Effects of Climate Change

Global Effects

Environmental Impacts :

Temperatures expected to rise by 0.3—4.8 C between 2005 and 2100. Warmer temps = melting glaciers and ice caps particularly Antarctica and Greenland = rising sea levels.

Shrinking sea ice = less polar habitats E.g. Polar Bears

Increased sea temps = collar bleaching and death—Australian Great Barrier Reef

Changing **precipitation** patterns = affects biodiversity and habitats. Warming is affecting precipitation— some species are now found in higher latitudes, and some will see extinction if cannot adapt e.g. Coral Reef.

Sea level rise has had an average increase of 20cm since 1900. 33% of coastal land and wetlands could be lost in the next 100 years. E.g. Canada and the USA.

Economic Impacts:

Weather is getting more **extreme** = more money needs spent on prediction and protection from e.g. flooding, droughts. Loss of jobs e.g. fishing/tourism and need to develop new skills.

Permafrost is melting = collapse of buildings, pipelines e.g. Trans-Alaskan, but it is easier to extract resources below the permafrost.

Failure of crops due to warming in some areas and increases in others.

Water shortages = affect ability to generate HEP/THERMAL power stations.

Risk of sea-level rise affecting cities around the world that are economic hubs and world cities. E.g. New York, Venice and London.

Social impacts:

Reduced rainfall = increased risk of wildfires = damage to land and property.

Rising sea levels = low lying coastal areas at risk of flooding = migration and overcrowding. 600 million people live in coastal areas less than 10m above sea level. E.g. Tuvalu.

Reduced water availability = water shortages = political tensions.

Lower crop yields = increase malnutrition, ill health, death.

Effects on the UK

Environmental impacts:

Climate - temperatures increase = Greatest in the S of England by 3.8 C by 2100; Winter rainfall will increase by 16% in W of England; Summer rainfall will decrease by 23% in S of England.

Extreme Events - Droughts expected to be more frequent in S of England; Flooding to become more common at higher altitudes.

Sea Level Rises - Expected to rise by 12-76cm BY 2095; Loss of coastal habitats.

Wildlife - changes climate changes habitats—species move North or become extinct

Economic Impacts;

Tourism - Warmer weather could boost tourism (Lake District); but in others see a decline (Cairngorms loss of snow for skiing).

Flooding—become more frequent and severe—with over £120 billion of infrastructure at risk. Sea defences e.g. Thames Barrier will need to be upgraded.

Agriculture - Higher temps and longer growing season could increase productivity; new crops adapted and grown to be drought resistant. Only 1.03 million bottles of wine produced in 2012 due to droughts influence on crops.

Fishing - Extreme weather could damage infrastructure e.g. ports; fish populations may change as waters become warmer so affecting livelihood and trade.

Social Impacts:

Health - cold related deaths may decrease but heat-related deaths may increase. Elderly in coastal areas most vulnerable to climate change—E.g. Margate and Hunstanton.
Hot weather means more bacteria breeds on food. There will be an extra 9000 cases of salmonella by 2050 because of this.

Water shortages - Drier summers = water shortages and increased demand. Influence on work and income of farmers—mental health. Heat-wave 2003 say over 2000 additional deaths.

Floods - damage to homes and property in areas along river estuaries or coastal areas. E.g. The Wash and Holderness Coast.

Tectonic event that has been hazardous for people:

IMPACTS OF CLIMATE CHANGE

Changing Climate topic