

Nyiragongo: An Active Volcano at Risk of Eruption without Precursor Signs

Authors : Emmanuel Havugimana

Abstract : If there is a natural phenomenon that could endanger the lives of countless people in Central Africa, it is the possible eruption of the Nyiragongo Volcano. This one is 3,470 m above sea level and has a summit formed by a crater 1.2 km in diameter. Its composite is made up of many layers of lava and tephra from the Great Rift Valley located in the Democratic Republic of Congo. It is also located in the region of the volcanic mountains near the city of Goma in Congo and near the city of Gisenyi in Rwanda. Nyiragongo represents an imminent danger considering that its magma has a very low silica content and is thus quite fluid. Its slopes are also high and slippery, and the lava takes advantage of this to flow up to 100 km. Lately, its eruptions took place in May 2002, resumed in May 2021, and they were faster than before. The volcano remains active even today. All these factors make it among the most dangerous volcanoes in the world. On top of that, no one knows when the next eruption will take place, especially since it can also occur without any warning signs. Unfortunately, volcanological monitoring services in Congo are non-existent, and that is why this document concludes that Nyiragongo could if nothing is done in this regard, ravage the two neighboring towns: Goma in Congo and Gisenyi in Rwanda. It also proposes solutions that may contribute to preventing the expected dangers in this context.

Keywords : Nyiragongo, volcanic eruption, precursor signs, active volcano

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