

Discovering Patascoy, an unknown Holocene volcano

We aim to understand the main characteristics and the current state of Patascoy volcano, Amazonia Piedmont, South of Colombia, South América, a volcano for which the present knowledge is very limited. In particular, we aim to know its volcanological history through fieldwork and laboratory analyses, and assess the related potential volcanic impact and hazards as well as the seismic hazard represented by the major faults in the area. The proposed workshops will improve the knowledge transfer and outreach among the involved international scientists and local scientists and students.

Through this grant we will meet:

- To discuss about the results of the fieldwork, samples, dating, DEM analysis, gas and radioactive isotopic data from underground at potentially active faults, that the team is currently collecting about Patascoy volcano.
- To improve the knowledge of the Patascoy volcano through gatherings, workshops aimed to discuss results of satellite data, field work, and lab analyses, literature studies, shedding light on its geological history, past eruptive behavior, present gas emissions in underground conditions and impact on the environment.
- To identify potential ignimbrites deposits associated with Patascoy volcano, get more samples of eruptive deposits and confirm the presence of an inferred caldera generated by past large explosive eruptions.
- To estimate the impact of the eruptions on the environmental services provided by the Amazon piedmont, which are represented by the provision of raw materials and energy used to produce goods and services, as well as the removal of waste from human activities, and their role in life support and landscape maintenance.
- To share the advances on the knowledge of the volcano with stakeholders and the scientific community.