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# Natural Hazards

## Tectonic Hazards

### Effects & Responses



quiz



#### The Big Picture



#### Key Terms



**Earthquake** - A sudden violent shaking of the ground as a result of movements within the Earth's crust or volcanic action.



**Lahar** – A moving fluid mass of volcanic material and water.



**Immediate responses** - The reaction of people as the disaster happens and in the immediate aftermath.



**Long-term responses** - Later reactions that occur in the weeks, months and years after the event.



**Primary effects** - The initial impact of a natural event on people and property, caused directly by it.



**Pyroclastic flow** - A dense, destructive mass of very hot ash, lava fragments, and gases ejected explosively from a volcano and typically flowing at great speed.



**Secondary effects** - The after-effects that occur as indirect impacts of a natural event, sometimes on a longer timescale.



**Volcano** – An opening in the Earth's crust from which lava, ash and gases erupt.



#### Immediate Responses

Immediate responses to tectonic hazards include:

- Issuing warnings
- Rescue teams searching for survivors
- Providing treatment to injured people
- Food, drink and shelter provided
- Bodies recovered
- Fires extinguished



#### Primary Effects



##### Earthquakes

- People injured and killed.
- Property, homes and buildings destroyed.
- Roads, railways, ports and bridges destroyed.
- Water and gas pipes and electricity lines damaged.



##### Volcanoes

- People and livestock injured and killed due to pyroclastic and lava flows and ash.
- Farmland and property destroyed.
- Water supplies contaminated.



#### Secondary Effects



##### Earthquakes

- The economy slows as business activity is reduced and money spent on repairs.
- Emergency services are hindered by blocked transport infrastructure leading to further fatalities.
- Fires can start due to broken gas pipes and damaged electricity cables.
- Lack of clean water and sanitation due to burst pipes leading to the spread of disease.



##### Volcanoes

- Lahars occur due to the mixing of ash with rain/glacial melt water which can lead to deaths and damage to property.
- Tourism increases with those interested in volcanoes.
- Ash breaks down, providing nutrients to farmland.



#### Long-term Responses

Long term responses to tectonic hazards include:

- Rebuilding and repairing properties
- Rebuilding and repairing transport infrastructure
- Improving building regulations
- Restoring utilities such as water, electric and gas
- Resettling local people
- Developing opportunities for the economy to recover
- Install monitoring equipment