

Project title:	Mount Nyiragongo volcano and environmental risk management unit
Lead organisations:	United Nations Development Programme (UNDP), Department for International Development (DfID), Swiss Agency for Development and Cooperation (SDC), Ministry of Foreign Affairs of Luxembourg (Cooperation and Development Directorate).
Budget to date:	\$2,116,000 (2007-2009)
UNOPS services:	Project management

Monitoring volcanic risk and raising awareness

Eighteen kilometers north of the city of Goma in the Democratic Republic of the Congo (DRC) the active volcano, Mount Nyiragongo, constantly threatens the safety and livelihoods of more than 800,000 people in the area.

During Mount Nyiragongo's most recent eruption in 2002, lava flows destroyed part of Goma city centre prompting the evacuation of 300,000 people and leaving nearly 130,000 people homeless. Around 100 people died from direct or indirect consequences, with the catastrophe destroying almost 80 percent of the commercial infrastructures.



Smoke plume at the crater of Mount Nyiragongo, Goma.

Mount Nyiragongo forms part of the Virunga Mountain range in the eastern part of the DRC. It is highly active due to its location where two parts of the African Plate are moving apart and the crater is renowned for a semi-permanent lava lake and a constant plume of acidic gases.



Lava gushing from the crater of Mount Nyiragongo, Goma.

A large volume of sulphur dioxide is constantly produced by the volcano and this could cause respiratory problems among the local community as well as increasing the likelihood of acid rain in the locality. In recent years, the level of lava in the crater of Mount Nyiragongo has risen by 350 meters indicating the high potential threat of the volcano and the need for adequate surveillance networks which constantly monitor the activity of the volcano.

In order to provide more effective warning to the people living in the areas near Mount Nyiragongo, a number of initiatives are in progress to monitor its geophysical and geochemical readings. A Volcano and Environmental Risk Management Unit was opened in 2007 to support Goma Volcano Observatory (OVG) in the scientific observation of volcanic activity and estimate the risk level in the area. UGR benefits from the in collaboration with scientific partners and international scientific programmes, such as GORISK. The risk management unit is part of a project implemented by the United Nations Development Programme and executed by UNOPS.

UNOPS helps international experts to train local scientists and to install new monitoring equipment thanks to financial assistance provided by the UK's Department for International Development, the Swiss Agency for Development and Cooperation and the Ministry of Foreign Affairs of Luxembourg Cooperation and Development Directorate. The development of the unit is being carried out in close consultation with donors and the DRC's Ministry of Scientific Research.

The Risk Management Unit brings international expertise to the region and operated in support of the Volcano Observatory, set up after the eruption of the Nyiragongo of 1977. The volcanic activity levels of Mount Nyiragongo are displayed on a newly established system of 54 panels explaining the current risk of eruption. The data collected by the risk management unit has led to the creation of Goma Hazards and Risks Maps that enable safer urban planning.



The Risk Management Unit building, Goma, DRC.



View of the volcano from the Risk Management Unit

Volcano-risk education is another important element of the project. A series of education activities and communication campaigns have been carried out in primary and secondary schools in Goma and in the internally displaced persons camps at Bulengo, Buhumba and Mugunga. Around 70,000 children and 2,000 internally displaced persons have so far been given information about the risks of a future eruption. The Unit also supports a volcanological information centre (CIV) which educates local people about how the volcano works and the danger it poses to the community. The centre attracted 4,000 visitors in 2007-2008.