



# The Impacts of Climate Change

Climate change occurs as greenhouse gas emissions become trapped in the atmosphere and global temperatures increase. Many of the negative effects influence each other and increase their impacts, which are becoming increasingly visible year on year.

## EXTREME WEATHER

- Increase in extreme weather leading to a higher frequency of floods, drought, heatwaves, wildfires, etc.
- Currently ~5 million people live in flood risk areas in England and Wales.

## INFRASTRUCTURE

- Severe weather leads to disruption of buildings, roads, transport and power supplies.
- Flood defences are damaged or overtopped.
- Loss of coastal land due to erosion which may lead to communities becoming cut off.

## TEMPERATURE RISE

- This causes ice to melt and thermal expansion which contribute to sea level rise.
- 1.5°C average temperature rise may put 20-30% of species at risk of extinction\*.

## SEA LEVEL RISE

- This is due to increased temperatures which cause icebergs and glaciers to melt and oceans to expand.
- Results in more coastal flooding.
- Displacement of coastal communities as land is lost from flooding and erosion.



## FOOD

- Extreme weather affects agriculture and crop yields resulting in food shortages and increased food prices.

## ECONOMY

- Decrease in tourism, for example in coastal areas.
- Increased food prices.

## ECOSYSTEMS

- Destruction of habitats and loss of species.
- Ocean acidification, algal bloom.

## HUMAN HEALTH

- Higher temperatures will increase the spread of diseases and viruses.
- Disruption caused by extreme weather can impact on mental health.

## AIR QUALITY

- Increases in emissions such as CO<sub>2</sub> negatively affects air quality.
- This also leads to temperature rise and sea level rise.

Sources: \*IPCC, NERC