

Gas plume emission, volcanic dust and ashfalls: high magnitude explosive events at summit craters can lead to the formation of eruptive columns of ash, the fallout from which presents significant problems to settlements and agriculture, and also risks for road and air traffic

Flank collapse before or following: one of the most hazardous processes that can occur at a volcano is a collapse of one of its flanks, leading to a huge avalanche of volcanic debris

Phreatic eruptions: These are stream-driven explosions that occur when water beneath the ground or on the surface is heated by magma or lava, generating an explosion of steam, water, ash blocks and lava bombs

Impacts

Primary

Deaths: It is estimated that 77 confirmed deaths can be attributed to eruptions on Mount Etna, where a majority of deaths were caused when visitors strayed into hazardous areas (SOCIAL)

Ash: A huge column of ash was thrown up that could be seen easily from space and fell as far away from Libya which was 600km away, which meant there was an enormous quantity of ash in the atmosphere (ENVIRONMENTAL & ECONOMICAL)

Structural damage: Violent eruptions caused the eastern flanks of the volcano to slip by up to 2 metres and many of the houses on the flanks of the volcano experienced structural damage (SOCIAL & ECONOMICAL)

Lava flows/Evacuation: Magma was thrown over 100m into the air and ran quickly down the mountain. Residential areas (e.g. Linguaglossa) were evacuated due to the threat of lava resulting in 1000 people having to leave their homes. Local authorities used holiday homes to rehouse these people (SOCIAL, ECONOMICAL, ENVIRONMENTAL)

Earthquakes: On 30th October, an earthquake 3-4 on the Richter Scale seriously damaged many villages in the eastern area of Etna (SOCIAL, ECONOMICAL, ENVIRONMENTAL)

Secondary