

# Rich countries 'should pay' to transfer low carbon technology, researchers says

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Coal-fired power stations are ‘the most pressing challenge for stabilising emissions’.

(PhysOrg.com) -- Rich countries need to pay the full incremental cost of low carbon technology for developing countries to avoid dangerous climate change, say Oxford University researchers.

With the countdown to the [climate change](#) summit in Copenhagen underway, a new paper by Oxford University researchers says that rich countries need to pay the full incremental cost of low carbon technology for developing countries to avoid dangerous climate change.

The authors argue that transferring the most efficient low carbon technologies to developing countries with the fastest growing emissions, such as China and India, is ‘the key to a substantive agreement in Copenhagen’.

They also stress that without an ambitious technology transfer strategy agreement ‘there is little prospect of a credible deal emerging at the Copenhagen summit, or in post-Copenhagen negotiations’.

The paper ‘Avoiding Dangerous Climate Change - Why Financing to Technology Transfer Matters’, by Dr Arunabha Ghosh and Dr Kevin Watkins, states that to avoid an increase in global temperatures of 2°C, [global emissions](#) will need to halve by 2050. Yet the authors point out that current projections show emissions are on course to increase by 45 per cent by 2050, with over 90 per cent of that increase projected to originate in developing countries.

The paper focuses on coal-fired power stations as an example of the problems and potential for action, describing them as ‘the most pressing challenge for stabilising emissions’.

By 2030, coal will account for one third of the total increase in [developing country](#) emissions. Yet the best performing coal-fired power plants in rich countries are 50 per cent more efficient than the average plant operating in India and China, says the paper. It suggests that closing the efficiency gap would allow the same amount of energy to be produced with half the emissions.

Total demand for coal in India is projected to rise from 423 million tonnes in 2005 to 670 million tonnes in 2011, with current plans for India implying that an additional 500 megawatt plant would be built each week until 2030.

‘Technological change holds the key to closing the efficiency gap ... but on a scale and at the pace required that comes with a price tag,’ warn the researchers. The coal sector in India alone would require \$5.2 billion to \$8.4 billion per annum more than the currently planned investments to 2030 to achieve 45 per cent thermal efficiency, reports the paper.

The paper says the no coal option, as argued by some environmental groups, is not a feasible one for the medium term, and the medium term is what counts in terms of the interim targets needed to frame a climate change agreement.

Dr Ghosh and Dr Watkins, from the Global Economic Governance Programme, said: 'Rich countries should finance the full incremental cost of the transition to higher efficiency. This can be done through the creation of a Low Carbon Technology and Finance Facility to mobilise around \$50 billion a year by 2020 through the public purse, with additional amounts leveraged through private investment.

'The LCTFF would correct for shortcomings in current arrangements by scaling up financing, offering balanced governance structures (including ownership over priorities), and managing intellectual property.

'Political leaders in developing countries are unlikely to sign-up for an agreement that involves trading-off current poverty reduction efforts against a contribution to future climate change mitigation. The case for developed countries financing a technology transfer deal is rooted in capability and responsibility. They have the financial and technology resources to act - and their historic emissions have led to a large accumulated debt.'

Provided by Oxford University ([news](#) : [web](#))

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