

Flooding - Case Study

Rich and Poor parts of the world are affected differently by Flooding.

Flood in a rich part of the world:

Place: Carlisle, England

Date: 8th January, 2005

River: Eden

Causes

- Heavy rainfall - 200mm of rain fell in 36 hours.
- The continuous rainfall saturated the soil, increasing runoff into the River Eden.
- Carlisle is a large urban area - impermeable materials like concrete increased runoff.
- This caused the discharge of the River Eden to reach 1520 cumecs (its average discharge is 52 cumecs).

Primary Effects

- 3 deaths.
- Around 3000 people were made homeless.
- 4 schools were severely flooded.
- 350 businesses were shut down.
- 70 000 addresses lost power.
- Some roads and bridges were damaged.
- Rivers were polluted with rubbish and sewage.

Secondary Effects

- Children lost out on education - one school was closed for months.
- Stress-related illnesses increased after the floods.
- Around 3000 jobs were at risk in businesses affected by the floods.

Immediate Responses

- People were evacuated from the areas that flooded.
- Reception centres were opened around Carlisle to provide food and drinks for evacuees.
- Temporary accommodation was set up for the people made homeless.

Long- term Responses

- Community groups were set up to provide emotional support and to give practical help to people who were affected by the floods.
- A flood defence scheme has been set up to improve flood defences, e.g build up banks on the River Eden to prevent flooding.

Flood in a Poor part of the world:

Place: South Asia (Bangladesh and India)

Date: July and August 2007

Rivers: Brahmaputra and Ganges

Causes

- Heavy rainfall - in one region, 900mm of rain fell in July. The continuous rainfall saturated the soil, increasing runoff into the rivers.
- Melting snow from glaciers in the Himalayan mountains increased the discharge of the Brahmaputra river.
- The peak discharge of both rivers happened at the same time, which increased discharge downstream.

Primary Effects

- Over 2000 deaths.
- Around 25 million people were made homeless.
- 44 schools were totally destroyed.
- Many factories closed and lots of livestock were killed.
- 112 000 houses were destroyed in India.
- 10 000km of roads were destroyed.
- Rivers were polluted with rubbish and sewage.

Secondary Effects

- Children lost out on education - around 4000 schools were affected by the floods.
- Around 100 000 people caught water-borne diseases like dysentery or diarrhoea.
- Flooded fields reduced basmati rice yields - prices rose 10%.
- Many farmers and factory workers became unemployed.

Immediate Responses

- Many people didn't evacuate from areas that flooded, and blocked transport links slowed down any evacuations that were attempted.

- Other governments and international charities distributed food, water and medical aid. Technical equipment like rescue boats were also sent to help people who were stranded.

Long-term Responses

- International Charities have funded the rebuilding of homes and the agriculture and fishing industries.
- Some homes have been rebuilt on stilts, so they're less likely to be damaged by future floods.