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More than 40 years efforts of the State Geological Institute of Dionýz Štúr in the production of regional geological maps of Slovakia

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Slovak Republic as part of Europe has a high degree of geological exploration. Last year, 200 years passed since the publication of the first geological map that depicted the geological structure of the Slovak part of the Western Carpathians. Later, after the mapping by geologists of the Imperial Geological Institute in Vienna, geologists from Budapest and within the Czechoslovak Republic, geologists from Prague were involved in compilation of geological maps.

After the State Geological Institute in Bratislava was established (1940), new conditions for systematic geological research in Slovakia were created, which resulted in the publishing of the General Geological Map 1: 200,000 of the Czechoslovak Republic, including the explanatory notes (completed in 1964).

After this period a detailed geological mapping of geologically complicated area of the Slovak part of the Western Carpathians at scale 1: 25,000 was carried out. This resulted in the 70s in the creation of maps of regions, territorially conform to geomorphological units in the scale 1: 50,000. Since 1972 there have been subsequently published geological maps of the regions along with explanatory notes. At present, almost the entire territory of Slovakia (about 95 %) is systematically covered by published regional geological maps (54 in total). During periods 1972 -1979 – eight, 1980 -1989 – eight, 1990 -1999 – twenty three, 2000 -2009 – ten, 2010 -2015 – five regional geological maps were completed. The maps are constructed on the basis of maps at scale 1: 25,000. Part of geological mapping consists of detailed lithological, structural-tectonic and biostratigraphic research, supplemented by geochronological data, information on mineral reserves, hydrogeological, engineering geology and geophysical data, as well as data on the deep structure based on geophysical data, deep-drilling exploration and geological profiles.

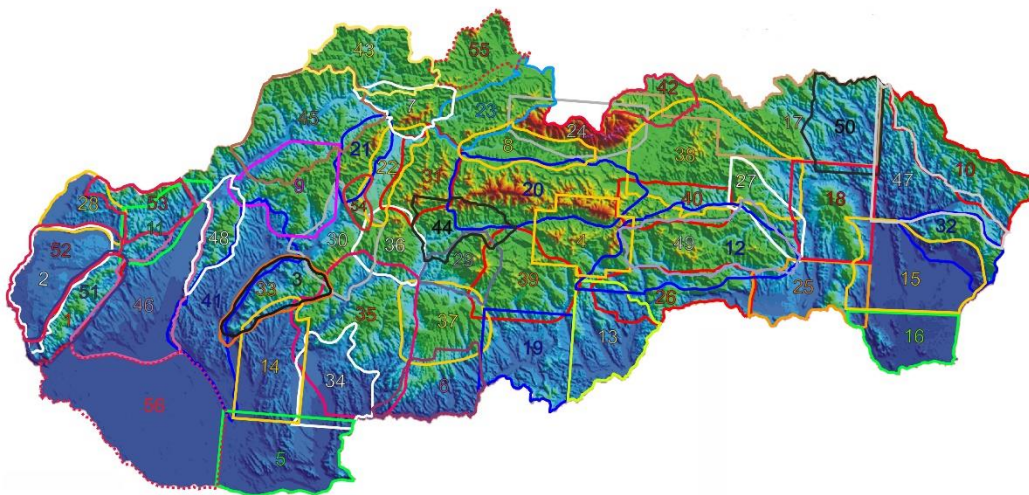


Figure 1: The coverage of the territory of Slovakia by regional geological maps at a scale of 1: 50,000.

Synthesizing part is the evaluation of the lithotectonic units geological development and tectonic evolution of the area in the explanatory notes, as well as information on geological environmental factors and important geological elements within popularization of geology. Methodology of compilation of the geological maps and explanatory notes is governed by the Ministry of Environment of the Slovak Republic. Long lasting production of regional geological maps and accumulation of new knowledge resulted in a need to synthesize the obtained data in the form of a new generation of General Geological Map at a scale 1: 200,000 (2008).

State Geological Institute of Dionýz Štúr provides free access to view and usage of geological maps of the territory of Slovakia at scale 1: 50,000 through web applications (<http://infoportal.geology.sk>)

