

# Natural disaster

[Environment](#), [Natural Disaster](#)



A natural disaster is a major adverse event resulting from natural processes of the Earth; examples include floods, volcanic eruptions, earthquakes, tsunamis, and other geologic processes. A natural disaster can cause loss of life or property damage, and typically leaves some economic damage in its wake, the severity of which depends on the affected population's resilience, or ability to recover.[1] An adverse event will not rise to the level of a disaster if it occurs in an area without vulnerable population.[2][3][4] In a vulnerable area, however, such as San Francisco, an earthquake can have disastrous consequences and leave lasting damage, requiring years to repair. An earthquake is the result of a sudden release of energy in the Earth's crust that creates seismic waves. At the Earth's surface, earthquakes manifest themselves by vibration, shaking and sometimes displacement of the ground. The vibrations may vary in magnitude. Earthquakes are caused mostly by slippage within geological faults, but also by other events such as volcanic activity, landslides, mine blasts, and nuclear tests. The underground point of origin of the earthquake is called the focus. The point directly above the focus on the surface is called the epicenter. Earthquakes by themselves rarely kill people or wildlife. It is usually the secondary events that they trigger, such as building collapse, fires, tsunamis (seismic sea waves) and volcanoes, that are actually the human disaster. Many of these could possibly be avoided by better construction, safety systems, early warning and planning. Some of the most significant earthquakes in recent times include: The 2004 Indian Ocean earthquake, the third largest earthquake recorded in history, registering a moment magnitude of 9.1-9.3. The huge tsunamis triggered by this earthquake killed at least 229,000 people. The

2011 T hoku earthquake and tsunami registered a moment magnitude of 9.0. The death toll from the earthquake and tsunami is over 13,000, and over 12,000 people are still missing. The 8.8 magnitude February 27, 2010 Chile earthquake and tsunami cost 525 lives.[6] The 7.9 magnitude May 12, 2008 Sichuan earthquake in Sichuan Province, China. Death toll at over 61,150 as of May 27, 2008. The 7.7 magnitude July 2006 Java earthquake, which also triggered tsunamis. The 6.9 magnitude 2005 Azad Jammu & Kashmir and KPK province Earthquake, which killed or injured above 75,000 people in Pakistan. Volcanoes can cause widespread destruction and consequent disaster in several ways. The effects include the volcanic eruption itself that may cause harm following the explosion of the volcano or the fall of rock. Second, lava may be produced during the eruption of a volcano. As it leaves the volcano, the lava destroys many buildings and plants it encounters. Third, volcanic ash generally meaning the cooled ash - may form a cloud, and settle thickly in nearby locations. When mixed with water this forms a concrete-like material. In sufficient quantity ash may cause roofs to collapse under its weight but even small quantities will harm humans if inhaled. Since the ash has the consistency of ground glass it causes abrasion damage to moving parts such as engines. The main killer of humans in the immediate surroundings of a volcanic eruption is the pyroclastic flows, which consist of a cloud of hot volcanic ash which builds up in the air above the volcano and rushes down the slopes when the eruption no longer supports the lifting of the gases. It is believed that Pompeii was destroyed by a pyroclastic flow. A lahar is a volcanic mudflow or landslide. The 1953 Tangiwai disaster was caused by a lahar, as was the 1985 Armero

tragedy in which the town of Armero was buried and an estimated 23, 000 people were killed . A specific type of volcano is the supervolcano. According to the Toba catastrophe theory 75, 000 to 80, 000 years ago a super volcanic event at Lake Toba reduced the human population to 10, 000 or even 1, 000 breeding pairs creating a bottleneck in human evolution.[7] It also killed three quarters of all plant life in the northern hemisphere. The main danger from a supervolcano is the immense cloud of ash which has a disastrous global effect on climate and temperature for many years. A flood is an overflow of an expanse of water that submerges land.[8] The EU Floods directive defines a flood as a temporary covering by water of land not normally covered by water.[9] In the sense of " flowing water", the word may also be applied to the inflow of the tide. Flooding may result from the volume of water within a body of water, such as a river or lake, which overflows or breaks levees, with the result that some of the water escapes its usual boundaries.[10] While the size of a lake or other body of water will vary with seasonal changes in precipitation and snow melt, it is not a significant flood unless the water covers land used by man like a village, city or other inhabited area, roads, expanses of farmland, etc. The Limpopo River, in southern Mozambique, during the 2000 Mozambique flood Some of the most notable floods include: The Johnstown Flood of 1889 where over 2200 people lost their lives when the South Fork Dam holding back Lake Conemaugh broke. The Huang He (Yellow River) in China floods particularly often. The Great Flood of 1931 caused between 800, 000 and 4, 000, 000 deaths. The Great Flood of 1993 was one of the most costly floods in United States history. The North Sea flood of 1953 which killed 2251 people in Holland and

eastern England The 1998 Yangtze River Floods, in China, left 14 million people homeless. The 2000 Mozambique flood covered much of the country for three weeks, resulting in thousands of deaths, and leaving the country devastated for years afterward. The 2005 Mumbai floods which killed 1094 people. The 2010 Pakistan floods, damaged crops and infrastructure, claiming many lives. Tropical cyclones can result in extensive flooding and storm surge, as happened with: Bholá Cyclone, which struck East Pakistan (now Bangladesh) in 1970, Typhoon Nina, which struck China in 1975, Hurricane Katrina, which struck New Orleans, Louisiana in 2005, and Cyclone Yasi, which struck Australia in 2011