

Guatemalan Volcanic Eruption: A Case Study

Introduction

The Fuego volcano in Guatemala erupted on June 3, 2018, killing almost 200 people, injuring another 27, and causing almost 300 missings, leaving volcanic ash and destruction throughout over 40 departments.¹ It also destroyed many crops and households throughout these communities leaving many in distress.¹

Facts of the Case

Fuego is a 3763-foot active volcano in Guatemala located along the ring of fire, an area with high seismic activity.² It erupted around noon on June 3, 2018, leaving an 8km stream of hot lava with ash and smoke coming behind to engulf the country.¹ Feugo has erupted previously, but never to this level of destruction and danger.³ The lava moved quickly at a speed of up to 700km/h making it extremely difficult to prepare for or outrun.³ Of the 200 people who died, many were found in or near their homes, showing that they were unable to flee.³ Almost 13000 people were evacuated from their homes, and hundreds of people were left behind and declared missing. Humanitarian aid in the form of clean water, shelter, medical assistance, hygiene, and more to over eight thousand families through the combination of local and international organizations.¹ Long-term effects included the destruction of farms which affected almost 17000 farmers and led to a cumulative economic loss of US\$12299701 from the loss of crops alone.⁴ The Crisis Management Support Team at the UNDP headquarters sent \$300000 immediately after the disaster.⁵ Data on the total infrastructure damage is limited.

Epidemiological Aspects of the Event

Data collection occurred from various sources on this event, including government authorities on population movement, injuries, evacuations, and the fate of crops in these areas.¹ The National Society conducted a damage assessment and needs analysis which led to the prioritization of specific areas for their humanitarian response aid, including shelter, health, psychosocial support, WaSH and more.¹ The Ministry of Agriculture, Livestock and Food with the United Nations Food and Agriculture Organization evaluated the loss perception of agriculture to determine how many people and farms were impacted by the volcanic eruption.⁴ One potential piece of bias came from the fact that every paper got its data from a different source which led to a variety In the number of deaths, injuries, and other data on the disaster.

Management of the Event

Management of this disaster began immediately as the volcano began its eruption and evacuation methods began. It all occurred so quickly that many people who lived close to the volcano could not escape in time. Many national and international organizations, including the government, stepped up to help those injured and displaced from their home, recover their bodies, and help those who had either died or lost when the volcano erupted. Humanitarian organizations immediately responded by setting up around 40 shelters in the country and working to find relocation areas for these people.⁴ The Disaster Relief Emergency Fund has implemented programs such as cash vouchers in combination with Guatemalan Red Cross.¹ The National Society Response Action implemented a wide variety of humanitarian aid and programs to try and encourage those in shelters to get back on their feet after the disaster.¹ The National Coordination for Disaster and the National Institute of Seismology, Volcanology, Meteorology and Hydrology monitored the situation during and after the event to determine if there were further concerns or threats.⁴ The volcano continued to stay active, and with the heavy rain and accumulation of volcanic material, there was still a viable threat.⁴ They passed this information to government sources who oversee determining the best decisions for their department.⁴

Communications of the Event

There were multiple articles written about this event within a day of it occurring. These continued in the days, weeks and even months after the event as data became available. Immediately international organizations were aware of this disaster and were preparing to send aid and money. There is still a lack of information regarding the overall price of the disaster, the level of aid needed and how people have recovered to this day, five years later. The broad reach of organizations helping with the event and gathering data with no apparent communication likely led to the difference in data between articles.

Summarize

In conclusion, volcanic eruptions are inevitable. At the same time, most are relatively minor events that lead to no risk or damage. Occasionally, events such as this lead to mass destruction; this poses the question of whether communities should locate at the base of active volcanos or if these people should permanently relocate to prevent the deaths and destruction that come with an eruption. All countries with land and volcanos on the ring of fire, with high seismic activity, should also be concerned about this issue.¹ It also seems as though many of the deaths in this disaster could have been prevented with a better system for detecting the disaster before it occurred, as no article mentioned any warning prior to the last-minute fleeing that occurred.

References

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