



Innovation: The Environment

Environmental damage

Commentary

Many environmentalists are opposed to the scheme, as the barrage will cause significant environmental damage.

Hepburn

The issue here is a very tricky rock and a hard place environmental problem because the estuary is a site of special ecological merit, and sticking up a big barrage that blocks the inflow and outflow of water or at least changes those flows is likely to have effects on marine life, aquatic life, fish, water, wading birds, et cetera, and valuing those losses is a difficult and subject - not impossible and economists are very clever about thinking about how to do it but it is nonetheless difficult in a subjective exercise. So the challenge for us at the moment is to make sure that we don't destroy the environment in our quest to protect it, and it's still a very live issue here as to whether this type of investment is one that the UK should be proceeding with.

Falconer

In terms of the environmental cost, all of the projects that are proposed to generate a large amount of renewable energy from the sea are going to have a big impact on the environment, whatever project one looks at. If you look at the equivalent number of marine current turbines, if you look at offshore impoundments, whatever you look at, you're going to have a huge impact on the marine environment. And at least with the barrage, we have looked at the environmental impacts in huge detail, in terms of environmental impact assessments studies and so forth.

Commentary

What we are trading-off here is the value of manufactured goods – which require low emissions power generation – against what economists call the 'existence value' of the environment: its value for its own sake.

Helm

There is a kind of substitution that's assumed that if we have man-made capital, manmade goods - iPods, buildings etcetera, these substitute one for one, for the natural environment we've lost. So you might not have nice tigers to look at but you've got a new city and lots of buildings in it. You might not have the countryside to enjoy but you've got an iPod. They translate one for one; I don't think that's right. Our think our material well being depends in a very deep and critical way on our environment.

Commentary

Furthermore, one country cannot protect the natural environment alone.

Helm

In tackling climate change, the really difficult bit is it's global. And what we do in any particular country only matters in as far as it reduces the emissions in parts per million in the atmosphere, wherever.

Goodwill

I think the problem with United Nations forums is that they have to involve 192 countries, approximately 192 countries and each one of those countries has the right to slow down or veto much of what goes on in each one of those debates. That's probably the wrong way to get an agreement on something as important as this.

Hepburn

The Copenhagen summit in 2009 was viewed by many as a bit of a failure. And certainly, there were some real disappointments. We left the summit without a clear vision for what emissions should be by 2050. We didn't, as of December 2009, have an agreement on what rich and poor countries would do, even by 2020 although as I speak, in January 2010, those

targets are coming in to the UN. We didn't have a pathway from getting from 2020 to 2050. We didn't have a pathway in the short term for getting to a legally binding target..

Helm

What really matters is what's going on in China, what's going on in India, and to a lesser extent what's going on in the United States. And the story behind that is coal, coal and coal. The share of coal in global energy has gone from 25 to 28% and it's well on its way to 30. And the industrialisation of China and India, where the emissions growth is fastest is coal based.

Hepburn

The locus of power in, and the forum for those negotiations may well shift in the coming months and years to a smaller group of countries that reflect a large proportion of global emissions

Commentary

The US and China are key players.

Hepburn

Both of them are actually doing quite a lot in different ways, not necessarily on the pledging of reductions but in terms of investment in research and development and clean energy in America, it's, you know, it's fairly impressive. And China in particular, playing to its strengths of manufacturing exporting very low cost green equipment and so, recognising the kind of, comparative advantages of the two countries in contributing to solving the problem, I think, is important and has that recognition has begun to be there,

Link

What should the US and Europe do? And can it be done?

Helm

The countries mainly responsible for the consumption of carbon, Europe and the US, 50% of world GDP should impose a price on their carbon consumption, and that's a carbon tax plus a border tax. We should pay for the emissions that are made in China which are caused by our consumption and are made on our behalf. That's the first step. Of course once you start putting border taxes on carbon emitted in countries like China, you start to begin to change the incentive structure of China and India and others. So I would go bottom up from the carbon tax point of view and border taxes, rather than the hopeless idea that we're gonna get some all singing all dancing, legally binding international treaty which is actually going to address climate change.

Hepburn

It is possible for the UK to de-carbonise, I think it's possible I think, for every country in the world to fully de-carbonise. The question is, as you say, at what cost, and are we willing, politically, and at the ballot box to, and in the supermarket, to pay those costs?

Goodwill

If we are intelligent in our public policies, high carbon taxes focussing on the things that really matter, then we can solve this problem. The issue is whether societies, governments are prepared to take the difficult challenges that are needed to get us there.