



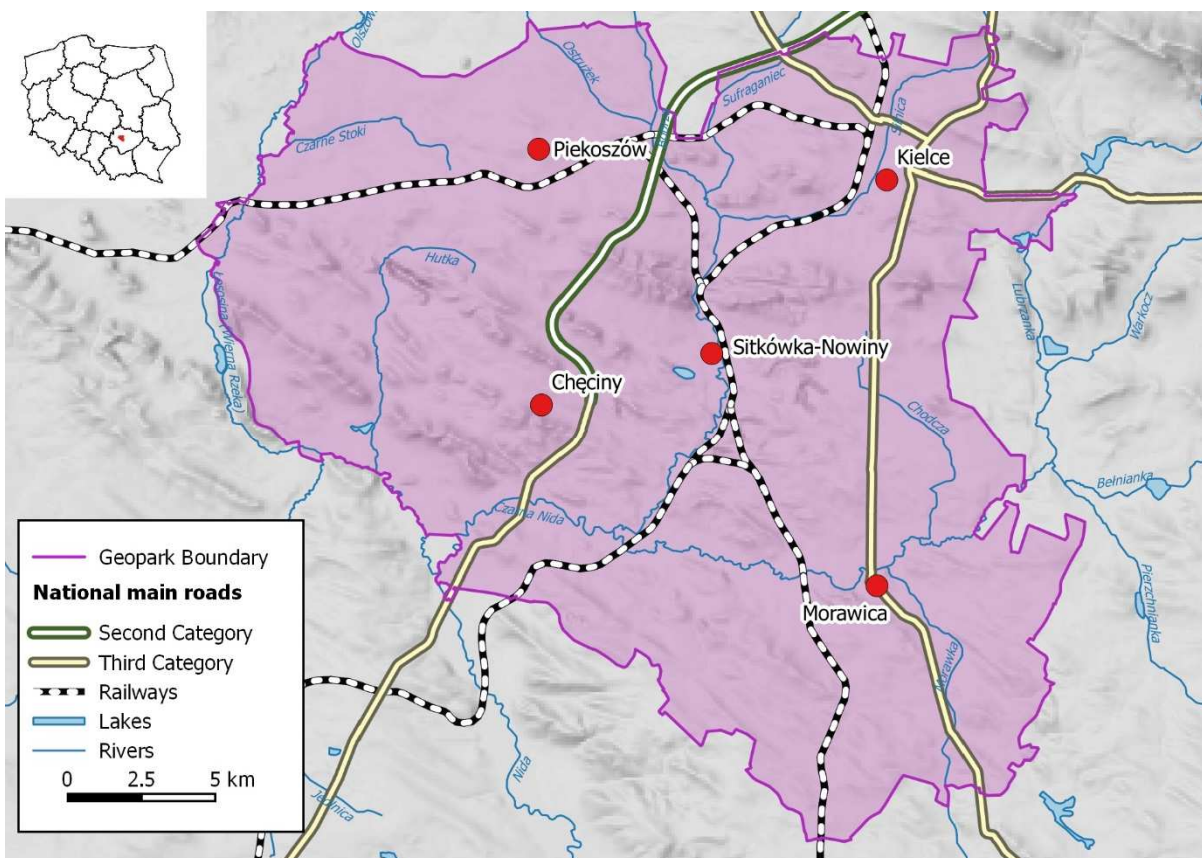
Applicant UNESCO Global Geopark

Geoland of the Holy Cross Mountains Geopark, Poland

geographical and geological summary



● **Aspiring UNESCO Global Geopark**



1. Physical and human geography- 1500 characters

Geoland of the Holy Cross Mountains Geopark is located in the western part of Świętokrzyskie (Holy Cross) Mountains (central Poland), which is a part of the central highlands of Poland. The Geopark with the total area of 526 km² covers the area of five communities, Kielce, Chęciny, Morawica, Sitkówka-Nowiny and Piekoszów, and its borders coincide with the administrative boundaries of the listed local government units.

The Geopark area is distinguished by exceptional geodiversity. Abiotic components of nature are remarkably conspicuous and diverse there, and intermingled with biotic components and cultural artifacts. Actually, lithospheric features shaping incomparable landscape were the main factors decisive for designation of geopark boundaries. Geomorphological structure is dominated by denudation ridges and hummocks contrasting with the usually modest elevation. The complicated geology and geomorphology are accompanied by vegetation among which dry-ground forests and xerothermic communities with numerous legally protected plants, prevail in the landscape of the Geopark.

The highest point is Telegraf Hill (northeast of Geopark) at 406 m above sea level and the lowest point is Nida valley near Brzegi village (south part of Geopark), at 205 m above sea level. The population of Geopark is 252,744 (2017). The biggest city in Geopark is Kielce (about 200,000 inhabitants). There are two other cities (Chęciny and Morawica) in the Geopark's area which in size vary from 1700 to 4 500 inhabitants. Transport and trade together with industry and raw materials are the dominating business sectors by a number of jobs.

Geographic coordinates of Geopark:

Latitude: 50°40'4.56"N – 50°55'10.45"N

Longitude: 20°17'48.76"E - 20°43'15.71"E

2. Geological features and geology of international significance – 1500 characters

The Świętokrzyskie (Holy Cross) Mountains (including the Geopark area) are situated within the great disruption of the earth crust called the Trans-European Suture Zone (TESZ), which is a boundary between three large geological units of the European crust: Variscan West-European Platform, Precambrian East-European Platform and orogenic belt of Alpine structures. The Świętokrzyskie Mountains region is the only segment of this zone (TESZ) where the sedimentary rocks representing the sequence of all geological period from Cambrian to the Quaternary are outcropped. Therefore, the geological studies of this region are of fundamental significance for the understanding and reconstruction of the geological history of the European continent. The diversity of sedimentary rocks, and related mineral deposits, soils and vegetation used by man for nearly 60,000 years, has determined the cultural and scenic diversity of the Geopark area.

The most important geological features of the Geopark are as follows:

- Outcrops of interesting geological formations of Middle and Upper Devonian limestones, dolomites and marls representing mainly biogenic deposits of shallow sea
- Outcrops of tectonical forms representing Caledonian, Variscan, and Alpine movements
- Hydrothermal veins with calcite-barite-galena mineralization and deposit of copper ore
- Numerous remnants of historical mining and quarrying documenting history of human activity within the nature
- Numerous karst forms representing Permian-Triassic and Cenozoic terrestrial periods
- Apparent relation between geological structures and morphology – structural morphology
- Rocky forms, limestone crags on hill ridges