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China overtakes US as world's biggest CO2 emitter

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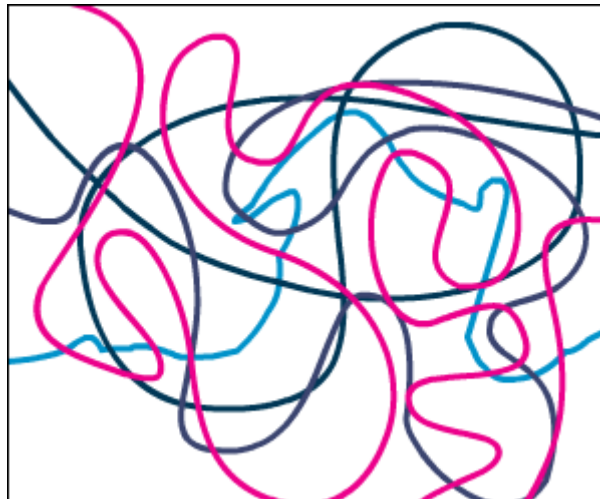


Cyclists pass a factory in Yutian in China's north-west Hebei province. Photograph: Peter Parks/AFP

China has overtaken the United States as the world's biggest producer of carbon dioxide, the chief greenhouse gas, figures released today show.

The surprising announcement will increase anxiety about China's growing role in driving man-made global warming and will pile pressure onto world politicians to agree a new global agreement on climate change that includes the booming Chinese economy. China's emissions had not been expected to overtake those from the US, formerly the world's biggest polluter, for several years, although some reports predicted it could happen as early as next year.

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But according to the Netherlands Environmental Assessment Agency, soaring demand for coal to generate electricity and a surge in cement production have helped to push China's recorded emissions for 2006 beyond those from the US already. It says China produced 6,200m tonnes of CO₂ last year, compared with 5,800m tonnes from the US. Britain produced about 600m tonnes.

Jos Olivier, a senior scientist at the government agency who compiled the figures, said: "There will still be some uncertainty about the exact numbers, but this is the best and most up to date estimate available. China relies very heavily on coal and all of the recent trends show their emissions going up very quickly." China's emissions were 2% below those of the US in 2005. Per head of population, China's pollution remains relatively low - about a quarter of that in the US and half that of the UK.

The new figures only include carbon dioxide emissions from fossil fuel burning and cement production. They do not include sources of other greenhouse gases, such as methane from agriculture and nitrous oxide from industrial processes. And they exclude other sources of carbon dioxide, such as from the aviation and shipping industries, as well as from deforestation, gas flaring and underground coal fires.

Dr Olivier said it was hard to find up to date and reliable estimates for such emissions, particularly from countries in the developing world. But he said including them would be unlikely to topple China from top spot. "Since China passed the US by 8% [in 2006] it will be pretty hard to compensate for that with other sources of emissions."

To work out the emissions figures, Dr Oliver used data issued by the oil company BP earlier this month on the consumption of oil, gas and coal across the world during 2006, as well as information on cement production published by the US Geological Survey. Cement production, which requires huge amounts of energy, accounts for about 4% of global CO₂ production from fuel use and industrial sources. China's cement industry, which has rapidly expanded in recent years and now produces about 44% of world supply, contributes almost 9% of the country's CO₂ emissions. Dr Olivier calculated carbon dioxide emissions from each country's use of oil, gas and coal using UN conversion factors. China's surge beyond the US was helped by a 1.4% fall in the latter's CO₂ emissions during 2006, which analysts say is down to a slowing US economy.

The announcement comes as international negotiations to produce a new climate treaty to succeed the Kyoto protocol when it expires in 2012 are delicately poised. The US refused to ratify Kyoto partly because it made no demands on China, and one major sticking point of the new negotiations has been finding a way to include both nations, as well as other rapidly developing economies such as India and Brazil. Tony Blair believes the best approach is to develop national markets to cap and trade carbon, which could then be linked.

Earlier this month, China unveiled its first national plan on climate change after two years of preparation by 17 government ministries. Rather than setting a direct target for the reduction or avoidance of greenhouse gas emissions, it now aims to reduce energy consumption per unit of gross domestic product (GDP) by 20% by 2010 and to increase the share of renewable energy to some 10%, as well as to cover roughly 20% of the nation's land with forest.

But it stressed that technology and costs are major barriers to

achieving energy efficiency in China, and that it will be hard to alter the nation's dependency on coal in the short term. What China needs, said a government spokesman, is international cooperation in helping China move toward a low-carbon economy. Chinese industries have been hesitant to embrace unproven clean coal and carbon capture technologies that are still in their infancy in developed countries.

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