

My Individual Write Up

Our group's topic was to analyze the threat that Yellowstone and other volcanoes in the United States may have on the country if an eruption were to occur. We used reliable and scientific sources such as NASA and the United States Geological Survey. In our research we found that most of the volcanoes in the continental United States do not pose a threat, and may not for many centuries. However, science is not perfect and volcanoes can be unpredictable. Human nature is to be reactive, and to avoid massive loss of life and economic damage, we need to be proactive and plan for and anticipate a massive eruption.

2 to 3 paragraphs on my personal contribution to the project:

I found quite a few reliable sources from a variety of scientific organizations, including NASA and the USGS. My task was to find out if Yellowstone will erupt any time soon, and if the government and American public should take action. We focused on doing research on Yellowstone, but we did branch out and research other volcanoes in the United States, such as Mt. Saint Helens. In the end we focused on Yellowstone, because the forecast of its eruption would affect the entire United States, and cause massive damage to the United States and the economy. If there was more time in the presentation we may have chosen to conduct more research on the potential effects of other dormant super volcanoes that could devastate the United States.

What I found out:

Scientists have forecasted that Yellowstone is not due to erupt anytime soon. The last three big eruptions at Yellowstone were 2.1 million, 1.3 million, and 630,000 years ago (Martin).

However as NASA states, “scientists have no way of predicting with perfect accuracy whether a super volcano will occur in a given century, decade, or year” (Voiland). That means we should not wait for something unexpected and catastrophic to occur. We have the opportunity and the time now to save as many lives as possible by making plans to protect or evacuate people in the path of the eruption. We should consider building shelters for residents to bunker down in if they cannot get away fast enough, or if an eruption occurs unexpectedly. We need to design quick escape routes that will not get clogged with traffic.

Yellowstone is not the only volcanic threat in the United States. Excluding Alaska and Hawai’i, “the North American Cordillera is home to a greater diversity of volcanic provinces than any comparably sized region in the world. The interplay between changing plate-margin interactions, tectonic complexity, intra-crustal magma differentiation, and mantle melting have resulted in a wealth of volcanic landscapes” (USGS). Eruptions are very hard to predict. Scientists have come a long way with developing better techniques to make predictions, however there is still a lot they don’t know. Some of the telltale signs of an upcoming eruption include minor earthquakes that occur when magma flow is starting to enter the magma chamber. Once this process starts, an eruption is most likely to occur in the next few years as the pressure inside the magma chamber builds. Once an eruption takes place, the surrounding area can be smothered by superhot magma and ash. The ash that volcanoes eject high into the atmosphere can significantly alter its composition. The ash particles have a high albedo and can reflect sunlight before it is absorbed

on the Earth's surface, which can lead to global cooling if enough material is put into the atmosphere.

Volcanoes are natural systems that provide no warning and have the capability to disrupt human life in an instant. In 2010, the volcano in Eyjafjallajökull in Iceland erupted led to cancellations of tens of thousands of flights for 6 days. The impact of an eruption can have huge effect on the global economy in every aspect. Making plans now are critical for the protection of our assets from destruction.

Works Cited

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Voiland, Adam. *Supervolcanoes: Not a Threat For 2012*. 15 November 2011. 6 11
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