

# Combating climate change by helping poorer countries

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Image by Foto43

The effects of global climate change could be minimised by transferring 'best available' low carbon technologies from the rich to the poor nations, say researchers at the University of Bath.

Professor Geoffrey Hammond and PhD student Gemma Cranston, from the University's Department of Mechanical Engineering, estimated the relative contribution of population size and economic growth on global carbon emissions to the year 2100 for the industrialised 'North' and the populous 'South' of the planet.

They found that the main cause for the rise in average global temperatures seen in recent decades is the increasing emissions of greenhouse gases in the atmosphere from burning fossil fuels for power and transport.

In 2005, carbon dioxide levels were more than a third higher than they were before the industrial

revolution, with the largest rise occurring since 1995.

The research at Bath, published in the *International Journal of Global Warming*, shows that economic growth in industrialized countries was the most significant driver of carbon emissions during the 20th Century. In contrast, population growth in the so-called 'emerging economies' (such as China and India) is likely to become the dominant driver of climate change in the second half of the present century.

Professor Geoff Hammond, Director of the University's Institute for Sustainable Energy & the Environment (I-SEE), explained: "We looked at the carbon and environmental footprints of nations around the world to see whether climate change is largely due to economic wealth or population density.

"We found that the industrialised 'North' of the globe has so far been mostly responsible for the rise in [carbon emissions](#). Since carbon dioxide stays in the atmosphere for around 100 years, it is the view of many that it is these nations that should significantly curb their emissions.

"Part of this should involve transferring low carbon technologies to less developed nations in the 'South', and helping these countries to adapt to [climate change](#).

"Nations like Brazil, China and India have made it clear that they expect the industrialised countries to take the main responsibility for global warming. They are not prepared to sacrifice the wellbeing of their citizens to mitigate emissions that they regard as being caused by the historic development of the North."

Provided by University of Bath

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