

OPINION

The Need for Global Action on Climate Change

Rt Hon Gordon Brown, Prime Minister of Great Britain 19 November 2007

Can I say first of all, I see in this room many, many people who have contributed to the growth of the environmental movement, not just in Britain but right across the world. And I want to thank all those of you here from pressure groups, NGOs, from business, people who have been involved in public policy over the years, and it is because of what you have done that Britain has a leading role in the climate change debate, and it is because of what you have done that we are building through this dialogue round the world a consensus that I believe will be a partnership with countries in every part of the world to bring about the climate change we want to see. But thank you for what you have achieved.

And I am privileged to be here, David, with Hilary Benn who has introduced the Climate Change Bill to the House of Commons at this event hosted by WWF today. For 40 years WWF has led the way to a greater public understanding of the beauty and diversity of the natural world we inhabit and your campaigns have saved habitats and species across the globe. Your practical work has shown how nature conservation can also provide sustainable livelihoods for local communities, and you are now in the forefront - and your remarks today show that - of the global campaign against climate change.

You put as your trademark the slogan 'One Planet Living', reminding us that we are using the resources of three planets, and you are now talking rightly about a one planet future. Indeed from long before it was fashionable you and the groups represented here today have reminded us of our obligations and you have demanded of us that we take care of the earth which belongs not just to ourselves but to future generations.

Now that is why I am speaking to you today, just two weeks before the UN Climate Change Conference that Hilary will represent our country at begins in Bali. And the task of Bali sounds quite specific: to launch negotiations leading to a post-2012 global agreement on climate change. But our mission is in truth historic and it is world changing - to build over the next 50 years and beyond a global low carbon economy. And I don't think it is over-dramatic to say that the character and course of the coming century will be set how at and from Bali we measure up to this challenge.

In the years after 1945 the world came together to rebuild broken economies and fractious societies and billions of new investment was mobilised to redevelop post-war Europe. And at the heart of that endeavour was the Marshall Plan that transferred 3% of national income from America to Europe and it was a collaborative effort under which countries cooperated for common goals. And at that time leaders had to fight against short-sightedness, inertia and the dominance of old backward looking dogmas but they met the challenge because they understood in 1945 that prosperity was indivisible, that to be sustained it has to be shared, and that meeting the costs and burdens and bearing the burdens were the only guarantee of prosperity and security.

And today again I believe we face another fateful choice. Building a low carbon global economy demands a worldwide commitment on a comparable financial scale. It will require billions of new investment in clean energy. The climate change crisis is the product of many generations, but overcoming it must be the great project of this generation. And this project will have to involve not just America and Europe, as in 1945, but the entire community of nations.

So once again leaders will have to show vision and determination because just as in 1945 we will have to understand that it is only by rising to the challenges of change that we can at all times guarantee our prosperity and security now and into the future.

Now the latest report just mentioned from the International Energy Agency makes clear the scale of this challenge. If we were to continue with business as usual, by 2030 world energy demand will be 50% higher than today, with 80% of this from fossil fuels. The average oil price will remain high with most oil and gas coming from unstable regions. Global carbon dioxide emissions will have risen by almost 60%.

And the latest report of the Intergovernmental Panel on Climate Change, just referred to by David, concludes that such trends unabated would mean temperature increases by the end of this century of up to 4% centigrade, sea levels rising by up to 60 centimetres, pervasive and prolonged consequences for eco systems, food and water supplies and for human settlements. And such a catastrophe would also be the most terrible injustice, for while the richest countries have caused climate change, it is the poorest who are already suffering its worst effects.

As the Stern Report, which we commissioned when I was at the Treasury, shows, the economic cost of this kind of climate change, the change which the world is currently headed for, would be comparable to the economic effects of a great depression combined with world war. But what the Stern Report also demonstrated is that momentous as the challenge is, meeting it is both technologically feasible, economically rational. The costs of urgent action are far less than the costs of delay, and the earlier we act the easier and less expensive our task will be.

So the role of government from now on is transformed. Once government objectives were economic growth and social cohesion. Now they are prosperity, fairness and environmental care. And it falls to this generation to show that we can meet and master the challenge of combining economic growth and environmental stewardship with social justice. The issue is not, as some would want it to be, can we afford to do more, the now undeniable reality is that we cannot afford to accept any less than this challenge.

So our starting point is Bali where we will not finish of course an international agreement within two weeks but begin what will be a two year negotiation to achieve it. And every country's concerns and proposals most of course be on the table.

For our part Britain is today publishing our statement setting out the principles which we believe should underpin a post-2012 framework, and our vision has one overriding claim: holding the rise in global temperatures to no more than 2 degrees centigrade. This requires global greenhouse gas emissions to peak within the next 10 - 15 years and to be cut at least by half by 2050. And it requires us to build a low carbon economy globally, ensuring that the \$22 trillion of new energy investment

worldwide over the next 20 years contributes more to the solutions to global warming through energy efficiency and low carbon generation than to its causes.

A global carbon market is at the heart of our approach, and that is not the old way of rigid regulation but the modern way harnessing the power of the market to set the global price for carbon, rewarding the most efficient and innovative action to tackle climate change. Built on the foundation of the EU Emissions Trading Scheme, with the city of London its centre, the global carbon market is already worth 20 billion euros a year, but it could be worth 20 times that by 2030. And that is why we want the 2012 agreement, the post-2012 agreement, to include a binding emissions cap for all developed countries, for only hard caps can create the framework necessary for a global carbon market to flourish.

Now a global carbon market will also facilitate a transfer of technology and resources so that developing countries can bypass the polluting 20th century path to industrialisation and move straight to the clean energy technologies of the new era.

Through the clean development mechanism, significant finance is already being provided to these countries. The flows could be much larger in the future, and building on the World Bank-led clean energy investment framework and the £800 million environmental transformation fund that we as a government have set up, I want now to work with the US, Japan, other G8 and European donors to create a new multilateral funding framework through which we can channel our assistance to help the developing world shift to low carbon growth, to reduce emissions from deforestation and to adapt to climate change. And I am pleased that Ewan Ellios (phon) is working with us specifically on the issues relating to forestation.

And as we help developing countries, so Europe has already shown its leadership, demonstrating Europe's ambition to become the first major low carbon economy. Now the decisions made by the EU this year to cut emissions by 20% by 2020, or 30% if part of an international agreement, to commit to 20% renewable energy and a 20% also increase in energy efficiency by 2020, have committed our continent to a low carbon trajectory, demonstrating how Europe can provide the platform for Britain to achieve its aims nationally and internationally. And I do pay tribute to the work of President Barroso, Chancellor Merkel and President Sarkozy for their leadership.

The EU view is that to stand a chance of keeping the temperature increase below the 2 degrees centigrade target, and as part of a multilateral agreement, emissions from industrialised countries like Britain should be cut by 60 - 80% by 2050.

Now in Britain we now produce some 654 million tonnes of carbon dioxide equivalent annually. By 2050 we need to be producing just 155 - 310 million tonnes - less than half as much in an economy which will be two and a half times its present size.

So within four decades each pound of GDP needs to produce just one-sixth to one-twelfth of the CO₂ equivalent it does today, and that means a very significant change in our energy economy. Indeed I believe it will require no less than a fourth technological revolution. In the past the steam engine, the internal combustion engine, the micro-processor transformed not just technology but the way our society has been organised and the way people live.

Now we are about to embark, I believe, on a comparable technological transformation to low carbon energy and energy efficiency and this represents an immense challenge for Britain, but it is also an opportunity.

Globally the overall value added of the low carbon energy sector could be as high as \$3 trillion per year worldwide by 2050, it could employ more than 25 million people in jobs. If Britain maintains its share of this growth there could be over a million people employed here in our environmental industries within the next 2 decades.

So building our own low carbon economy offers us the chance to create thousands of new British businesses, hundreds of thousands of new British jobs and a vast new export market in which Britain can be a world leader. And this will be essential to our energy security as we move from a period where most of our energy has come from domestic sources to one where on present trends by 2020 up to 80% could come from overseas.

The foundation of our approach is providing clear, credible and long term signals. First, our Climate Change Bill will place a statutory cap on Britain's emissions. Five year carbon budgets will be set on the advice of the new independent Climate Change Committee. That will provide certainty for investors, businesses and consumers. And just as I thank Hilary Benn for his work, I thank David Miliband for all the work that he did on the Bill when he was Secretary for the Environment.

Every new policy will be examined for its impact on carbon emissions, not just those which reduce emissions but those which increase them. And where emissions rise in one sector we will have to achieve corresponding falls in another. And the legislation will enact our target of achieving a reduction in carbon dioxide emissions of at least 60% by 2050 through domestic and international action.

But the evidence now suggests that as part of an international agreement developed countries may have to reduce their emissions by up to 80%. So we will put this evidence to the Committee on Climate Change, ask it to advise us as it considers the first three five-year budgets on whether our own domestic target should be tightened up to 80%.

The Climate Change Bill will also put on the statute our interim target for 2020 of a 26 - 32% reduction in carbon dioxide emissions. That means cutting greenhouse gas emissions overall by between 32 and 37%, Britain's contribution to the European target and to the new international climate change agreement that we all seek.

We have already led the debate in Europe to ensure that aviation emissions are included in the EU Emissions Trading Scheme as soon as possible, and I recognise also what you say about shipping. We will now ask the Climate Change Committee to examine whether and how international aviation emissions could be included in the UK's carbon budget. And because we know that alongside measures to reduce carbon emissions we must do more to deal with the effects of climate change, there will also be new powers in the Climate Change Bill to require public bodies to assess where necessary the risks to climate change and set out what action they need to take in response.

Now our second imperative is a major improvement in our energy efficiency. At present a third of all the oil, coal and gas we buy is wasted - a result of still relying

on the technologies and often the mindset of the past - and this must change. Take cars. We commissioned from the Treasury a report from Professor Julia King. That report shows there are exciting new vehicle technologies that are just over the horizon: commercial hybrid engines, ... plug-in hybrids, fully electric cars and hydrogen fuel cells. And Professor King now believes that a halving of average emissions by 2030 to around 80 grams per kilometre is feasible. Now the EU is looking to introduce a new mandatory efficiency standard of 130 grams by 2012. Britain will now press for a second ambitious European target of 100 grams per kilometre by 2020, or no later than 2025.

Now at the same time we must do more to improve energy efficiency in our homes. By 2016, as you know, we are legislating that all new houses will have to be zero carbon. Building regulations already requiring 40% higher efficiency than 2002 will be tightened. New energy performance certificates will provide households with an energy rating for the home. Within a decade our aim is that every householder able to do so fits loft or cavity wall insulation, installs low energy light bulbs, uses low energy consumer goods. But in consumer goods, including those with wasteful standby facilities, we are working with retailers to raise energy efficiency standards. We have already, as you know, secured agreement that standard high energy light bulbs will start to be phased out from next year, and removed totally by 2011, and we are the first European country to do so.

Since 2001 government schemes have insulated 2 million homes. But over the next 3 years, as a result of the new carbon reduction emission targets for energy companies, I can announce that 5 million more homes will benefit from discounted or free loft and cavity wall insulation and another 3 million homes from discounted or free low energy light bulbs and energy efficient appliances.

For every household over the next decade there will be the offer of a smart meter that will allow two-way communication between the supplier and customer, giving more accurate bills of course and making it easier for people to generate their own energy through micro generation and sell it on to the grid.

And to help people move towards a greener lifestyle we are also today announcing a new one-stop green homes service, and that will be a single telephone line, a user friendly website, a network of advice centres in every region of the country to provide easy access to an energy audit, the full range of discounted and free services available to give advice not only on energy efficiency but on micro generation, water efficiency, recycling and greener travel. And there will be house to house visits in 50 of our poorest areas to provide these offers about energy efficiency and more door to door, and for every householder who gets an Energy Performance Certificate with an F or G rating for a home being sold or bought, the green home services will make an offer of discounted or free help with energy efficiency measures.

Now this represents the biggest improvement in home energy efficiency in our history - one household in three offered help over the next three years - to cut the carbon footprint, savings of over £100 per year at least for a typical householder.

Now businesses too must play their part in improving energy efficiency and reducing carbon emissions. Here the basic policy framework is already in place. We have the climate change levy that was introduced in the late 1990s on business energy use. Climate change agreements that flowed from it with the main sectors have delivered

savings of 60 million tonnes of carbon dioxide so far. Major carbon emitters, accounting for almost half of Britain's emissions, are now required to achieve emissions reductions through the EU Emissions Trading Scheme, and we are working in Europe to strengthen the scheme so that there are tighter caps for longer periods set for future phases.

Now from 2010 we will also introduce carbon trading in the UK for large but less energy intensive businesses, for offices, supermarkets, commerce, public sector organisations, saving at least another 4.2 million tonnes of CO₂ a year.

And one of the biggest contributions to our greenhouse gas emissions is landfill waste. And all over the country campaigns have been formed to get rid of disposable plastic bags - one of the most visible symbols of environmental waste. Every year in Britain over 13 billion single use carrier bags are distributed - over 10 bags a week for every household. In partnership with the government the supermarkets have already committed to reduce the environmental impact of plastic bags by 25% over the next year. But I believe and I am sure we can go further, indeed I am convinced that we can eliminate single use disposable bags altogether in favour of longer lasting and more sustainable alternatives. So the government will convene a forum of the supermarkets, the British Retail Consortium and other interested groups to urgently assess how together and how quickly this reduction can be achieved.

Now the third imperative for a low carbon future is a major drive to decarbonise our energy sources. For 200 years the British economy has run largely on fossil fuels - coal, oil and gas - supplying us with the plentiful and secure energy that powered our progress and prosperity. Now over the coming decades, as you know, we must move from a largely fossil fuel based economy to an economy primarily powered by low carbon energy - renewables, potentially nuclear - subject of course to the outcome of our consultation and the emerging technology of carbon capture and storage.

Now at present around 9% of total energy in Britain is from low carbon sources, 2% from renewable, 7.5% from nuclear. In order to meet our global greenhouse gas targets, by 2020 virtually all energy for electricity and most of the energy used for heating, cooling and transport in our country will have to come from low carbon sources. And because we need to replace a third of our electricity generating capacity in the next 20 years and most of the new plants will still be operating then in 2050, we must start this technological transformation now.

In our Energy White Paper, as you know, the government set out its preliminary view that it would be in the public interest to give energy companies the option of building new nuclear power stations as most of our existing nuclear stations will be decommissioned in the next 20 years. Having concluded the full public consultation we held on this issue we are considering the results and will announce our decision in the New Year.

I also believe that carbon capture and storage will be a vital new technology in reducing carbon emissions around the world. For many countries, including America, China and India, coal is still the cheapest and their most readily available form of energy and it will remain so for many decades to come. So if we are to have any

chance of meeting our global climate goals we must find new ways of capturing and storing the carbon dioxide it produces.

And I can announce today that we are launching a competition to build in Britain one of the world's first commercial CCS coal projects, demonstrating the full chain of CO₂ capture, transport and storage. And tomorrow in Beijing the Chinese government and the European Union, led by us, will begin Phase One of the near zero emission coal initiative which will explore options for demonstrating CCS with coal-fired power generation in China, and it is the first study of its kind in a country that as many of you know is building two coal-fired power stations every week.

Now we will also consider whether if we can show that carbon capture and storage is technologically and commercially viable, it should be made mandatory in some form for all new British fossil fuel plants.

The 2% of our total energy that now comes from renewables is much less than in many other European countries. In the Energy White Paper we announced plans to triple the amount of electricity from renewables by 2015. But as the urgency of tackling climate change and achieving energy security increases, the case for more reliance on renewables has become more compelling. And that is why at the European Council this year Britain led the way to an agreement that by 2020 one-fifth of all Europe's energy should come from renewables, a near threefold increase.

The UK worked hard to get agreement to this target and let me make it absolutely clear, we are completely committed to meeting our share. The European Commission will, as you know, come forward with their proposals for how the overall target is to be divided between member states in January. A final decision is expected in early 2009. We do not yet know therefore what the UK contribution will be but it is clear that over the next decade and beyond Britain will need to raise very significantly the proportion of our energy from renewable sources and we must start planning for this now.

And let me tell the country - it will be a huge challenge. It will be for the private sector to make the necessary investment but the government will do more to remove the planning and other obstacles that are currently holding renewable back.

We already plan to increase the capacity of offshore wind farms to less than half a gigawatt now to 8 gigawatts, and John Hutton will announce shortly details of our proposals to allow a further significant expansion. And to remove the barriers that exist here, I have asked that Des Browne, the Defence Secretary, John Hutton and Ruth Kelly, the Transport Secretary, to step up their efforts in cooperation with industry and the regulators to identify and test technical solutions to the potential difficulties that wind farms pose to air traffic and defence radar.

Under the Planning Bill we will publish a national policy statement on the appropriate balance between enabling wind farms and protecting shipping. And I have asked Hilary Benn to ensure that our new Marine Bill responds sensitively to the environmental issues that I know are posed by offshore wind farm development. We will also explore the potential for major new investment in energy from wave and tidal sources and we have already announced a study of the feasibility of generating tidal energy from the River Severn. This alone could provide 5% of Britain's electricity needs.

John Hutton is announcing today that we will include tidal lagoons and barrages below 1 gigawatt capacity within the scope of the renewable obligation, potentially benefiting projects such as those being proposed for Rill and Swansea Bay.

Now meeting our renewable targets will also require a number of other changes: more onshore wind farms sited in the right places, greater use of energy derived from waste, a major expansion of energy from biomass, greater use of micro generation, including as costs come down more solar power. And I recognise that wind farms and other new energy installations are often seen as a burden to the local communities living near them while the benefits may go to society at large, so I want to explore how local communities can themselves benefit from the economic opportunities they create.

Now meeting our target will also require greater use of renewables to heat our homes and our buildings so we will introduce new measures to bring forward renewable heat with a call for evidence in January prior to a full consultation on this. And as we expand renewable heat we will need to ensure that wherever feasible and economic we generate electricity and heat together. So instead of all our energy being generated remotely, more can be supplied locally, making more efficient use of our energy resources.

And in transport we will do more to stimulate sustainable forms and sources of bio fuels. I take extremely seriously concerns about the impact of bio fuels on deforestation, precious habitats and on food security and the UK is working to ensure a European sustainability standards is introduced as soon as possible, and we will not support an increase in bio fuels over current target levels until an effective standard is in place. Increasing our renewable energy sources in all these ways will require national purpose and a shared national endeavour and we will also need to ensure that the costs for business and for consumers remain affordable. So we will launch a consultation next year inviting you and others to join a serious national debate about how we are to achieve our targets and we will publish our full renewable energy strategy the following spring once the EU directive is passed and we know what the contribution from the UK will be.

In the meantime we will legislate, as promised in our Energy Bill, to reform the renewables obligation, to bring forward newer technologies, and we will introduce in our Planning Bill new measures to speed up the planning system for major infrastructure projects whilst ensuring the public are properly consulted. And let me say that all three phases of legislation, all three of them - the Climate Change Bill, the Energy Bill and the Planning Bill - are vital to this endeavour because we cannot will the end if we do not also will the means.

Now this is what I believe meeting our carbon goals means in practice, not just talking about it or making vague promises about the future, but taking the concrete action nationally and in Europe and then internationally to achieve them. When I said at the launch of the Stern Review that we were going to follow the work he had done and build a low carbon economy in the United Kingdom, I meant it. And I know this means facing up to the hard choices and taking tough decisions, but it is governing, not gimmickry, and that is what we will. We will make these choices and I want the British economy, British firms and everyone in Britain to benefit from this new low carbon future.

Last year I asked the Secretaries of State for Environment and Business to chair a commission of experts on how the UK could benefit economically from doing the right thing environmentally and today we are publishing the Commission's report. It estimates that from water treatment to global carbon markets the UK's environmental industries are already worth more than £25 billion and that they already employ some 400,000 people. It shows that if tackling climate change represents the greatest of challenges for the world, it is also the greatest of opportunities for Britain and the rest of the world. And just as in each of the three previous technological revolutions Britain played a leading role, we now have the opportunity to play a leading role in taking the world towards this low carbon future and it is an opportunity I want this country to seize: a greener Britain where a new green economy provides greater prosperity and high quality jobs, even as it protects the environment and provides a better quality of life for all.

So the government will step up the support that we give British companies as they look to develop and supply the goods and services that are vital to this new technological revolution. And I can say today that the first programmes of the £1 billion public/private Energy Technologies Institute that we have created in the last year will be focused on R and D in offshore wind, in wave and tidal stream energy, and the new £370 million domestic environmental transformation fund will help bring these technologies to the marketplace, creating businesses and jobs.

And to ensure that we have the skills and expertise for the environmental industries of the future, we will work with employers to create apprenticeships and 'Train to Gain' places in the environmental industries and we will bring forward plans for not just apprenticeships in environmental areas, but also a new National Skills Academy for the whole environmental sector.

And early next year the government will convene a summit with the Regional Development Agencies, with energy companies, universities, manufacturers, with environmental service providers also and with NGOs, to explore how we maximise these economic opportunities in each region of the country for a low carbon future.

We have seen the excellent work being done to engage the memberships and those people who are campaigning on environmental issues by groups like yourselves represented here today, from the National Trust, Oxfam, Christian Aid, to the Women's Institute, the RSPB and WWF. We have all been impressed by the efforts of companies, from B & Q and Marks and Spencer, to Sky and Tesco, who are trying to empower their customers to act as part of the 'We Are in this Together' campaigns.

But I believe there is even greater scope than has been seen so far for business and for the voluntary sector to work in partnership with government to mobilise individuals to take more action themselves. So I have asked Fiona Reynolds of the National Trust, and Ian Cheshire of B & Q to recommend how we can move this forward and how this greater engagement might be achieved. I am determined too that the government will meet its responsibilities and maintain what I believe is global leadership. All of us - government, business, civil society and individuals - have a part to play in this momentous task. Working apart we will surely fail, but working together I have no doubt that this is a challenge to which the human spirit and all our powers of ingenuity and enterprise will rise.

