

## How should we respond to climate change?

*Could action to tackle climate change by developed countries have a negative influence on development of the world's poorer countries? \_\_\_\_\_ 2*

*Aren't renewable energy technologies too expensive and unreliable to be used in the developing world? \_\_\_\_\_ 2*

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### **Could action to tackle climate change by developed countries have a negative influence on development of the world's poorer countries?**

First, it is worth noting that climate change will have the greatest impact on developing countries and especially the poor within those countries. Building resilience to climate change into developing country strategies will help minimise those impacts, reducing the likelihood of economic shocks from climactic events such as droughts, floods and migration. This resilience will thus aid, rather than diminish, overall development.

Second, responsibility for reducing the bulk of greenhouse gas emissions rests with developed, not developing, countries. This is because there are massive global inequalities between per capita (per person) CO<sub>2</sub> emissions, with the USA producing about 24 tonnes of CO<sub>2</sub> per person, whereas the figure in Africa is less than 4 tonnes and in Asia it is about 3 tonnes. In addition, the majority (about 80%) of historical emissions of greenhouse gases have been created by developed countries. Developing countries assert that it is therefore the responsibility of the developed world to make the biggest cuts.

As such, developing countries also believe they have a right to expand their use of fossil fuels for development. Many organisations, such as the G8, the World Bank, and the Stern Review team, believe that this is possible without exacerbating climate change, especially if power stations are built to be 'ready' for Carbon Capture & Storage (CCS).

Third, it could be possible for developing countries to 'leap-frog' the fossil fuel development path of the industrialised countries and move straight to low-carbon development. Low carbon technology, especially renewable energy, has the potential to deliver a much greater proportion of the world's energy supply as well as offering an export opportunity for 'green' businesses in developed countries.

### **Aren't renewable energy technologies too expensive and unreliable to be used in the developing world?**

Comparisons of the cost and effectiveness of different energy generation technologies are difficult to make, not least because both fossil fuel and renewable technologies benefit from a variety of subsidies. However, as an example, a solar photovoltaic panel fitted to a home in the UK is not a good comparison with one fitted to a home in an isolated village in rural Africa or Asia. First there is no pre-existing National Grid to act as an alternative, so the cost of the solar panel needs to be weighed against the cost of providing electricity by extending an existing network, sometimes over large distances. Second much more energy from the sun reaches the Earth near the equator than in temperate latitudes so the solar panel will work more efficiently. Third, the demand for electricity in the average UK home is far higher than in, for example, the average Kenyan home and thus renewable technologies are able to meet proportionately more of that demand.

All developing countries have national grids, just as we have in Britain. The difference is that large sections of these countries' populations do not have access to electricity because they live in rural or remote areas. In Britain, the National Grid is designed to take power from the large power stations generally located in the north and to distribute it to centres of population, which tend to be in the south. However, countries like Sweden and Finland, which also have national grids, have developed large municipal networks, based in part on renewable sources that distribute both heat and electricity within large towns and cities. This is a much more efficient way to generate and distribute power and shows that there is no single solution to the problem of providing energy to a population.

Developing countries are therefore at a point where they can decide on the shape of at least some of their future energy infrastructure, which could allow them to 'leap-frog' developed nations and move towards more efficient local networks based on a variety of energy generation technologies. This is not to say that there is no place for work to extend current energy networks, but that the options exist to go down a different development path from that pursued in industrialised countries.

### **Don't efforts to stop climate change position environmentalists as extremists who are against development and growth?**

Many environmentalists believe that growth, development and the market play a fundamental role in our society. Take for example the promotion of 'green energy' tariffs or organic food. However some forms of development are less damaging than others and where the market fails to protect the environment, regulation is needed. In the case of climate change, the creation of a global market in carbon by the Kyoto Protocol is a good example of the use of regulation to push the market in the right direction.

### **Aren't the fossil fuels we are using to pump out greenhouse gases going to run out anyway?**

The Stern Review notes that, "The shift to a low-carbon global economy will take place against the background of an abundant supply of fossil fuels. That is to say, the stocks of hydrocarbons that are profitable to extract (under current policies) are more than enough to take the world to levels of greenhouse-gas concentrations well beyond 750ppm CO<sub>2</sub>e, with very dangerous consequences. Indeed, under Business As Usual [scenarios], energy users are likely to switch towards more carbon-intensive coal and oil shales, increasing rates of emissions growth."

### **Are governments using the fear of climate change as an excuse to clamp down on personal freedoms and increase their power?**

While it is legitimate to discuss the merits of different policy solutions to climate change, we should bear in mind that "climate change... is the greatest and widest-ranging market failure ever seen"<sup>1</sup>. It has occurred as a result of the failure to ensure that the costs of the damage caused by greenhouse gases is factored into the prices of things like coal and petrol. Where a problem such as climate change, or acid rain production, or the hole in the ozone layer arises, collective action is required to solve it and there is a legitimate need for governments to intervene. Exactly what shape that intervention takes is open to debate, but it should be noted that the flagship European policy to deal with climate change - the EU's Emissions Trading Scheme - is explicitly designed to allow the market to find the lowest cost way of meeting CO<sub>2</sub> targets.

Intervening to prevent emissions of greenhouse gases is not fundamentally different from government intervention in a whole host of areas of society where the market does not provide the solution that society wants. For example, food hygiene, health and safety standards, levels of pollution from industrial activities, manufacturing standards or building regulations.

It is ironic that the political recognition of climate change that scientists and others have been calling for for so long has brought its own set of problems that seem to undermine the public's belief in man-made climate change and the need to act to prevent it. It is undoubtedly a good thing that more decision-makers are taking the problem seriously, but this has its downside in the fact that people are suspicious of politicians and their motives. Decision-makers may be experiencing difficulties in justifying some climate change policies, partly as a result of a lack of public trust, but this is a wider problem with the political system and should not detract from the need to find solutions to the problem of climate change.

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<sup>1</sup> Stern Review: The Economics of Climate Change [http://www.hm-treasury.gov.uk/media/8AC/F7/Executive\\_Summary.pdf](http://www.hm-treasury.gov.uk/media/8AC/F7/Executive_Summary.pdf)