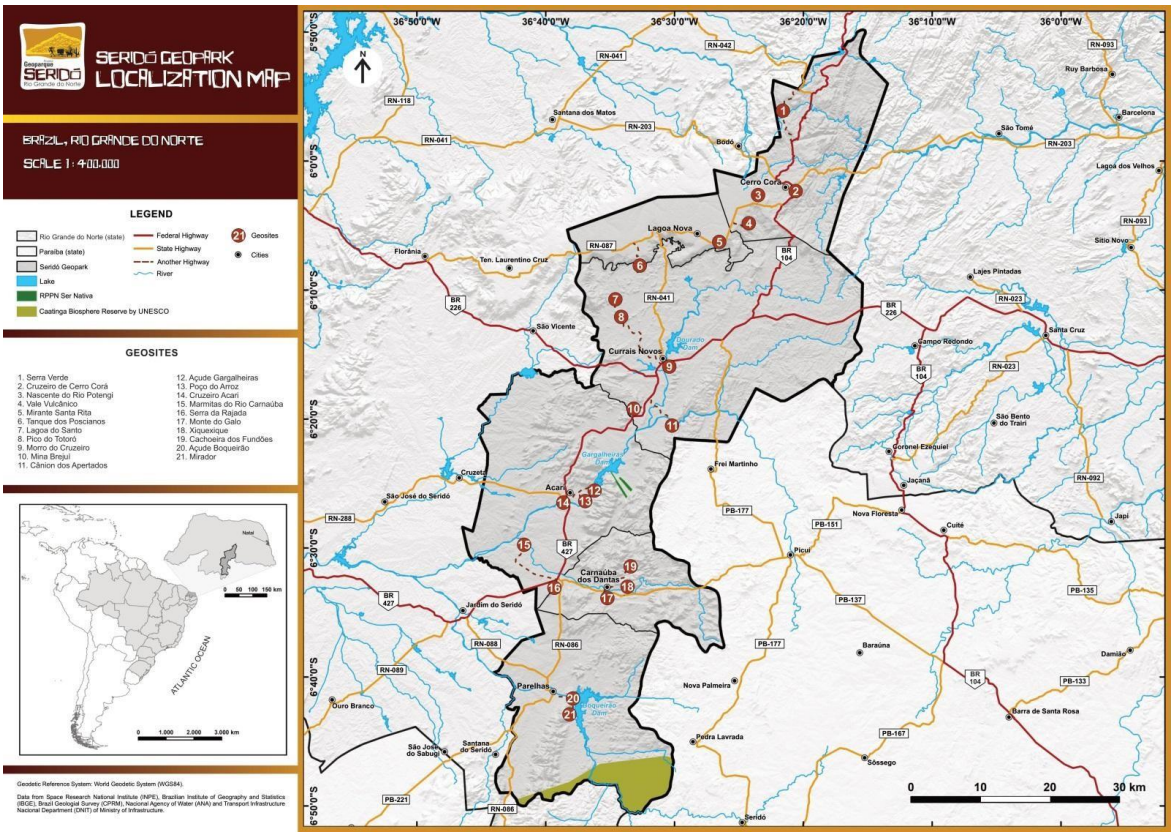
Organisation des Nations Unies pour l'education, la science et la culture

Géoparcs mondiaux UNESCO

Applicant UNESCO Global Geopark

Seridó Aspiring Geopark, Brazil

Geographical and geological summary



1. Physical and human geography

The Seridó Aspiring Geopark, located between 5°49'50"S, 36°15'20"W, 6°49'55"S and 36°41'60"W, in the semi-arid northeastern region of Brazil, state of Rio Grande do Norte, has an approximately area of 2.800km² distributed among six municipalities (Cerro Corá, Lagoa Nova, Currais Novos, Acari, Carnaúba dos Dantas and Parelhas) with an estimated population of 112.372 inhabitants.

The access from Natal, state capital, is through the federal highway BR-226, reaching the city of Currais Novos, or through the state highway RN-203, reaching Cerro Corá, passing through other highways, including BR-427 and other roads to access the further municipalities that are part of the region The Seridó Aspiring Geopark is inserted in the BSw'h climatic context (hot semiarid) according to the Köeppen's classification, having a annual average rainfall of 650 mm, presenting high temperatures, ranging from 15ºC to 38ºC. These climatic conditions are responsible for shaping the landscape of the Seridó region, making it possible to observe the surface landforms and thus the geological outcrops of the region shaped like inselbergs.

The main employment areas are tourism, education and public management, textile industry, agriculture, and animal production. The territory has a good network of tourism, transport, cultural and health facilities.

2. Geological features and geology of international significance

The geological history of the Seridó Aspiring Geopark began in the Paleoproterozoic age, the Rhyacian, with orthoderivative rocks of the Caicó Complex (orthogneisses and augen gneisses). In this basis were deposited sediments that today make up neoproterozoic metasedimentary rocks from the Cryogenian, associated with the Seridó Group, with paragneisses, marbles and calc-silicates from the Jucurutu Formation; quartzites and metaconglomerates of the Equador Formation and micaschist of the Seridó Formation. Several types of igneous neoproterozoic rocks from the Ediacaran are found, discordantly affecting all metamorphic rocks, with emphasis on fine to porphyritic granites and subordinate diorites. The pegmatites found in the area are dated to 520 Ma and represent in this context the beginning of the Cambrian.

More recent magmatisms are found in the form of diabase dykes from the Cretaceous and basalt spills from the Paleogen/Oligocene. Capping all these units are sedimentary rocks from the Neocene/Miocene, such as conglomerates and coarse sandstones of the Serra do Martins Formation and various sediments (gravels, sands and clays) of Quaternary.

It is also noteworthy that the occurrence of scheelite ore minerals in the Jucurutu Formation brings to the region national and international prominence, with the Brejuí Mine geosite in Currais Novos the main scheelite mining in South America. The interaction between these often unique geological features and the presence of different relief forms add scientific value to the Seridó Aspiring Geopark.