

There also be an increased risk of new pests and diseases that tend to thrive at high temperatures<sup>3</sup>.

### Extreme events

Jamaica is already very vulnerable to tropical storms and hurricanes. The estimated cost of damage caused by Hurricane Gilbert in 1988 was \$25 US million<sup>4</sup>. Rising sea temperatures due to global warming may mean these extreme weather events happen more often and are more violent. Apart from the damage hurricanes can cause to buildings such as hotels, extreme weather also discourages tourism.

Climate change may have already affected the island's coral reefs with the death of large numbers of corals in 1988 and 1990 blamed on bleaching caused by rising coastal water temperatures<sup>5</sup>.

The changing climate and rising sea level will have a negative impact on the value of all resources within the coastal zone. There will be earning losses throughout the community because of reduced economic activity and threats to human health<sup>6</sup>.

Agriculture contributes around 7.3 per cent of Jamaica's GDP, representing roughly 12 per cent of foreign earnings, and employing around 25 per cent of the population.

Sugar cane is the most important crop in Jamaica, making up about 45 per cent of all export crop earnings. Changes in temperature and atmospheric CO<sub>2</sub> will affect crop growth, while temperature changes may also increase surface wind. This in turn will cause soil erosion making crops more vulnerable to short-term dry spells. While any cuts in the amount of rainfall will also affect production, while also causing conditions more favourable for disease<sup>7</sup>.

## What can I do?

Climate change is a problem for everyone – the individual, businesses, our government and other governments. Everyone must start to do their bit and start now. The biggest cause of carbon emissions in London is from energy use in the home.

To find out how you can make a difference in your home visit:

[www.london.gov.uk/diy](http://www.london.gov.uk/diy)

To find out more about climate change visit:

[www.ipcc.ch](http://www.ipcc.ch)

- 1 Stern Review, October 2006, Chapter 3
- 2 Government of Jamaica, 2000. Initial National Communication of Jamaica PDF: <http://unfccc.int/resource/docs/natc/jamnc1.pdf>,
- 3 Impact of Climate Change on Caribbean Agriculture, Ingrid Brown, August 2005, Ministry of Agriculture, Jamaica
- 4 Government of Jamaica. 2000. Initial National Communication of Jamaica PDF: <http://unfccc.int/resource/docs/natc/jamnc1.pdf>
- 5 Ibid
- 6 Ibid
- 7 Ibid

# Climate Change.

Together we can tackle climate change

[london.gov.uk/diy](http://london.gov.uk/diy)

## What is 'climate change'?

Climate change is how the average weather of our planet varies over time. The average temperature on the Earth's surface is rising, bringing more extreme weather conditions such as flooding, hurricanes and drought.

## How do humans affect climate change?



In London the biggest source of CO<sub>2</sub> emissions that cause climate change is our homes.

Since the industrial revolution, humans have been steadily burning more and more fossil fuels (oil, gas and coal). When burned these fuels produce carbon dioxide (CO<sub>2</sub>) – a greenhouse gas that stays in the atmosphere and heats the planet. Other human factors causing climate change include the destruction of forests (deforestation), as forests help to naturally remove carbon dioxide and other polluting gases from the air.

## How does climate change impact my family and me?

Climate change will have a range of impacts on us here in London. These include:

### Increase in temperatures

London may be more sensitive to temperature rises in future because it is a fairly dense and urban settlement. Dark surfaces such as pavement and rooftops reflect less light than green spaces, meaning it absorbs more heat from sunlight. This means cities warm more during the day and cool less at night, compared with surrounding areas which has negative effects on air quality, summer electricity demand, and comfort in the city's buildings and transport network. By the 2080s, London's summer extreme temperatures could be comparable to those of present-day New York.

### Flooding

London is more at risk of damage by flooding than any other city in the UK. This is because a large area of London lies within the River Thames floodplain. Furthermore, increased risk of flooding from climate change could lead to damage to buildings and property, and cause major disruption to London's transport network.

### Water Resources

London is one of the driest capital cities in the world, with water resources per person similar to Israel. Climate change could further reduce the amount of water available and increase demand in summer.

## Climate change impacts on our family and friends in the Caribbean



Debris left by Hurricane Dean as seen 20 August, 2007 in Kingston, Jamaica.

### Water

Small island states in the Caribbean are very threatened by climate change because of their heavily populated coastlines, with over half the population living within 1.5 km of the shoreline<sup>1</sup>. Sea level rise is a particular issue and a small increase would destroy significant parts of island nations, making people homeless and damaging tourism<sup>2</sup>.

The Intergovernmental Panel on Climate Change (IPCC) suggests a 0.5m rise in sea level would mean up to 38 per cent of total current beach would be lost. Yet the cost of protecting Jamaica from a one-metre sea level rise would cost \$462 US million, or \$197 US dollars per person (IPCC, 1990).

### Temperature rises

The Caribbean is set to get hotter too, and warmer temperatures means more energy will be needed for air conditioning and refrigeration.