

UK'S GLOBAL WARMING CHALLENGE HEATS UP

Climate change is the greatest environmental challenge facing the world today. Rising global temperatures will bring changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather events.

Most scientists agree that temperatures will rise by between two and six degrees Celsius this century, caused mainly by carbon emissions from burning fossil fuels for power and transport, putting millions of lives at risk from floods and famines. Global warming is a challenge for business, government and individuals alike.

The way to reduce and reverse global warming is to cut the use of fuels that emit carbon when burned.

Ever since scientists with the British Antarctic Survey discovered the hole in the ozone layer, the United Kingdom government has taken the threat of global warming seriously. In 1997, the UK subscribed to the Kyoto Protocol binding developed countries to reduce emissions of the six main greenhouse gases, including carbon dioxide (CO₂).

The Kyoto Protocol was signed by 141 countries in 1999, with the United States declining to join the agreement. Some developing countries, such as India and China, have ratified the protocol but are not required to reduce carbon emissions under the

agreement, despite their large populations.

The UK has established a domestic goal of a 20 per cent reduction in CO₂ emissions below 1990 levels by 2010, and 12.5 per cent reductions in other greenhouse gases. These targets far exceed the ones set by Kyoto.

And in a new draft Climate Change Bill, the UK government has just announced world-leading plans for an ambitious 60 per cent cut in carbon emissions by 2050. The new law, if passed by parliament, would commit future governments to legally binding targets.

Any business or public body would have a "cap" for the amount of carbon dioxide it was allowed to emit and it would have to use low-carbon technology or buy carbon credits on the open market if it wanted to use more power than its allocation.

Professor Julia Slingo is acting director of the Walker Institute at the University of Reading, southern England, and climate director of the UK's National Centre for Atmospheric Sciences. She commented: "The science is clear - climate change is here and it's likely to get worse. With this Climate Change Bill the UK is giving an unambiguous message both at home and internationally that action is needed to deal with climate change.

"As well as reducing

greenhouse gas emissions to lessen potential impacts, the world will need to adapt to climate change. In the UK that could mean improving flood defences to cope with an increased risk of flooding or adapting our buildings and transport systems to cope with extreme heat. What businesses and governments require are more confident forecasts of local and regional changes in climate and extremes, not just for the 2050s but for 2010 or 2015. This is now the challenge for science."

UK Prime Minister Tony Blair said recently that there is a "tremendous opportunity" for action on climate change. Following a meeting with German Chancellor Angela Merkel, Mr Blair said that G8 leaders had a chance to create a new framework for when the Kyoto agreement ends in 2012.

The UK government commissions a wide range of scientific research on climate change and funds programmes on climate modelling and work on impacts and adaptation. It funds a number of programmes to encourage the reduction of emissions such as the Climate Change Levy, Climate Change Allowances and Energy Trading Schemes, as well as the Carbon Trust and the Energy Saving Trust.

Improving energy efficiency is a vital part of the government's strategy. In April 2001, the government introduced a