

seen from assessments on the impacts of climate change that the amount of water run off is likely to decrease in northern China and increase in southern China². The mountain glaciers in China have also been shrinking. From 2030 to 2050, food production may decrease by ten per cent due to climate change and extreme weather³.



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Extreme events

Climate change will make China more vulnerable to damage caused by rising sea levels, drought, flooding, tropical cyclones, sand storms, and heat waves. Although a warmer climate will increase the amount of land available for farming, extreme weather could reduce crop yields by ten per cent. In 2004 alone, drought and floods damaged over 37 million hectares of arable crops, leaving more than four

million of them barren⁴.
Guangdong, China. The long term drought that has struck Guangdong province could occur more frequently and more wide spread if climate change attributed to global warming continues.

million of them barren⁴.

Large parts of the Chinese economy, including cities such as Shanghai and Beijing, are coastal cities, therefore particularly vulnerable to rising sea levels.

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

To find out more about climate change visit:

www.ipcc.ch

- 1 Qin, Dahe, ChenYiyu, and Li Xueyong (eds), 2005, Climate and Environmental Change in China (two volumes). China Science Press, Beijing
- 2 IPCC special report, Emissions Scenarios, 2000, <http://www.ipcc.ch/pub/sres-e.pdf>,
- 3 The People's Republic of China Initial National Communication on Climate Change, Beijing 2004
- 4 Department for International Development (DfID), 2004, China fact sheet, www.dfid.gov.uk

Climate Change.

Together we can tackle climate change

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 CO₂ 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 (CO₂) – 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.

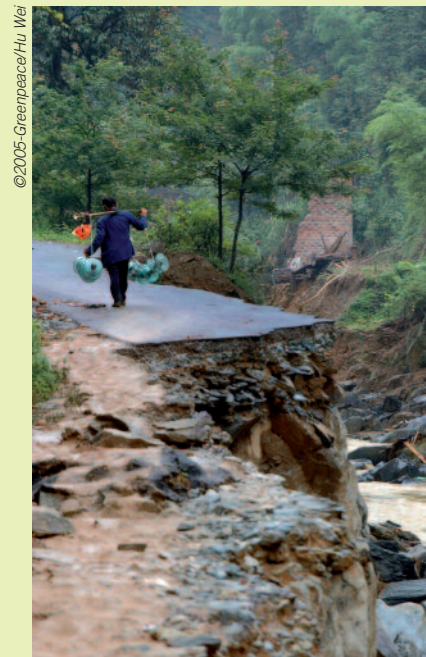
Climate change impacts on our family and friends in China

Water

During the past century, the average temperature in China rose by 0.6 to 0.8°C. In the past 50 years, sea levels increased by between 1 and 2.5 millimetres each year¹. Climate change will have serious consequences for those who depend on glacier melt water for supplies during the dry season, including a quarter of a billion people in China.

In Northern China there is a shortage of quality drinking water. In the long term, dry-season water will disappear for good once the glaciers have completely melted. Twenty three per cent of the Chinese population lives in the Western region that depends largely on glacier melt water, and many inhabitants now resort to getting their water from polluted rivers. Almost all glaciers are showing substantial melting in China and the glacier area in west China has reduced by over 21 per cent.

Rainfall in China has been decreasing since the 1950s. There has been continuous drought in the North China Plain since the 1980s, while frequent flooding in southern China. It can be



The main road into Xinshao is completely destroyed by recent flooding in Hunan Province.