



## **Energy policy and climate change**

*The Copenhagen Conference*

### **Commentary:**

For anyone interested in global warming, the 2009 Climate Change Conference in Copenhagen, is the most important event since Kyoto in 1997. The Open University is sending a large delegation of researchers and experts, including Godfrey Boyle, the director of the OU Energy and Environment Research Group.

### **Godfrey Boyle**

It's going to be a very interesting experience. I've been to various UN conferences before we went to the United Nations conference in Johannesburg in 19, 2002, the big environment conference, and in fact I actually went to the first United Nations environment conference in Stockholm in 1972, a very long time ago, and we did various things to do with energy there so I've been an occasional participant in these big UN conferences for a long time now.

### **Commentary:**

With the Kyoto protocol due to expire in 2012, the 2009 conference has an urgent agenda to address.

### **Godfrey Boyle:**

The Copenhagen Conference is an attempt by the nations of the world to get an agreement on making major reductions in the world's emission of greenhouse gases, and the main one of which is carbon dioxide and it's a very, very large conference. It's going to have all the nations of the world representatives represented there, and thousands of people, and it'll be involving non-governmental organisations, government ministers, civil servants, academics, researchers, industry representatives, you name it, people will be there. There have been many of these before, but this is considered to be the most important one in a very long time.

### **Commentary :**

Godfrey Boyle is one of Britain's foremost experts on energy and its environmental impacts, and has a long-standing interest in renewable sources of energy.

### **Godfrey Boyle:**

Energy is one of the main emitters of carbon dioxide into the atmosphere, and therefore one of the main contributors to global warming, and energy needs to switch to becoming a lot more carbon frugal and in fact, ultimately, to become carbon free during the rest of this century and as fast as possible, and so the Copenhagen Conference is discussing how the various nations of the world in different ways, according to whether they're developed or developing, should make as fast progress as possible towards that goal.

I've been working at the, in the field of renewable and sustainable energy for over thirty years now here at the Open University, right from the days when we were researching into solar and wind power, it was considered a somewhat fringe activity to now, it's moved very much from the fringes into the mainstream of academic and industrial, and governmental activity, and is considered to be a hugely promising series of energy sources for the future of the planet really.

We weren't quite lone voices, there were a number of us saying these sorts of things in those days, but we were probably very much in the minority because in those days fossil fuels were very, very plentiful, and also global warming wasn't seen, at least not widely, to be a potential threat to the planet, the way it is now, the possible depletion of at least conventional oil supplies and that's another area that I've been working in, coupled with the threat of global warming, has moved renewable energy and sustainable energy right up the agenda in the last twenty years.

### **Commentary**

But energy policy is never just a question of science and technology: politics is key.

### **Godfrey Boyle**

In terms of the science of global warming and the technology of renewable energy, it's taken sort of ten or twenty years before the relative levels of certainty about the human causes of global warming have become widely and almost entirely universally acknowledged, and then the terms of technology, the configurations of wind power and solar power, and bio-fuels, and so on, it's all basically there, it just needs in some cases further and progressive incremental refinement. In some cases there is still potential for some breakthroughs, I mean that wouldn't be at all off the cards, but even if we don't have any breakthroughs we already have the technology to make it possible to move to a very low carbon or even zero carbon society over the next few decades. But it's the political will and in a sense the economics which is driven by the politics that's required to translate these perfectly feasible technologies into actuality on the ground.

### **Commentary**

But, however convincing the case for renewable energy may be, there are still powerful interest groups who prefer to maintain the status quo.

### **Godfrey Boyle**

There are strong vested interests in the fossil fuel lobby and the nuclear fuel lobbies, and so on, that want to keep things pretty much as they are, and it's only been concerted pressure from the environment lobby on governments which have shifted them towards enthusiasm for supporting cleaner and greener energy sources.

### **Commentary:**

The election of Barack Obama in 2008 gave hope to many environmentalists. The rhetoric may have changed, but what of the policies? The Copenhagen Conference is the first real opportunity for Obama to prove his green credentials.

### **Godfrey Boyle**

Obama has had a huge, made a huge psychological difference he's accepted that global warming is a real problem and that something has to be done about it, and that the US must make carbon reduction cuts. He has also just got through the House of Representatives a relatively modest proposal to cut America's carbon emissions by what other countries consider to be a fairly moderate amount, but he's having great difficulty getting it through the Senate, and it seems unlikely that he'll get it through the US Senate in time for the Copenhagen Conference, it seems that the Americans are going to go for what a – might, it's hard to explain this - a complicated approach where each country would have individual targets but I'm possibly a bit unclear about this because it is in fact still unclear, it's not yet obvious what is going to happen, but it looks like the Americans are going to propose a different approach to Copenhagen to the one that was taken at Kyoto, and I'm not quite clear what that is yet, it will become clear over the next few weeks before the conference starts. But it's likely to end up with a sort of rather different kind of deal to the deal that was done in Kyoto in 1997, one that the developing countries are not that happy about.

### **Commentary:**

The relationship between the developed and developing countries is a central issue for the Copenhagen Conference and an increasingly important dynamic in all climate change negotiations.

### **Godfrey Boyle**

The developed world has had very high carbon emissions over a very long period of time so they've been responsible for emitting vast amounts of carbon into the atmosphere, a lot of which is still there. So the developing countries argue well, you've been largely responsible for this problem, therefore you should contribute much more to the solution of it than we should. China now, it's about equal to America in total overall annual carbon emissions but per capita, because they've got 1.3 billion people, they're much lower and they argue that

they need to keep on emitting carbon for a bit longer in order to raise the standards of living of their people to a level beginning to be comparable with that in the developed world. And they also argue that they need to have major funding from the developed countries to developing countries to help them make the transition and Gordon Brown, for instance, has proposed a hundred million – billion – pounds to be transferred to the developing nations, and although they say that's not enough, it's a start. I think they would want probably ten times that amount. So there's a lot of haggling going on, I mean there's a lot of positioning, taking and posturing and, you know, the usual conference bluff and counter bluff as it's going on, and it's all up to haggling really, and there'll be some messy compromise arrived at at the end.

### **Commentary**

Ultimately, actions speak louder than words, and the true importance of Copenhagen may only be judged years after the event.

### **Godfrey Boyle**

I think what will be the concentration in Copenhagen, will be more on the carbon dioxide reductions, irrespective of how those are actually achieved, whether by renewables, whether by clean fossil fuels, or by nuclear, or by energy efficiency, over those four basic approaches and by making agriculture less emissions intensive, and those sorts of things, all those things will be on the agenda, but in a way renewables are now, you know, pretty respectable. Well, I think I'm being a bit over-confident here but I mean, you know, renewables are now a major part of the equation in a way that they wouldn't have been perhaps twenty years ago. But you know, the world has known transitions, energy transitions, in the past you know from wood to coal, and then coal to oil and gas, so it is possible to have another energy transition over a number of decades away from carbon intensive energy sources to much more carbon frugal sources. I mean it requires a huge investment, but then of course even if we were to just replace the present system with similar kit, that requires a huge investment anyway, so whatever we do we're going to require a huge investment. We'd be better to make that investment in cleaner and more climate friendly sources rather than continuing with the old polluting technologies which, in any case, would have to be renewed after twenty, thirty years of their lifetime.