

INTRODUCTION

1. My lords, honourable members, ladies and gentlemen, thank you. I'm Phil Wynn Owen, the Director General of the International Climate Change and Energy Efficiency team at the Department of Energy and Climate Change. I am not a politician but I am delighted to be in a parliamentary committee room without having to give evidence to a Select Committee.
2. I am delighted and honoured to be invited to speak to you this evening on what is a special day in your calendar.
3. This day is all about celebrating the supreme principal of non-violence towards humans, nature and the natural world. So, I would like to thank the Institute of Jainology for focusing this year's event on an issue which I feel cuts right to the heart of the principal. The issue of global climate change.

THE SCIENCE OF CLIMATE CHANGE

4. So what is it? Well I'm sure most of you in this room will have heard of climate change, global warming or the greenhouse effect? There are many terms and it can be a complicated subject but to remind us all, and to put it simply...
5. On this planet we are approximately 100 million miles from the sun. Our planet ought to be much much colder.
6. The atmosphere that we breathe traps heat. When the sun's energy hits the earth, some of it is bounced back into space and some of it is absorbed by the earth. As the earth warms up it radiates its own heat some of which is absorbed by the natural gasses in our atmosphere, keeping us warm.
7. We need this. Without it our planet would be some 30 or more degrees centigrade colder. We all know that global temperatures and weather patterns vary over time. But nature keeps a fine balance that, fortunately for us, is ideal to support our way of life.

8. The problem is that now much of our planet is industrialised. It's population has soared. We have moved from small scale agriculture to large scale industry and we are emitting more greenhouse gas than ever before.
9. So, the amount of carbon dioxide in our atmosphere has been rising since the Industrial Revolution. Concentrations of carbon dioxide have grown by 40% since pre-industrial times. Two thirds of that increase has happened in the last 50 years.
10. With all this extra greenhouse gas in the atmosphere we would expect the Earth's surface to get warmer. And it has... by about 0.8 degrees in the last 100 years.
11. So the basic science is clear. It tells us these three things:
 - Greenhouse gases warm the planet.
 - Global emissions are continuing to climb.
 - And the world is getting warmer.
12. So we know it's happening. But many people see climate change as something that will happen in the future .
13. Sadly, we are already seeing the predictions of the climate scientists – global temperatures and sea levels rising and erratic weather patterns. The rise in precipitation during the monsoon season has led to an increased incidence of flooding in India and Bangladesh, such as the catastrophic floods of 2002 and 2005 in both countries.¹
14. And unfortunately this is set to continue. Because of all the carbon in the atmosphere right now we are already locked into further climate change. Even if all emissions were stopped today impacts would continue to be felt for many years to come.
15. And it is not just humans who will be adversely affected by the changing climate.
16. Many ecosystems may be unable to adapt naturally to climate change if emissions continue at current rates. 20 to 30% of species are likely to be at increasingly high risk of extinction from climate change if average temperature increases exceed 2 to 3 degrees centigrade.

¹ Met Office Hadley Centre, 2009.

17. However climate change is not just a problem that affects countries abroad. Our own countryside and coastal towns in the UK will be at risk.
18. You may recall the UK floods back in 2000 (which cost the UK economy £3.5bn) and the European heatwave in 2003. Climate change had made such events about twice as likely to occur as before the industrial revolution. Under 'business as usual' scenarios, with no reductions in greenhouse gas emissions, the 2003 heat wave scenario could be typical in the 2040s and unusually mild by the 2060s.
19. Former Government Chief Scientist Sir David King said, and I quote:
- “The biggest natural disaster in central Europe for centuries, in terms of fatalities, was the summer of 2003, which caused 35,000 excess deaths. This was a direct result of the rising baseline temperature (coupled to an unusually hot summer) which was, in turn, a consequence of human-induced climate change.”²
20. And with the world's population expected to reach 9 Billion by 2050 from its current 6.9 billion, there will be further pressure on both food and water resources which could risk further conflict in areas where poverty and instability already meet.
21. A point Lord Nick Stern made in his key work *The Economics of Climate Change*, and again I quote :
- “with temperature changes of this magnitude, the physical geography is rewritten... There would be movement of billions of people on an immense scale...[it] would plunge the world into massive extended conflict.”³
22. So climate change truly is a threat and the challenge for us all is to find new ways to get everyone motivated to tackle it.
23. But I've come here also to share with you what many people worldwide are doing to mitigate climate change.

SOLUTIONS

² King, D., 2011. Panic is the main risk when disaster hits, *The Telegraph*, [online] Available at: <http://www.telegraph.co.uk/earth/energy/8399150/Panic-is-the-main-risk-when-disaster-hits.html> [accessed 12 October 2011].

³ Stern, N., 2006. *The Economics of Climate Change; The Stern Review*.

24. So how do we tackle such a big problem? Well to avoid the worst effects of climate change we have already agreed worldwide, via United Nations processes, that we need to keep global warming to within 2 degrees centigrade of pre-industrial levels. This means that global emissions must peak by 2020 at the latest.

25. If we are to achieve this we need to do 3 things:

First, we must make progress at home, in the UK and Europe.

Second, work globally to secure ambitious action on the ground and to work towards a new international agreement to reduce emissions.

Third, build support for action amongst the public and key groups in our community such as businesses, charities and faith groups, like yourselves.

UK ACTION

26. It helps others a lot if the UK and Europe can share their experience of reducing emissions. The UK passed into law the Climate Change Act 2008, which binds us to an 80% reduction in greenhouse gas emissions by 2050 and introduced a system of five year carbon budgets. This is the world's first long-term legally binding framework to cut emissions so as to meet our international commitments.

27. As an example of some of our new policies, we are:

Introducing The Green Deal which will be, our flagship programme from Autumn 2012, which will improve the energy efficiency of Britain's homes and businesses, and for that too the primary legislation has just passed through this Parliament successfully;

Proposing Second Session Legislation on, Electricity Market Reform, which will rebuild our energy economy and secure the next generation of clean energy infrastructure;

and we are creating the world's first Green Investment Bank, which will encourage substantial private funds into green economy investments.

INTERNATIONAL ACTION

28. But, even whilst we are making progress at home, we must remember that climate change is a global problem that can only be solved with international action. After all the UK is responsible for no more than 2% of global emissions, so it is vital that we work internationally to influence others to tackle the remaining 98%.
29. So we will push for the European Union to demonstrate leadership in tackling international climate change, including by supporting an increase in the EU emission reduction target to 30% by 2020.
30. And we continue to work with key countries to help them make and prepare to meet their emission reduction commitments.
31. And with this November's climate summit in Durban, South Africa fast approaching there will be an excellent opportunity to make further progress by building on the agreements made at last year's successful summit in Cancun.
32. We are making steady progress in the international negotiations but it is never easy. International climate negotiations are probably the most complex of their kind. They are 'multi-year' processes not to be viewed through an all-or-nothing lens at each summit.
33. India is a climate heavyweight that has a big role to play inside and outside the negotiations. It is the world's fourth largest energy consumer and has the second biggest population. That means any decisions India makes on domestic climate and energy policy has a big impact globally.
34. We are working closely with India to encourage their support for a legally-binding, global climate deal. And we want to open up the huge business opportunity of the low carbon economy in India, including both for Indian and British businesses.

ADVOCACY

35. But tackling climate change takes a lot more than government actions. We need many to act.

36. Fortunately, in the UK we have many businesses, stakeholders, charities and wider civil society that are demonstrating and promoting real action on climate change, including many active religious groups.

BUSINESS

37. I understand that your community includes many active and successful business people. And that you demonstrate an ethical approach in your business dealings.
38. Twenty-five years ago, corporate social responsibility policies, carbon footprint publishing and emissions reporting seemed unlikely. They are now common.
39. Many businesses understand that investing now in low-carbon technologies will promote green growth which will boost their productivity, innovation and efficiency. It is good for business and good for the economy.
40. Globally, markets in low-carbon goods and services are worth £3.2 trillion and employ 28 million people – this is growing by 4% a year: there are clear opportunities for those businesses who engage early and secure comparative advantage.

FAITH - JAIN

41. But it's not all about business. Faith groups can play a major role in raising awareness of climate change issues and in encouraging individuals and communities to change their own behaviour.
42. Faith groups of all denominations can and do work together in the UK, both nationally and locally, to reduce their impact on the environment, sharing best practice and advocating the low carbon path.
43. I understand the Jain lifestyle revolves around being conscious of our impact on the environment.
44. So I would encourage you to continue to reach out to other communities, businesses and faith groups to help change their own behaviour and become more sustainable, respecting humanity, biodiversity and the world in which we live.

SUMMARY

45. Every voice is vitally important in the fight against climate change. Simple things like turning down the thermostat at home or at work can add up to a surprisingly big difference and can also save money on energy bills.

46. Tackling climate change is not easy. We live in challenging times. But every challenge brings opportunities.

47. Opportunity, to address both climate change and energy security whilst stimulating our economies with new business investment

Opportunity, to move towards a world where our energy sources are more secure and we do not suffer from wildly fluctuating prices for our energy and for our food.

Opportunity to secure future generation's futures by teaching them to respect the world in which they live.

48. By working together we can and will meet this challenge.

49. Thank you for listening.