

Diocesan Climate Change Conference November 14 2009

Key experts present the facts and churches respond

“ The scientific understanding of climate change is (mostly) incremental whilst public and media debate is volatile and adversarial”

The comments by Professor Ian James, speaking at a one day conference on climate change for church leaders and parishioners from St Albans Diocese last November, got to the heart of current problems in the global warming debate.

Professor James said: “Science is not about exact prediction. Any measurement or prediction involves uncertainty, and science is about quantifying that uncertainty.”

By putting a range of scientific, technical and energy policy facts from distinguished experts before their fellow church members, the Diocesan Europe, Environment and World Development Groups aimed to contribute to a better understanding of the public debate on climate change. Their conference took place just before the Copenhagen climate summit in December 2009.

The organisers also wanted to underpin the debate with a radical Christian vision recognising not only the imperative for justice for the poor who are most affected by global climate change but also challenging the very foundations of the western consumer-dependent lifestyle. By taking the biblical story of Exodus as a parable of modern times and threading it through the conference, it became a narrative asking where things had gone wrong, what ‘could be’ and what needed to be done in practical terms to ‘get there.

Understanding the Issues

The scientific perspective

Revd Professor Ian James, formerly of the School of Mathematics, Meteorology and Physics at Reading University and an Environment Adviser to Oxford Diocese, argued that evidence is mounting that the earth’s climate is beginning to change.

“It is undisputed that carbon dioxide is increasing faster than at any time since the industrial revolution, at around 2.1ppm a year. Whilst it has been suggested that a global temperature rise of 2oC is the maximum that would leave the world in something like its present state, that would be generated by carbon dioxide levels of 450-500ppm.

However some recent projections suggest that the temperature rise might exceed 4oC degrees centigrade by the end of the 21st century. “Such a rise” he said would be catastrophic for human society and for life on Earth in general.”

He went on:

“The prediction of future climate change depends on two factors:

- better understanding of the climate system so that we can more accurately predict what temperature rise a given load of carbon dioxide will produce. Areas of major current uncertainty include the effects of clouds, ocean circulations, feedbacks such as release of methane from melting permafrost.
- estimates of future carbon dioxide emissions. “These are matters for politicians, economists and business people. But so far there is very little sign of any slowing down in the increase of energy consumption.”

Future energy options

Environmental author **Chris Goodall** gave a clear and lay-friendly breakdown of the technological options available for alternative energy. He appraised ten potential technologies for saving the planet:

- wind power (but how many turbines would be needed to replace Didcot nuclear power station?),
- solar energy (which is cost competitive in SW USA today) plus harnessing deserts to generate electricity
- tides and wave power - underwater turbines are already in place off the coasts of NW Scotland and Northern Portugal and because water is 1000 times heavier than air, the technology has extremely ‘dense’ energy potential
- combined heat and power for example a small fuel cell has now been produced which is more efficient than a gas-fired power station
- super insulated buildings
- electric cars
- motor fuels from cellulose
- carbon capture. He quoted Vattenfall, a Swedish power company “as the only company doing something about carbon capture rather than whinging about its expense.” Vattenfall strongly believe their carbon capture and storage could be commercial by 2020
- biochar which takes Co2 out of the atmosphere and permanently sequesters it in the soil. It’s a potential tool to slow global warming but at the present time its value is most obvious in the tropics where biochar can be used to improve the fertility of poor soils, reduce CO2 emissions and store more carbon.
- soils and forests which can be reclaimed from near-desert

Chris Goodall concluded by making the point that boiling two electric kettles all the time for 24 hours a day would use 5000 watts. By using instead the first eight technologies we could reduce the rate of carbon emissions by a tenth, and combined with carbon capture (the last two technologies), we would reduce the energy bill by 1,000 watts giving an overall total of 500 watts for the equivalent of 24 hours of boiling water in two electric kettles.

A European perspective on energy policy

Richard Howitt, the labour MEP for the East of England outlined the European Union's integrated energy and climate change policy, which recognizes that the burning of fossil fuels for energy is a major contributor to climate change.

Mr Howitt said that this policy would provide energy supplies which are competitive, sustainable and secure. They would be integrated with good environmental practice which will reduce CO₂ emissions and other greenhouse gases.

The key elements of EU Energy policy are:

- More efficient power and gas markets. Nearly all EU consumers can now buy their gas or power from any supplier, including some which specialise in renewable energy
- Diversification. Nearly 80 per cent of the energy consumed in the EU is from fossil fuels, and the EU's own resources are being used up faster than those of the world as a whole. In order to reduce dependency on imports and vulnerability to supply and price rises, the EU is looking into more home grown energy based on renewable energy sources such as wind, solar, hydro power and biomass. It is likely that nuclear power will be part of this mix in some countries of the Union.
- A renewable energy policy. A target of 20 per cent of energy from renewable sources by 2020 was set in 2007. This will include the use of biomass (wood), biogas and biowaste in power plants, and re-useable steam generated from electricity production, ground heat, solar energy and wind turbines.
- Using energy more efficiently. For example household white goods and appliances, office equipment, transport and the building industry
- Promoting research and development in eco-innovation and sustainable technology across all industries.

Mr Howitt said the activities of multi-nationals across the world but in particular in developing countries can have a devastating impact on the environment and on local communities.

In his role as spokesperson on Corporate Social Responsibility he had driven legislation through the European Parliament to compel businesses to report annually on the impacts of their work and to meet a set of common standards.

The Christian perspective

Global warming is an issue of justice, **Mark Dowd** the Director of Education and Communications of Operation Noah told the Conference. Operation Noah provides focus and leadership for Christians in response to the threat of climate change.

“Millions of the world's poorest peoples are already suffering the worst floods, drought, loss of homes and livelihoods. It is the richest nations of the world who have brought the planet to the brink of danger and now the developed world must take a lead and also change the way it lives.”

Mark Dowd added that this concern is not just about human life, but all creation. “The UN says that up to a quarter of all animal and plant species face extinction in the decades ahead due to global warming.”

Recent financial and environmental disasters have highlighted the vacuum at the heart of the western way of life and shown that there is a need for moral and spiritual leadership to bring about a radical change in our lives. He called on people of faith to “live the future now’ by taking a leadership role in their towns and cities by “transforming the way they lived and showing how a sustainable future might look in “a spirit of joy, community, redemption and obedience to God.”

Operation Noah suggests a five-part programme for parishes:” to connect, be active, take notice, keep learning, and give.”

Suggestions ranged from theological study to understand the relevance of faith to the ecological crisis, to church and home environmental audits, living sustainably, exchanging food growing skills, sourcing food locally and sharing the information with everyone in their local community.

Finally Mark Dowd urged the conference to use the strength of community to challenge structural injustice: ecological, economic, social and political both at home and abroad.

A public perspective: how did the conference respond?

The Book of Exodus in the Old Testament describes a series of God’s calls and the responses of his people as they journey out of slavery. It works as a parable for modern times in the sense that the over-developed peoples of the earth need to be freed from believing that the universe exists to serve us. This attitude has resulted in ‘a poverty of soul’ with its materialism (the golden calf), secularisation of all things sacred and complacency and injustice to our fellow men and women in the global south.

Many churches represented at the conference have already taken significant steps tackle the energy problems posed by climate change. During the conference discussions in the `afternoon session and in post-conference questionnaires it became clear that others would respond positively after the clear and open presentation of facts by the speakers.

Some churches are at the stage of low energy light bulbs and Fair Trade stalls, whilst others are already monitoring energy consumption or planning an experimental continuous low level heating system or considering a photovoltaic system. One Church is planning Christian teaching meetings on technology, business and economics with a view to “taking action as a church and putting pressure on the local MP”

Another church in one of the older ‘new towns’ in the Diocese which has considerable number of pensioners living in fifty-year old housing stock is encouraging its residents to take up available insulation grants. Yet another church uses a tailor-made environment audit and has a group meeting periodically to review various categories. So far they have reduced water usage and are monitoring gas and electricity.

Two areas of difficulty for many churches are the constraints of finance and being a listed building. A request for a church with experience of successfully putting solar panels on an ancient roof highlighted the need for a centrally provided information exchange which would include as one correspondent put it a non-judgemental sharing of information about for example fuel costs, and good practice.

At a time when global warming is hotly debated, often contested and frequently difficult for the layperson to follow, it was apparent from comments received after this conference that many people felt they could now heed the call to action:

“There was so much of the science and technology I hadn’t appreciated and it was really good to make the link with justice issues.”

“I see the Church having a key role in combating climate change. There is a real opportunity now to use the power of collective action to engage with our communities”

“My vision is to go back to my parish and make our church a beacon for our community in tackling climate change”

Helen Hutchison
Chair, St Albans Diocese Europe Group