

Case Study of a volcanic eruption: Soufriere Hills, Montserrat (1995-1997)

Location



Background Information

- Montserrat is a tiny island in the Caribbean (100 km²)
- Until 1995, very much an 'island paradise' (and some parts still are) with an economy based on farming, fishing and tourism.
- Relatively poor LEDC with average household income of around £2,800 a year.
- Montserrat is classed as a 'British Overseas Territory', originally occupied by Irish settlers in 1632. It has its own government but the official head of state is The Queen and it retains strong links to the UK.

Causes

In July 1995, Soufriere Hills erupted for the first time in 350 years. One month later, 50% of the island were evacuated to the north of the island away from the danger zone. In April 1996, Plymouth became a ghost town as more people were evacuated. The deadliest eruption happened in June 1997 when explosive eruptions killed 23 people. Only 39km² was considered safe.

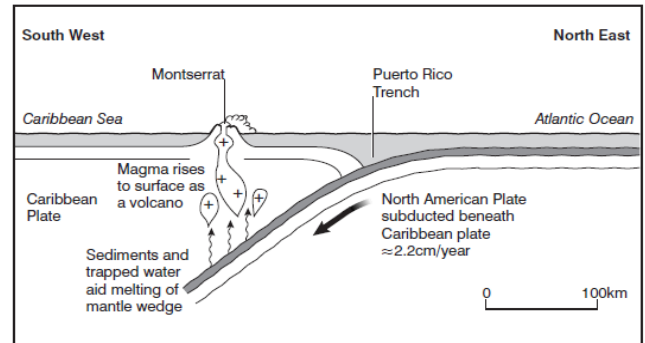
The volcano was largely **dormant** for the best part of 100 years before the major eruption of 1995-1997.

Montserrat lies on a **destructive plate boundary** where the North and South American plates are sliding beneath the Caribbean Plate (subduction zone). The rising magma forms a chain of volcanic islands called a **volcanic arc**.

Effects

Short term:

- 23 deaths and over 100 injured.
- Plymouth (capital) covered in ash.
- High % of homes, businesses and important infrastructure destroyed.
- Main airport and port closed
- 75% of the island was covered in ash.



Long term:

- Long time taken to rebuild homes and vital infrastructure e.g. roads, telephone lines.
- Ongoing problems of respiratory disease.
- Environmental damage to beaches, forests, wildlife and offshore coral reefs.
- Population fell from 12,000 in 1995 to 1,500 by 2001 (now slowly starting to rise again).
- Serious skills shortage due to emigration.
- Fears of over-dependence on UK 'handouts'.

Wider Impacts

- Economy (farming, fishing and tourism) decimated, very high levels of unemployment (>50%).
- Serious impact on tourism, but visitors numbers starting to recover ('volcano tourism') - last year tourism earned the island over £12m.
- Evacuees living for a long time in cramped, unhygienic conditions in 'temporary' camps.
- Housing shortages leading to a 70% increase in rents - further hardship for islanders.
- Ongoing minor eruptions with more serious lahars following heavy rains.

Responses

- 5,000 people evacuated to the safe zone to the north of the island from towns such as Salem and Plymouth.
- Links with the UK proved vital in assisting the relief and recovery.
- Royal Navy sent ships to evacuate 4,000 people to nearby Antigua.
- Islanders were offered £2,500 each to relocate to live permanently in the UK.
- UK sent £41m in relief aid and a further £75m to assist long term development.
- NGOs like the International Red Cross were important in organising evacuation camps.
- Permanent monitoring stations measuring volcanic activity all over the island.
- The island is promoting 'volcano tours' in an effort to attract tourists back to Montserrat. However, only 20- seater planes are allowed to land at the new airport so this is proving difficult.