from the whole territory of the Slovak Republic showing the greatest impact on human health;
- To compile data on the health indicators for the Slovak Republic that are most influenced by geological conditions;
- To link the environmental- and health- indicator data and assess their interrelationship;
- To identify and characterize the areas whose residents suffer from health problems associated with an unfavourable geological environment;
- To carry out environmental-health analysis by regions, and to define maximum levels for chemical elements/compounds in soil and groundwater based on negative human health effects;
- To draw up a proposal to reduce the negative environmental impact of geological conditions on the health of the Slovak population; and
- To implement the proposed measures.

#### Expected results:

The main result of the project will be gradual and long-term improvement of the health status of Slovak resident population. This will be achieved through:

- The production of datasets of environmental and health indicators requiring monitoring and assessment;
- The identification of areas of the country where people's health has suffered due to unfavourable (contaminated) geological conditions;
- An assessment of environmental indicators and their negative effects on human health – to form the basis for relevant guidelines;

- A proposal of measures to reduce the negative impacts of geological conditions on the health status of people living in the Slovak Republic; and

- Implementation of the proposed measures in the areas identified, as well as awareness-raising activities. For example, in the project's final year, 10 public information meetings will be organised for people living in the 'risk areas'.

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