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la science et la culture



Géoparks
mondiaux
UNESCO

Applicant UNESCO Global Geopark

Napo Sumaco Geopark, Ecuador

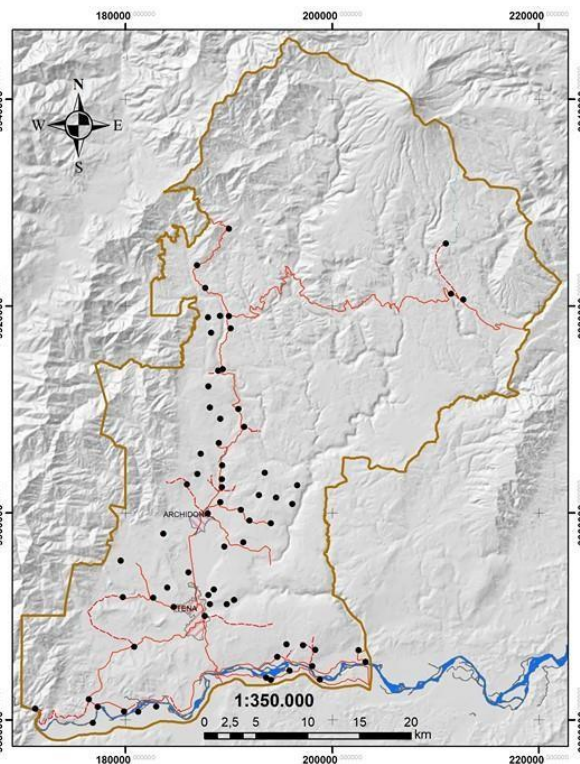
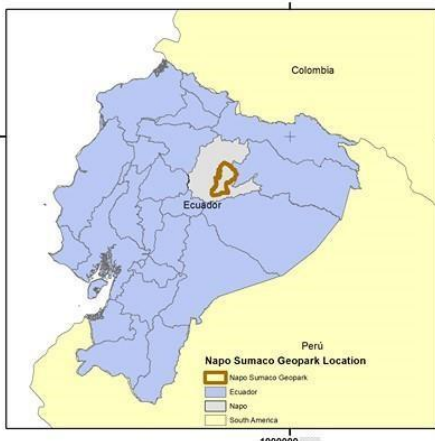
Geographical and geological summary



● *Aspiring Global UNESCO Geopark*

Napo Sumaco Geopark Location Map

- Communities
- ▭ Geopark Border
- ▭ Jatun Yacu - Napo River
- Minor roads
- Main roads
- Sumaco Volcano Trail



1. Physical and human geography

It is located in Ecuador in the upper basin of the Ecuadorian Amazon, in the province of Napo at the coordinates: northwest quadrant (latitude: 0 ° 29 'S and longitude: 77 ° 57'O) and southeast quadrant (latitude: 1 ° 5 'S and longitude: 77 ° 29'O). The distance between the edges of the geopark and the cities Tena and Archidona is 60 to 50 km to the north and 8 to 18 km to the southern limit of the geopark.

The Napo Sumaco Geopark project is based in the Amazonian mountainous region and consists primarily of irregular slopes; hilly and mountainous systems; mesas; plateaus; valleys and terraces. The altitude ranges from 3,830 m above sea level, at the top of the Sumaco volcano, and 400 m above sea in Misahuallí Port. The climate is warm and humid with precipitation that ranges between 3,000 to 4,500 mm per year and temperatures that range from 16 to 22 degrees Celsius (GAD Tena, 2014).

In the whole province it is estimated that 120.00 inhabitants live, 57% declare themselves indigenous, 65% live in rural areas and work in agriculture, workers or handicrafts. The average schooling reaches 8.5 years, the poverty rate by income is 49.8% and 41.6% (INEC 2017) due to unsatisfied basic needs, since Napo is one of the poorest provinces in Ecuador.

In Napo, 70% of the Economically Active Population (EAP) of the province is engaged in agricultural activities, specialized jobs (taxi drivers, machine operators, and artisanal fisher), tourist operators, vendors or artisans.

2. Geological features and geology of international significance

The Napo Sumaco geopark, geologically is located in the Subandean foothills and is part of a foreland and back-arc basin system. The geopark tells the story of just over 170 million years of geological activity between the Jurassic, Cretaceous, Paleogene, Neogene and Quaternary periods.

The geosites of the GNS show a great petrographic and structural variety, each of which hosts and manifests the geological singularity of the territory. Diastrophic, tectonic, orogenic, magmatic, sedimentary, erosive events, etc., are part of the processes evident in these geosites.

The most prominent geological site in the geopark is the Sumaco volcano. Its volcanic materials are described as being distinctly alkaline, consisting of phonolites, basenites and feldspathoid tephrites (Barragán, 1994) with a color typical of extruded basic material. It is notably different from the other volcanoes of northern Ecuador, which are characteristically composed of basaltic and andesitic lava.

The Sumaco volcano is a geosite in which the relationship between geodiversity and biodiversity can be studied. Hence, it has been the subject of a number of studies investigating its great diversity of flora and fauna; and is considered as one of Ecuador's biodiversity hotspots. Geologically, the Sumaco volcano is unique in the Ecuadorian geodynamic context. That is why, the Sumaco volcano is a destination of interest for scientific tourism and is frequently visited by biologists and geoscientists.