**Case Study: Nyiragongo, 2002 Topic/s: Tectonic Hazards**

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| Location: Democratic Republic of the  Congo | | [Image result for Nyiragongo map](http://www.nature.com/news/2002/020124/full/news020121-11.html) | |
| Background Information Date: 17th January 2002  Nyiragongo is one of the most active volcanoes in the world. Yet the timing of the eruption came as  a surprise to volcanologists.  Due to the remoteness of the country and level of development in the DRC there was very little research and monitoring of the volcano.  **About the volcano**  Shield volcano  The eruption was caused by tension being released along a series of faults along the East African Rift Valley  It’s located 50 km to the north of the city called Goma  The volcano had 3 craters at the time of eruption. | |
| **Sequence of Events**  3 km crack that opened on the side of the mountain, when it violently erupted; flowing rivers of lava spilled out at an unusually fast rate. Approximately 40mph.  Lava spewed 6m into the air and was half a mile wide in places. | | | |
| **Social**  Homes were destroyed by ash and lava. 14 nearby villages were destroyed in the lava flow.  45 people died in the first 24 hours.  Thousands of poor people had to move to an overcrowded suburb on the edge of Goma.  0.5 million people fled Goma – this exodus was unplanned.  UN reported half a million people forced into the jungle in the neighbouring country of Rwanda. There was no shelter, no electricity, no sewerage systems and no running water.  health problems as a result of the ash-fall, lava and dust. Due to damage people were unable to access medical care.  Cholera spread because of lack of sanitation in areas that people fled to.  Psychological impacts | **Economic**    80% of the infrastructure (roads, water supply, airport etc.) n Goma was destroyed by the encroaching flames from the lava flows.  The airport was cut in two by one of the flows.  People returned to Goma hoping to find aid. One month after the eruption, 350,000 people were dependant on aid.  People lost their businesses and jobs.  Lava flow damaged Goma airport  2 of the city's four hospitals, three out of the 11 health centres and 80 out of Goma's 150 pharmacies were buried under two meters of lava.  Unemployment levels reached 95% after the eruption, before it had been 80%.  UNICEF lost a warehouse full of medicines and school supplies worth $700,000 | | **Environmental**  Lava covered 15 per cent of the city of Goma and destroyed 30 per cent of the city.  A wall of black rock formed up to 3m deep in places when the lava cooled.  lava destroyed the main water pipes  Poor air quality |
| **Response to the Hazard**  Short term  Aid agencies, such as Christian Aid and Oxfam organised the distribution of food, medicine and blankets.  Rwandan Government also felt they could do little to help so people were encouraged to return to Goma. Within a week most of the half million people had returned to Goma and the surrounding village.  Aid workers set up water stores - tankers delivered the water to bladders (small storage tanks) which were linked to tap stands, where people fill their containers. People were able to access 15 litres of clean, safe water to each person every day.  Long Term   * Several thousand people remained at the Esco camp, a transit camp sponsored by the Goma-based Congolese Assembly for Democracy (RCD-G) months after the eruption. | | | |