

JANUARY 2014

**COAL &
CLIMATE
CHANGE**

ROB LYONS



DEBATING MATTERS
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**“WESTERN COUNTRIES
SHOULD NOT
ENCOURAGE COAL-FIRED
POWER STATIONS IN THE
DEVELOPING WORLD”**

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KEY TERMS

CCS

Coal

Greenhouse gas emissions

INTRODUCTION

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In 2013, the World Bank - along with two of its leading members, the US and the UK - stated it will no longer, except in 'rare circumstances', provide funding for coal-fired power stations. [Ref: [Reuters](#)]. The Bank argues that the problem of climate change is now so serious that funding coal-fired stations should only be a last resort. Keeping greenhouse-gas emissions low enough to prevent a serious rise in global temperatures over the next century is already a major challenge. [Ref: [Carbon Brief](#)]. Coal is the most polluting form of fossil fuel [Ref: [US Energy Information Administration](#)], so if more coal-burning plants are built, meeting climate targets will become even harder [Ref: [AFP](#)]. However, electricity produced from coal is cheap and reliable, and developing countries have consequently employed coal widely. In 2012, the World Resources Institute found that over 1,000 coal-powered plants were being planned, the majority in China and India [Ref: [World Resources Institute](#)]. Even in Europe, often at the forefront of calls for action on climate change, coal-fired power stations are making a comeback where "The amount of electricity generated from coal is rising at annualised rates of as much as 50% in some European countries" [Ref: [Economist](#)]. So which goal should take priority: tackling climate change or providing cheap electricity to allow economic development? One possible solution would be a technology called 'carbon capture and storage', which would take the carbon dioxide emitted from fossil-fuel burning power stations and bury it out of harm's way [Ref: [British Geological Survey](#)]. But the technology is a long way from being ready to use in practice [Ref: [Scientific American](#)]. Can developing countries afford to wait? Or are the problems created by climate change so serious that they must be confronted, even at the cost of slowing down economic development?



COAL & CLIMATE CHANGE:

"Western countries should not encourage coal-fired power stations in the developing world"



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The Climate change

Since the late 1980s, the issue of global warming has been high on the political agenda. In 1988, Dr James Hansen of NASA gave dramatic testimony to a US Senate committee, stating that the world was warmer than at any time since records began, the cause was the greenhouse effect and that the result would be more extreme weather events [Ref: [Guardian](#)]. In the same year, the Intergovernmental Panel on Climate Change (IPCC) was created to advise governments on the possible scale and consequences of global warming. In 1989, the then UK prime minister, Margaret Thatcher, told the Conservative Party conference that Britain would take a global lead in tackling climate change. [Ref: [YouTube](#)]. In 1992, a United Nations conference in Rio de Janeiro agreed the Framework Convention on Climate Change, which led to the Kyoto Protocol in 1997, where industrialised countries agreed to binding limits on greenhouse gas emissions [Ref: [UNFCCC](#)]. The IPCC has produced five assessment reports. The latest was launched publicly in September 2013. The Summary for Policymakers states: “Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased.” [Ref: [IPCC](#)]. The Stern Review, published in 2006 by the UK government, states: “Climate change will affect the basic elements of life for people around the world – access to water, food production, health, and the environment. Hundreds of millions of people could suffer hunger, water shortages and coastal flooding as the world warms”. The authors note

that ‘the benefits of strong and early action far outweigh the economic costs of not acting.’ [Ref: [Stern Review](#)]. But a global deal has proved hard to agree because many developing countries are using more and more fossil fuels to power their growing economies. Now that the Kyoto Protocol has expired, attempts to agree a new international agreement – most recently in climate talks in Warsaw, Poland in November 2013 – have faltered, primarily on the issue of how much developing countries should be allowed to continue to expand their carbon emissions [Ref: [Economist](#)].

Economic development

A number of countries in the developing world have seen dramatic rates of economic growth in the past 20 years. For example, China has seen its economic output grow by about 10 per cent per year over this period [Ref: [World Bank](#)]. While India’s economy has grown more slowly, it is now one of the largest in the world, and growing much faster than Western economies [Ref: [CNN](#)]. Yet even these fast-developing countries remain poor. According to figures from the International Monetary Fund, China is just 93rd in a list of economies by output per head; India is 133rd [Ref: [Wikipedia](#)]. By contrast, the UK’s output per head is four times higher than China’s, and nine times higher than India’s. These fast-developing countries therefore still have a long way to go in order to achieve the standard of living of people in the West. In order to do that, they need to produce vast quantities of electricity as cheaply and reliably as possible. Electricity from coal costs just one-third as much from renewables like solar and wind. As a result, China and India plan to build over 200 new coal-fired plants by 2016 [Ref:



New York Times].

South Africa controversy and a change of policy

The debate about whether Western institutions should help finance coal-fired power stations reached global attention with the proposal for the massive Medupi plant, which will be three times larger than the UK's largest coal-fired station and emit 25million tonnes of carbon dioxide per year [Ref: Guardian]. The World Bank agreed to provide a loan of \$3.75 billion for the project. After much controversy, the US, UK, Netherlands, Italy and Norway all abstained when the vote was taken, but the loan was approved [Ref: Guardian]. In June 2013, the US president, Barack Obama, announced restrictions on support for coal-fired plants [Ref: Washington Post]. The following month, the World Bank announced followed suit. At the Warsaw talks in November, the UK energy secretary, Ed Davey, announced UK government would not support coal-fired power stations [Ref: Guardian]. What is at stake in this debate is how much poorer countries should be allowed to develop using the cheapest and most convenient fuels. Using renewable sources of power is more expensive and the supply of electricity is less reliable. Should people remain poor for longer because climate change is an even bigger problem than poverty? Or is poverty such a crisis right now that development must push ahead, even if it creates problems in the future?



ESSENTIAL READING

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NOTES

Thinking through when the World Bank should fund coal projects
Scott Morris and Billy Pizer *Center for Global Development*
July 2013

FOR

New Eskom power plant defies carbon cut pledge
Mail & Guardian (South Africa) 27 September 2013

The heat is on for change: coal
David Shearman *Australian* 10 July 2010

The great global coal rush puts us on the fast track to irreversible disaster
John Harris *Guardian* 30 August 2007

Coal
Greenpeace International

AGAINST

We must accept trade-offs in order to improve the lives of the poor
Bjorn Lomborg *Daily Star (Lebanon)* 21 December 2013

Mission Possible: An Environmentalist Looks at Coal and Climate
Armond Cohen *Cornerstone* 21 May 2013

Why coal is the best way to power South Africa's growth
Pravin Gordhan *Washington Post* 22 March 2010

Like it or not, coal is vital to Asia's growth
James Woudhuysen *spiked* 12 September 2007

ORGANISATIONS

- British Geological Survey
- Greenpeace International
- IPCC
- The World Bank
- U.S Energy Information Administration
- World Coal Association



BACKGROUNDEERS

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UN's war on coal threatens environmental progress in world's desperate regions

Donna Laframboise *Financial Post* 3 December 2013

Another shabby Warsaw Pact
Economist 28 November 2013

2013 emissions edge the world closer to 2 degrees

Freya Roberts *Carbon Brief* 19 November 2013

The U.S. will stop financing coal plants abroad. That's a huge shift

Brad Plumer *Washington Post* 27 June 2013

The unwelcome renaissance

Economist 5 January 2013

World Energy Outlook 2013

International Energy Agency 2013

Climate Change 2013: The Physical Science Basis

IPCC 2013

New Global Assessment Reveals Nearly 1,200 Proposed Coal-Fired Power Plants

Ailun Yang *World Resources Institute* 20 November 2012

With China and India Ravenous for Energy, Coal's Future Seems

Assured

New York Times 12 November 2012

Critical Carbon-Capture Technology Stalled

David Biello *Scientific American* 16 October 2012

Europe's return to coal

Wall Street Journal 18 May 2012

Money for India's 'Ultra Mega' Coal Plants Approved

Andrew C. Revkin *New York Times* 9 April 2008

The Greenhouse Effect: Impacts on Current Global Temperature and Heatwaves

Statement of James E. Hansen to US Senate Committee on Energy and Natural Resources *Guardian* 23 June 1988

List of countries by GDP (PPP) per capita

Wikipedia

World's largest economies

CNN

China Overview

The World Bank

Stern Review: The Economics of Climate Change

HM Government

Background on the UNFCCC: The international response to

climate change

UNFCCC

Margaret Thatcher on Global Warming

YouTube

Introduction to carbon capture and storage (CCS)

British Geological Survey

FAQ's: How much carbon dioxide (CO2) is produced when

different fuels are burned?

U.S Energy Information Administration



IN THE NEWS

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UK: no new funding for coal-fired power stations abroad
Guardian 20 January 2014

China says coal addiction makes climate change fight hard
AFP 29 October 2008

Green dream on ice as 'coal frenzy' grips Europe and renewables lose their attraction
Australian 11 January 2014

Coal industry accuses UN climate chief of ignoring reality
Guardian 2 December 2013

UK to end funding of coal-fired power stations
Guardian 20 November 2013

U.S. Says It Won't Back New International Coal-Fired Power Plants
New York Times 29 October 2013

IPCC climate report: humans 'dominant cause' of warming
BBC News 27 September 2013

World Bank to stop funding coal-fired power stations in developing countries
ABC 17 July 2013

World Bank to limit financing of coal-fired plants
Reuters 16 July 2013

More than 1,000 new coal plants planned worldwide, figures show
Guardian 20 November 2012

World Bank's \$3.75bn coal plant loan defies environment criticism
Guardian 9 April 2010

Britain has key vote on World Bank loan to Medupi power station
Guardian 1 April 2010



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- I am a sixth form student and would like further details about events in my area
- I am interested in becoming a Debating Matters judge
- I am interested in sponsoring/supporting Debating Matters
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