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Committee

Sustainable Development in a Changing Climate

Fifth Report of Session 2008–09

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Oral and written evidence

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International Development Committee

The International Development Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for International Development and its associated public bodies.

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Contacts

All correspondence should be addressed to the Clerk of the International Development Committee, House of Commons, 7 Millbank, London SW1P 3JA. The telephone number for general enquiries is 020 7219 1223; the Committee's email address is indcom@parliament.uk

Witnesses

Tuesday 27 January 2009	<i>Page</i>
Mr Simon Anderson , Chair, Climate Change, International Institute for Environment and Development (IIED)	Ev 1
Mr Alex Cobham , Head of Policy, Christian Aid, Ms Sara Shaw , Policy Officer, Climate Change, Tearfund, Tim Jones , Campaigns Policy Officer World Development Movement	Ev 7
Tuesday 10 February 2009	
Ms Victoria Johnson , New Economics Foundation, Mr Jonathan Mitchell , Overseas Development Institute, Dr Murray Simpson , Senior Research Fellow, Oxford University Centre for the Environment, Ms Gillian Cooper , Tourism Concern	Ev 16
Professor Tim Lang , Professor of Food Policy, City University London, Dr Tom MacMillan , Executive Director, and Mr Paul Steedman , Research Fellow, Food Ethics Council	Ev 24
Tuesday 3 March 2009	
Ms Jodie Keane , Research Officer, International Economic Development Group and Leo Peskett , Research Fellow, Overseas Development Institute	Ev 33
Dr Keith Allott , Head of Climate Change, Mr David Tickner , Head of Freshwater Programmes, and Mr Toby Quantrill , Head of International Governance, WWF	Ev 39
Wednesday 11 March 2009	
Professor Lord Stern of Brentford	Ev 47
Wednesday 29 April 2009	
Mr Michael Foster MP , Parliamentary Under-Secretary of State and Mr Elwyn Grainger-Jones , Head, Climate and Environment Group, Department for International Development; Lord Hunt of Kings Heath , Minister of State for Sustainable Development and Energy Innovation, and Mr Andrew Randall , Internal Issues Advisor, Department for Environment, Food and Rural Affairs	Ev 55

List of written evidence

1	Department for International Development	Ev 71; Ev 96; Ev 199
2	Agricultural Biotechnology Council	Ev 100
3	Dr Ian Bailey, Senior Lecturer, School of Geography, University of Plymouth	Ev 102
4	Blue Skies Communications	Ev 104
5	British Airways	Ev 105
6	Department for Culture Media and Sport	Ev 107
7	E.ON UK	Ev 107
8	FlyingMatters	Ev 110
9	Fresh Produce Consortium	Ev 112
10	International Alert	Ev 114
11	International Institute for Environment and Development	Ev 115
12	Jodie Keane and Christopher Stevens, Overseas Development Institute	Ev 129
13	Leo Peskett, Climate Change, Environment, Overseas Development Institute	Ev 133
14	Nestlé UK Ltd	Ev 133
15	Joint submission from Population and Sustainability Network and Marie Stopes International	Ev 134
16	Research Councils UK	Ev 142
17	SAB Miller	Ev 149
18	Saferworld	Ev 151
19	Dr Murray Simpson, Senior Research Associate, Oxford University Centre for the Environment	Ev 154
20	Sussex Energy Group, Science and Technology Policy Research, University of Sussex	Ev 156
21	Thomas Tanner, Institute of Development Studies, University of Sussex	Ev 159
22	Tourism Concern	Ev 162
23	The Travel Foundation	Ev 165
24	United Nations Industrial Development Organisation	Ev 167
25	David Woodward, Independent Development Consultant	Ev 172
26	World Development Movement	Ev 176
27	WWF	Ev 186

Oral evidence

Taken before the International Development Committee

on Tuesday 27 January 2009

Members present:

Malcolm Bruce, Chairman

John Battle
Mr Mark Hendrick

Mr Marsha Singh
Andrew Stunell

Witness: **Mr Simon Anderson**, Chair, Climate Change, International Institute for Environment and Development, gave evidence.

Q1 Chairman: Good morning, Mr Anderson. Thank you for coming in. Perhaps for the record you could introduce yourself.

Mr Anderson: I am Simon Anderson. I am Head of the Climate Change Group in the International Institute for Environment and Development.

Q2 Chairman: Thank you. You have given us an update on your CV which is helpful. In passing, I notice that you are working with Danida.¹ This Committee had a very good visit to Denmark last year, especially to Danida, who I think have become a very valuable partner—two ways, between the two countries. It is interesting that you are working with them. Indeed, I think they have a number of UK nationals working on some of their development policies.

Mr Anderson: They do.

Q3 Chairman: And some joint activities. It is interesting from that point of view. Obviously we are here to explore with you your thoughts about DFID's engagement in sustainable development and the extent to which it is real or could be improved. We are concerned about to what extent there is a real drive to address sustainable development in a different climate and to what extent are they badging things that would be done anyway and calling it sustainable development? You say that you think it has become a low priority for the UK Government. Can you give us some evidence to back that up, as to the way in which that is manifesting itself?

Mr Anderson: To a certain extent there are issues of definition here. The way that DFID might choose to define sustainable development perhaps differs from some of the more mainstream definitions of sustainable. They do tend to emphasise economic development or the economic component of sustainable development, and perhaps because of that there is less emphasis on the socio-economic and the environmental aspects of sustainable development. Also, as was pointed out in the environmental audits a couple of years ago, DFID's focus on the environmental elements of development has received a proportionate decrease in interest

within the department and in investment. We can look at indicators in terms of the way the environmental advisers are integrated into country programmes and into central DFID, and, also, the way that the environmental components of sustainable development are factored in mainly through environmental screening, which we would consider does not take into account sufficiently the environmental causes of unsustainable development.

Q4 Chairman: You also mention the Sustainable Development Commission in fairly complimentary terms in terms of its function, but say that it does not have a very high profile in international work. Do you have a view as to how that can be improved or developed or strengthened to enable it to help DFID to deliver its policies more effectively?

Mr Anderson: Perhaps due to the performance of that Commission there has been less interest in engaging with it as fully as might have been the case. There are certain chicken and egg situations here. If agencies such as DFID took more interest in the Sustainable Development Commission, in fact encouraging them to engage more in the realities of sustainable development within developing countries, its agenda would become more closely related to development issues, where they matter, and it may well be that the agenda could be honed more to the needs of countries which are suffering due to the environmental impediments to development.

Q5 Chairman: In one sense you would have thought that the Sustainable Development Commission might start in developing countries, on the grounds that what they are trying to do is to promote development in sustainable ways before it has happened as opposed to trying to turn unsustainable development that has happened into sustainable development. It is a bit odd that you should say that the very existence of this Commission may have lowered that, when you might have thought it would have wished to push for that to happen. Are you suggesting that there has been no such push from the Commission itself?

¹ The Danish International Development Agency

27 January 2009 Mr Simon Anderson

Mr Anderson: No, I am not suggesting that. Neither am I suggesting that the Commission was a cause of unsustainable actions. But there is a concern we have that the Commission needs to be better integrated, needs to be better engaged with development activities, development evidence, perhaps including, for those who are involved in providing evidence to the Commission, that the issues they deal with and the evidence they are using are more grounded in the realities of developing countries.

Q6 Andrew Stunell: Your brief, a bit unkindly, referred to the Department's approach to sustainable development as window dressing. Would you elaborate on that point a little more, please.

Mr Anderson: There is, as I have mentioned, a dichotomy perhaps between the interests of stimulating economic growth to solve poverty issues and a more holistic interest in development, including environmental causes and outcomes of development. DFID has rightly engaged thoroughly with Poverty Reduction Strategies in many developing countries but the way that it has done that has led it to ignore or certainly put far less emphasis on an integration of environmental causes of poverty than might otherwise have been the case.

Q7 Andrew Stunell: Could you give an example of where you see that happening at the moment with the current programme?

Mr Anderson: Across the board, if we look at the agencies that are involved in developing the Poverty Reduction Strategies in different countries, we see that there are few cases—perhaps the Tanzanian case is one that is worthy of investigating further—where the environmental concerns have been more thoroughly integrated into the Poverty Reduction Strategy process.

Q8 Chairman: The Committee is visiting Tanzania as part of this inquiry.

Mr Anderson: I think it would be interesting to examine that case further to see whether the integration of agencies, government agencies and others involved in the environment side of sustainable development, have been sufficiently engaged with during the development of the Poverty Reduction Programme that Tanzania has taken up. Of course it is less easy to learn from success than from failure: success is due to a myriad of factors, whereas with failure one can perhaps be more prescriptive in terms of the facts that have led to failure. I can think of a number of cases where environmental foresight has not been included in Poverty Reduction Strategies. I think there are more cases of that across Africa and South Asia, and it may well be worthwhile looking at such cases.

Q9 Andrew Stunell: Would you be able to give the Committee a note on one or two of those? You have given us a good example as you see it, which we are visiting. Do you have some bad examples in mind?

Mr Anderson: I would not like to name bad examples or even label country-driven initiatives as being bad examples, but we could certainly provide

information on those that would assess the level of engagement of environment agencies, both government and non-government, within the Poverty Reduction Strategy process.

Q10 Andrew Stunell: Thank you. Also in your evidence you said that DFID had a short-term perspective which was making it difficult to get sustainable development incorporated effectively. What do you think the solution to that problem is? How can DFID develop a more long-term approach to these issues?

Mr Anderson: I would like to point out at this juncture that in my career, as is pointed out in my biography, I have been a DFID employee. As I mentioned to your scientific adviser, there is no axe to be ground here. DFID is an organisation that I joined because I thought they were doing some good work and they continue to do so. Inevitably, however, with an organisation, a government department, that has its workload defined in large part by political cycles, it is more expedient to be dealing with shorter-term, more easy-win objectives. Environmental degradation—the classic example being the way that this climate change is exacerbating different elements of environmental services—is a long-term issue. DFID and its partners, the developing governments, suffer from the same conflict of interest between dealing adequately with long-term investment problems and dealing with those within a shorter-term political cycle. It is not just DFID, it is the partners that DFID is working with which suffer from this. Also, DFID is a reasonably high turnover, dynamic institution or organisation, and, as I have said previously, there is a strong interest in managing economic development for poverty reduction which perhaps you can do on a shorter-cycle basis but, in terms of the way that environmental, social and cultural cycles coincide with economic cycles, there is the need to work over the longer term, and the incentive structure perhaps within DFID is not such that individuals, departments, or teams within DFID respond to that.

Q11 Andrew Stunell: There is no reward for looking to the long term is what you are saying.

Mr Anderson: I would not say there is no reward. I would say that the reward structure does not emphasise longer-term issues.

Q12 Chairman: That should not inhibit the World Bank so much, should it?

Mr Anderson: No, it should not. However, as we have seen historically, the Bank also is less convinced of the need to address longer-term environmental issues in its development planning and its loans portfolios.

Q13 Chairman: That might be a point of engagement between DFID and the World Bank.

Mr Anderson: Yes, I think it might be. DFID does and should continue to encourage the Bank to take on environmental concerns. This is the opportunity that the arrival of climate change issues on the

27 January 2009 Mr Simon Anderson

agenda provides us, because we are now being shown that environmental externalities to conventional growth patterns have led us into a situation most close to a tipping point, and the tipping points in different parts of the world are going to be at different distances into the future, including from now right the way through, so we are being encouraged by the nature of the environment to take a longer-sighted vision and, also, to include evidence for our planning that generally looks at the environmental causes of development failure.

Q14 Mr Singh: Is there a development agency that we could look to with better practice or best practice or a better balance in terms of the economy and the environment?

Mr Anderson: Yes, I think there is the need to address the balance.

Q15 Mr Singh: There is a critique of DFID there, which is fair enough, but is there a development agency we could look at and learn from which has a better record or better practice?

Mr Anderson: There is a number that have attributes that DFID could investigate. Organisations that have taken a more environmental approach to development have more expertise in engaging with both civil society and government agencies within developing countries that have pursued those issues more thoroughly. DFID has a very, very broad portfolio.

Q16 Mr Singh: But you will not tell me who they are.

Mr Anderson: There is a number—

Q17 Chairman: Are we talking about Danida here or somebody else

Mr Anderson: There is a number of international NGOs who are far more willing to look at the environmental causes of what we might call development failure. Those are well known. There are, of course, developing country networks which are exposing both the environmental and socio-economic causes and effects of environmental change, including climate change. One which comes to mind and with which we are closely involved is the capacity building in least developed countries on adaptation to climate change. This is the CLAC network. This is a civil society network across South Asia and Africa. Those organisations, small organisations, are grouping together to increase the volume of their advocacy voice, working together on environmental change issues, particularly climate change issues, within countries and cities: health, the economic costs of adaptation, and coming together to provide evidence both of practice and what they are doing on those issues and on their evidence gathering. I think that is a good example and we can provide other examples.

Q18 Chairman: You say in your evidence that DFID used to be supportive of sustainable tourism but has effectively pulled out of it and should go back. We are going to have a separate session on tourism, so I do not want to go into too much detail, but could

you elaborate on the specifics. Your view is that DFID used to and they now do not but you think they should go back. DFID could be doing more to promote sustainable tourism. Is that still true, given the current economic climate?

Mr Anderson: I think we can point to some country programmes that were exploring the potential for tourism, namely some in southern and eastern Africa. The central part of DFID was also investing in developing the evidence of the poverty reduction contribution of more sustainable tourism. There is an issue here of being able to look at evidence from the medium term, because it is not as if you can go and take a snapshot of what is happening with sustainable tourism and then solve all of the issues. There are some quite complex issues in terms of the distribution of benefits from sustainable tourism that are not static. If one looks at some of the potential for tourism to continue and increase its contribution to GDP in certain countries, if the institutional work, which is probably the most difficult, the inter-organisation and the distribution of benefits is worked upon, then the poverty reduction potential can be better realised. Perhaps this is an issue again of not being able or not being willing to maintain an interest into the medium term to appreciate fully the benefits

Q19 Chairman: Your evidence is helpful. The written evidence clearly is that you can look at tourism as pro-poor.

Mr Anderson: Yes.

Q20 Chairman: You can also look at mineral and other extractions in a pro-poor way.

Mr Anderson: Yes.

Q21 Chairman: That clearly is a useful development role. Of course this is only the start of this inquiry but we might consider making a recommendation that DFID should look back into that. One of our colleagues who is not here at the moment said, “DFID does not support tourism, so why do we look at it?” But the question is that we should be looking at whether they should be. You are saying that they should be.

Mr Anderson: Yes, we are very firmly of the opinion that that has great potential.

Chairman: That is very helpful.

Q22 John Battle: Could I return to the idea of environmental integration, in particular the concept that might be helpful of environmental governance. For a long time in the 1960s it used to be put in the tabloid form of “setting the people against the trees” in the South American example, and so there was a tension between environmental concerns and trying to tackle poverty. We then went through the economic arguments of exponential growth versus limits to growth—to use a phrase that was used. If I were to caricature what has happened in the debate now, just as labour standards were introduced and then poor countries said, “That’s a barrier introduced by the West,” to some extent the response now is “You’re putting environmental barriers in

27 January 2009 Mr Simon Anderson

boxes that we have to tick before we can get there.” We have not taken a positive integration at the country level of this agenda. I do not think we have done it here in Britain, never mind asking other people to do it. Could we explore a bit more that concept of environmental governance bedding in, the binding together of tackling poverty and ensuring it is sustainable. That might change the mindset all around, might it not? What would be the main elements of that concept of environmental governance, in your view?

Mr Anderson: The key aspect of that is access to environmental resources. Part of the reason those who are poor are poor, is the fact that they do not have rights of access. You will be familiar with Amartya Sen’s conceptualising of poverty as a lack of freedom. In terms of rights of access to natural resources, environmental governance has a huge role to play in enabling poorer people to roll back some of the processes that have excluded them from access to water and to forest and to common land, et cetera. There is a very strong movement across different sectors to explore how those constraints of access to resources is imposing greater levels of poverty than otherwise might be the case. This is not just a rural issue because there is access to environmental goods and services that urban and peri-urban populations suffer as well. Of course, the management of the environment in the rural sphere, the way that it is managed and perhaps democratising that management, will mean that there will be a better distribution of the benefits from it. The crucial element of that environmental governance is to increase the right of access of those who are dependent on the natural resource base.

Q23 John Battle: I can see that at the local level but perhaps I could push it a bit further and say I am really interested to see how environmental governance—and I underline the word governance, because sometimes we use that about governments and institutions as well—at the local level can build into institution building. To make it practical, there is criticism that DFID gave assistance in the form of budget support—that is the idea. To draw an analogy, it could be said in Britain, in my city, inner city Leeds, the biggest demand at the moment is people queuing up to get allotments. But it is not enough for climate change as a whole. There is a little thinking going on “Yes, think global and act local” but we need to both at the same time. It is a bit more complicated than just having your own allotment. Are we really suggesting going back to spectacular environmental governance projects at the local level, or is there some way of embedding the concept of environmental governance into the institutions so that budget support can be seen as not harmful to environmental development? At the moment your evidence suggests that it is.

Mr Anderson: There is a trade-off there between economic development and managing the environment for longer-term development issues. We would suggest that direct budgetary support needs to be accompanied by a strengthening of civil society, or organisations certainly, so that for

governments that are managing governance systems at the different scales there is a process in place that makes them accountable and that enables them to listen better to environmental concerns—environmental concerns both from the local level through to the public good of the environmental services. We would prefer to see that, alongside direct budgetary support, there was an encouragement, a dialogue with the Government to strengthen civil society.

Q24 John Battle: Without civil society you do not get good governance anyway.

Mr Anderson: Civil society is very important for demanding good governance. For example, last week I had the good fortune to meet the Minister for Northern Kenya and the Arid Lands and we were talking about incorporating climate projection information into his ministry’s planning. One of the things that he was keen on was the fact that the organisations and advocates of the pastoralists, the agro-pastoralists and other arid land users, similarly were able to scrutinise and to use projection evidence in their emerging dialogue with the planning agency, with his ministry. He was very aware of this reciprocal nature. I think that is something that DFID could build elsewhere.

Q25 Mr Singh: What were the expectations of the Poznan Conference? How important was it? Were those expectations met?

Mr Anderson: I think the expectations were quite realistic. We knew this would not be the culmination, that before the change in the US Administration there would be little movement certainly on mitigation, probably on technology transfer issues, and that was borne out to be the case. On REDD² and also on adaptation there was greater movement. I should say that the movement at the Adaptation Fund and its operation in large part is due to the board members. It is not so much due to the parties’ contribution at the conference. However, there was an Adaptation Fund board meeting directly following Poznan, and on the role of the secretariat and the trustees, the monetarisation of the carbon credits, the legal status of the board and its members there was significant progress made. From our perspective, concentrating mainly on climate adaptation in these developing countries or the most vulnerable countries, we came away with a very favourable impression of progress made. However, it still remains to be seen how much movement there will be, to whether the adaptation funds will become adequate and reliable in a way that the group of 77 and other parties are insisting.

Q26 Mr Singh: That sounds as though you would not agree with Oxfam, who categorised the outcome as a shameful lack of progress.

Mr Anderson: IIED are working quite closely with the Adaptation Fund. We have offered support through the chair to that process. As I say, the Adaptation Fund board has achieved more perhaps

² Reducing Emissions from Deforestation and Forest Degradation

27 January 2009 Mr Simon Anderson

than might have been expected. The conference of parties provided a framework for that to happen but there are still parties who are less than helpful in terms of the development of that funding stream for adaptation. Yes, we are still looking forward to the outcome in Copenhagen.

Q27 Mr Singh: Given that Poznan was the stepping stone towards Copenhagen, what are the major issues that we need to resolve in 2009, before Copenhagen, so that Copenhagen can be a success?

Mr Anderson: I prefer to talk to the areas I know best, which is reduced emissions for deforestation and degradation and also the adaptation issues. However, progress on those will be thwarted if parties cannot agree on a set of mitigation targets. In terms of the adaptation issue, there is a major discrepancy between parties' opinions of the way that adaptation should be funded. There is a major polemic around what constitutes adequate and reliable funding. Personally I think there is a lack of evidence as to the balance between what is called planned adaptation, through state and other major intervention bodies, and autonomous adaptation by the private sector, individuals, households and firms. Understanding that balance, getting evidence of that and how adaptation finance can be channelled in the most effective ways, needs to happen in the interim. Part of the work IIED is doing is contributing to that, the level of knowledge as to what is the most effective way of supporting adaptation processes in poorer countries. In terms of the way that adaptation and REDD are linked, as I mentioned in the corridor to your scientific adviser there is a problem of a divorce between these four pillars. Adaptation and mitigation—it is a false dichotomy into the future—that realisation has to happen. If there are going to be trade-offs in the way the negotiations proceed, perhaps a better understanding of the way that mitigation and adaptation need to be linked into the future needs to happen and looking at the possibilities for that. Similarly, in looking at the emissions reductions objectives of reduced deforestation and enabling local communities to adapt better to climate change effects, we need to open up that overlap. We need to unpack those overlaps for a more effective negotiating process to take place.

Q28 Mr Singh: What would you advise DFID to do between now and Copenhagen to ensure that Copenhagen achieves its aims?

Mr Anderson: DFID as a contributing element to the EU delegation needs to push hard on the link between adaptation measures and poverty reduction. I think it needs to re-examine the urgency with which adaptation needs to be put in place, so that the development, poverty reduction targets, the MDGs can be achieved or better achieved, or in fact sustained where achievements have been made. We need to have a better understanding, and to share that with parties, of climate change impacts on poverty. There is evidence emerging. The World Development report that was released just before the Bali meeting the year before last, has the basis and

the starting point for very good evidence on the way that climate effects will hinder poverty reduction. I think DFID should be emphasising that in terms of the negotiation process. We also welcome the fact that DFID has provided further financial support to the Adaptation Fund board. That board and its operations need to be brought on line as soon as possible. We need adaptation planning through the National Adaptation Plans of Action to be taken seriously. We need pilots on adaptation to be far more widespread than they are. We need all developing countries to be learning what it means, not only to plan but to implement adaptation activities, and that in an environment where the transactional costs of that lesson learning are recognised and to some extent subsidised from Annex I countries.³

Q29 Chairman: Is adaptation, funding pilots and so forth, something that has to be an add-on because there is a clear suspicion about diversion? Or is it possible to integrate it in ways that genuinely deliver poverty reduction? We are concerned about a situation where DFID will badge things it is doing and say, "This is the environment." It would be quite helpful to get an idea of what should be additional and what can genuinely be a poverty reduction component and simply orientated that way.

Mr Anderson: I think we need to realise that, without adequate climate foresight (that is, the use of reliable climate projections), it is difficult to say that good development overlaps completely with adaptation. The reason for investing in certain adaptation activities will differ from purely development objectives. There are climate change effects that will affect certain sectors of the population more than others. There is an overlap, of course, with populations of the poorest and quite often the most climate prone. It is not sufficient to say that good development will solve adaptation needs. There are other objectives to be addressed. There is also the issue that a large number of parties to the convention consider that, where there is an ethical element to the way that compensation is paid on a polluter pays principle, then to allocate part of Official Development Assistance for adaptation is seen as a reduction in the resource flow, and actually the need for adaptation is such that we cannot really afford a reduction in the funding available. If we look at a number of parameters—the adaptation costing estimates that have been made, the way that pledges, particularly to Africa, around climate adaptation have not been fulfilled, the way that some adaptation funding has not been as efficient as it might have been—they are all indicators that there needs to be a special dedicated effort to test and to prove the effectiveness of adaptation activities. It may well be that, once that testing has taken place, the development allocation by DFID and other agencies

³ Annex I to the United Nations Framework Convention on Climate Change. The Annex I countries are those which committed themselves as a group to reducing their emissions of the six greenhouse gases by at least 5% below 1990 levels over the period between 2008 and 2012. Specific targets vary from country to country.

can be better and that that overlap will genuinely be there, but up until that stage I think it is too early to say.

Q30 Mr Singh: Given the global economic downturn and in fact, in some countries like our own, recession, do you think there will be any real appetite to have a new agreement on climate change at Copenhagen?

Mr Anderson: Talking to the man on the street, the taxi driver, the people you meet through the hazards of life, as it were, yes there is a reticence to take seriously the need to increase flows of funds to developing countries. However, if we look at the responses where there are climate-related disasters, that speaks to the fact that people are able to identify adaptation or certainly relief measures from extreme events as special cases, and so there may well be a greater appetite than we would suspect. In addition, since different governments around the world have addressed the financial crisis with such huge quantities of finance and funding, what is possible? The £50 billion for adaptation costs per year compared to the massive amounts that have been pumped into the financial sector. I think, yes, people's mindset, the way people look at it, has changed. The key to this is to demonstrate the effectiveness of adaptation investments and to have better evidence around the counterfactuals: What would have happened? What will happen if we do not do this? This is not stuff that is happening over there. There are very real effects of climate change in developing countries that will have repercussions for us elsewhere.

Q31 Chairman: There is a conference going on at the moment in the House where these issues are being discussed. One contributor said that he was worried about Copenhagen, that the danger was that we would go in, we would try to cobble together an agreement, and then say we had fixed it.

Mr Anderson: Yes.

Q32 Chairman: His suggestion was that we needed to ensure that we get the tightest agreement in terms of commitment we can, with enough flexibility to recognise that it has to be continually updated, that it is not a deal you walk away from. Just as a matter of interest, the scientific evidence we have been given is saying that the targets now need to be brought down to 350 parts per million to achieve those targets, and we are not even getting to the higher ones. The suggestion was that we are 10 years from the tipping point.

Mr Anderson: Yes.

Q33 Chairman: The plus point, which is to take Mr Singh's question, is that the current global downturn just buys us enough space and time, but if we were able to find all that money for financial rescue surely we could find some now as a result of the time frame. What do you think the possibility is of Copenhagen being conducted in that climate, perhaps with the American Administration taking a different view?

Mr Anderson: I continue to be an optimist in terms of the way that the incoming Administration will slightly move the goalposts on a number of issues, the way that they were prepared to have a dialogue around these important aspects of climate change whereas the previous Administration was not. I think there is a danger that Copenhagen might be seen as the end of the road rather than the beginning. Most of our partners in developing countries see adaptation to climate change as a journey, not as a destination. Whatever happens at Copenhagen, there are surprises, there are thresholds in terms of climate effects that we are not anticipating. An agreement that enables us to (1) articulate those concerns and (2) allocate resources to deal with them is necessary. Of course the process will not put in place all the plans that are necessary but, hopefully, a framework that will allow us over the succeeding years to work out how implementation of those commitments should be conducted. Again referring back to DFID's role, there will be the need to monitor very closely how adaptation activities and investments are contributing to sustainable development objectives. The way that those investments are made needs to be scrutinised on that basis. That is a very important issue for DFID to develop its *modus operandi*.

Q34 Chairman: I did find your written evidence had a lot of very useful data we could use. You have been involved in doing the adaptation funds in some of the least developed countries. Would you be able to give us a little bit more indication of how that could be applied because that seems to be very relevant to things that DFID could plug into.

Mr Anderson: DFID has made resources available through the World Bank for its pilot programme on climate resilience. There is some criticism of the type of funding that has been available through that channel in terms of whether it should be loans money—even soft loans—or grant money. We criticised the initial planning. Indeed, DFID has responded in terms of the way the Bank will manage that process more democratically with the interests of developing countries closer to the centre. Of course that is part of a piloting process that needs to happen but it needs to be far wider than that. We would like to see DFID supporting a greater number of countries in piloting adaptation actions. We would also like to see, as I have mentioned previously, the National Adaptation Plans of Action taken more seriously. A small increment in the funds of the Global Environment Facility, for example, would enable all these developing countries to pilot the first one or two of the priorities that came out of their National Adaptation Plans of Action. That would be a relatively small investment that DFID could perhaps lead the way on, choosing the countries that are its highest priority, and many other donor partners would come in and support that. That we see as a necessary next step. Making loans available through the Bank is just one means of supporting adaptation. There need to be others

27 January 2009 Mr Simon Anderson

and we need to have an impartial objective assessment of the effectiveness of the different channels.

Q35 Chairman: The Committee is always in favour of helping DFID get a better return for its diminishing pounds. That is a practical suggestion. Thank you very much. That has been very helpful to us.

Mr Anderson: I have brought along some other documents that you might like to consider.

Chairman: Thank you very much.

Witnesses: **Mr Alex Cobham**, Head of Policy, Christian Aid, **Ms Sara Shaw**, Policy Officer, Climate Change, Tearfund and **Mr Tim Jones**, Campaigns Policy Officer, World Development Movement, gave evidence.

Q36 Chairman: Thank you all three for coming in from your respective organisations. Again, for the record, could you just introduce yourselves for the shorthand writer?

Mr Jones: I am Tim Jones, Campaigns Policy Officer from the World Development Movement.

Ms Shaw: I am Sara Shaw; I am a Climate Change Policy Officer at Tearfund.

Mr Cobham: Alex Cobham and I manage the policy team at Christian Aid.

Chairman: Thank you all very much. I hope this will be a useful exchange. You appreciate that what the Committee is looking for is practical recommendations in a sense because there is sometimes a danger in this area that it gets very philosophical about approaches. What inputs and outputs we can get is what is of interest to us. I will ask Andrew Stunell to lead off.

Q37 Andrew Stunell: Perhaps you could set the scene for us by telling us how effective you think DFID is in integrating climate change adaptation with disaster risk management and with environmental management?

Ms Shaw: I will make a start. On the positive side we do welcome that DFID is putting greater emphasis on climate change and on disaster risk reduction. I know they launched their strategy on disaster risk reduction with which Tearfund were quite involved a few years ago. I think there has been an effort to develop some climate and disaster related activities and research at the country programme level and at an international policy level as well. The climate change adaptation in Africa research is an example of that. I think the ORCHID Programme, which is piloting integrating climate risk into disaster risk reduction, which was piloted in India and Bangladesh, and examples of that, a different version of that was also piloted in Kenya. I think those are helpful examples. In terms of a much broader approach to climate screening and full integration across programmes, I do not think that has been as full yet as perhaps it could be. I do not know if my colleagues have anything to add.

Mr Cobham: I do agree with that. In the last couple of years DFID has really taken greater strides in bringing up the profile on its adaptation work and has put a lot of effort into that but there remains this issue of it is almost running separately from its other

work, as Simon Anderson mentioned earlier, its economic development work, and that is a real problem.

Mr Jones: I am not an expert on adaptation issues. There are comments that I would want to make about DFID's approach to mitigation and its role more broadly within the government of being a voice for those living in poverty around the world, which I would be happy to contribute now. In our evidence that we gave we highlighted the particular example of the Phulbari coalmine in Bangladesh, which is an open-cast mine that a British company would like to develop and which would displace, they claim, around 40,000 to 50,000—an expert group from the Bangladesh Government predicted more like 120,000—people from their land. In answer to a parliamentary question last year Gareth Thomas, Minister for Business and for International Development said that the British High Commissioner had been lobbying on behalf of the British company for this mine to go ahead. It is not apparent in this case either whether DFID had any say in this position of actively supporting this project or whether it has just been voices within the Department for Business, but there has certainly been lots of confusion around who is taking responsibility for this. So we have had emails going to the Department for Business who said this is a DFID matter and then we sent them to DFID. DFID said that this is a Department for Business matter. Fundamentally the British High Commissioner has been lobbying on behalf of this mine purely, we would say, in terms of profit for the UK company and economic development with no consideration of sustainable development and actually what it will mean for people on the ground.

Q38 Andrew Stunell: I have a feeling that one of my colleagues might want to come back to you on that. Can I come back to what changes you think need to be made? You have emphasised some of the positive aspects but you also made it clear that you have some reservations. How do you think that the traditional development programmes that DFID supports need to be changed to take further account, better account of climate change?

Ms Shaw: I think there needs to be much broader screening and climate proofing of all of DFID's portfolio's development work. You can develop a great project and build something in an area which is incredibly vulnerable to climatic changes, if it is in

27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

a flood plain or is at risk of sea level rise, and clearly that is unhelpful. So sometimes we have siloed it and only looked at some of the implications in some areas, whereas I think it needs to be a much broader process across all of DFID's programmatic work, looking at how you screen and how you proof that. DFID does need to take a sustainable resource management approach, so not looking at resources as prospects for exploitation but as something to be sustained and managed; and I think there should be increased community engagement. You develop better and more environmentally robust approaches when you have full community engagement on the projects' work. On the issue of financing, the fact that DFID has particularly directed financing through the World Bank rather than supporting some of the other funds which are around, for example the fund which gives money to NAPAs⁴ or the Adaptation Fund is not particularly helpful either.

Mr Cobham: I think there is a real problem that the vast bulk of, explicitly, the adaptation financing from DFID is going through the World Bank, for a number of reasons, in part because as we know the World Bank is not an organisation that has a good reputation for local ownership in its work. Its strength is in delivering large-scale projects of a certain sort. What it has not done is involve local communities in those projects and often the projects have been at great cost to those local communities. If we are looking for locally owned adaptation, which we must be if we are serious, it does not seem like the way to go. In addition, the oversight of the World Bank's adaptation finance is not at all strong, so the ability of DFID to hold the World Bank to account for actually delivering on its adaptation goals is far from clear. If I can mention one case. In August 2007 19 of the biggest development and environmental NGOs wrote to DFID requesting that they engage in discussions about the proposal that those NGOs—and it is quite something to have the line-up of NGOs that signed up to that—wanted to work together to work on pilots of adaptation finance that would involve effectively community-based adaptation; so putting a positive alternative to funding all this money through the World Bank. That proposal was not taken forward and the commitment of DFID to financing through the World Bank has remained and arguably strengthened. I think there is a need for DFID to look again at alternatives to the way that they do their adaptation financing.

Q39 Andrew Stunell: So what would be the difference between a project which went through your 19 NGO community groups and one that came through the World Bank?

Mr Cobham: For example, the tendency of the World Bank has been to finance, as I have said, large scale projects, whether that would be a hydro-dam or a large coal powered station perhaps ready for carbon capture and storage, but we know that the energy efficiency of that type of project is very low.

Even Kingsnorth, being discussed here, at best would have an efficiency of 49% but on average you are looking at more like 35%. The alternative is local energy so that you do not lose the energy and the heat particularly through distribution; you have smaller power stations operating within communities. But that is not the kind of project that the World Bank is really set up to enable or to support. So it is that kind of thing and working with communities to see what their needs are for energy but also the broader issues like adaptation. It is that type of thing that the World Bank just is not geared up to deliver. Again, as Simon Anderson was saying earlier, involving local civil society is really key to making those projects work for the communities in which they are based.

Q40 Andrew Stunell: Do you see any particular reason why DFID is resisting that approach? Is there some practical constraint that they have put to you?

Mr Cobham: It is not entirely clear. Certainly DFID are more optimistic than we are about the ability of the World Bank to turn itself into a green bank—this is the line. What we have not had from them is any indication of the way in which they would hold the Bank to account or measure if they have a problem with the Bank, or steps they might take if they felt that that was not happening.

Q41 Chairman: This Committee did put a marker down when we did our World Bank report⁵ that whilst that we were not against the World Bank obviously helping to deal with climate change issues, we were concerned about the re-prioritising of pro-poor, poverty reduction work with climate change and confusing it. So we have actually made that point.

Mr Cobham: Related to that perhaps is that the money that DFID has funnelled through the World Bank has been classed as ODA so it contributes to the 0.7% gross national income target. If it was to go through a different channel then arguably—and certainly the statements from Bali have been that—adaptation money should be entirely separate from aid and that is certainly our view. So it might therefore make it more difficult for DFID trying to meet these two targets of providing adaptation funding and reaching the 0.7%. I would like to think that that has not been a part of their decision.

Q42 Andrew Stunell: If I just go on a little bit more, clearly DFID is focusing on economic growth as a way of relieving poverty in particular. How can that best be linked to getting sustainable development in the environmental sense?

Mr Cobham: I think there is a real danger and the paper *Getting Growth Right*,⁶ that I think the Committee has seen, highlights some of those issues. If DFID continues with what appears broadly to be a two-track effort where they see economic growth and sustainable development as twin goals then the chances of being successful in either in a sustained way are greatly reduced. The example given in the

⁴ National Adaptation Plans of Action

⁵ Sixth Report, Session 2007-08, HC 67

⁶ Christian Aid Briefing Paper, 2008.

 27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

paper is we know that growth is very useful—or can be very useful in delivering poverty reduction or at least some aspects of particularly income poverty reduction. However if we decide that growth is therefore worthy of being the goal and we try to maximise it, inevitably this leads to a smaller developmental impact than we could have had if we had tried to maximise the thing that we call development, even though it is more complex and this is a bit harder to do. It is like a business deciding that research and development is associated with higher profits and therefore instead of maximising profits choosing to maximise its R & D budget—you end up with a very high R & D budget but you do not necessarily get a lot of profit. In this case DFID may be pushing short term growth without actually the developmental benefits that we would like to see. For the climate change work I think that the risk is very clear. We know that growth has not delivered the kind of development benefits that we would like to have seen. Every \$100 of growth in per capita income between 1990 and 2001 only contributed 60 cents to raising people above the dollar a day poverty line, so most of that growth did not go into addressing the most extreme forms of income poverty. If we are only able to use growth with that level of inefficiency then we know at the same time that in a sense our growth needs to be limited by our response to climate change. The ability of DFID or of any donor, but of the world in general to achieve development without breaching the climate tipping point is out the window or it is up in smoke I think is the expression. So we need to get more efficient about the way that we use growth to generate development but also the efficiency with which we create growth and the climate impact of that growth we are producing. If DFID continues to see these as separate lines rather than taking the holistic approach to them the prospects for them are not good.

Q43 Andrew Stunell: I read *New Internationalist* as well and there is lots of stuff which is ideally a good idea but could you just suggest a delivery mechanism? Is there a model that gets that more efficient delivery to which you have just referred because I would be very interested to hear what you believe it is?

Mr Cobham: I think there are certainly some basic elements in DFID's approach that could be changed for the better fairly straightforwardly. A clear example is the International Growth Centre that DFID is now funding, which we certainly welcome, where they are funding an international network of academics and other researchers effectively to work as a resource for developing countries to come to and say, "This is the problem we have with growth, can you help us?" But the framing of that is such that countries are, in effect, only able to ask, "How do we get more growth?" and not "How do we ensure that the growth we are getting is better for development, is cleaner?" So even in terms of very basic structural issues like that DFID appear to be embedding more and more this distinction between the economic development and the broader approach. I think a lot

of ways into that problem are in terms of how DFID works internally as well. But although that argument is slightly abstract about the holistic approach I do not think it is beyond the wit of DFID to find concrete ways of that sort in which to make sure that they are targeting a sustainable development goal rather than growth.

Q44 Andrew Stunell: So you believe that there is an alternative model in existence which would deliver this extra value if DFID adopted it?

Mr Cobham: Within the academic debate on this certainly there is a division between the growth diagnostics approach that looks at the bottlenecks to growth and goes forward to policy solutions on that basis, and the more complex, the arguably more difficult but ultimately more valuable than development diagnostics approach which defines the more complex goal and then looks for the bottlenecks to that and sees growth as having a role to deliver within that rather than being a separate goal that we pursue elsewhere.

Andrew Stunell: I think I might like to see a piece of paper with that written down.

Q45 Chairman: In the criticisms that you made of DFID do you think the creation of the new Department of Energy and Climate Change might help improve coherence? We have a new Department of Energy and Climate Change; should that improve the coherence and, if so, how should it interact in your view with DFID?

Ms Shaw: I think it should improve the coherence; it should improve the coherence generally across government by putting the energy inside the climate change, but I think it really depends on whether energy leads the climate change or the climate change leads the energy because if you look at an energy and an energy security based approach then you potentially squeeze climate change out. If you are looking at climate change imperatives and having to cut emissions, have sustainable development paths and the energy flows out of that then that is what I would suggest is the better and the right way to do that and I think that is what our hopes are of having that department which brings those two areas together. It remains to be seen which is driving which in reality.

Mr Jones: We welcomed the creation of the new department which centralises climate change as the key objective. For DFID from the perspective I have it appears that DFID generally see their role on climate change as adaptation and they do not see that they have a role in mitigation. We would argue that DFID needs to broaden their remit. If you look at the 2006 White Paper there is a whole chapter on climate change but nowhere does it refer to the need to cut emissions in the rich world. If we are going to tackle climate change we know that we need adaptation efforts because of what we have already caused but we have to mitigate or adaptation will ultimately become useless.

27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

Q46 Chairman: Just on that point, that is not an unreasonable position, is it, for DFID to take? They have a budget to spend in poor countries in reducing poverty. Of course it might help them if they are developing energy to help them to develop benign energy, but a lot of it is bound to focus on adaptation. Their argument would be that, “As long as the Government is arguing the case strenuously that we should be doing all we can to reduce the emissions then our job as a development department is then on the ground to deliver development policies that are most appropriate to that.” Or, if you do not agree with that what do you actually think they should be doing?

Mr Jones: First you said then that if the Government is doing all it can—which is a very questionable thing to start with—but secondly if you actually look at how we are intending to mitigate in the UK and Europe the key part of it is the Clean Development Mechanism. So in the European climate and energy package that was agreed in December, if you look through the whole of the package, at both what is happening with the Emissions Trading Scheme and what is happening with the non-trading sectors, around between 50 and 66 % of our targeted reductions in emissions will take place through buying carbon credits from developing countries rather than actually cutting emissions in the UK and Europe. There are two key perspectives that DFID could bring to that policy. The UK Government was arguing for us to be able to meet our target using 50 % carbon credits and there are two perspectives. One, that this is not going to tackle climate change because if you look at climate change from a justice perspective and what actually has to happen we in the UK, we have to do it domestically, we have to show a low carbon economy as possible; we have to show that we can meet people’s needs whilst tackling climate change otherwise you are not going to take other countries around the world with you. In addition, we have to provide all the finance, the low carbon development needed for poorer countries. The second reason is that the Clean Development Mechanism then works in developing countries entirely outside any accountability to views of development. So you have had lots of projects that have been funded such as coal power stations, refrigeration plants, waste tips, which have had lots of local negative impacts on people—and we shared some of those in our submission and could share more with the Committee. The scheme now exists outside any reference to development—it is a means to offset emissions from the western world.

Q47 Chairman: I understand where you are coming from. If we take the Bangladesh example that you have given, as I understand it, having looked at the brief from the exchange, DFID is doing quite a lot, admittedly on mitigation in Bangladesh and trying to address climate change, and to that end looking at lifting homesteads out of the water and putting houses on stilts—things that I would term as climate proofing presumably, but you are saying that the British Government is engaged in trying to lobby for this open-cast coalmine. What I am not clear about,

just as a matter of practical information, is this coalmine actually going to be developed anyway? You quoted the Bangladeshi Government. Presumably what you are saying is that if DFID is so engaged in climate change issues in Bangladesh they ought to be saying to the British Government, “It is quite inappropriate for you and other departments”—BERR, FCO and what have you—“to be supporting a project which is unsustainable and contrary to any climate change policy.”

Mr Jones: It some ways I would say this sits out of climate change and it is more about sustainable development. So this mine is proposed by the UK company; it does not exist and would not happen if the UK company were not pushing for it. Previously larger mining companies have looked at it and decided that it is not a viable project because it would have such negative local impacts. The British High Commission has been lobbying for it to happen with the Bangladesh Government and obviously the British High Commission in Bangladesh is a very powerful body given the amount of aid we give, and the reason why—it is not clear that DFID have had any role in this—

Q48 Chairman: The impression I get is that it had none and I would be surprised if they had.

Mr Jones: The question is why is the British High Commission then lobbying for this kind of project, which would have massive implications for between 40,000 and 120,000 people being moved, thousands of hectares of land having to be de-watered, and DFID does not have a role in it and it is just UK Trade and Investment—“It is a British company, we will lobby on behalf of them”—and there is no reference to whether DFID should be looking at this. The case is highlighted because Gareth Thomas is the minister responsible in the Department for Business but also as we know he is also a minister in the Department for International Development, but that half of him does not seem to be able to have any say on this project.

Q49 Chairman: It is clear where you are coming from. That is an area for debate about how the departments work.

Mr Jones: To make clear, this is not related to the Clean Development Mechanism and it is not really about climate change. The reasons for the mine being such a problem are not to do with climate change.

Q50 Chairman: You have explained how DECC might help; you have explained how DFID should assert itself more where there is a conflict. Are there any other ways you think that it is possible that crossdepartmental working could be improved?

Ms Shaw: Around climate change I think it is very important that the Treasury is involved, particularly as we go into this year of negotiations. There are a lot of decisions to be made around financing and I think we can see some real blockages if there is not cross-Whitehall cooperation that involves the Treasury, that involves Number 10 as well as DFID and DECC because I think certainly one of the

27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

things that you see when you go to the negotiations is that there are limits to what those different parts of government can actually negotiate when they do not always have the purse strings, and that can be a problem. My understanding is that there is greater Whitehall cooperation happening around the international negotiations but I do not think it is perhaps as full as it could be.

Q51 Mr Hendrick: I can see from the discussion that there are obviously lots of different alternatives in terms of the way that government departments could organise themselves and obviously to some degree I think the panel have been supportive of the changes that have taken place in terms of energy and environment. Can I ask, rather than just being critical of the changes that have been made and how those departments are working together at the moment, could you be a bit more prescriptive about how you would see a better or ideal organisation of departments to meet the needs that you are putting forward?

Ms Shaw: I do not think we have actually thought about particular institutional reform of UK government departments. We did broadly welcome the changes made to the Department of Energy and Climate Change and we do recognise that DECC does work with other departments. I think it is very difficult; the Treasury is the Department that generally deals with a lot of revenue and I am not sure how you reorganise that. I do not know if anyone has any other insights on that.

Mr Jones: It is not a re-organisation that is needed, it is changing of policy that the Treasury does actually make the money available; so that the Treasury does give DECC the resources it needs to drive decarbonisation in the UK; that it does support proposals put forward for generating the reliable funds needed for mitigation and adaptation in the global south.

Q52 Chairman: I accept the point that Mark is making, just in view of practicalities, and you have given examples. If you have the very poorest countries where Britain's engagement frontline is on development—and indeed we have been there where the High Commissioner will say, “I may be the chief man here but actually everybody wants to the man from DFID because that is actually why I am here or why we are here.” What you are really saying is that in that context Government ought to be saying that DFID should have a defining say on the Government's engagement in those very poor countries and it does not.

Ms Shaw: I am not sure 100 % if that is what we are saying. I think a lot of the areas around financing for adaptation internationally are actually around making sure that those flows of financing are not constrained by—

Q53 Mr Hendrick: You are saying it should be Treasury led now; earlier you were saying that you felt this should be climate change led and now you are saying it should be Treasury led.

Ms Shaw: No, I am not saying that at all. I think you are misunderstanding what I am saying. My area of expertise is around the international negotiations and around financing for climate change, which is taking place through those. What we are seeing is that the EU is finding it quite difficult to agree a position on some of the big proposals around generating large scale sums of financing, into the billions, for adaptation, which is what everyone agrees is required. Because Treasury are not keen for those sums of monies to bypass them you need a system that actually allows that money not to get caught up in domestic revenue issues.

Q54 Mr Hendrick: You are describing the problem though.

Ms Shaw: Yes.

Mr Hendrick: What is your solution?

Q55 Chairman: You are going to say you do not have one yet. I am going to bring Marsha in because Marsha's line of questioning deals with this.

Ms Shaw: I would not mind coming back on that.

Chairman: I am going to bring in Marsha Singh because he has a line of questioning.

Q56 Mr Singh: We are straight into funding for adaptation which is exactly what I want to ask. There is a huge variation in estimates for what is required and am I right in saying that adaptation funding will go through the Global Environmental Facility?

Ms Shaw: Some of it does currently; it will not necessarily in the future. There are some issues around adaptation financing as to how you generate it, what institutional arrangements you have for it and then how that money is then dispersed. Currently at least two if not three of the funds that are under the United Nations system are managed by the Global Environmental Facility. It would not have to be the Global Environmental Facility in the future that dealt with funds.

Q57 Mr Singh: Is there something else in mind?

Ms Shaw: It is actually one of the big issues that does slow things down internationally is what kind of institution or architecture you develop because developed countries have shown a preference for the World Bank and some of the big development banks and developing countries are very reticent because they find it hard to get access to the funding; there is not too much community engagement. So I think we are potentially looking at something of a stand-off and there is very little thinking of what you have as an alternative. Do you reform the World Bank to make it better, to make it do its job better and to make it more acceptable to developing countries? Do you use some of the existing UN bodies like the Global Environmental Facility, which again is not that popular with developing countries?

Q58 Mr Singh: What about Regional Development Banks?

27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

Ms Shaw: I think that is another alternative. That is something certainly that DFID has said, because it does not have to be the World Bank, it could be from other Development Banks.

Q59 Mr Singh: Because within localities they are happier with the Regional Development Banks than they are with the World Bank.

Ms Shaw: What is coming from developing countries particularly is quite a desire for a whole new set of architecture. We probably all have quite mixed views on that, whether you want to develop a whole new structure and infrastructure or whether you try and work with what is there. This is an area where I think there needs to be a lot of work done relatively quickly in order to progress things to Copenhagen.

Q60 Mr Singh: Coming down to actual figures and the variations in estimates of what is required—from the World Bank, \$10 to 40 billion and \$100 million estimated by Christian Aid—how much have you actually had at the moment?

Ms Shaw: What is around in funds at the moment in terms of UN funds is just around \$200 million.

Q61 Mr Singh: So we are miles away.

Ms Shaw: Yes. We are several scales of magnitude below where we need to be.

Q62 Mr Singh: Am I right in understanding that we have not even yet got what has been pledged?

Ms Shaw: That is true. There are a couple of funds; there is the Special Climate Change Fund and then there is the Least Developed Countries Fund. There is a short fall in terms of what has actually been pledged, which I think is about \$172 million and about \$130 million has come in. There are significant shortfalls in what is actually being offered which gives you a bit of an example of having an adaptation system which relies on an ODA type approach of what people are prepared to pledge and give, what countries are prepared to pledge and give as opposed to an innovative financing mechanism which generates it in a more predictable and stable way.

Q63 Mr Singh: I completely agree with that but, given that pledges have not been met, would it be right to name and shame?

Ms Shaw: I think they have been.

Mr Cobham: That in a sense quite often happens with aid particularly and it does not seem to have a terribly direct effect. If I could pick up on that? One of the issues with funding through the World Bank or even the Regional Development Banks, although less so, is that this money needs to be owned by the countries where it is going to be spent. It is not aid, it is not charity given by the rich countries, it is a payment recognising their responsibility for this problem. I think if the money is coming through what are typically donor structures there is a real issue there as to whether they can ensure that the funds and the control of them are effectively in the hands of the developing countries. I think that is

probably the strongest argument for making an investment in an alternative structure. I think there may be a small window for the World Bank or others to show that they can deliver funds in a way not like they deliver aid and earn some credibility, but I think that window is rapidly closing.

Q64 Mr Singh: If you say that the funds should be owned by the country they are used in, yet there is huge reluctance in some development agencies to give money to the developing world. How can we make sure that the money is used for what it was meant to be used for and the use was transparent?

Mr Cobham: I think it is a real problem. I am not sure the answer is to say let us do it like we have always done it and have this un-transparent badly governed structure at the World Bank because we know that it works to some degree. But how you deal with the complexity of those problems is a real issue. In particular how you ensure that you have community based development so that you do not simply have national governments appropriating the money for large scale projects that may or may not deliver, but how do you make sure that the projects are at a small enough scale that communities are involved? One part of the answer certainly is getting very serious civil society engagement to the extent that they can act as or are genuine representatives of those communities.

Q65 Mr Hendrick: What if the community infrastructure is not there? What if it is an authoritarian regime, a despotic regime etcetera; these projects still need to go ahead. How do you work then and what importance do you attach to governance in a particular country before that money should be forthcoming to fund such a project?

Mr Cobham: I think that is a reasonable question. I do not think the World Bank has an answer to that in the sense that they are—

Q66 Mr Hendrick: I am asking if you have an answer to it.

Mr Cobham: They are also in the position of being uncertain at what point to draw the line with a government they do not like the look of. I do not think that problem is going to go away in the financing of climate change, in the same way that it is not going to go away in any other issue of financial flows to developing countries. But, again, to the extent that you can involve civil society you are more likely to get in a sense a more representative distribution of the expenditure.

Q67 Mr Singh: Basically you are saying that we need a new financial package and structure in the future but we do not have sufficient funding. What is your advice or recommendation? How do we get that funding, raise the funding to meet the needs of financing adaptation?

Ms Shaw: There have been some very, very interesting proposals made by quite a few countries. There have been about 10 proposals around financing that have come over the last year or so

27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

through the international talks and a few of them are of particular interest. One of them is the idea of auctioning international emissions trading permits, which are currently allocated on a free basis; so if you auction a proportion of those you are certainly raising sums into the billions. There are also some options around a levy on international maritime and aviation emissions which could generate significant amounts of money, in the billions. There are a number of other suggestions that are out there on the table and there are all quite good suggestions because they do bypass the domestic revenue collecting problem. Hopefully they end up internationalising that issue and they do not rely just on the goodwill of countries to give funding. So there are some good solutions out there. I think there has not been much progress in the international talks in actually agreeing any of those mechanisms, partly because the European Union has not formalised its position on financing—it will do that in the next few days.

Q68 Mr Singh: Will an option or options be agreed at Copenhagen?

Ms Shaw: That is the hope and it is the linchpin of getting an agreement because you will find developing countries extremely reluctant to sign up to any deal if there is not sufficient finance for adaptation, for mitigation and for the transfer of technology. So I think it is quite a crucial element of the deal actually.

Q69 Mr Singh: Do you expect the architecture to be resolved at Copenhagen?

Ms Shaw: The architecture one is more difficult. Some of the issues around how you spend the money, how you make sure that it is well spent, it does reach the poorest and most vulnerable communities, there is a lot more work starting to happen on that area and more pilot projects that will hopefully look at the work of the adaptation fund which should become operational this year, should hopefully pilot some of the way that you do good adaptation work and ensure it is well measured and verified. I think the governance issue is quite a sticking point and there is quite strong disagreement at the international talks about how it should be done. So not only we as NGOs but also governments and donors need to be thinking about how we resolve this issue so that we do not come unstuck. So I think donors will be reluctant to sign up to financing schemes that raise large sums of money if they do not know that it is going to be well governed and well spent. Poor countries are going to be very distressed if all the money goes through the World Bank and they do not think they have access to it.

Q70 Mr Hendrick: Can I ask you what the Panel believes in terms of progress that has been made with the LDCs⁷ in developing their National Adaptation Programmes and have the countries been given the level of assistance that they need?

Ms Shaw: There are 48 least developed countries that are in the process of developing NAPAs and I think that there are now 38 completed plans and the funding for that has come from one of the international funds under the Global Environmental Facility. So there has been some progress in developing the National Adaptation Programmes of Action, and bearing in mind that the NAPAs are meant to be just looking at the most urgent adaptation needs, so they are not a really comprehensive long term plan looking at long term adaptation needs—they are just looking at the most urgent things. There is some funding for that; again, in terms of actually implementing projects I think there have been about 24 projects approved, a total of about \$54 million, but there is only something like \$130 million in the fund. So clearly that is a small number of projects from the NAPAs that have access to funding and if you were going to implement and fund all the projects in the NAPAs I think Oxfam estimates we need about \$2 billion and it is not there at the moment, and I think that would again come back to the voluntary nature of contributions to that fund, and it just has not been adequate so far.

Q71 Mr Hendrick: If there were the billions there rather than the millions that you talk about, are there problems with the governance issue?

Ms Shaw: Governance structure of that fund itself or the governance within countries?

Q72 Mr Hendrick: The Global Environmental Facility in particular.

Ms Shaw: Developing country views tend to be that it is quite an onerous and difficult process—quite difficult for them to access. I think the fact that there are such a small number of projects that have gone through to gain approval is probably testament to that. It seems that it is not a particularly representative decision-making structure, unlike something like the Adaptation Fund Board, which has representatives from donor and recipient countries and some of the most vulnerable country groups. It is clearly not as transparent or representative as that. So I do not think it is viewed as a particularly ideal fund and it does seem to be bottlenecking somewhat in terms of actually processing money.

Q73 Mr Hendrick: Is it important to maintain, do you believe, separate funding streams for development and adaptation to climate change? If so, how can this be reconciled with trying to integrate adaptation into development programmes themselves?

Ms Shaw: I think that is one of the critical issues. We very much believe that adaptation funding should be separate in terms of it should be generated from different sources; it should not just be overseas development assistance. However, the way that you spend it and how you get it out there, I think most of us support very much a mainstreamed approach where you mainstream climate change and adaptation into your development work. I think that

⁷ Least Developed Countries

27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

raises a lot of headaches in terms of you can gather all this money but how do you spend it in a way that is really integrated? I am afraid I do not have the golden bullet answer that you are after, but I think that is something that again has to be very much a focus because there is something of a contradiction there.

Mr Cobham: The thinking about development and adaptation cannot be separate but I think politically, as much as anything else, adaptation funding needs to be completely separate from ODA and I think that is still to be resolved in Copenhagen. If I can come back briefly to your earlier question, I think that is exactly the right question for this Committee to ask. You have five departments now taking some kind of a lead on climate change and the UK itself is, in terms of the UNCCC negotiations, part of the EU bloc. It seems critical that the UK is able to speak with one voice, to take some leadership. We would hope that the new department is where that leadership can sit, drawing on the expertise that DFID has in its areas and drawing to some extent on the engagement of the money at the Treasury and whatever expertise exists at BERR and at the Foreign Office, but somebody somewhere has to take leadership and have power with that, otherwise there is the risk of the UK's position being fragmented even before it then puts the position into the EU position which itself risks fragmentation. Without leadership from countries like the UK that do get it the chances of a deal are very, very low.

Q74 Chairman: The Government has allocated £800 million for the Climate Investment Fund to be delivered by the World Bank. This is being jointly done between DFID and DECC so hopefully that indicator and the structure is going where you want it to go. But what is your understanding about the controls that we might seek to have over that money? It is quite a lot of money to give the Bank for a new project—I am not saying one does not trust the Bank. For the UK taxpayer you want to be sure that it is actually going to deliver the outcome. What is your feeling about how that will be controlled?

Mr Cobham: It is very tricky. One possibility is the Dutch approach, which is to say that the money that they put into the CIF has to go to a certain sort of project but of course the risk is that all of those projects are then ring-fenced for the Dutch money, as it were, and everyone else ends up supporting, in effect, the least positive, least clean investment projects that the World Bank has. Without there being some kind of higher level assessment or verification of the World Bank's impact I do not see how DFID can hold them to account for the spending of that money. I think in that relationship between DFID and the World Bank—I think there has been a building of trust and certainly talking to DFID there is a genuine belief that the World Bank can and will deliver—there has not been the creation of any kind of structure to verify that or any transparency in that relationship.

Q75 Chairman: The Committee has done its own report on DFID's relationship with the World Bank and we have made our statement so I guess we can marry that up and we will obviously ask DFID ministers exactly that question. Also, because there is a whole discussion sometimes about what is new and what is repackaged—how much of this in your view is new money that has been specifically pulled out and identified for this purpose as opposed to a diversion of the development budget and was going to happen anyway, in which case it is diluting it.

Ms Shaw: Certainly the line that we have always been given on the Environmental Transformation Fund, which has now obviously morphed into the money that has gone into the Climate Investment Funds, is that this was a new bit of money on top of what was already existing, which was why there was some justification for it being loans, which as NGOs we are unhappy with the idea of money being given as loans, particularly for the adaptation component of it. But it appeared that this money came pretty much from—my understanding is from Number 10; that it was an initiative, they wanted to spend some money on climate change and there was a bigger sum of money put out there. So to that extent it is a new bit of money rather than a re-badging, but occasionally there are announcements on forestry and you think, “Hang on a minute, is this the money that went into the ETF last year?”

Mr Jones: I do not know about the details of it, but because it counts as ODA it goes in the figures and so it goes towards meeting the targets we have already set ourselves. So in that sense politically it is not new money because as long as it contributes towards the target that we already have then—

Q76 Mr Hendrick: Does it matter whether it is new money or old money? Does it not matter more that it is spent in the areas where it should be spent?

Mr Jones: Ultimately it matters that we have a pre-existing commitment to 0.7 % by 2013 and that the adaptation money ethically is compensation on top of that. So that is why it matters.

Q77 Chairman: This is possibly a job for the DECC as well to determine that because that would be helpful if there was an independent base. Just to clarify, you are talking about the five departments and we were writing down here which we think they are; let us see if we are in the same ballpark.

Mr Cobham: I got as far as four when I started counting and got confused. We have the FCO, we have BERR, we have DECC, we have DFID and, to an extent, the Treasury.

Mr Hendrick: Can I just say, Chairman, that it is my understanding that every government department had to address the issue of climate change.

Q78 Chairman: I was picking up the point that you said there were five departments. We were just second guessing that we were in the same area.

Mr Jones: May I add a sixth as the Department for Transport is key in terms of mitigation.

27 January 2009 Mr Alex Cobham, Ms Sara Shaw and Mr Tim Jones

Q79 Chairman: Mark is right, every department of course.

Mr Jones: Every department in terms of their own operations, but in terms of tackling climate change those are the departments that have to do practical things beyond, for instance, government buildings to do so.

Chairman: I want to thank you for that. Clearly from our point of view the engagement we have had with you is helpful and it is always more helpful when it is specific. If you think, for example, that the Government is double counting or misappropriating or not prioritising right and you have evidence for it

then obviously that is the sort of thing we want to hear—we do not actually want to hear it but we need to hear it—and therefore it is much more valuable than philosophical differences about what is exactly happening with the money and where is it really going. To be fair, clearly everybody is in a re-think mode so this is a good opportunity to challenge people. I think ministers and officials will be more receptive to say that we cannot assume anything we are doing is right, and clearly we have to say that simply re-badging what you were doing anyway and claiming it is new thing is not really good enough; and to the extent that you can help us with that, that is appreciated. So can I thank all three of you for both your written evidence and for coming in and exchanging your views with us?

Tuesday 10 February 2009

Members present:

Malcolm Bruce, in the Chair

John Bercow
Richard Burden

Mr Marsha Singh
Andrew Stunell

Witnesses: **Ms Victoria Johnson**, New Economics Foundation, **Mr Jonathan Mitchell**, Overseas Development Institute, **Dr Murray Simpson**, Senior Research Fellow, Oxford University Centre for the Environment, and **Ms Gillian Cooper**, Tourism Concern, gave evidence.

Q80 Chairman: Good morning, thank you very much, all of you, for coming in to help us with this inquiry. I wonder if you could introduce yourselves for the benefit of the shorthand writer; if we could start with Mr Mitchell.

Mr Mitchell: Good morning; my name is Jonathan Mitchell, I work for the Overseas Development Institute, just across the river, a development policy think-tank. I head the tourism programme and the rural livelihoods programme.

Ms Johnson: I am Victoria Johnson, I work for the New Economics Foundation, Climate Change and Energy Team. It is a think-tank based in Vauxhall and is an economic think-tank looking at environmental issues, social justice and well-being.

Dr Simpson: I am Dr Murray Simpson, a senior research fellow at Oxford University, working in the School of Geography on tourism, climate change and development.

Ms Cooper: I am Gillian Cooper and I work for Tourism Concern which is a non-profit organisation looking at maximising the benefits of tourism to developing countries and communities.

Q81 Chairman: Thank you very much for that. As you will appreciate, the title of our inquiry is Sustainable Development in a Changing Climate and we mean the physical climate and the financial climate; we are looking at both aspects of how these things impact developing countries and, in particular for this session, the role of aviation and tourism and fresh produce and so forth. I wonder if I could start with you, Victoria Johnson, as you take a rather different perspective. In your report *Plane Truths* you are in favour of a carbon tax, focused at a sufficiently high level to discourage demand for air travel, which is a perfectly understandable concept. But first of all could you actually explain what level you are thinking of, what impact you believe would be necessary to have an effect on discouraging air travel. Also, are you talking about a distinction between long and short haul flights, because clearly they are different options?

Ms Johnson: First of all in the report we did not set an actual level for a carbon tax, although we did look at some economic analyses that had looked at the Air Passenger Duty as it was in 2001 and a doubling of that, which has happened now, and another Conservative Party-proposed green tax, all of which we set at a level of €15 per tonne of carbon. The analysis showed that that would have a very small

effect on air travel, one of the reasons being that the elasticities for air travel vary, but we did make a distinction between short haul and long haul flights for two reasons, mainly that it is much easier to substitute the mode of transport for short haul flights. In the *Plane Truths* report we looked at tourism flows from the UK to tourist destinations and found that around three in every four flights are short haul flights, a large proportion of which are under 500 kilometres and it is actually perfectly reasonable to assume that you can use other modes of transport for that distance. A lot of the travel is also short breaks, and in terms of the Committee meeting today and the impact of the tax on developing countries and the tourism industry there we found that only 9% of all the flights leaving the UK actually go to what are classed as global south countries. Other than that if you reduce short haul flights significantly and have a higher tax for short haul flights there will be less impact on long haul flights, in particular those to developing countries.

Q82 Chairman: We might explore that also with the other witnesses in terms of how much of an impact that would have, but in terms of the money raised, do you have a view as to how it should be applied? One suggestion is that it should be allocated to developing countries to cope with climate change adaptation; is that something that you would support or that you have a view on? Is it just a tax to discourage aviation which disappears into the general coffers, or do you believe it is a tax that should be specifically applied in a particular way and perhaps do you think it could be applied in ways that would be directly beneficial to developing countries who are suffering from climate change rather than causing it?

Ms Johnson: In the report we suggested that the tax be used for investment into low carbon modes of transport such as rail links and also contributing to adaptation aid for developing countries.

Q83 Chairman: You mentioned statistics about the number of flights and the percentage of flights going to developing countries, but do you accept that there could be an implication either now or in terms of future development for countries which have either developed niche markets to supply fresh produce to Europe or to America, or who have developed a tourism industry to encourage long haul tourists?

Do you accept that for some countries that could be a significant disincentive or deterrent to the development of these sectors?

Ms Johnson: One of the key analyses that we did in the report was looking at the impact of curbing aviation growth or halting aviation growth from 2009 and we forecast the impact on total GDP from 2009 to 2025. In that analysis we looked at four countries which were Kenya, Dominican Republic, Thailand and the Maldives, so they were four very different countries. The Dominican Republic has a very high level of all-inclusive resorts and Kenya, Thailand and the Maldives are developing countries, with the Maldives being a small island state, all of which have quite a high dependence on tourism, particularly tourists from the UK. In that analysis we compared the halt in growth with the forecast provided by the UN World Tourism Organisation and we found that from the UK only—and I should make it clear this was specifically halting growth in aviation from the UK—the impacts on GDP were not as high as we had expected. If I can just read out some figures and I will then explain them in some more detail, for Kenya by halting growth the real revenue lost between 2009 and 2025 was 0.07%; for the Maldives it was 3.42%; for Thailand 0.17% and the Dominican Republic 0.39%. In that figure we did include something called leakage which I am sure you are familiar with but includes the money that basically leaves the national economy. We looked at a number of different leakage rates from 30% to 60% and we also looked at linkages as well which means the money that actually stays within the economy. Whilst there is a loss and you cannot deny that there would be a loss—it is only logical to assume that there would be a loss to the economy—it is less than we would have expected. Our conclusion from that was that because such a large amount of money was repatriated to international tour operators and spending on imports, tighter regulation of the tourism industry, which is one of the most unregulated industries, would actually be one solution to dealing with such a loss so you would not necessarily have to grow tourism in order to increase the real revenue to developing countries, based on the examples that we used in the report.

Q84 Chairman: If I have understood that correctly what you are saying is that the same amount of business could grow the economy if it was more fairly shared. Is that the implication of what you are saying?

Ms Johnson: Yes, in the sense that if more money was spent in the local economy and used to support the local economy rather than leaving the country that would be the case.

Q85 Chairman: I have to say that some of your figures for those countries, particularly for somewhere like the Maldives, seem surprisingly small but I accept that is your evidence. Perhaps I could bring in the other witnesses, not necessarily to comment on that, although you are welcome to do so if you want to, but given that that is a proposal on aviation tax, to try and discourage aviation, and

obviously we try to evaluate how that is going to affect poorer countries, what is the likelihood of there actually being either a global carbon tax or any other form of tax on aviation, perhaps in time for the summit in Copenhagen this year? Is there a realistic prospect of that happening?

Dr Simpson: In terms of a direct answer to your question there are a number of countries looking at aviation tax and obviously the EU Emissions Trading Scheme is one of those elements that may put pressure on for an aviation tax to come in, but it is not as simple as just an aviation tax, there are other issues surrounding the price structure of aviation, not least oil prices of course, but we know from experience that that fluctuates dramatically. Also, there is carbon offsetting, which is a voluntary scheme that at the moment is completely unregulated, which certainly should be regulated as soon as possible because at the moment it is pretty free and footloose out there with the internet and people setting up companies to try and charge money for carbon emissions on flights. I would certainly agree that tax or offset payments should be directed towards the developing countries or regions to which travellers are going, but I would have to contest a couple of the remarks by my colleague here, particularly on the impacts on GDP, not just the fact that those figures are probably too small, but also the benefits derived from tourism to communities and the economy of developing countries and regions such as the Caribbean are far, far wider than just figures on a Gross Domestic Product scale. The livelihoods of the communities in, for example, the Caribbean region are highly dependent on tourism, including secondary sectors, and the economies of those nations as well as other developing countries would be severely affected by a drop in travel to those destinations. Having said that, as you said Mr Bruce at the beginning it is very vague as to what the price would have to be as a tax to actually restrict either people's ability or inclination to travel. Work that we carried out at Oxford and with other colleagues last year at the time of the extremely high oil prices indicated that basically there would be little or no effect on travel to long haul destinations by an increase of, say, £60 on a flight per person. I would like to make that point as well. The complexities involved in the tourism and travel distribution chain are perhaps one of the key issues here, and the reason I raise that is because an aviation tax on its own to try to deliver adaptation finance or the ability for developing countries to mitigate their carbon emissions is not going to be sufficient on its own to address the problems and complexities of climate change in those countries. Tourism is, as I said, a complex distribution chain and interventions would need to be made at every stage of that chain, including on the ground and in hotels, prior to travel and also activities that are conducted by travellers when they are there in the destinations as well.

Q86 Chairman: Can I just ask the other witnesses about Copenhagen? It seems to me that there are proposals coming from the developed countries and

proposals coming from the developing countries; which one is more likely to gain ground; is anything likely to be agreed particularly on aviation? What is the prospect, for example, of a levy, taking your point that probably it would not actually have much effect on travel but would raise some income to be applied specifically to developing countries? Do any of the other witnesses want to comment on that?

Ms Cooper: I do not necessarily have a comment on the cost of the levy, but to support my colleague here in some of the comments that he has made in terms of the dependence of a lot of communities, particularly Caribbean communities—and I come from the Caribbean—on tourism. The impact of a reduction in long haul flights would be extremely damaging, looking again at the many levels of the economy that are dependent on tourism. One of the things I can say is that if the cost of that levy was put towards assistance to adaptation, to changes, certainly some of the policies would suggest that there needs to be a lot more emphasis placed on incentives and concessions for small and medium enterprises within destinations so that they can take better advantage of the tourism industry—because at the moment a lot of the concessions and incentives are focused on large and multinational businesses—and so that they can have more of the linkages that are needed to ensure that other sectors of the economy can benefit from tourism. At the moment very few of those concessions and incentives are applied locally and nationally within the economy so I think a levy that would help those kinds of adaptations as well, so that they can get more impact from tourism, would be very important. At the moment we are already seeing a real impact on the economy because of the economic climate. There has been a huge loss of jobs and those may translate into very small GDP figures but actually the impact nationally is extremely significant in terms of loss of jobs. There are very few other comparative economies and small countries have very little opportunity to compete otherwise within the global economy.

Dr Simpson: If I might jump back to the aviation tax, you were asking about the likelihood and I can see you would like an answer to that question. Probably the short answer is that it is unlikely and if any aviation tax was applied it would have to be structured very, very quickly to make sure that the benefits are derived by the developing countries because the last thing that would be most beneficial to the communities and to the global warming situation is for funds to simply go into government coffers. There is a proposal that is in process at the moment with the Inter-American Development Bank from our partners, the Caribbean Community Climate Change Centre—Oxford University is working with the five Cs on projects in the Caribbean—that we would try to establish some carbon neutral destinations which would involve a trust being set up, and the World Bank and the Inter-American Development Bank and probably the Caribbean Development Bank would be administering that trust. It is not in place at the

moment and the project is not yet funded, although we are anticipating that it will be, but that would be a framework within which to operate such a tax.

Q87 Chairman: Thank you, that is helpful. Mr Mitchell.

Mr Mitchell: If I could just make a few comments. One would be the caveat that I have not read the report—I will read it and we would be quite happy to make a submission on that. My other comments would be that I agree with you, I think the GDP impacts for highly tourist-dependent poor countries are likely to be higher than the figures I have heard. As I say, I have not looked at the analysis but I will do so before confirming that. The work that we do in ODI is basically in the low-income, long haul tourist destinations that Victoria was speaking of, and my feeling is that they would be very seriously impacted if a tax was implemented on long haul flights that was sufficient to reduce or indeed halt the increase in demand. If I could just paint the scenario as an economist: in the destinations we are talking about often the contribution of tourism to the economy is between 10 and 20% of the economy. Quite often the contribution of tourism to exports is between a quarter and a third of the exports, so these are very significant economic sectors within the kinds of countries that we have been talking about. The work that we have been doing at ODI though is not to just focus on the macroeconomic figures from an office in London—we have gone out and we have traced the tourism dollar. We have now done that in about 10 countries across South East Asia and Africa. What we find is that the official statistics do not tell you the whole story, exactly as a number of my colleagues have related, because what the official statistics tell you is what the spending is in hotels, the transport sector and in restaurants. What they do not count are people in the craft sector, they do not count the thousands of very poor people working in the agricultural sector and they also do not tell you about the spending of tourist workers through induced impacts elsewhere in the economy. What we have found is that actually the benefits of tourism to fragile, poor economies vary but they are nearly always very much larger than the official statistics will tell you, if you roll your sleeves up, actually go into a destination and look where the money is spread around. Generally between the low level of about 10% and the higher level of about a quarter of in-country spending is going to the very poor, so the stereotype that tourism only benefits the elite within countries—they do benefit disproportionately but the idea that the benefits do not trickle down to the poor fortunately is only the case in a small number of countries such as Cambodia, where there are very poor linkages between tourism and the local community. The benefits, particularly for the poor, are much larger than the official figures would suggest. The very short paper that we wrote on leakages has also been circulated to the Committee and there we found some of the more hysterical figures that actually have remarkable impact in the literature, such as that 75% of the benefits of tourism leak out of developing countries, generally are

wrong; the arithmetic is just wrong and the paper explains why. I am quite happy to go into that if you are interested. Generally the leakages at the very worst from developing countries are about a third. If you have a country like Cape Verde, which is essentially the tourist destination of sandy islands in the middle of the Atlantic Ocean, they import almost everything and the leakages are about one-third of the in-country tourism spending, much lower than the figures of half or 75% which, unfortunately, are bouncing around in the literature. The way I would look at the analysis is to go beyond the official figures and I would certainly question leakage figures if they were higher than that because that is the worst case scenario that we found. In, frankly, weak economies—we are doing a lot of work in Ethiopia at the moment—the leakage rate there is actually miniscule; it is extraordinary that in countries like Tanzania and Ethiopia, some of the poorest countries in the world—

Chairman: Can I bring Richard Burden in here because I think you are moving into an area that he has questions touching on so it might be appropriate to bring him in at this moment.

Q88 Richard Burden: You may have been moving on to it generally, not simply in relation to leakage, but a lot of the discussion so far seems to be about what the impact may be in the event of levies, taxes and so on. I suppose I would just like to explore a bit more things from the other way round, about what contribution tourism does make to developing countries as far as trying to look at the potential of tourism for poverty reduction is concerned, what the benefits are but, perhaps more particularly, how they could be increased. What are the areas that we do need to be looking at?

Mr Mitchell: That is exactly the area that we have been focusing on. Our interest is to reduce poverty in developing countries—we are not actually interested in tourism per se, it is how it can be used as a tool for achieving that, so where it does not work, like Cambodia, we say so. The reason, just to give you an example: Cambodia and Vietnam are neighbours—about 7% of the money spent in Cambodia goes to poor people but in Vietnam, next door, about 25% of tourist spending in the country goes to poor people, so why the difference. There is a whole range of issues, but at the higher level the regulatory and enabling environment are extremely important. Quite often when you are dealing with tourism as a private sector-led activity people forget the importance of actually having an educated population that can mobilise the opportunities offered by tourism, of having infrastructure which allows tourists to get into the poorer areas. For instance, in Cambodia, where there is an extremely high level of corruption, a lot of the benefits of tourism are sifted off by a very markedly small number of people within the elite rather than being spread around the population, but what we have found is that the indirect linkages between tourism and the non-tourist economy are where the majority of the poverty reduction takes place. Within tourism, working in hotels and restaurants, poor people do

disproportionately get jobs in those sectors because they are unskilled or semi-skilled, so you do have a bit of poverty reduction there, but where it really works is ethnic minority women selling silk goods in the highland areas of Vietnam, for instance, or in Laos. There are 1500 fishermen in Lake Chamo in Ethiopia and the majority of the tilapia and Nile perch that they catch are being sold at two or three large hotels in Addis Ababa. It is those indirect linkages, therefore, where you can get tourist spending to move out of the tourist sector and into the agricultural and craft sectors for instance that are important. They can have a dramatic influence but again it does not count for much on the national accounts because these people are earning, perhaps, one or two dollars a day, so you can have thousands of people earning that amount of money and it hardly registers, but it has a colossal impact in terms of people and the socio-economic impact.

Dr Simpson: Work by the Department for International Development and other agencies is important to highlight the knock-on positive effects that Jonathan has just described there to raise awareness of travellers from developed countries like the UK as to how benefits can best be derived, to make choices to travel to destinations, stay in hotels and conduct activities that are going to have a positive effect on the secondary industries and on the livelihoods of individuals who are involved in providing things like fish and foodstuffs to hotels that they are staying at. At the same time, as Jonathan says, it is also important to strengthen the regulatory frameworks within individual countries so that that process is enabled. Things like micro-finance, where we have seen good examples in India and other countries where poor people, people living on below \$2 a day, are able to access finance to start very small businesses to be able to provide services to hotels and activities that are being used by tourists. I would just re-emphasise that factor of benefits going to the poor through livelihood activities such as money from tourism encouraging the development of communications, the installation of fresh water supplies, roads, increased food security, all of these are very hard to measure and it is important to be able to go down into rural communities and establish what is happening there, how it has happened and what sort of strategies can be employed to encourage it. It is not a perfect world, certainly research that we have conducted and colleagues of mine have conducted shows that often it is the case that a small minority of a real community are the people who benefit, not the vast community, and that can be a problem, but the point is that there are benefits to be achieved and we need strategies to try and maximise those benefits as much as possible.

Ms Cooper: If I can add, it is important to remember as well that often the fishermen and the women craft-makers and so forth are eking an existence out of what is already there and those regulatory frameworks are extremely important for strengthening those linkages. At the moment they are making an existence and living from what is there without those kinds of policies that strengthen the

linkages that they can have so there is not an exclusive but an agreed system where they can sell their craft products to particular locations, within the hotels, that can then be used within a local network. Often there is an emphasis placed on creating tours with tour guides and so forth, but often that does only benefit a small number of people within a community and there needs to be a lot more creative analysis as to how those benefits can be spread and how to spread those linkages. If I can also say, the whole policy development process needs to be looked at in a much more holistic way. For many countries tourism affects the entire national development but the decision-making about how tourism is developed is done in isolation of national development planning, and so many people in small and medium enterprises, in poor and marginalised communities, benefit from tourism but do not have an opportunity to participate in how those policy development processes take place. There needs to be a broadening of how many people can be involved in those development processes. Often cultural products as well which have a benefit for the national and local society can add value to tourism products and have a certain amount of resilience in times of economic decline, and those need to be developed a lot more. I just wanted to broaden it a little bit more, not just from looking at the destination at a local level but looking at the global value chain for tourism, and you can see often where the linkages happen in the global value chain, so there is the commission that is taken from the tour operator which then puts pressure on the price and often the wages at the destination. You then have situations often where tour operators have late payment for operators in the local destinations and often cancellation of those fees, so that those fees do not get paid in destination countries. There is a real vertical integration by the large-scale tour operators and they often compete with in-bound operators who are based locally, so there are all of these levels within the global value chain where money is lost and where the local destination does not often benefit from it. New enterprises that develop, even if they are new attractions or events or crafts and so forth that are developed, they need to kind of break into that market, which is often structurally determined and they find it difficult to then get themselves on the tourist route. There needs to be support for that as well so that new enterprises can be encouraged and benefits derived from that. One other thing to add as well is that a lot of foreign exchange losses that you see are also absorbed within the destination and not by the tour operators and the big tour companies based here, so all of those things within that value chain also need to be assessed as to where those losses can be minimised.

Q89 Richard Burden: One last question from me: is it possible or helpful to generalise about whether high end tourism or mass market tourism is going to actually be generally better from a development viewpoint? You have placed a lot of emphasis on the regulatory system in the countries concerned, on how far there is activism in developing linkages and

the right kind of promotion to tourists from abroad about what kind of tourism is better from a development point of view. Is that really it or in general terms is high end tourism likely to be easier to develop than the lower end or mass market or is it just irrelevant and it could be either?

Dr Simpson: There is not conclusive research to say that high end is better or mass is better for benefits to poor people. Very quickly, mass tourism is of course looked down on by a lot of researchers as perhaps detrimental to a destination, but in fact if the frameworks are in place for the provision of, for example, foodstuffs by local people to those all-inclusive hotels, it may well be that an all-inclusive hotel is much better for the local community or the regional community in the developing country than a small boutique, high end tourist facility which is supposedly more eco-friendly. I am using very broad, generalised terms here but it is very important to be careful not to generalise about mass tourism being bad and the supposedly small eco-tourism good; it is not as simple as that.

Mr Mitchell: If I could just add very briefly on a more uplifting level perhaps, what we found is exactly what Murray is saying, there is not a good type of tourism and a bad type of tourism if your concern is poverty alleviation in destination. Package tourism is not bad, it can be very good, and independent tourism can be very bad. We have also found that there is no segment of tourism that is either good or bad. We have got excellent examples of cultural tourism that has a huge positive impact on the poor, but in other places not at all—there is game-viewing that is great in, for instance, Tanzania and not very good in Central Africa in terms of gorilla tourism as relates to benefits to the poor. I think those kind of easy handles where this is the good type of tourism do not actually hold up to empirical analysis, and that is a good thing because countries do not then tend to choose the type of tourism that they have, it tends to be given by God or a bit of clever marketing. The implications of what I am saying are that any country, whatever type of tourism it has, can make it more pro-poor through the kinds of measures that I and my colleagues have mentioned, which is a positive message.

Dr Simpson: If I might just add to that it is useful to think more about sustainable tourism being the way all tourism should be and try to put aside ideas of eco-tourism—which is a very misused term anyway—and/or mass tourism. But if you look at issues of sustainability and sustainable development and try to apply those to all tourism then you are starting to go down the right path to delivering the benefits that we are talking about.

Q90 Mr Singh: It has been a very interesting discussion so far but let us try and pin it down a little bit. What should the UK Government be doing; should it be encouraging long haul flights to developing countries or discouraging them?

Ms Johnson: I agree with a lot of the points that my colleagues have been saying but I do still feel very concerned that some developing countries are specialising in a market which is extremely

vulnerable to exogenous shocks from oil prices, to public health outbreaks or scares, to conflict, to climate policies as we are talking about today, to changing consumer tastes, recession and so on. I do think that is something that we ought to bear in mind but I do not think encouraging long haul flights is anything that I could possibly support. Bearing in mind again, as I mentioned earlier, that in terms of aviation the distribution between flights is very skewed towards short haul, that is something that I would encourage the Government to discourage by using the right financial instrument. Linked to the issue of vulnerability also is something I did not mention, that is vulnerability to geophysical events or extreme weather events which have the potential to have huge impacts on tourism destinations. Parallel to that are the changing global climate conditions, and if you link all those up together that to me does not seem like a sensible strategy. I would add also that in our report we made some reference to the bilateral trade agreements that the EU has made with a number of countries and one particular case that we made reference to is Mexico where regulations have effectively made it illegal for Mexico to regulate its own industry. The UK Government and other European governments have actually supported those bilateral trade agreements and I would say that one thing would be to address that immediately as a means of improving and also allowing some of the more pro-poor tourism strategies to develop.

Dr Simpson: It is too complex to answer that question so simply. As I mentioned right at the very beginning the tourism supply chain is so complex interventions are required at every level regarding addressing climate change and, in particular, very briefly going back to Richard Burden's point about working in countries, DFID needs to be looking at the impacts of climate change on the livelihoods of the people in developing countries that are involved in tourism at every different sector that is linked with tourism. In many countries that are dependent on tourism to a great degree every sector is linked, so there is an inherent need to look at that on a macro level but also going into micro sectors. I suppose in summary, to try to answer your question if I can, again based on work that I and colleagues conducted last year, the general emphasis—in some ways supporting what Victoria is saying—is that less frequent travel over short distances is important. So if I can simplify that perhaps by saying if somebody is going on holiday six times a year for three days then it would be much better if they went on holiday three times a year for five days each, so less frequent travel over short distances and, by definition, you could extrapolate that to say longer holidays over longer distances. If we are trying to marry the complex problem of delivering benefits to developing countries which are by their nature long haul, then I suppose if pushed you would have to come down on the side of saying that it is better that somebody travels to developing countries for two or three weeks once in a year than travels five times to the south of Spain in that year because overall the damage to the planet will be less and the benefits to poverty reduction will be greater.

Q91 Mr Singh: Trying to bring it to a very local level, I have a constituency where the ethnic minority population is largely made up of Kashmiris from Kashmir and Pakistan. They travel not as tourists but as family visitors, to keep family links. They also have an impact on the economy they travel to, a huge impact; if there was a carbon tax which the consumer was paying—and these constituents of mine are not advantaged, they are disadvantaged—would this not be an unfair tax on the poor people in society and would it not discourage the economic impact that they have?

Dr Simpson: Absolutely. I have just one sentence on that and again it comes back to something we mentioned at the beginning of the session, which is that an increase in the cost of travel will not have a great impact on arrivals except on people of a medium to low income, you are absolutely right. If anything, therefore, you are actually affecting the human rights and freedom of movement of the people who actually should be able to do that, yes.

Mr Mitchell: Your point is an important one because there are lots of stereotypes in tourism about what a tourist is and quite often they are not who they are meant to be by the stereotypes. What we find generally is that diaspora tourism is hugely important in South Asia; in Cape Verde it is driving the whole economy, it is not just visiting friends and relations. Very often we find that when tourism begins to develop the economy, people actually go home, they can actually go home, and we have seen that in Cape Verde and in Ethiopia. A lot of the tourism investors are people that know the international market and so they are well-placed to open hotels; the same in Vietnam actually, so it is much more significant than going back to see mum once a year, sometimes it allows people actually to create a vibrant economy that allows them to make the choice to go back, maybe at retirement but increasingly at working age. Could I go back to your first question very briefly? There are several levels at which the British Government could think about intervening. One is a point that has been made very well already which is to make sure with the existing tourist flows that the maximum benefit is extracted for the destination countries, and there we are talking about things that actually fit in very well with DFID's development agenda about improving the business environment, empowering women and reducing crime. These are the things that stimulate linkages and stimulate development, so that is one level. Also there is a real window of opportunity with the private sector and we in a sense are blessed in Britain in that we have some of the largest and most powerful international tour operators. If you go along the panel we will all have different views on them, but it is a real asset because an incremental change in their business practice has a tremendous influence on the destinations and what you have at the moment with a couple of the very large tour operators is, probably for the first time, some very responsible practice coming in at board level within those organisations—for instance, with the travel life programmes they are rolling out for the hotels that they are working with in terms of both

environmental and socio-economic improvements. I have seen it at destination level and it has a huge impact; if the British Government could work with that through UK companies that would be tremendously important. Finally, tourists are people so I would make sure that you prosecute sex tourists when they come back to Britain; I would help educate tourists that actually out-of-pocket expenditure is very important and that that is what benefits poor people. I would deal with the big stuff up here, therefore, but also at a very individual level as to how people should behave.

Q92 Mr Singh: Why do we need to have this discussion about poor countries, developing countries, least developed countries given that their carbon footprint is so small? Why can we not just exempt them from taxes, levies, offsetting?

Mr Mitchell: There are people much better qualified to answer but if I could make one very brief comment on this.

Q93 Chairman: You are all going to have to be brief because it is a very interesting discussion but we have still got quite a lot of questions and we are going to run out of time. I do not want to constrain anybody, but could people be brief.

Mr Mitchell: Very briefly, I share your bewilderment, to be quite honest. I understand the Committee is going to go to East Africa and, having spoken to our Climate Change Group, you will each generate under two tonnes of carbon which, at the current shadow price of carbon, will be £45. That will be the UK Government's view of the total cost to the environment of your trip. The benefit to East Africa of you being there, as business tourists in this case, will be 20 or 30 times that. Development is about trade-offs and it amazes me that we obsess about the £45 worth of damage and we fail to see the hundreds of pounds of benefit to the developing countries. I share your bewilderment.

Ms Cooper: To be really brief, we need to look at this in the context of the fact that, for myself, coming from the Caribbean, this is after having had the removal of a preferential market for bananas, the loss of commodity prices for bananas as well as sugar, and so this is the only economic avenue that many countries have, and so now many people within the region see it really as a slap in the face. I agree that it is a real frustration.

Dr Simpson: It is very hard to define where you are going to draw the line.

Q94 Mr Singh: DFID has definitions of developing countries.

Dr Simpson: Of developing countries, yes, but most of the Caribbean does not fall into that category so what you will do, for example, is that you will actually discriminate against the Caribbean. By applying such a line using the 32 Least Developed Countries you will actually create more of a problem in the Caribbean because they will be suffering to a greater extent because they are more dependent on tourism than perhaps one of those less developed countries.

Q95 Mr Singh: You could refine the criteria.

Dr Simpson: It would be pretty hard to do it in three minutes, but let us say, for example, one way of addressing it is to have a higher rate on short haul so we have a blanket tax, if that is the way the Government decides to go, with a higher rate on short haul, so then what you are doing is saying it is an even playing field apart from the areas that we do know are creating more emissions because of the frequency of travel to those short haul destinations.

Q96 Chairman: With the proviso that short haul is quite often essential if you are talking about islands.

Dr Simpson: That is right, and trying to encourage the trains to work better and things like that I suppose.

Q97 Andrew Stunell: It has been a fascinating discussion with lots of stuff about linkages and leakages. The first is good and the second is bad and quite a lot of the figures that you have been talking about are clearly in dispute. We have had over the last decade a lot of discussion about fair trade products; how do we get fair trade tourism so that those leakages are actually much more positive linkages?

Dr Simpson: There was a project which was launched two or three years ago on fair trade tourism by the fair trade organisation and my understanding, but I stand to be corrected, is that the project was not completed. It certainly has not been implemented widely enough if it was completed and I agree it should be done. I know Tourism Concern were involved in that; perhaps you can shed some light on what happened.

Ms Cooper: Yes, I can say it is something that Tourism Concern has been working on for about 10 years and trying to really decide what are the principles of fair trade tourism. We had a project which we tried to get some funding for last year, which unfortunately did not go through, which would have worked in partnership with many of the fair trade movement key players. The trouble with fair trade is that at the moment it has been applied to products and it is much more of a complex picture in terms of putting a fair trade stamp on a service, so which bit of that global value chain do you look at as being fair trade, where do you put the stamp on it? Is it the product, is it the tour operator that is selling the product, is it both of them? It is a much more complex analysis that needs to be taking place but we do feel that not only is it certainly very much needed but it is something that can be done, so it would need to have a real analysis as to where that links with the commitment of all of the different people within that value chain who can look at it. Certainly the key principles of a fair trade tourism product would be ensuring that the workers within the tourism sector are organised and able to influence decision-making policies, that they have very good linkages within communities that ensure that inputs and services are provided by the local community, that the tour operator who is selling the product also has fair trade principles and markets it in a way that ensures that people understand what

we are trying to achieve by fair trade tourism. Certainly now is the time—in the sense that the movement has really grown, particularly in the UK which has the greatest amount of fair trade customers or purchasers—to try and talk about what would be a fair trade tourism product.

Dr Simpson: There is a plethora of certification for tourism out there already. That is one of the problems, to be honest: there are so many certificates. We have got to the point now where the United Nations have even got together to provide a certificate for the certifications. Whilst there may be some merit in that, it is a pretty bizarre position to be in. As I have mentioned before, the principles of sustainable development are what need to be applied to tourism. There are examples that can be used, but it is very complex because of the complexity of the distribution chain.

Q98 Andrew Stunell: I wish we had longer to explore this. You have defined leakages as bad things and linkages as good things. There has been an interesting contribution from Mr Mitchell about possibly tour operators developing their corporate social responsibility to be more effective. That is what has happened with Fairtrade goods, the voluntary movement has begun to influence the commercial sector. Do you see scope for that happening? Are there ways in which that can be supported by what the Government does, either by taxation or regulation or in some other way?

Dr Simpson: Perhaps I could give you a practical example. In the Caribbean there is the Sustainable Tourism Zone of the Caribbean, a project which has been instigated by the Association of Caribbean States, which is an organisation that works at ministerial level across the whole of the Caribbean Basin—so 32 members, which includes the Central American states as well. They have established, with the assistance of my colleagues and I, a set of indicators for sustainable tourism which can be applied to address all of the different complexities. It is not perfect, but it is designed to do exactly what you have just said: to drive the demand for destinations under membership of the Sustainable Tourism Zone of the Caribbean. It works in the same way as Fairtrade, but more investment is required, more members are required, and so on and so forth.

Mr Mitchell: I think there is a great opportunity here, because you have the corporate sector, in my view—I think there are different views, but this is my view—tackling this seriously for the first time. The thing about tourist corporates is that they do not know much about development. They know a lot about flying people around and running airfields, but they desperately need an official development of support for what they are doing. They are charging their own customers a levy, they are creating quite a lot of money through organisations like the Travel Foundation, and, to be frank, they need support from development practitioners and some official recognition of what they are doing so that those funds can be used more effectively. I think there is a real opportunity for the private sector, which sees its responsibility and is raising money, and the UK

Government, which has in DFID a lot of development expertise and can recognise the efforts that are being made by the private sector. Finally, I do not think leakages are always bad. There is a leakage in Laos, where most of the rice is brought from Thailand. It is poor rice farmers producing that, so it is a loss to the economy of Laos but in terms of poverty I would not distinguish between a poor Laotian farmer and a poor rice farmer in Thailand. In terms of poverty, it is fine. Being able to distribute the benefits of tourist spending over a wider geographical area, so it is not focused just on destination, is a positive thing.

Q99 Andrew Stunell: Would you pick out one single thing that DFID could do to help that process forward that you have been describing?

Mr Mitchell: At the moment DFID has an interesting position because it invented a lot of the stuff we have been talking about today. In 1999 DFID funded a lot of the work that fed into the UN conference at that time that developed pro-poor tourism as an idea. It supported it for a couple of years after that and has now back-pedalled from it, to the point where there is quite a strong position that they will not support tourism.

Q100 Chairman: Does it matter that the UK Government is withdrawing from the UN World Tourism Organisation?

Mr Mitchell: Indeed.

Dr Simpson: It does matter, yes.

Mr Mitchell: No one on this panel would say that tourism is going to work everywhere and that all you have to do is encourage tourism and everything will be fine, but to deny a whole sector that is very important in some places I think is misguided. I would drop the complete sanction/prohibition on mentioning the word.

Ms Cooper: And also make sure that the link with climate change is emphasised. We need to come back perhaps to one of the reasons why this Committee has been put together on this particular topic: the climate change issue. Climate change is a massive threat to tourism in developing countries from both supply and demand. DFID need to play a very, very strong role in dealing with those issues: tourism, climate change, and development.

Chairman: What both of you have just said is very strong evidence for our inquiry. Thank you.

Q101 Andrew Stunell: Looking at the ways in which the climate change aspect of this should be developed: How do we make tourism a less serious carbon footprint problem for the receiving countries?—for want of a better term—is another branch of the fair trade arm.

Dr Simpson: Sure. One of the approaches that we are trying to develop for destinations around the world, but in particular in the Caribbean at the moment, is to try to establish carbon neutral destinations. That would mean that from the moment Mr and Mrs Bloggs, if I can use that term, leave the door of their house in Rochdale, right though their experience of travelling to St Lucia in the Caribbean, their hotel,

the activities conducted there, to their return home, they have a zero impact in terms of carbon emissions. As I have mentioned before, the complexity of the chain and interventions at every aspect of that provision of tourism to those people is vital. There are a number of components to do with carbon offsetting, with energy efficiency in hotels, with mitigation and changing behaviour and choices of activities when they are away, with food miles, for example, where the food that they are eating in the hotel is produced, and so on. It is a complex issue. To try to develop that carbon neutral experience is a priority and, also, will provide a marketing advantage for developing countries and long-haul destinations. If people can travel to a long-haul destination, know that they are having livelihood benefits and socio-economic benefits to the people who are living there, to the economy of the developing country, plus having a zero impact in terms of carbon emissions, then we are starting to get somewhere.

Q102 Andrew Stunell: You were very dismissive of the various certification schemes.

Dr Simpson: I was not dismissive. I just told you there were a lot of them. Some are better than others.

Q103 Andrew Stunell: Is it in-country regulation, international regulation, UK? Where do we put the levers on?

Dr Simpson: It is at every different level really. Certainly we have to do it at home but we also have to encourage and assist in the destination as well. Coming back to where the tax or levy, those funds go, we have talked a bit about trusts managing those funds and using them for adaptation (for example, dealing with the impact of warming sea surface temperatures on coral reefs, beach erosion and so on), the supply side, but also dealing with mitigation, in terms of energy efficiency in hotels and the flight itself. Again, we come back to the need for more work to be done across the chain at every stage.

Q104 Andrew Stunell: Are destination governments up for that, or do they just want the maximum number of dollars?

Dr Simpson: My brief answer to that would be that they are definitely beginning to respond and definitely beginning to embrace it. Over the last 12 months I personally have seen an enormous increase in the interest and commitment by developing country governments, and have travelled—and offset my travel—giving presentations on exactly these topics.

Q105 Chairman: We are going to have to bring this session to a close. Perhaps I could draw it together. It seems to me that a number of you are saying that, in a sense, the amount of carbon that is emitted, in terms of the space developing countries have, is such that they should not really be constrained. The counter to that is: on the other hand, given there is a need to reassure people that something is being done, then probably it should be done but not in a way that destroys their opportunities but helps them enhance them. Is that a fair summary of what you are saying? I am including Victoria Johnson in that. Is that acceptable?

Dr Simpson: Yes, except it is not just a question of making people think that something is being done; it is actually doing something.

Q106 Chairman: I appreciate that. Victoria, are you happy with that?

Ms Johnson: I am happy to agree with that, although there are obviously lots of things I would disagree with.

Chairman: I appreciate that. We obviously know where you are coming from. We could have gone on longer. It is very interesting. There is a lot more in this than we perhaps appreciated. Mr Mitchell and all of you are making the point that DFID have gone through a really quite strange convoluted on the issue. You are clearly stating that they have got it wrong at the moment on this dimension. The evidence you have given us has been strong and helpful. Thank you very much indeed.

Witnesses: **Professor Tim Lang**, Professor of Food Policy, City University London, **Dr Tom MacMillan**, Executive Director, and **Mr Paul Steedman**, Research Fellow, Food Ethics Council, gave evidence.

Q107 Chairman: Thank you for coming in and for being patient. As you have seen, we had rather a lot of issues to cover in the last session. Obviously we have slight time constraints. I do not want to cut you off. If we can keep our questions short and you can keep your answers brief but to the point, that would be helpful. You are obviously aware that we are looking at the interaction between aviation and food miles—or fresh produce, because clearly we are covering flowers and things like that, which appear to have become quite significant employers in certain parts of the world but could be under threat if people believe they are not the kinds of products they should buy. Of course, in the simple context, that is the case. Before we start, perhaps for the record you could introduce yourselves.

Dr MacMillan: I am Tom MacMillan from the Food Ethics Council. The Food Ethics Council is a charity that provides independent advice on ethical issues in food and farming. We produced a short report last year on air freight which was part of a larger piece of work on food distribution and food miles in a more encompassing way.

Mr Steedman: I am Paul Steedman, a research fellow, also from the Food Ethics Council.

Professor Lang: I am Tim Lang. You have put me down as “Timothy”—which I think only my grandmother, dead for about 70 years, called me, so I do not know where that comes from! I am happy to answer to most names, but usually Tim Lang. I am Professor of Food Policy at City University where I run the Centre for Food Policy. I am also a

Commissioner on the Sustainable Development Commission.

Chairman: Thank you.

Q108 Andrew Stunell: Given the carbon emissions generated by aviation, should the United Kingdom Government be discouraging the importation of air-freighted food?

Dr MacMillan: I think there is a long-term and a short-term answer to that. In the short term, no, it should not. The parallels with the tourism situation are very clear, and either banning or restricting air freight by putting in place very expensive certification systems about how products are produced and so forth, so that it narrows it down very heavily and attaches a heavy cost to it, risks pulling the rug out from communities that depend on that industry. In the long term, I expect in due course we will get on to questions about food security and the security of supply from a UK point of view, and you can turn that question of security of supply for us on its head and think about security of demand for countries and communities that are investing heavily, sometimes with UK Government support, in export oriented horticulture. I guess the answer is not that they should not be making those investments and we should not be supporting them in that but that it is incumbent on government to be at least as circumspect as supermarkets are here about security of supply, about security of demand for countries that are putting a lot of eggs in the basket of export horticulture. The answer is: no, we should not be discouraging air freight in the short term, but we should be cautious about risks associated with it over the longer term.

Mr Steedman: If we are interested in the climate change aspect of this, why focus on air-freighted food per se? The issue when it comes to climate change in this narrow sense is aviation: it does not matter whether it is food or anything else that is flying. If we are interested in climate change, what matters is total carbon emissions and it is about achieving that 80% cut or whatever figure we arrive at. In that context, the question is what is happening with aviation. I guess we can be relatively relaxed about what proportion of our total emissions aviation, and within that air-freighted food, forms if we are seeing those overall cuts that we need. At the moment in very few sectors are we seeing the kinds of cuts that we need. If we look on that basis at what should happen with aviation overall, then I think we probably need to be seeing that cutting and reducing too, but if we see deeper cuts elsewhere then it is not necessarily a problem.

Professor Lang: I would like to turn your question around the other way. The issue is not should we discourage food imports but should we be growing more. That is the more interesting and more politically difficult question. My answer to that is: yes, we should be growing more, because if you look at which food imports there are, you cannot grow pineapples or papayas or mangoes in this country but you can grow apples and pears, and yet we are growing almost none and we are importing a lot. But Paul is quite right: the critical issue is the total CO₂

or greenhouse gas equivalent emissions. The second answer to your question is it depends what you want to do with your land. At the moment we are treating land as a limitless commodity. We are saying, "Ours is expensive here, so we will go and site food production where it is cheap"—and usually it is where labour is cheap. Whether that is sensible mid-21st century land use I very much doubt. You asked: "Should the UK discourage food imports?" I do not think you said "air-freighted". Did you mean that?

Q109 Andrew Stunell: Yes.

Professor Lang: Forgive me, I did not hear that. I think in that case I will go along with Tom's answer. I think in the short term we have got it. In the long term, we need to discourage air-freighting generally. It is a pretty stupid use of fuels, non renewable fuels; it adds unnecessary CO₂ emissions; it is the fastest growing form of freight. It is bonkers. Is it important at the moment in the overall scheme of greenhouse gas emissions? No, but it is rising.

Dr MacMillan: Perhaps I might add one more strand to that.

Professor Lang: You have got us going now!

Dr MacMillan: It is the fastest growing form of freight over the medium run, but in November and December and more recently we have seen it drop off very, very steeply.

Professor Lang: Because of the recession.

Dr MacMillan: Yes, which is partly affecting the kinds of things people are buying but also affecting the economics of freighting the stuff by air.

Professor Lang: Forgive me interrupting. I disagree with that. I think it is mainly because the pound has plummeted. It costs a huge amount of pounds to buy things that are sold in euros and dollars. On top of that, is the point that Tom is making.

Dr MacMillan: The decline in air-freight by 22.6% in December was international rather than UK specific, so it applies across the board.

Professor Lang: Yes.

Dr MacMillan: The debate around organic air-freight labels and the close attention with which organic producers in Sub-Saharan Africa were watching that debate illustrates some of the vulnerabilities that are attached to this model of development. That was a little add-on to it, but, like Tim, another way of turning the question around is to say that the whole debate and controversy around air-freighting food puts the cart before the horse really, if we are interested in climate change and food. Flying food accounts for something like 0.3% of overall UK emissions, 0.2% is down to flying fruit and veg around, and only a slice of that comes from flying in fruit and veg from developing countries, so we are talking about a small overall proportion. That is not an excuse for not doing anything about it, but when you compare it to, say, meat and dairy, which accounts for 8% of overall UK emissions, it puts into perspective claims by food companies, by retailers and by government to be doing something about climate change and emissions relating to food. When you say "Okay, if people are making a song and dance about dealing with the aviation side, surely you have to make a song and dance 20 times

as big”—or however many it is, it is more than that—“about meat and dairy” and have that kind of more difficult conversation with your customers and with your constituents.

Professor Lang: I agree with that.

Q110 Andrew Stunell: Professor, what exactly are food miles? Do you think we are pricing them in?

Professor Lang: Are we pricing them in? No, because “food miles” means all things to all people. I invented the term really to try to inject what I then thought, and still think, was a sorely needed cultural dimension into the debate about trade. Trade discourse and trade policy was entirely, and still largely is, dominated by a neoliberal perspective that assumes protection is bad, free trade is good. I come from the public health department—that is where I am based—where the word “protect” means good things. You protect public health, you protect the environment. My motivation about food miles was to try to get a debate going about where food comes from. Most people think food comes from Tesco. It does not actually. That is just where they buy it. The idea behind food miles was to think about the environmental implications of where food comes from, the energy implications of where food comes from, but, above all, it was an attempt to try to inject a very simple notion into everyday understanding. In that sense, it has been very successful, but, as I would be the first to say, it was not intended to be an articulated version of measuring greenhouse gas emissions. It is precisely its plasticity that was its strength and still is: it means all things to all people.

Mr Steedman: To follow up on that, one of the problems recently is that the way particularly industry groups within the food sector and, indeed, government departments have chosen to use and interpret food miles has been an overly literal one.

Professor Lang: Yes, I agree.

Mr Steedman: It becomes what we have termed carbon reductionism. It basically says it is just a direct measure of carbon emissions and carbon emissions are the only thing that really matter anyway, when in fact for most people thinking about food miles—and indeed when Tim coined the term—the sense is that it encompasses a whole range of things around people’s concerns about diverse high streets—the cloned towns issue—around animal welfare and animal transportation, around a sense of where food comes from, both in terms of the people who produce it but also the land and the environmental dimension. It has been tremendously damaging that there has been this reduction of everything to grams of carbon. I think we need to keep that very strongly in mind.

Professor Lang: I think that is absolutely right. The public is ahead of the analysts. I have just had a presentation, as a member of the Council of Food Policy Advisers of the Government, from the Institute of Grocery Distribution—and it has now been referred to in the press so I can say this—in which it is quite clear that the British public has an extremely strong commitment to “the local” in a fairly indistinct way. It sees the point that there is no point having empty fields here when you could grow

things here. There is a very important policy and, indeed, political (with a small ‘p’) battle going on for where food comes from, how it is grown, the meaning of it. Tom rightly raised the issue of food security. I think the issue of food miles has entered that very general discourse, not just the issue about greenhouse gas emissions.

Q111 Richard Burden: Given that—and we are not just obsessed by terminology—do you think it is losing some of its usefulness now?

Professor Lang: Food miles?

Q112 Richard Burden: Yes.

Professor Lang: No, its usefulness has got bigger and bigger by the year, precisely because it is multi-dimensional.

Q113 Richard Burden: Do you think people understand it as being that?

Professor Lang: It does not matter.

Q114 Richard Burden: Surely it does matter, because if it is being used and people think of it as being about emissions—emissions equals distance—then that confuses things rather, does it not?

Professor Lang: I do not think it confuses policymaking at all and nor does it seem to confuse the public. If you look at the analysis of what the public is thinking, there are very clear distinctions between, say, commitments to climate change reduction and commitment to localism. They are making very sophisticated distinctions—very sophisticated ones.

Mr Steedman: I think that is quite right, but I think it is also true that where people are using it in that way that is a problem. The answer is not to say, “Let’s scrap food miles.” The answer is to say, “Let’s be more robust about what it means.”

Professor Lang: I think that is happening. That is why I do not worry about it: it is happening. There is a very tight debate going on in the Carbon Trust, PAS 2050, trying to measure greenhouse gas emissions in the lifecycle of a food. We are developing the methodology of how to do that. Equally, I think we have very clear notions about the nutritional advantages and disadvantages of food. You could say “Oh, well, ‘healthy food’ is a useless term.” No, it is not. It covers a whole very complicated discourse of everyday understanding about the fact that you eat food and you get nutrients from it. It is no more than that. I agree, and I think we are all agreeing, that the term is not worth wasting too much time over, but it has become a shorthand for an entire discourse about food that was missing. It was missing, but it is not now, and it was long overdue to go back into it.

Q115 Richard Burden: I think it did have a contribution, but I just think that, alongside the debate that you say it has opened up, there is also now someone in a supermarket, not an activist, who when they see two punnets of strawberries there in the winter, one of which is produced in Africa and

comes from Africa and the other which comes from the UK, might say, “Winter. Food miles. The UK is better” when it may not be.

Professor Lang: It is not “may” it is definite. Unless it has been flown around the world the wrong way and then got to us, it undoubtedly would be the grown-out-of-doors strawberry that one should eat, if you want to eat it. It will be tasteless, but you could eat it with lower carbon.

Q116 Richard Burden: The Soil Association’s position has changed with their decision to allow air-freighted produce to carry the Soil Association’s label. Do you think that decision was the correct one?

Dr MacMillan: We have said we think it is. It comes back to the point I started with: if you are faced with the “What do we do now?” question, then by stopping air freight or, as they were planning to do, making it more difficult to air freight and putting on costs that might end up squeezing out the suppliers who were most vulnerable and most on the margins of the market anyway, you are not really achieving very much and you are causing quite a lot of harm. However, if we can use the Soil Association position, if you like, as a window on to the bigger situation and the same kinds of issues facing the supermarkets as well, it is not enough just to say, “Okay, we have decided we are not going to do anything about air freight, now let’s leave it at that.” In effect, less so for the Soil Association than for retailers who have a much larger turnover, the challenge is then to say, “Okay, now we have said we want to do something about environmental issues and we want to respond to public concern about climate change, here is our strategy, that is based on really robust lifecycle analysis and so forth, for tackling the biggest hot spots, the biggest sources of emissions across the board, in terms of what we sell and what we do and where it comes from and the kinds of things that through all sorts of ways we encourage or discourage our customers to eat.” Likewise, on the development side, it is not enough to say, “Okay, problem solved, we are not going to ban air freight.” Having flagged it up as something that is an issue people care about and an issue that is important to be acting on, again it is no longer good enough to say, “Trust us, anything we bring in from a developing country is good for development” or “We have in place a charitable wing that sends money to communities in this part of Africa” or wherever it is. If you like, the ante has been upped, and the onus is now on companies and organisations within the food sector to show, through things like the analysis of value chains (who is getting the money along their supply chains), through stronger commitments on protecting labour rights and improving working conditions amongst their suppliers, they are doing all these things without passing costs down the supply chain, whether they are the costs associated with accrediting for environmental or for social claims that have been made. If you like, the air freight debate has given a lot of the groups who have been involved in that debate a sharper focus on what it is they are looking for, and how you might go

about demonstrating that you are providing that if you are a company or if you are an organisation like the Soil Association.

Professor Lang: I am a great fan of the work these two have done on that issue, but I will say in the Soil Association’s defence that the fact that they, essentially an organic farming lobby and certification body with membership and social values, stepped into that terrain was a sign that there was a government vacuum. I think you would agree with that.

Dr MacMillan: Yes.

Professor Lang: My colleagues here would agree with that. They got a lot of opprobrium for doing I think a very honourable task, which was to raise the discussion about something that needed to be raised. It was fantastic. I think they were very honourable about that. I think what it points to is that the vacuum is not just of government giving a co-ordinated lead but of what I have called omni-standards. We now have a whole series of different criteria by which to judge what is meant by “sustainable food”. I spend my life trying to work out what is a sustainable diet. I do not know what it is—no one knows—but I think we have the beginnings of understanding about some of the criteria by which we might judge one. It is not just about the health of the soil or air freight; it is more complex than that. This is exactly the same discussion as your previous panel were having about tourism: that it is very complex. The truth is that you have bilateral deals and twinning of single issue going on about how to judge food, because there is no leadership at the European level or at the national level to explain what a sustainable diet is. What does Mr Tesco do? What does the organic farmer do? What does a consumer do? Do they eat a product because it is good for their health or good for fair trade, or good for birds, or good for climate change? Talking about coffee, you can go along the supermarket range of coffee and you have to decide which box you want to tick when you buy. This is absurd—completely and utterly absurd. It adds to the confusion. That is a failure of governance by government: not joining up DFID with the Department of Health, with Defra, with the Food Standards Agency. We have to address the issue of omni-standards or this issue that you are asking us about will just be replaced by other issues. The challenge, as the previous panel were saying absolutely correctly, is: what is a food system that will be meeting the objectives of sustainable development? What we have is rhetoric about that but not much delivery. We have a few bilateral deals, a little bit of labelling here and there. When an organisation like the Soil Association raised it, opprobrium was poured upon its head for raising it. It was right to raise it. It was right it raised it.

Q117 John Bercow: Professor Lang, you assert with alacrity that you know where public opinion stands on the issue of aviation and food miles, and yet, in making that assertion—

Professor Lang: I am sorry, I am not sure I said that. I am sorry, but carry on.

Q118 John Bercow: I think the record will show—if you will allow me to develop the point to which you can then respond—that you said public opinion was strong on the matter; though you also said that, whilst being strong, it was relatively indistinct. There appeared to be a commitment to what might be considered to be environmentally friendly food but that it was relatively indistinct. The point after which I am chasing, if you like, is whether either from quantitative or qualitative research you have a sense of how people’s commitment on this subject stacks up against or withholds pressure from the potential influence of price. In other words, people have a strong view and they have basic commitment as intelligence on this subject and awareness are increased, but, on the other hand, they have issues of the pocket to consider. Then, related to that—if I may pose the question—do you have any sense that public opinion on this matter varies markedly from one socio-economic group to the other? The great problem is that one can have a commitment on these matters but how strong is it or how easily does it fray at the edges in a credit crunch?

Professor Lang: I am nodding—and the record never shows nods, so I thought I should say that. The problem you are raising is an incredibly difficult one, which is how do markets reflect values. The danger that we have at the moment in public policy but less in commercial policy—and I will come back to that briefly, if I might—is that we have a set of values about environment, about health, about social, soft issues like fair trade—important to me but seen as soft—and then we have price, convenience, safety, which are hard issues. There are numerous industry analyses—market research analyses—which make that distinction. In truth, what happens when people go and buy food is that they make very fast decisions. Most of the research shows that people decide at the point of sale in about a quarter to a half of one second. Very quick. There is basically an argument going on about how to frame that point of sale to deliver values alongside and inside price. Again the previous panel was referring to the cost internalisation argument—essentially, as you know: does taxing air freight add to the cost and carry the full environmental burden of what otherwise is externalised and not costed? The question I am going to throw back to you—I do not have an answer to your question, but it is absolutely an appropriate question—is: How do you translate environmental and social and social justice values into price? At the moment it is not happening. The Fairtrade labels try to do that and do it with considerable success, but even the proponents of fair trade would say they are not doing it enough and it is not linked enough to environment. How do you cost biodiversity? Your second point is a difficult one as well, which is the class dimension/income dimension. The short answer is that we know, from studies over 150 years, that the poorer you are, the more money proportionately you are spending on food, even though the absolute amount of money that you are spending on food is less. In which case, the poor have to be incredibly thrifty buyers. They are much more price conscious than are people with

no money constraints, one would think. But studies done by the Co-operative Group, for example—which are in the public arena so I can refer to them, but I have seen others by big retailers which are not in the public arena—show that the values are equally spread across all socio-economic groups; it is just that there is the potential for more affluent people to do something about it, to translate it into behaviour. Their aspirations are equally high across all socio-economic groups. That would be my summary. I do not know what my colleagues think about this.

Mr Steedman: I would be 100% behind that. Absolutely. I guess there is a slight trickiness, as Tim says, when thinking about how people are when they are in the supermarket. They are in shopper mode at that point, so price and convenience and those sorts of issues do come to the top of people’s minds because they are acting as shoppers, but those people are still citizens and still have values when they are not in shopper mode. Indeed, they have expectations that those values will be taken care of by other people. People expect, for example, when they go and buy produce in supermarkets that health and safety and due diligence have been taken care of. They do not need to worry about that. They do not need to trade off whether this one has been produced in conditions that have health and safety built in versus the cost and the price, they just expect that that should be taken care of. With a lot of these values, people have expectations similarly that those kinds of things should be built in. They can worry about whether it is on a special offer and know that their concerns as citizens, those values, are taken care of and embedded already.

Dr MacMillan: Part of the problem is that, as a shopper, with some of these trade-offs you cannot make the right decisions, so you are in a situation where whichever way you turn you lose. The air freight labelling episode, in which a couple of retailers labelled air-freighted produce, illustrates that quite well, in that if you are a shopper you have two choices: either you buy the green beans with the air-freight label on them or you do not buy them. If you are a retailer you have the options to sell or not to sell but you also have an additional third option which allows you to square that circle over the longer term, which, as we were saying earlier, is to put in place a policy on air freights that looks to the long term and is within an environmental strategy that tackles your biggest sources of emissions. As a shopper faced with that sort of binary choice, you do not have that third option. Alongside your co-shoppers you have an influence on where things head, but you do not have a strategic influence in the same way that a retailer does.

Q119 John Bercow: How feasible would it be to develop a “Good for Development” label, as suggested by the Overseas Development Institute? What elements would it encompass?

Dr MacMillan: On that specific proposal, part of the merit of it is that it is very accessible: a lot of people would be able to use that label. I guess the nearest thing in the UK might be something like the red tractor logo: it is on a lot of different products and it

does not cost that much necessarily to put it on. The difficulty with some of that is that it frames the whole debate as a battle of labels, which takes us back into precisely the problem we are talking about here, which is that as a shopper you cannot trade a lot of these things off. If the logic is simply that a “Good for Development” label would raise the profile of the contribution of trade to development, then it is not entirely clear that attaching it to products as opposed to just campaigning would achieve better results and it may run into all sorts of problems about how you make trade-offs. If specific claims are being attached to those products about the quality of the contribution to development—there is a suggestion in the ODI proposal of having gold, silver and bronze standards, where suppliers might have to demonstrate they are ticking various boxes in order to get the next level up of label—you risk running back in to precisely the problem that the costs of doing that, however subtly, do get pushed back down the chain on to producers, which is the whole premise that—

Q120 John Bercow: I can tell that you are apprehensive about whether such an approach would be wise, for the reasons you have started to outline and on which Professor Lang may wish to elaborate, but I wonder if I can couple with the question that I have just asked the related question of whether, in addition to being practicable, it would be effective in terms of increasing the demand for developing country exports.

Dr MacMillan: The short answer is I do not know. There are examples of labels working very, very effectively: Fairtrade and organic labels, in terms of changing how people buy, are very, very effective. There are examples of labels doing very little indeed: the air freight labels being the closest to this conversation, where, as you may already have heard from others, the retailers who used them found they had a pretty negligible effect on sales and their consumer research found people interpreting them in all sorts of different ways, sometimes quite differently from how you might expect; for example, that they might be fresher, or that they were often seen as a positive thing simply because they were a label and so they must be good. It is very hard to tell what effect it would have.

Professor Lang: I have to declare an interest: I am a sceptic about labels. Again the previous panel referred to views that I share. There is almost an overload of them. But by that scepticism I do not mean to say that arguing for the tightening and making overt of the standard that a label represents is not a good thing. It is. I have considered the ODI’s suggestion carefully and I am not yet clear why such a label would be an advance over the various fair trade and social labels that are already competing for information. Maybe they are right, but with great respect to that initiative, I personally would not want it to happen unless we had an omni-standard. We have to have a framework which goes across social, health, environmental, quality standards. We do not just need to have more and more niche standards competing for that split second to which

I was referring earlier or half second or nanosecond when a person chooses. It becomes an invidious situation. We want to have a ratcheting up of improvement across a whole variety.

Q121 John Bercow: I am not sure I am going to be able to persuade you to say this, Professor Lang—
Professor Lang: Have a go.

Q122 John Bercow: --and you might say you do not believe it anyway. I just have a hunch, just a smidgeon of an idea in my mind, that your unspoken fear is that with this plethora of competing labels there is a danger that you lose simplicity and clarity, and that the consumer ends up—
Professor Lang: Confused.

Q123 John Bercow: -- dazzled, flummoxed, misled, and needs to be educated by a single standard, a single label.

Professor Lang: No. Good try, but I am going to bat that back. The reason I was arguing what I was arguing is not because I want to have overload. We already know the great lesson and great advantage of labels is that they get producers to change specifications and to tighten them up and to clarify down their supply chains. You get traceability from the need to have a label. That, most people in food supply chains will say, has been a great advantage. You get some coherence and consistency. The reason I was saying what I was saying about a label is because what you the Committee are discussing and asking our views on is not something that one can just put on to a label; it is about in which direction of travel you want the food system to go. How do you want people to choose what they choose? Where does responsibility for improving standards go? That is the core policy challenge. In that context, you asked us two questions: Is it a good idea and is it practicable? I am sure it would be practicable. I am sure it would. My point was: Why do it when there are already fair trade labels? What would it add to that? The Fairtrade label has a high recognition—a lot of companies’ studies show that and, indeed, the Fairtrade Foundation’s own studies and FLO (Fairtrade Labelling Organisation International) show that—why add another? Why not say, “Improve the fair trade standard. Keep the label and improve the existing one”? Why add another?

Q124 Chairman: That is what we are groping for. You said at the beginning that air-freighted produce existed. Half of the case was that they should not really be there, but in the meantime we do not really want to make all these poor people even poorer so we have to handle it. Some of us are saying, “Maybe they should be there if they are properly defined and if they are properly assessed.” Are we looking for a fair trade label that goes into that and says, “We have looked at the carbon footprint and we think that Kenyan beans are a good buy. They are a fair trade product”? The worry we have, as you know, is in the very simple situation where people are saying, “They’re flown in. Bad. Don’t buy them” and all these people are being thrown out of work.

Professor Lang: Forgive me going back to it: that is why my colleagues and I at the Public Health Centre are arguing for omni-standards. It should not be, taking your Kenyan green beans example, “Kenyan green beans, yes or no”; it depends when, it depends what their carbon load is, and it depends whether you can have something even lower grown in-season, and trucked less distance, locally. It is that. It is a much more complicated appreciation of what the consumer choice really ought to be if we are to have a sustainable diet. That is a rule that applies whether you are a consumer in Rochdale—to go back to the previous panel’s example, and I used to live in Rochdale—or whether you are in Botswana. The same rule or principle of sustainable diet ought to apply but the manifestation of it will be different in different places. That is an entirely different way of looking at the issues. It is not: “For long distance trade or only for short.” It is not: “For green beans or not”. It is that you have to judge them across a multiple set of criteria, and we now know what those criteria are beginning to look like.

Q125 Chairman: Is it reasonable to assume from your kind of input that Tesco or Waitrose or what-have-you with some kind of fair trade partnership can simply be trusted to say, “We will establish that and you will have Kenyan green beans”—if I can keep that product in the frame—“when they are appropriate” and therefore the customer will know, frankly, if Kenyan green beans are in the shop it is okay to buy them.

Professor Lang: Now we are getting to it. This is the crux issue. Let me be very harsh: in the British food retail offer, if you go to Marks and Spencer, its Plan A commitment implies that; if you go to the Co-operative group it implies that—exactly what you have said. In other words, they are doing choice editing. They have said, “We are making a commitment to try to do the right thing across a number of different principles.” They have made company decisions to do that. They are different actually, so that adds to the consumer’s confusion. But if you go to Tesco, you have to wander to different places in the supermarket shelf, and you can go for biodiversity here, you can go for Fairtrade there, you can go for healthy over there, and you can go for value or low price there. They are still operating the smorgasbord approach—you know, it is up to you. The fundamental choice that the British food system has to make is between whether it is going to try to tick lots of boxes to have a sustainable food system by 2050, in which case you have to start going, if not the Marks and Sparks route or the Co-op route, an omni-standards route. The sensible thing is to have one level playing field for all the food system, and because Britain is part of the European Union, probably in the next 10 to 20 years we have to make that European-wide—because, even if we have reduced our imports from the European Union, we are within the same policy framework. The way forward is not this product or that product but let us get omni-standards everywhere, and whether you go and shop in Tesco here or in France, it should not

make any difference. The products may be different because the carbon mode or whatever criteria may be different. It is a different model.

Q126 Chairman: If you are an agricultural minister in East Africa or a small farmer growing products which you now have a market for in the EU, how are you supposed to operate your values when we are deciding what we think?

Professor Lang: The short answer is that you may grow for the British when it is appropriate but you grow for your region all the year round. At the moment what Britain is doing is distorting Kenyan agriculture. It is a neo-imperialism, if I may be very stark. We have got rid of the Empire and we are doing it through the supermarket chain.

Q127 Chairman: We are going to see some of these people. Are you suggesting that they are not making a decision based on a product that they have a customer for?

Professor Lang: Of course they do.

Q128 Chairman: There is added value and they are employed.

Professor Lang: They are doing it and they have a very good market—and good luck to them. I am not criticising them at all. To go back to my framework—which I think Paul and Tom would agree with, but I am articulating my version of it—what a sustainable food system looks like is what we are all trying to struggle to clarify. We have the beginnings of a good idea of what that may mean. The problem is that countries like Kenya, because they are poorer and they are developing and they are in a dependency role for exports, are in a very weak position. My response—and I think Tom put it much better earlier—is: in the short term, carry on supporting that. It is absolutely essential. Suddenly to cut the umbilical cord from Kenyan agriculture would be disgraceful and irresponsible—it would be counterproductive too, but let us forget that. But whether in the medium and long term Kenya’s agriculture should feed Britain for midwinter greens, I am not so sure.

Q129 Chairman: I understand that. In different debates we have discussed the European Union and indeed the United States policy on free trade. I think Mr Bercow has articulated it: “If free trade is such a good idea, why don’t the Europeans and the Americans practise it?”

Professor Lang: Absolutely.

Q130 Chairman: If you take that view, let us say they decided to grow tomatoes, they would probably find that their local supply was undercut by Italian tomatoes dumped by the EU in Nairobi, whereas they can sell flowers shipped by freight profitably in the UK.

Professor Lang: That is the reality.

Q131 Chairman: That is the point: people make decisions in the markets they are in rather than the theories. Obviously as a Committee we are trying to

address that as a practical problem. In that context, is there a role for government in this? So far you have talked about the role of voluntary organisations and retailers. Is it fair in fact that the food industry is subjected to this huge degree of comment and speculation compared with lots of other products that probably are flown around the world and nobody even bothers to ask?

Professor Lang: That is a very good question. I think that is largely because there is a very articulate and very fruitful civil society movement in Britain. Tom and Paul are an example of it. The Food Ethics Council is a Non Government Organisation. We have a very well respected NGO sector which has captured a lot of public imagination and thinking. That is why the focus is very heavily on food but not on textiles in the same way. Frankly, there ought to be more on textiles, but I do not happen to work on textiles so I talk about food. Is there a role for government? Yes. I think so. I look forward to my colleagues' reply. Not to have a clearer position from government would merely add to the current policy mess, or policy cacophony, if you want to put it that way. I think DFID ought to engage with other institutions of government and is beginning to do so much more than it used to do around public health. It has to address more coherently environmental considerations of trade than it has done, but it is beginning to do so. I would like this Committee to encourage more coming together by the great organs and institutions of state that shape and relate to the food system: the Department of Health; Defra; the Food Standards Agency; the Environment Agency, which has an enormous role; the Treasury obviously; Department of Culture, Media and Sport—you know, you name it. The good news is that after the *Food Matters* report, the Cabinet Office strategy in the report that came out last July, the Government has now set up a Domestic Affairs (Food) Sub-Committee. Let us hope that that starts trying to get some coherence, but all I can say, as an outside academic rather than speaking as an occasional government adviser, is that there is a long way to go. It has to move very fast indeed or else the commitment to sustainable development will be increasingly seen as an irrelevancy and marginalised by recession and marginalised by the commitment to try to sort out responses to the recession. To summarise: yes, there is a very big role for government. For much too long it has been hiding behind the power of the supermarkets, behind the power and the incredible sophistication of the food companies. It is not acceptable. Not even Tesco, the third, shortly to be the second, biggest food retailer in the world can resolve climate change. Not even Tesco can sort out a methodology for embedded water in food. There has to be some coherence and pulling together. That, it seems to me, is what we pay our taxes to government to do.

Dr MacMillan: On “Why food?”, first of all. It is important to remember that it is a big chunk of our lives and our impacts on the environment and on other people's lives in other parts of the world. Just in climate change terms it accounts for about one-fifth of overall UK emissions. That is not all of our

UK emissions by any means, of course, and there are other sectors that are also large, but it is one of the biggest sectors that has an impact on climate change and so it is not unreasonable for it to get a fair amount of attention. The other point is that it is something that people feel strongly about, partly because you eat it, and you eat with other people as well. There are all sorts of social and cultural reasons why it is perhaps a more important part in many people's lives than other things on which they might spend the equivalent or more money. The momentum that food issues pick up in the public domain in part reflects that importance that people attach to it in general. On the role for government, I have just a few more things to add to the mix. One area that came up in the earlier session as well is to have greater clarity on allocation. You will all be familiar with the debates about consumption or production-based accounting of the UK's contribution to climate change. Often that debate is talked about in relation to, say, China producing industrial goods and consumer goods for the UK market, and: “Is that China's business or our business?” You get a slightly different angle on it when you are talking about horticulture and Sub-Saharan Africa. Almost, the two debates do not really meet. The high ground seems to belong in this room to the argument that—

Q132 Chairman: On that point: we are buying toys made in China from electricity generated from coal-fired power stations and that is all right; we are flying in flowers and beans from East Africa, grow in the sun naturally, and that is all wrong.

Dr MacMillan: Yes. In the conversation we were hearing earlier, the focus was on those countries' ecological space: it is theirs to use. In the debate about toys, however, the point is often to highlight the UK's responsibility for those emissions at a distance. Maybe the answer is to have different rules and different principles about allocation in relation to different countries, but you at least need a clear framework for how to do that which sort of puts that argument to bed, basically. On the specific area—and I am afraid I cannot pull out any figures, because I do not know them—my understanding is that through development projects the UK does contribute to development of airport infrastructure for export and horticultural projects that are basically promoting this kind of air-freighted fruit and veg as a long-term strategy for development. There again the answer is not to say that that is a really bad idea, stop doing it, but I would certainly want to be more reassured that those investments are, for want of a better way of putting it, future-proofed. Have they thought very carefully about what the risks are, the regulatory risks, the things that other parts of the UK Government might do, that Europe might do, that might come out of international climate change—

Q133 Chairman: We have not been very good at predicting the future, have we?

Dr MacMillan: Sure, but there is no harm in trying in relation to this particular issue. Likewise, on trade policy the UK is on higher ground than some other countries here. Take an example of one influential document written by Defra and the Treasury in which DFID did not have a say, on the UK position on the Common Agricultural Policy. There the debate was not about liberalising other countries' agriculture but about liberalising Europe, which is, if you like, an easier but still not a very simple debate. There is one section where the Government and Treasury listed all the criteria that would need to be fulfilled for even European and US liberalisation to bring real benefits not just to middle income countries and some lower income countries, but to the very poorest, least developed countries. If you looked down that list, which is, in effect, criteria for the overall strategy, which is basically opening up markets to work in favour of the poorest people in the world, then you found that none of those criteria were in place and there was very little in place to make sure that we were even heading in the right direction on them.

Q134 John Bercow: You are dealing in that context, incredibly frustratingly, with a number of different obstacles, one of which is that there is an unfailing tendency on the part both of the United States and of the European Union to take an attitude, which is either explicit or implicit: "We might if you will first." It is fundamentally a rather juvenile approach but it is in the nature of things: "We might consider doing it, but you've got to move first, and if you don't, we won't" et cetera, but there we are, that is one factor. The other factor, I suppose, from the vantage point of Britain's position within the European Union, is effectively—and I am not making this as some sort of Eurosceptic observation but simply as a statement of the reality—that we do not have an independent commercial policy. We are part of the Union and we have to sign up to a common position. We might argue—and I think we would under successive governments—that we are broadly speaking more open to the idea of change and doing the responsible thing, but that other members of the Union have fairly powerful domestic lobbies, more powerful even than the British agricultural sector and much less sympathetic. One has an ongoing debate, but it seems to me that making progress on this subject is rather analogous to the progress of the man who is en route to Kafka's Castle and discovers, every time he takes a step forward, that instead of being a step nearer to it, he

is in fact a step further away. That is perhaps a bit pessimistic but that is very often the nub of it, is it not?

Professor Lang: I think there is real potential for arguing a sustainable food system direction for Europe than the British Government is currently giving credibility to. I think there is a groundswell of opinion in the food industries of Europe, in the public of Europe, with considerable variations—not all countries are as intensely interested in sustainability as, say, Britain is—that there is an opportunity to get away from the debate about "Is the CAP good or bad or too fiscally regressive or not?" into saying, "Well, wherever we are in Europe, what do we want Europe's food system to be?" I think the discussion we were having earlier is a very important indicator for what all of Europe's food system has to do. Go and talk to big food companies and they intend to be around in 35, 40, 50 years. Not many governments think that far ahead but food companies do. There is much more room for manoeuvre than I think we have given credit.

Q135 Chairman: I am going to have to stop you, because we are going to run out of a quorum if nothing else. Fascinating stuff. I appreciate your coming in. Obviously you have raised as many questions as you have answered, which is fair enough.

Professor Lang: We are policy people: that is our job. You are the politicians.

Q136 Chairman: Also we still have a practical issue to address, which is: what is the best advice to African governments and farmers or developing countries and farmers?

Professor Lang: I think you are hearing from us that we would like African governments to join with our government and pressure from within it to try to clarify what a sustainable food system is. That is what we need.

Q137 Chairman: That is helpful. That is exactly the evidence you have given us. Clearly when we visit Kenya and Tanzania it will be an opportunity for us to explore those things in a bit more depth. You have certainly helped us in that.

Professor Lang: These debates are going on there between small-scale sustainable farming and big-scale sustainable farming and big, export-led intensive agriculture.

Chairman: I am sure we will find that. Thank you both for your written evidence and also for your oral evidence. If there are other issues as we go along, we would appreciate it if you would give anything in to us. Thank you very much indeed.

Tuesday 3 March 2009

Members present:

Malcolm Bruce, in the Chair

Hugh Bayley
Richard Burden
Daniel Kawczynski

Mr Marsha Singh
Andrew Stunell

Witnesses: **Ms Jodie Keane**, Research Officer, International Economic Development Group and **Mr Leo Peskett**, Research Fellow, Climate Change, Environment and Forests Group, Overseas Development Institute, gave evidence.

Q138 Chairman: Good morning. Welcome and thank you for coming to give evidence. For the record could you introduce yourselves?

Mr Peskett: I am Leo Peskett; I am a research fellow at the Overseas Development Institute.

Ms Keane: I am Jodie Keane; I am a research officer at the Overseas Development Institute.

Q139 Chairman: Thank you also for your written submissions which have been both helpful and interesting. We are talking about low carbon development for both developed and developing countries but our focus is in the context of poor and developing countries. I wonder if I could ask you both to start with what you actually think low carbon development really means and whether or not there is a model or a blueprint as to what it might look like in poor countries and low income countries.

Ms Keane: I will start off with low carbon growth because obviously that would mean growth that has lower carbon emissions than otherwise under business as usual scenarios. When you are making the link between low carbon growth and development I think you have to bear in mind that many developing countries—particularly less developed countries—have already struggled with existing growth strategies for years. Low carbon growth does potentially offer them opportunities in their land use change and in their forestry sectors because that is where their emissions are mostly from. Given that their emissions are mostly from land use change and forestry, how can those sectors be leveraged to promote growth and development.

Mr Peskett: As Jodie said I think the basic definition is development that has lower carbon emissions than otherwise would have been the case against a baseline scenario of development. We need to make a distinction between different sets of countries and a very careful distinction between different sets of countries depending on the kinds of policies and measures which might be applicable in certain countries. If we focus, for example, on Africa, as Jodie says a high proportion of emissions in many countries in Africa are from the land use sector so that would be a major part of a low carbon growth or a low carbon development strategy but there are also opportunities, as we know. I would not say there is a blueprint in any country in Africa either but

recent work has looked at opportunities in the power generation sector in fuels for vehicles in developing countries.

Q140 Chairman: I suppose what one might be getting at is that it is one thing to say that it is growth that would use less carbon than otherwise might have been the case, but is it growth that actually might be stimulated by the relevance of low carbon technologies in poor countries? In other words it may be a positive opportunity. The counter to that is that as they are very small emitters under the current regime and they should not be constrained, does account have to be taken that they are going to go for whatever kind of growth they can get so unless you make low carbon growth a positive it is not going to happen.

Mr Peskett: I would say again that it depends very much on the country and the type of strategy. We have done work, particularly on biofuels and on forestry—both would be major sectors particularly in African countries—and we would say that there are opportunities within the biofuels sector within certain countries which differ depending on who you are looking at and depending on who is consuming biofuels, producers of biofuels in certain cases and under certain systems there would be opportunities for poor rural farmers, for example, to access biofuels supply chains within certain types of countries. You would have to disaggregate there. In the forestry sector there is a lot of interest in the opportunities from, for example, carbon markets and using carbon markets to promote development and promote growth from a bottom up perspective. I would say that we would question in some countries whether that strategy would actually feed into pro-poor growth in some cases, depending again on how the policy is implemented.

Q141 Chairman: That raises two other concerns. If you take countries like Nigeria, Angola or possibly Ghana (which has now discovered oil), would they be better to say that the best thing they can do is to produce oil and maybe add value to it by refining and processing it regardless of the emissions that that creates or, for that matter, other mineral extraction? Or could we dump on them? Is it a good opportunity for us to say, let us export our polluting

3 March 2009 Ms Jodie Keane and Mr Leo Peskett

industries because these countries are not constrained because of their current low emissions. In other words, what is the incentive for them?

Ms Keane: In the case of Nigeria there was an announcement last year that the president was seeking to pursue a low carbon growth strategy to promote green jobs but we know that the government is highly dependent on revenues from oil. So how could it pursue a low carbon growth strategy? It is possible that it could make use of the carbon market to retrofit the oil sector to try to reduce emissions but what sector in Nigeria offers the same revenue opportunities as the oil sector would? It is questionable as to whether other sources of renewable energy could generate that revenue. Cambodia is another example which has large forestry reserves but it has also oil reserves that are yet to come on stream, but they will come on stream probably by 2011 and the projected revenue is about 115 times its GDP so whether renewable sources of energy could generate that level of income is questionable but renewable energy sources could generate higher levels of employment.

Q142 Andrew Stunell: You have helpfully differentiated between categories of development and levels of countries and you have talked about what we might call the oil rich countries, but if one looks particularly at the non oil rich countries without big indigenous income streams there is clearly going to be a cost to adapting to climate change. How do you think the balance of that cost should be distributed between their own internal resources and the resources of the developed world which, after all, have a far higher output? Do you have a view about how we should approach that?

Mr Peskett: From an equity perspective our line would be that we would push strongly for developed countries to support, through any means possible, adaptation particularly in the most vulnerable countries. We know there are some countries which are much more vulnerable to climate change impacts. How that is actually done is still a big and outstanding question which people are trying to answer within the international process. There are opportunities through market mechanisms. We would have some questions again about their validity in some of those countries actually providing anywhere near substantial enough resources for adaptation needs and linking those mitigation instruments with adaptation. People talk about that but we have not seen much evidence for effectively combining those two instruments. You would be talking about large levels of probably grant based funding for particularly vulnerable countries if they do not have opportunities within their borders. We have looked at countries where there are some opportunities for promoting small scale growth through the development of biofuels industry, for example on a domestic level, and reducing fuel prices internally. There are discrete cases of that but I would not say it is a large scale strategy.

Ms Keane: There are aggregate figures being bounced around—\$18 billion per year for adaptation—but it is not clear how those aggregate figures are then broken down across different countries and within the different sectors, types of livelihood and strategy. I think it is still on-going work at the moment.

Q143 Andrew Stunell: I think you, like us, have identified the problem, but you are saying that we are some way away from having a range of solutions. How far do you think the EU and the UK in particular are working towards those solutions in an effective way? What would you want to see happen to get towards the answer you are looking for?

Mr Peskett: As a very first minimum step we need to take stock of the various financial instruments which have been proposed and the implications of the current financial crisis on those. We do not know nearly enough about government positions on how much public finance they would be prepared to put into this sector. We have seen some announcements; we have seen money going into certain instruments, particularly through the World Bank. We have seen proposals for connecting revenues to carbon markets, particularly through assigned amount auctions which is probably the strategy which has picked up most momentum I would say within the international process. The EU is obviously pushing that. I have seen very little evidence as to how the current financial situation would affect those revenue streams within the next two, five, ten years, particularly after a 2012 agreement.

Q144 Andrew Stunell: You are suggesting not just that the money might not be right but the actual strategy might not be right or at least it is not well-developed. Can you explore that second point? If somebody comes along with an extra \$10 billion, what is the best way of spending the extra \$10 billion?

Ms Keane: I think there is some way to go before climate change mitigation and adaptation can be built into country specific growth and poverty reduction strategies. It is happening but it is not quite there yet.

Mr Peskett: I would say that if you had an extra \$10 billion, from an equity perspective and a climate change impact perspective you would channel that into building a resilience of the least developed countries through public financial mechanisms, probably through existing financial mechanisms instead of building a massive new super-structure for climate change finance which is a concern of ours. There are questions as to how you channel money through existing systems but I think, particularly in the early stages of climate change, the links between development and climate change resilience are quite strong particularly in the low income countries where growth would have strong connections to resilience in those countries. That is probably how I would spend an extra \$10 billion from a development and a poverty perspective.

3 March 2009 Ms Jodie Keane and Mr Leo Peskett

Q145 Andrew Stunell: On resilience mechanisms?

Mr Peskett: Yes. There are various options there in terms of increased social protection measures. We are doing work on looking at social protection measures to deal with certain shocks and stresses within countries. They cover not just the climate change impacts but impacts of current price fluctuations, for example. The links between vulnerability and resilience can be addressed through certain types of mechanisms which already exist. That is a very short term strategy with a medium amount of money.

Q146 Chairman: The scientists tell us that the climate change impact may already be close to a tipping point; we have a world recession which is actually slowing down emissions; we have a meeting between Gordon Brown and President Obama to discuss a world response to that. Is there not a connection between all of these things? President Obama is talking about green jobs and these green jobs should be just as much of an opportunity in developing countries as in developed countries, and actually putting these two things together potentially could be the big idea and might actually use the space we now have to stave off disaster.

Ms Keane: I think we have seen already some announcements about using the financial crisis as an opportunity to promote a green stimulus, but then there is also a red stimulus and a blue stimulus so a green stimulus would be just one part of that. We have had some announcements by South Korea, for example, and the US but for developing countries in response to the financial crisis the reverberations, if you like, are just happening now, so how that might impact on countries that have developed by exporting manufacturing goods, how the recession might impact on that strategy and governments' responses to it, I have not seen a lot on that at the moment besides, perhaps, China. China announced its strategy to move towards a cleaner and greener economy before the financial crisis. I would say that the financial crisis could present some opportunities but we also have to bear in mind that many developing countries have been walking a very fine line up to that point already.

Mr Peskett: I think we probably need to draw a careful distinction between green growth in developing countries and green pro-poor growth in developing countries as well and I do not think that distinction is made. There is quite often an assumption by people pushing for green growth that green growth in developing countries equals poverty reduction and some of our work does show that in some cases, that growth and poverty reduction are linked. However, we would also say that in some cases those linkages are hard to find. In the forestry sector pushing strongly on mitigation measures might have certain anti-poor effects, particularly where governments are incentivised to really nationalise assets; there has been a tendency towards much more decentralised management which a lot of people would say is pro-poor in some countries. The actual incentive from a mitigation strategy which is connected to forests goes against that flow even

though it might create growth and it might create more jobs for certain people. I think that needs to be borne in mind.

Q147 Hugh Bayley: What do you see as the key sources of conflict in negotiating a new agreement between the EU and the rapidly industrialising countries like China, India and Brazil? How might they be resolved?

Mr Peskett: Everyone knows the key issues in relation to future commitments on developing countries and rapidly industrialising countries in particular having to take on any form of future commitment. I think there is obviously some agreement between the EU policy in recognising that position; I am not sure there is so much agreement in terms of how to address that difference. There are various strategies for dealing with that difference in terms of sectoral no-lose targets which could be put in place; some kind of stepped agreement that becomes much more binding in the future. I think a key aspect of this would be the creation of a more rigorous and global monitoring, review and verification system for greenhouse gases which would enable a deeper future global deal on climate change. This is what China is pushing for.

Ms Keane: My understanding is that there needs to be some kind of global agreement because if there is not and the EU starts pursuing its own high green growth, very sophisticated path, industry that is located within the EU and that wants to continue to pollute for whatever reasons will move elsewhere which will lead to the carbon leakage problem. Without an agreement you could see increased protectionism and banning of imports that embody carbon, for instance. There does need to be a global agreement.

Q148 Hugh Bayley: Does anybody have a workable mechanism or incentive to place a tariff on traded carbon? How would you ensure that the end user is responsible for the emissions?

Ms Keane: I do not think we are at that stage yet but hypothetically, if there was not a global agreement you could see increased fragmentation. I am fairly optimistic that there will be a global agreement but how binding that is for less developed countries and middle income countries remains to be seen.

Q149 Hugh Bayley: Pursuing this a bit further, do you think you could have a binding agreement that says, for instance, "We undertake, as a community of nations globally, to cut our global carbon emissions by 50 % by 2050" and you set for OECD countries firm targets. For least developed countries—Tanzania, for example,—in terms of mitigation you say there is going to be no cap for the next 20 years. Then you set this kind of graduated cap for the industrialised countries. However, China, for instance, already has twice the global average; it needs to cut its emissions in half by 2050 if it is going to be sharing the burden at that stage. How would you resolve that difficulty? Do you think your tapering in of legally binding targets would provide a viable path for industrialised countries?

3 March 2009 Ms Jodie Keane and Mr Leo Peskett

Mr Peskett: From the perspective of the climate it is probably not sufficient; from the perspective of international negotiations and the way they function, if we talk purely about political feasibility I am not optimistic that we could negotiate binding targets for the large developing or emerging economies. I think the reality of the situation is that we would have to agree among a set of OECD countries particularly binding targets and to have other kinds of efforts. That is the picture that is emerging in the negotiations and has been there for quite a long time. If we are talking about dealing with this through the UN process and sticking with the UN process, then we can talk ideally yes, large developing countries could take on binding commitments and they would need to have monitoring systems which would enable them to show that they had met those commitments and there would be some kind of redress mechanisms if they did not meet the commitments as is the case theoretically for Annex I countries at the moment. If that is the political reality of the situation we then have to look at the other kind of entry points for the international community to support those countries in that low carbon transition. That is where we are talking about large and potentially voluntary financial mechanisms in technology transfer and potentially scaled up carbon market mechanisms.

Q150 Hugh Bayley: Let me overlay another dimension. To what extent can and should financing for mitigation and financing for poverty alleviation overlap? Last time I looked at the figures South Africa had greater carbon emissions per capita than Switzerland. It is inconceivable that you could have an agreement without Switzerland signing up to a reduction target and you are saying practical politics mean that you are unlikely to get South Africa signing up to a binding commitment. Can you use mitigation finance in a way to alleviate poverty?

Mr Peskett: This goes back to the question I raised earlier about the distinction between pro-poor growth and looking at it from the perspective of poverty reduction and the timeframe. We have looked mainly at project based mechanisms and their relationships to poverty. We have seen the race to the bottom, for example, in the CDM,¹ towards technologies and solutions which do not have many connections to a social agenda. We have seen concerns particularly about the forestry sector not being particularly viable within project based mechanisms as they stand at the moment. We think that situation is changing slightly. Even within that sub-set we have looked at quite a lot of projects and we would say that actually their project development is very much driven by the interested investors; that sustainable development aspects are under the auspices of host country approval generally. This is within compliance based mechanisms so you are very much dependent on how governments frame the social aspect of projects which I am not saying is wrong but you are reliant on that. And the carbon aspects, quite rightly, go beyond many of the other

aspects of projects if you are looking at it from a climate change perspective. There are much less rigorous social consultation procedures. They exist and we have seen flaws in some cases but you are also seeing a tendency—again particularly within the land use sector which is relevant in a lot of the least developed country—to promote certain forms of projects that do not have inherently massive poverty reduction benefits on a large scale. I am not saying that there are not projects out there which are good and they do have some benefits, but I would not say they are necessarily scaleable and I think some of them take a certain perspective on what development is. For example, if we are looking at the current REDD² negotiations and the World Bank's activities through the Forest Carbon Partnership Facility, we have reviewed the document that they have submitted to the World Bank which say that this is the strategy they will take up. The things we see in there are governments trying, in some cases, to address emissions through things like cyclical cultivation systems which we know in many of those countries are large and important sources of livelihoods. There are strategies to develop alternative livelihoods but we have not seen in many cases on a scale that those actually promote development in the long term and quite often they seem to fail in various instances. I think the connection we would say is fuzzy, at least in those sectors.

Q151 Hugh Bayley: What role do you see for the UNFCCC³ or the World Bank having in funding mitigation packages in developing countries? The point is, if South Africa says, "Although our emissions are greater than some European countries we should not have to make binding targets because we are still a developing country with many poor people" surely then the argument is that mitigation in South Africa needs to address poverty as well as emissions. How well equipped are the UN Framework Convention and the World Bank to have a two strand strategy?

Ms Keane: In many cases there are win-win situations. There have been studies on promoting low carbon growth in sub-Saharan Africa and in Latin America both by the World Bank. They are useful studies and they do show that there are win-win situations. Installing cleaner energy sources not only helps you mitigate emissions but it is also cheaper to do so. The problem is the financing gap. So I think there is certainly a role for the World Bank to play and in a sense you need developing countries to start thinking about their carbon budget and their carbon assets and liabilities and how they can tap into the carbon market where it is possible. But where there may be financing gaps then an institute like the World Bank would need to step in. On the poverty links, to take the case of China for example, we know that inefficient factories are polluting and poisoning people and there are immense efficiency gains to be made. That is a win-win situation but obviously we are talking about a huge scale and to

¹ Clean Development Mechanism

² Reduced Emissions from Deforestation and Degradation

³ UN Framework Convention on Climate Change

3 March 2009 Ms Jodie Keane and Mr Leo Peskett

date the CDM has been rather limited. There is also the issue of the timeframe. There is the first commitment of 2008-2012 but that is a short timeframe so it is not conducive when you are talking about large scale investments in cleaner energy sources.

Q152 Richard Burden: Could I ask you a bit about biofuels? You have obviously been arguing for a nuanced approach in the swing from biofuels are good in all circumstances to biofuels are bad in all circumstances. You mentioned earlier on about their being some real potential for biofuels, certainly in relation to different African, Caribbean and Pacific countries. You were at pains to say that you have to disaggregate here the benefits and the opportunities, and the challenges are going to be different in different countries. Could you say a little bit more about that, about where you see the benefits and where you see the pitfalls for those countries?

Ms Keane: We undertook a review last year for the Renewable Fuels Agency (RFA)—the Gallagher Review—and we looked at a number of different countries. To take the example of Malawi, it imports a lot of fossil fuel; its transportation system is run on imported oil. However, it does have sugar cane and a number of sugar mills and our analysis suggested that it does have enough land to scale up its sugar cane production in order to substitute for imported fossil fuel. However, there are a number of policy barriers. The mills at the moment are under a monopoly system and also Malawi benefits from selling its sugar at a preferential rate which is a kind of disincentive for it to look at perhaps substituting importing fossil fuel for domestically produced bio-ethanol. In the case of bio-diesel there are potentially opportunities but obviously in a country where there are risks of food insecurity, despite ample land, it is quite challenging. How do you overcome the policy barriers? We think there are opportunities. We know that the EU wants to support its own domestic producers so bio-fuels trade has been limited within the last year, but there are still opportunities for developing countries to substitute for imported fossil fuels through their domestic production.

Q153 Richard Burden: Perhaps we can come back in a minute to how EU policy could be changed, but just staying with the benefits and the pitfalls—you have given the example of Malawi but you were saying earlier on that what they apply in one place can be very different elsewhere. Do you have any other examples of where biofuels could present benefits or where the production of biofuels could actually be entirely the wrong approach?

Ms Keane: Another example is India. They have announced that they have a target to substitute fossil fuels for domestically produced bio-diesel and bio-ethanol. India is the world's second largest producer of sugar cane; it has ample land and ample sugar cane to do this, but again there are a number of policy barriers within the country that need to be overcome. These are related to internal tax systems and bureaucracy, but also sugar cane is quite demanding in terms of water and that is a challenge

for Indian producers, but the government has still set a national target to go down the Brazilian route, if you like, of using a mix and eventually phasing out fossil fuel use. The Brazilian model was linked to a growth and poverty reduction strategy.

Q154 Richard Burden: Is that transferable?

Ms Keane: I think there are transferable lessons. There were certain incentives and structures so mills that bought from small scale producers were offered tax incentives and there was a verification system around that. I think there are lessons to be learned. Brazil is obviously quite keen to announce this and it is also quite keen to sell fuel flex vehicles in parts of the developing world.

Q155 Richard Burden: In relation to the EU what precisely do you think the EU needs to be doing to try to have a more pro-poor perspective on the issue of biofuels? You mentioned the question of protecting European production but also what does it need to do in quality terms to get round this conundrum of trying to encourage sustainable biofuels production in developing countries whilst at the same time not then having a spin-off problem in terms of adversely affecting food prices and so on?

Ms Keane: For low income countries that potentially have an opportunity to expand their bio-fuel production not only for exports but also for their own domestic needs perhaps the EU could adopt an approach of increasing technology transfer and knowledge transfer to get producers up to the exporting capability. That is one suggestion. Going down the labelling and certification of biofuels route, we are actually working on that for another project, so in terms of the design of that it is difficult to adapt a standard for different types of producers. What is a standard perspective? It is hard to differentiate in that respect, so how do you design a standard so that it does not unduly penalise export from a country which cannot afford certification or is not at the capability level. There is work in progress and that is something we are working on at the moment.

Q156 Mr Singh: I would like to ask about the Clean Development Mechanism established under the Kyoto Protocol. Could you tell the Committee what the CDM has achieved up to the present and what impact it has had?

Mr Peskett: We can in broad terms. Obviously as a mechanism to reduce greenhouse gas emissions it has generated hotspots of investment in certain technologies in certain countries and we know particularly in China, India and Brazil. In terms of reducing greenhouse gas emissions in general we are concerned about the additionality aspect, at least in some of those sectors and some of those technologies. There are studies—I would not say that they are totally conclusive and we do not have a position on this—that show that the additionality is questionable for a high proportion (up to a third) of CDM projects. So in terms of impact on emissions I would certainly say it has had some impact in some sectors and in some countries, but it has not been

 3 March 2009 Ms Jodie Keane and Mr Leo Peskett

purely additional across the board. I do not think that is necessarily a massive issue; everyone knows that the CDM has been an innovative mechanism and it has been experimented in certain ways and it has been evolving over time.

Q157 Mr Singh: I asked the question specifically because of its future after 2012. Have we learned any lessons about the way it should be going and if it does not continue is there an alternative?

Mr Peskett: I would say it does have a future. There is a huge sector here and globally which is involved in it in various ways. The number of projects in Africa, for example, is known to be increasing. There is discussion about reforming the CDM in various ways, things to do with professionalising the executive board and making it a much more streamlined instrument. From our perspective one of the key evolutions would be to move it towards a more sectoral mechanism which would allow some kind of scaling up of approaches which would involve sectoral base lines.

Q158 Mr Singh: What does that mean?

Mr Peskett: It would mean applying the carbon market mechanism to a whole sector as opposed to a single project. This might be more easily applicable in certain sectors where there is, for example, very standardised technology. It would be difficult in other sectors, and particularly the land use sector. I would say that a lot of the discussion on sectoral approaches has actually become quite advanced compared to some other sectors in forestry because of the debate about REDD and reduced emissions from de-forestation which is effectively a sectoral approach because you are looking at the whole forest sector in a certain country.

Q159 Mr Singh: Should it be a mechanism which we use to offset emissions or could it actually be considered to provide finance and technology transfer to support developing countries in terms of adaptations and mitigation?

Ms Keane: It was designed for mitigation not adaptation but there are plans to attach a levy to the proceeds of carbon that is then sold on that has been produced by the Clean Development Mechanism which is a 2 % levy. The CDM primarily is for mitigation but there are gains to be had from this 2 % levy. One concern that I have is the potential for the CDM to be scaled up. At the moment forestry and land use change are not really included; it is just afforestation and not deforestation, for example. Some authors have said that if land use change and forestry were included the price of carbon would collapse. If the price of carbon collapses then what is the incentive to offset your emissions? That is one of my concerns, how do we ensure that the price of carbon is sufficiently high to maintain incentives and for countries that want to gain from static carbon assets such as forestry, how long can they rely on this income flow given that it might be unstable in the short term. There is no explicit mandate for technology transfer where projects have been implemented with partners in the north and projects

based in the south—some authors have suggested that there has been technology transfer but that is not explicit.

Q160 Mr Singh: You mentioned hot spots such as China and India—has the CDM made any significant contribution to reducing emissions in those countries?

Mr Peskett: I think it has had a very small impact but some people say that it has influenced actual sectoral policy development in certain sectors. It is very hard to judge what the knock-on effects are of the system and there is also speeding up as a process. We are looking at the early days of the CDM but I think compared to China's actual emissions it is a very small amount. I can give you the figures afterwards.

Q161 Mr Singh: For African countries who want to participate in a big way in the CDM, what are the avenues open to them?

Mr Peskett: There are various tweaks to the mechanism that can be put in place and have been tried in terms of developing small scale methodologies, for example, which allows smaller projects to be included. Then there are also institutional aspects in terms of capacity building in measuring and monitoring emissions. I would say those are really tweaks to a mechanism. From our perspective the problem in Africa is the enabling environment for a market mechanism like that. It is the same not just of the CDM but other market mechanisms, so there are significant barriers in terms of the availability of up-front finance. Risk averse financial institutions within countries which would need to be significantly strengthened to take on a high risk industry, again in some sectors more than others.

Q162 Mr Singh: So you think that more pilot projects in Africa would help and in that context you talked about public finance. What kind of role does DFID have to play?

Mr Peskett: Pilot projects would certainly help in terms of experience. I think sometimes they tend to focus on some of the wrong aspects. Where DFID could come in would actually be in the enabling environment which would be certain policy reforms within national government. Some of the up-front financiers, who might be multi-lateral development banks, might not have such good inroads into national policy development. Then there is the enabling financial environment, for example, and the technical environment within national scientific institutions and the designated national authorities.

Q163 Mr Singh: Is DFID doing any of that currently?

Mr Peskett: It is in some countries. As far as I know it is doing a study in Vietnam, for example, looking at the development of the voluntary carbon market there, specifically focussing on the CDM and carbon market as a sector, which I would say is a very positive step, rather than focussing very specifically on individual projects. This is a new market, a new

3 March 2009 Ms Jodie Keane and Mr Leo Peskett

opportunity; let us see where the policy levers in the enabling environment need to be strengthened. It could certainly continue—I think it has plans to—to develop that work in other countries and in Africa as well. I think indirectly DFID is financing certain capacity building initiatives.

Q164 Daniel Kawczynski: What contribution has the EU Emissions Trading Scheme made to the effectiveness of the Clean Development Mechanism?

Ms Keane: It has been the main buyer. 90 % of all certified emissions reductions issued by the CDM to date have been purchased by European buyers. It is in this respect that I would say it has played a major role in the success of the CDM to date. The question is how do we get other players into participating in the CDM.

Mr Peskett: One area where we know it has not played a role is in the forestry sector; forestry is still not part of the EU Emissions Trading Scheme. At the last count there was only one registered afforestation/reforestation project in the CDM which is obviously outside the EU mechanism so it played no role in there; if anything people argue that it played a role in suppressing it. I have not seen any good conclusive evidence as to why there are so few

forestry projects, but you would assume that the EU ETS has played a big role in a small number of projects.

Q165 Daniel Kawczynski: The EU has proposed to limit the use of its Emissions Trading Scheme if there is no agreement on emissions reductions in Copenhagen. Why do you think they are pursuing this, given the importance, as you have already said, of their contribution? How effective is this approach likely to be?

Ms Keane: Ultimately the objective is to incentivise others to commit to a global agreement. As I mentioned earlier, without a global agreement there would be carbon leakage. If European countries and firms sign up strict EU targets, companies can move to countries that do not have such strict targets. Ultimately it is to incentivise global agreement. It is quite a risk but negotiations are still on-going at the moment.

Chairman: Can I thank you both very much. The thing that concerns us, as your evidence points out, is that it is all a bit patchy and yet it is really quite urgent and quite serious. The question is how we can actually make clean development a pro-poor project that would not only reduce emissions worldwide but actually facilitate growth, not just create a ceiling for it but actually help. I think that is what we are groping for and will continue to do so as we take further evidence, but thank you very much for coming along today.

Witnesses: **Dr Keith Allott**, Head of Climate Change, **Mr David Tickner**, Head of Freshwater Programmes and **Mr Toby Quantrill**, Head of International Governance, WWF, gave evidence.

Q166 Chairman: Good morning, thank you for coming in and giving evidence to us. For the record could you introduce yourselves?

Dr Tickner: I am David Tickner; I am Head of Freshwater Programmes at WWF UK.

Mr Quantrill: I am Toby Quantrill; I head up the International Governance Team at WWF UK. I also sit as co-Chair on the Development and Environment Group.

Dr Allott: I am Keith Allott; I am Head of the Climate Change Programme at WWF UK.

Q167 Chairman: I want to start by asking you questions about the Clean Development Mechanism. The objective is to ensure that it delivers additionality, in other words it is going to bring about projects that otherwise would not have taken place. This seems to be quite a difficult and controversial test. I wonder if you could give us a flavour of how difficult it is and what are the problems with this approach and the extent to which it might be inhibitive.

Dr Allott: I think we have to step back and ask some big questions about the whole purpose and the structure of the CDM. The CDM is firstly meant to deliver carbon benefits and you need to demonstrate that you are achieving a genuine additional reduction below what would have happened

otherwise; because it is an offsetting mechanism all you are doing is inflating global emissions. It is really important to understand that for every bad CDM project the climate suffers because you have higher emissions in the UK, in Europe, the industrialised world which is of no benefit to anybody other than potentially the developer who may be able to gain and get some windfall profit. The mechanism is also meant to deliver at the same time sustainable development benefits and our concern is that on both fronts it is failing to deliver. The sustainable development criterion often gets ignored in the breach. I can forward to you a study by an institute called the Öko Institut which tried to assess the problems of additionality and the very high proportion—probably about a quarter or a third—of projects which may be non-additional—in other words the developers are getting credit for doing what they have already done, projects that were built before the CDM was even considered, dam projects, for instance.

Q168 Chairman: Is there controversy, people moaning because they thought they should have got it and did not? Or is there an aspect where things which might have been beneficial did not actually get funding?

Dr Allott: There are fundamental problems here with dealing with a project based approach. Trying to demonstrate that any individual project would have not happened in the absence of the mechanism means you are in a counter-factual world. This is a fundamental structural issue which is really being debated at the moment in the context of the Copenhagen agreement, whether we can move towards a more structurally sound approach based on maybe a sectoral approach which would begin to deal with some of the problems around additionality. As long as on every individual project you are trying to assess whether it would or would not have happened, you have all sorts of perverse incentives. Developers have strong incentives to claim that a project would have happened anyhow and it is done very much in the technical detail through investment analysis or barrier analysis techniques where it is a black box and it is very, very hard for anybody to really hold that system to account because there are so many projects.

Q169 Chairman: If that is the case, if the European Commission wanted to extend this process into mitigation eligibility for funding how is that going to help or how is that going to have an impact? Is it going to make the situation just as bad and just as complicated?

Dr Allott: Sorry, which approach?

Q170 Chairman: Trying to assess the impact of investment. You made a very fair point that the whole test of all of these mechanisms is: is it actually reducing emissions? If it is a difficult thing to assess, is extending that approach to mitigation measures for example, going to help?

Dr Allott: Our understanding is that there are various conflicting approaches that are being taken within the European approach. We think that they are perhaps putting far too much reliance upon the carbon market and offset mechanisms. The carbon market is a valuable tool but it is by no means a silver bullet. I think if you look at what the Commission is proposing there are some elements in there which are beginning to look like the right approach. It is very important to understand structurally the difference between where we are now in the first commitment period of Kyoto where we only have obligations on developed countries and there is no requirement or obligation at all on developing countries—quite rightly—but we are moving to a post 2012 world where if you look at the global carbon budget we need action in both parts of the world, both the Annex 1 countries which have firm caps as Europe does, and also we need to have a very significant departure from the business as usual trajectory in developing countries, particularly the larger developing countries. Moving from that current mindset to the future mindset means that we have to re-think the role of offsetting. You can only count the emission reduction in one place. If you double count it then you are cheating the overall carbon budget for the world which is what we need to be looking at if we are going to try to avoid dangerous climate change which is the ultimate goal of this. My

understanding of what the Commission is beginning to go towards is an idea of requiring developing countries to produce action plans which will be looking at low carbon development pathways, at options for different sectors, mitigation options, trying to put some numbers on the potential reductions and on the potential costs in each developing country. That is actually structurally not a bad way to go because we are trying to put some dimensions on that and trying to break down what may actually be an activity which countries would be wanting to take in their own right anyhow because it has co-benefits, it may be cost effective, there may be some help to activate that mitigation, so it could actually be good for the country to take part. Many developing countries are already doing this. China, Mexico and South Africa are doing some very ambitious things entirely outside existing obligations because they think it is the right thing to do. You need those plans to be within a framework for mechanisms such as carbon markets and offsets but also other sources of finance to support a big transformation in their economies. Just thinking about it purely in terms of the carbon market is where the Commission may be going wrong.

Q171 Chairman: That is extremely helpful and obviously what you said about the bigger developing countries is obviously true and understandable. We, as a Committee, have a particular focus on very poor countries such as Mose in sub-Saharan Africa. In that context when the Commission is saying that a third of the cost should be covered by industrialised countries means that the poor countries could face two-thirds of the cost—is that a realistic and fair approach?

Dr Allott: I am not aware of the Commission having that particular figure. The fundamental principle here is one of the obligation that the developed world has to deal with climate change and to pay substantively for the additional costs.

Q172 Chairman: If you are a poor country that is struggling to reduce poverty and grow your economy in any way at all, you are really not in a position to face any extra cost to save the planet; you are trying to save your own poor people.

Dr Allott: I completely agree.

Q173 Chairman: So why are the Commission doing this? What effect do you think it is going to have on negotiations?

Dr Allott: I think we need to break the discussion down into different types of actions and activities within developing countries and different levels of developing countries. In the very poorest developing countries I think there is absolutely no obligation on those countries to pay. There is a difference between where the emission reductions may need to be delivered and who has an obligation to help pay for them or to deliver them. The least developed countries have no obligation at all, they are the very least to contribute towards the problem. The rich world have built our economies and our way of living on unconstrained use of the atmosphere and

3 March 2009 Dr Keith Allott, Mr David Tickner and Mr Toby Quanttrill

the world's resources so we have a big obligation because of our historic responsibilities, because of our currently high per capita emissions which are still much, much higher. The developed world has so far not done very much to reduce our emissions and the atmospheric space which is left for developing countries to grow into is dwindling all the time because the rich world has done so little to change its course. I think there is an overwhelming obligation and it is expressed in the UN Framework Convention, the jargon of "common but differentiated responsibilities" for the richest countries to substantially pay for all the incremental costs and to have that to happen.

Q174 Chairman: Do you accept the problem? If you are saying that households in poor countries should pay for their own low carbon or carbon reduction or the state should pay for it, in reality what will happen is that if these countries find growth opportunities they will be offloading—

Dr Allott: I completely agree and I think the issue to make a global agreement at Copenhagen work is intimately bound up with both finding suitably large sources of sustainable and predictable finance coming from the rich world to then be well governed and well spent in developing countries in terms of helping to secure a lower carbon transition there. The deal will not work if this is all about putting the obligation on developing countries. It will not work because it will not be equitable, it will not be fair and it will not be politically feasible.

Q175 Chairman: The Commission are saying that the mechanism should only fund a third—

Dr Allott: Forgive me, I do not recognise the source of that particular figure so I cannot comment on that.

Q176 Hugh Bayley: Obviously one of the ways to mitigate the carbon impact of industrialisation in these developed countries is technology transfer. What are the estimated additional costs of low-carbon technology transfer to developing countries? Where will the money come from and what should be the mechanism for transferring rich world money to developing countries for low carbon growth?

Dr Allott: In terms of the overall costs there are broadly two groups of costs in terms of this obligation that the developed world has. We must not forget this is to do with adaptation and that there are very significant costs caused by the impact of climate change which are already being felt and will be increasingly felt by the poorest and most vulnerable countries. There are various figures around for that, but Oxfam have produced a very authoritative figure of 40 billion euros per year for adaptation. Other figures are higher. The United Nations Development Programme I think said 65 billion euros per year by 2020. These are very significant sums that the developed world as a whole needs to respect and step up to the plate with. That is for the adaptation piece. The other part of the equation is the incremental costs of the lower carbon development pathways. There are various figures

around for this under the European Commission's Communication which is currently being debated and going through the Brussels institutions and was discussed by the Environment Council last night. The figure that is cited there is a total global additional cost by 2020 of 175 billion euros, of which they say 71 billion will be in developing countries, a combination of dealing with deforestation, agricultural emissions and the largest chunk is for low carbon energy development. These are very significant sums but we regard them as a minimum figure because we do not think that the Commission's sums are based on a suitably safe emissions trajectory.

Q177 Chairman: That is the point that I was referring to; it is in this document. It is identifying the sources and saying that it is estimated that the various crediting mechanisms comprise one third or more of the additional investment in developing countries.

Dr Allott: There are other mechanisms which the Commission does raise there which would also provide additional finance which are important to raise. It is not just about the crediting mechanisms; there are other mechanisms which are being discussed and raised by the Commission. The concern is that the ministers yesterday in their statement did not make any substantive comment about the overall obligation on Europe or about the mechanisms, even though they are alluded to in the source documents from the Commission. The key mechanisms that were on the table all present political challenges but we think they are all perfectly deliverable. One idea which has attracted a lot of attention is the idea of auctioning of what in the jargon is called "assigned amount units" which are the number of emission permits that are given to industrialised countries under a Kyoto style agreement, under an absolute cap. You have a certain number of assigned amount units and the idea will be to auction a proportion of those to industrialised countries and the principle would be delivering funding through that mechanism. Other very interesting options include inclusion of aviation and shipping. I know at earlier hearings you were teasing out some of the issues around aviation in particular, but aviation and shipping are currently outside the Kyoto framework. They are rapidly growing sources of greenhouse gases in their own right, but they are also not in any way paying their way towards contributing to a solution. We have done some very interesting studies that we could forward on to you about the potential for raising very significant sources of finance to help deliver the global deal, help deliver the adaptation and mitigation finance that is required. We think that that is an under-used opportunity. There are other ideas that are out there as well, including currency transaction taxation. Various other options would help to deliver that scale of funding. The question is political will to make it happen.

Q178 Hugh Bayley: This is not a politically correct question but I think it needs to be asked. Has anybody made an economic analysis of the costs and benefits of livelihoods and lives saved through adaptation investment and through mitigation investment? If so, for every dollar or every million dollars invested what gives you greater impact? Should one be unpacking alternative mitigation instruments and alternative adaptation instruments and saying that these are the most cost effective; this is what you do first?

Mr Quantrill: I think that is a critical question. I do not think it is a problematic question in terms of the fact that it has to be asked. A lot of the cost of adaptation numbers we see explicitly do not take into account loss of lives, suffering and so on. I think that is a critical issue, especially when you are coming at it from a development perspective. We are talking numbers but those numbers are not translated into lives and suffering that results. When we talk about a trade off between mitigation and adaptation you can do a pure economic sum and it may give you one answer, but I do not think that is likely to be an acceptable answer when you look at the reality of what that means. We also have to say that a lot of the discussion about adaptation still makes the assumption that all adaptation will happen in a certain way, keeping people in situ. The reality is that there is a point at which if we do not see mitigation then adaptation can only go so far and we have not even had the discussion about what that really means and what the implications could be. If we go to a two degrees increase in the average temperatures—it looks likely that we are locked into that—there are whole countries and certainly large parts of countries where two degrees is potentially the end. We have to have a discussion about what that means and whether that is a cost discussion or a cost in terms of lives and livelihoods and so on and it is a critically important one to be had in a development context.

Dr Allott: Just to endorse that, we do not have a choice about adaptation; adaptation is absolutely critical but it is important to realise that there are costs, limits and barriers to adaptation itself. In different contexts there is actually a limit to what you can adapt to as Toby was alluding to. Cost benefit analysis, even in a very hand waving form, is very difficult to apply to a problem of this complexity and magnitude, not least because it cannot capture all the costs and there are concerns attached to both adaptation and mitigation benefits. The Stern analysis does begin to get you there. There are issues around that from all directions but in terms of the overall framing of it which is that overwhelmingly the costs of doing something really ambitious are much smaller than the costs of doing nothing or even doing something moderately ambitious because the impact will be so great. The cost figures cannot possibly capture all of the human misery, deprivation and death that will be caused let alone the impacts to the planet and to nature.

Q179 Richard Burden: A lot of the time the focus of discussion is how far technology transfer would lead to a reduction in greenhouse emissions; that is not

surprising, that is what we are talking about. Often the development angle of that—how far the technology transfer will actually contribute positively to development—comes as a poor second place. When there are 1.6 billion who have no access to electricity and 2.4 billion people are using pretty basic biomass fuels for cooking and heating, the health hazards are very obvious. How do you think, in policy terms, we can tweak things or change things to try to ensure that the needs of the poorest people can move higher up the agenda? What would be the instruments that we could use to make that happen in technology transfer terms, particularly after 2012?

Mr Quantrill: I think we need to separate in some ways the discussion about technology transfer which has the intention of reducing carbon and the development discussion. The situation you described—1.6 billion people unconnected to electricity, 2.4 billion people relying on biomass as a primary cooking source which has huge development implications—there was an evaluation by the World Bank in 2008 which actually showed that connecting all those unconnected households to an electric source would actually add almost nothing in terms of greenhouse gas emissions—I think one third of 1 %. What you are talking about is potentially huge development gains with very little trade off. I think the World Bank describes it as no trade off. You have to be very clear that when you are talking about the poorest countries and those people predominantly are the poorest people if not in the poorest countries, you need to focus specifically on addressing their needs. If you are talking about reducing carbon then make sure obviously it is a do no harm principle that is aimed at reducing carbon. As Keith alluded to earlier, the potential for reducing carbon and the need for energy access are often in different places and I think it is important not to get too caught up in trying to achieve two things with the same mechanism and sometimes, as in the case of CDM, perhaps achieving neither effectively.

Q180 Richard Burden: We can look at it the other way round and see the problem you are identifying, that you try to do too much and therefore achieve nothing. If so much of the international focus is going to be understandably on development in low carbon technologies—technology transfer in that context—are there not things we could be doing within those programmes to try to ensure a much more pro-poor positive development angle to them? What would they look like and from DFID's point of view specifically are there any things that it should be doing itself or pushing for internationally to try to ensure that more poor people in the least developed countries have got access to clean and affordable energy?

Mr Quantrill: Whilst saying it is not about reducing carbon, at the same time there are very, very strong development arguments for developing in a low carbon way for a number of reasons. You do not want poor countries to develop in the way that locks them in long term to a high carbon path. Whilst you do not want them to be uncompetitive in a low

 3 March 2009 Dr Keith Allott, Mr David Tickner and Mr Toby Quanttrill

carbon global economy, you do not want them to become a dumping ground for the dirty industries of other countries. There are a lot of reasons why good development and staying competitive in a global economy does make sense, but we must also remember that the point here is reducing poverty and the long term development, not necessarily contributing to the global carbon emission reduction. In that sense I think there is a lot that can be done. I would highlight certainly the scaling up renewable energy programme that DFID is involved in discussing, under the World Bank. Obviously we have talked previously in this committee about the Climate Investment Fund under the World Bank and some of the governance issues we may have with those, but I think in principle that Fund offers a huge opportunity and we would certainly encourage increased investment. We would like to make sure that it is linked in under the UNFCCC as a primary governance mechanism. In principle that kind of fund is where we should be going, so a strong investment in localised renewable energy systems. One thing I think we find a bit of a scarcity of is research that looks at the high capital energy production versus small scale renewable and the extent to which either of those has an impact on poverty. This ties back into the adaptation discussion because good development in a climate change context means increasingly looking to reduce the vulnerability of poor people and so sort of focussing your efforts on that instead of on the constant judgment of success through national economic growth. But looking at it slightly differently and increasing the emphasis on poverty reduction rather than just national growth, you might find that you have actually got a far more efficient way of decreasing poverty through investing in smaller scale energy production and leapfrog some of the technologies that we have put in place. That is a broad answer. I think those opportunities are there but they have not yet been fully and reliably funded.

Q181 Mr Singh: One of the biggest impacts of climate change is going to be in terms of water. Many, many people in the developing world do not have access to clean water. In terms of climate change what is going to happen or what is already happening in developing countries in terms of water security for the poorest of people?

Dr Tickner: The first thing I would say in response to that is that water security is a critical issue. It is going to underpin food security, energy security and many of the other key challenges in the 21st century. Climate change is going to be a factor in that, in fact in our view it already is in many places. It is important to realise that it is only one factor; there are a whole load of other issues which are driving water insecurity at the moment in many parts of the world to do with poor governance or inadequate frameworks for allocating water between competing uses to do with inappropriate infrastructure developments and so on and so forth. Sticking to climate change for the time being, I am guessing that you guys know that predicting the outcomes of

climate change in terms of changing precipitation patterns is a devilishly difficult business. It is probably the area of climate modelling where there is most uncertainty. What we do know is that there will be some direct impacts on rainfall patterns, on river flows, on aquifer recharge. It is important to realise that those direct impacts are not just going to be in terms of the amount of water—there will be some changes to that for sure—but there are other factors which are important as well, particularly the timing of rainfall and of river flows and also the type of precipitation. Just talking about the timing for a second, there are some climate models which are suggesting that potentially the Indian monsoon could shift in terms of timing. If that is the case you have patterns of agriculture which underpin whole communities and whole economies in South Asia which have evolved over centuries to cope with the Indian monsoon happening when it does. If that Indian monsoon suddenly shifts a little bit later or a little bit earlier you potentially get massive disruption: failure of crops, hunger, conflict and so on and so forth. That timing issue is absolutely critical. In terms of the type of precipitation, I think probably the best example of that is to look at high mountain environments, in particular somewhere like the Tibetan plateau. Of course you know that so many of the great rivers of the world flow off the Tibetan plateau and water and feed billions of people. If some of the precipitation that currently falls as snow on the Tibetan plateau instead falls as rain then the impact of that combined with temperature increases means that some of those glaciers which feed the rivers are not going to be there for that much longer. That type of precipitation is also critically important. That is about the direct impact of climate change on water security. It is very important to talk about indirect impacts as well. By indirect impacts what I mean is water management responses. Perhaps the best example of that is the drive that we are beginning to see now to build more water infrastructure after a little bit of a downscale of dam building since the 1980s. There will be a need for more water infrastructure—there is no question about that—but it is important as we are thinking about what water infrastructure needs to be built and needs to be financed that two things are borne in mind. The first thing is that historically we have made many mistakes around building water infrastructure and around building dams in the past. I know from your inquiry a couple years ago into sanitation and water you did a bit of work on this and came up with some recommendations for DFID to take some action. One of those recommendations was about following up the World Commission on Dams Report in 2000. There were an awful lot of lessons learned captured in that World Commission on Dams Report around the previously largely poor planning, the design, location and operation of dams. It is critical that we take on board those lessons regardless of climate changes. The second thing which is very specifically to do with climate change is around a concept called hydro-stationarity. The way water infrastructure has been built historically is either using water

monitoring data from river gauging stations to figure out what the rainfall and river flow patterns have been for the last decade and then build a dam that is designed to cope with that or, where we do not have that monitoring data, to use modelling data to figure out what hydrological patterns have been like over the last few decades. That is what we call hydro-stationarity. It is an assumption that hydrological conditions, with a bit of inter-annual variation—will more or less stay the same from decade to decade. Climate change completely undermines those assumptions. So if infrastructure is going to be built on models based on past hydrological conditions there is a real danger that it is going to be completely inappropriate and the impact of that infrastructure for people who rely on those river flows, especially as they become a little more uncertain, could be magnified in terms of the negative impacts.

Q182 Mr Singh: You have painted a frightening picture there for the developing world, but what is the impact on the developed world going to be or is there an impact now, for example the droughts in Australia. Is that anything to do with climate change?

Dr Tickner: The Australian example is a bit of a classic example. Over the last 30 years of course in many parts of Australia rainfall has fairly rapidly diminished causing all sorts of problems. Originally people were thinking about that as a series of droughts and just in the last few years a number of scientists are beginning to suggest that perhaps it is not a series of droughts; what you have is a new climatic norm. There is just the beginnings of conversations in this part of the world as well that some of the floods and droughts we have seen in this country in recent years might be the beginnings of a new climatic norm where ironically we see, as one Environment Agency paper put it, both more water and less. Again it is about the timing of when rain falls as much as actually how much there is on an annual basis.

Mr Quantrill: There are very big impacts in the developed world and we are actually seeing some very interesting studies coming out in the US (where they now have a more receptive audience with the new Administration) showing some of the very alarming impacts, for instance in California in terms of water resources and the location of cities. The rapidly warming climate is creating real problems in very wealthy countries such as the States, the contrast being a country with the capacity and resources to deal with the impacts compared to the impacts in the most vulnerable developing countries where you have neither the capacity nor the existing institutions or government structures to help cope with the impact, let alone the finance, which brings us back to the obligations in terms of that transfer of resource to help that adaptation response.

Q183 Mr Singh: Coming to the question of what DFID should be doing, DFID did take on some of our recommendations. Are there additional things that DFID could do? Some of the developing

countries will lack the institutional capacity in terms of water resource management, how do we get round that and what should DFID be doing now?

Dr Tickner: In terms of the DFID water policy that was launched in October (I remember Mr Bruce was at the launch), broadly speaking it is a good policy and the fact that water resources is one of the three or four priorities in that policy I think is a real step forward. You are asking, I guess, for a critique of that policy. I would point to four or maybe five things around that. The first thing is around infrastructure and I have just talked about that a little bit. DFID officials—I know from my conversations with them—are aware that they need to engage with this topic; I do not think there is a major policy issue that is lacking there. I think there is a need for DFID to be right at the heart of discussions about what good water infrastructure looks like in the light of climate change but also in the light of lessons learned from the past. There are some interesting initiatives going on and WWF is involved with the International Hydropower Association and a range of other stakeholders in something called the hydropower sustainability assessment programme. One very specific thing that DFID could do is engage in that particular forum and support it in some way. We are quite hopeful that that will come out with potentially even some kind of certification scheme for good hydropower dams. There is, I think, a shortcoming in the policy around its treatment of two of the priorities it points up—on governance and finance. It very much talks about governance and finance in terms of provision of water supply services of drinking water. Of course that is critically important and I would not want to undermine that, but some of the major issues we see in terms of broader water security for agriculture, energy, industry, economic growth, poverty reduction, they are equally issues of governance and finance. I thought the DFID policy was a little too narrow in its focus there. There is a third issue around what we call the international architecture for water management, particularly around trans-boundary river basins. There are 263 trans-boundary river basins in the world—most of Africa is covered by trans-boundary river basins—and WWF and DFID are actually doing a very interesting and promising piece of joint work to assess the state of this international architecture—the policy, the legislation, the institutions. WWF remains of the opinion that really DFID should be leading the UK Government to accede to a piece of UN legislation, the UN Watercourses Convention. At the moment the Government seems slightly reluctant to do that.

Q184 Mr Singh: Is there a reason for that reluctance?

Dr Tickner: At the moment DFID seems to be saying two or three things—one is that it does not believe the Convention will ever come into force because not enough countries have ratified it. That is a little bit of a circular argument, perhaps used as a reason for non-ratification; of course it is never going to come into force if no-one ratifies it. Secondly there is a little bit of new momentum

3 March 2009 Dr Keith Allott, Mr David Tickner and Mr Toby Quantrill

behind this convention, especially this year. World Water Day in three weeks' time is going to be around the theme of trans-boundary waters. I am hearing talk from a lot of governments that they are looking afresh at this Convention partly because of climate change concerns. I am not convinced by their argument around that. They also say that they are not convinced that there is a development case behind it. You could equally make the case for any UN convention whether it is a convention on sustainable development or on desertification, and yet the UK Government has been quite enthusiastic supporters of those. I think perhaps there is some inconsistency on their part. The other critique of DFID's water policy is that perhaps it is light on the value of ecosystem services. It very much talks about water without really thinking about where the water comes from and the need to maintain those ecosystems so they continue to provide more water but also that they provide other ecosystem services which are particularly important for the poorest people. If you think about the Mekong Basin, for example, in South East Asia, freshwater fisheries are the major source of protein for poor communities there. If you dam the Mekong too much those fisheries are going to be affected.

Mr Quantrill: To come back a little bit to some of the previous discussions to emphasise that one of the cautions we have had with regard to DFID is its single-minded focus on carbon and low carbon development. Important as that is, climate change is one example of an environmental service that is being over stretched beyond its limits and we have put the numbers to that. However, there are others. We have had the discussion about water but as WWF we would also highlight forests, marines, marine resources and so on. What we are looking for really is not development policies that address carbon and only carbon emissions, not policies that address only water, but policies and approaches that actually look at the sustainability and the social impact across the board and take into account the fact that there are these ecosystems. We know from the Millennium Ecosystem Assessment from some time ago that many of these were under pressure and were going to have a very bad impact. So it is getting back to the concept of sustainable development I am afraid; it is a clichéd term but rather than move to low carbon development why can we not go back to where we were and really re-think it in those terms.

Q185 Mr Singh: Is what you are suggesting difficult to do?

Mr Quantrill: We have not done it yet. I do not know whether it is too difficult or not, but we have to otherwise we do not know where we are going and climate change is a bit of an indicator for us that going down the path we were on is, in the long term, going to bite us.

Q186 Andrew Stunell: WWF has done a very good job with its One World campaign and so on and has focussed on a lot of these things. We have just been talking about the importance of the sustainability of

water and you have introduced, perhaps single-handedly, the idea of water footprinting which is an interesting one but is it anything more than a campaigning slogan? Does it have absolute relevance to policy makers about how we should set about looking at this particular aspect?

Dr Tickner: The short answer to that is yes, it does have policy relevance; we are just not quite sure what policy relevance yet. Let me expand on that a little bit. It is important to say at the outset that the whole science of water footprinting and the whole approach is very new. It is very kind of you to say that we almost single-handedly brought it forward; I think there have been a few other organisations involved but I am happy to take the credit. We have been working on it for two to three years. In the last 12 months in particular there has been a real explosion of interest in it but it is very embryonic at the moment. We have gone from the stage of thinking how much water is embedded in this cotton shirt I am wearing and is that relevant, to coming up with or nearly finalising a standard tool that companies and governments can use to assess their water footprint. We sent you a report that came out last year on the UK's water footprint and that was really the first time that that tool had been used. A couple of companies have now picked it up and are using it as well. There are going to be a couple of new pieces that WWF will be bringing out for the World Water Forum in Istanbul taking this stage a little bit further saying, "Okay, you've done your water footprint, you know where you are having an impact and you know where your risk as a company or as a government is from your water footprint; what do you do about that?" A couple of things came out that will perhaps kick start those sorts of conversations. In terms of actual hard policy responses, that is something we have only recently started talking to government about. Defra invited one of my colleagues to a meeting about three weeks ago (and I think someone from DFID was present there as well along with a range of other stakeholders) to actually start thinking about this in a slightly more concrete sense. I know the Welsh Assembly Government have also shown a little bit of interest in this. We would very much like to see DFID engage in this discussion quite strongly, even though we are not quite sure what our policy is. There are a couple of good reasons why we would like to ask them to engage, one is because water footprinting is a complex beast and is slightly different from the outcomes of carbon footprinting. You can work out your carbon footprint and you know what the response is: it can be quite difficult to do but somehow you have to reduce your carbon footprint. Water footprinting is slightly more complex. It is best illustrated with an example. If I buy a loaf of bread which is made with wheat from Canada and that loaf of bread somehow or another has had 100 litres of virtual water embedded in it, that sounds pretty scary. Then I might think I will look for a loaf of bread that has less water and I find one that is made with wheat from Australia, for example; it might only have 20 litres of embedded water in it. The thing is, water in Australia is a much

 3 March 2009 Dr Keith Allott, Mr David Tickner and Mr Toby Quanttrill

scarcer resource than it is in Canada so the impact of your 20 litre loaf of bread from Australia on ecosystems and on people could be far greater than your 100 litre load of bread from Canada. So location is much more important with water than it is with any other type of footprint. That ties directly to development arguments and to the need to focus on poor countries. I think that lends itself to DFID getting involved and saying, "Well, if we are interested in Pakistan, if we are interested in India, if we are interested in some of the really dry areas of sub-Saharan Africa and the poorest communities are incredibly dependent on freshwater ecosystems, how can we mobilise different forces from across the world using water footprinting to inform our knowledge of who those stakeholders are to actually make a difference." The second reason why I think DFID is well placed to be involved is really around ethical dilemmas that come with various different types of footprinting and the development argument. I suspect people have talked to you about this before, but there is something called the Zambian green bean conundrum. You can imagine going to a supermarket at this time of year, you fancy some green beans to have with your Sunday lunch, you see some and they come from Zambia. You are a reasonably intelligent, educated, ethically minded consumer so you think, "Hang on a second, let's think about this. They come from Zambia; they've been flown in." You are worried about carbon but then you think, "Hang on, if I buy the Dutch ones they've probably been grown in greenhouses, so what do I do about that?" If you know about water footprinting you are also thinking, "Well, there are parts of Zambia which are pretty dry so if these beans are irrigated then I've got to start thinking about water footprinting." If, after thinking about it, you decide, "No, I'm not going to buy these beans from Zambia" then that has an impact on the poor Zambian farmers who rely on income from growing green beans. What do they do instead and how do you know that is not going to be even worse for the environment? There are profound ethical dilemmas in this and I do not think anybody has any easy answers. WWF and other NGOs are deeply engaged in these discussions but I absolutely think it is the role for government in some places to lead those conversations, to convene them, certainly to be engaged in them. I think what we see from DFID at the moment is that perhaps they are slightly behind the curve on some of those discussions. I do not think it is through lack of interest; it might be a little bit through lack of capacity. We would very much like to see them heavily engaged in those discussions to help us find the answers.

Q187 Andrew Stunell: Basically you are saying that the concept is a useful searchlight to shine on the thing but it is not actually leading us toward direct policy conclusions.

Dr Tickner: Where it can be very useful is to help you target your policy effort, so using my loaf of bread example you may not want to work on bread per se as a product that people buy in this country that has an impact on developing countries. You might instead want to think about where in particular is the growing of wheat leading to water shortages and that is where footprinting can help. Then you can start thinking about how to respond to that—is it by improving water management in that country? Or is it by working with consumers in this country to change their consumption patterns? It can help you to really sharpen your focus.

Q188 Andrew Stunell: I think I will look forward to the development of those ideas.

Dr Tickner: I am very happy to share with the Committee the papers that we will be publishing in Istanbul.

Q189 Chairman: We are specifically looking at flower growing in Kenya, just as an example, and of course the water as well as the carbon footprint is part of it, so we will bear those things in mind.

Dr Tickner: Indeed.

Q190 Chairman: Why am I not surprised that the Welsh Assembly is interested in water footprints? Speaking as a Scottish Member of Parliament it occurs to me that this has regional implications. In Scotland we have plenty of water and plenty of renewable energy but not enough market opportunities, so if these kinds of things become concepts they apply inside developed markets as well as between developed and developing markets. As you say, there are quite a lot of complicated variables to be built in before you actually can start saying to people that they should or should not be buying these products or supporting these products or finding an alternative.

Dr Tickner: Exactly.

Q191 Chairman: It is quite an interesting starting point which I think we would like to explore further and I hope that in our inquiry and the visit we are making we will bear that in mind. The Committee is really grateful for what you have given to us; you have given us a few things to have in our minds as we are making our visits to East Africa. Thank you very much. If you would keep us posted with your papers that would be excellent.

Dr Tickner: Sure; we would be happy to do that.

Wednesday 11 March 2009

Members present

Malcolm Bruce, in the Chair

John Battle
Hugh Bayley
Richard Burden
Mr Mark Hendrick

Daniel Kawczynski
Mr Marsha Singh
Andrew Stunnell

Witness: **Professor Lord Stern of Brentford**, a Member of the House of Lords, gave evidence.

Q192 Chairman: Good afternoon, Lord Stern. Thank you very much for coming to give us evidence. Clearly your report has had quite a lot of reverberations around the world in terms of stimulating debate, and not everybody, obviously, agrees with all of your conclusions and recommendations, but since you first published it, clearly the economy worldwide has moved into downturn. I wonder if you might initially indicate how you feel that that is going to affect both your recommendations and, given that you are just about to go off to Copenhagen, what you think it does to the likelihood, or not, of securing agreement in Copenhagen given, as an add on, the suggestion this morning that what America would be required to do is undeliverable because it would promote a revolution if they tried it, and that might prejudice anybody else's preparedness to agree to deeper cuts.

Professor Lord Stern of Brentford: The first thing that has happened since the report came out that I would want to underline is that the scientific evidence is telling us that the problem is more severe than we described in the report. Emissions are growing faster, the absorptive capacity of the earth is less and some of the effects seem to be coming through faster, so from that perspective, looking back, I think I underestimated the risks. The second thing that has happened since it came out is that technical progress has been spectacularly rapid and the number of new ideas coming to forward on low carbon technologies is quite remarkable, and that is moving at a very encouraging rate. The third thing is the development of international commitment on this issue has been strong whether you look in the developing world or particularly in the United States of America. So I think those three pieces of context are crucial before stepping into the global downturn, which is, indeed, very important, but I think the risk story and the movement of technology and the deepening commitment, all those three things, have made it more likely that we will get a deal. I am not saying that that probability is anywhere near 100 %, it absolutely is not, but those three things have made it more likely. What is the role in that context of the most serious economic crisis we have seen for 80 years? My own view is that, if we think carefully, we would recognise this as an opportunity to accelerate towards the low carbon growth path that we as a world are going to have to follow. Why? Because resources are cheaper when some of them are idle. So resources are cheaper and there is opportunity to bring forward investments in low carbon energy.

Insulation is a striking example, but so is various aspects of green infrastructure. To introduce taxes or prices through trading is also easier when prices of hydrocarbon are lower, as they are during a recession, so there are some aspects of this that should make policy-making easier. We should be drawing a conclusion from this that, if we delay action on risk, the consequences of our delayed action become more serious. That surely would be one lesson that we learn from this economic crisis. Another lesson we should learn from this economic crisis is that we should be looking for a way out of this which lays the foundation for a continued period of growth. After the.com crisis, we ended up creating the bubble conditions which took us into the next crisis. My own view is that there is a whole collection of powerful reasons, along the lines I have just described, why this should be an opportunity to accelerate action. So I think the crisis would become a difficulty, which of course is a fundamental difficulty for everything, but the crisis would become a particular difficulty for the climate change agenda and the agreement in Copenhagen only if we let it become so by not recognising the logic of the argument. In other words, it would be confused analysis that would take us to the view that we had to postpone until we sorted this one out.

Chairman: So you remain resolute in proving that economics does not have to be a dismal science in that context. I am going to ask Mark Hendrick to come in, because he has got a supplementary which follows on from what you have just said.

Q193 Mr Hendrick: Would you say that the economic downturn in itself will provide incentives for countries to cut greenhouse gas emissions, and, if so, which countries do you think could make best use of it and what particular sectors of industry do you think could take action?

Professor Lord Stern of Brentford: There is one unwelcome reason for cutting greenhouse gases, which is a sharp reduction in output and economic activity, and I would not want to recommend that as a way of cutting greenhouse gases—this is about low carbon growth, not about low growth—but your question was about the incentives to cut. I think I gave part of the answer in my earlier remarks, that some of the kinds of things you would want to do, for example, insulation, make sense still more strongly now when the resources used in investing in that insulation have a lower value but the returns that to that insulation, which would last over many,

 11 March 2009 Professor Lord Stern of Brentford

many years—things like that, by lowering the cost in a context where the returns to that investment would be likely to be fairly similar—would give an incentive in countries where that kind of energy efficiency investment is there, and Northern Europe and, indeed, the UK would be examples of that one, but otherwise I think it would be largely of the kind of examples I gave in my answer to the previous question, which is that this is a good time to invest more generally and that we ought to be, as we are thinking through the recession, thinking about the longer term growth path, but everybody has an incentive to be energy efficient—the United States, China, Europe. We all have an incentive to find low carbon growth; we all have an incentive from the perspective of the world to help fight deforestation. Those are the three very big areas of activity, and I think we all share quite strong incentives, so I am not sure I would go too strongly about how this radically shifts the pattern.

Chairman: Stop there. We will vote and return as quickly as possible. As soon as we are quorate we will recommence.

The Committee suspended from 2.11 pm to 2.19 pm for a division in the House.

Chairman: Could we resume? There is the threat of another division, so we will just have to do our very best.

Q194 Mr Hendrick: Lord Stern, I am sorry about the interruption. Following on from our previous question in terms of action that can be taken, obviously the committee's focus is on developing countries. I know you mentioned China and particularly one of the measures you mentioned was energy efficiency and loft insulation. Obviously that is not as much of an issue in places like Africa, where they do not have heating, they are looking at possibly cooling. What particular technologies do you think could be of best use at this moment in time and do you think that there are incentives there given the current economic downturn?

Professor Lord Stern of Brentford: In Africa there would be opportunities, where the infrastructure investment is mostly to come, to invest in much lower carbon infrastructure. So it would seem the arguments for switching now to solar energy, concentrated solar, for new power stations in much of Africa would be pretty powerful, and some people have looked at that and said that they are already, even without a carbon price, looking more attractive than coal-fired power stations. So for countries in which, as it were, the infrastructure is much less strong and whose investments there will be coming strongly in the future particularly if they have a lot of solar potential, I think that would be one area, but I would not link that so much to the depression, or the recession, or the slowdown, whatever word we are allowed to use, because I think this is a story of basic growth and development decisions. Looking forward to the context of low carbon growth, countries are highly differentiated in their

opportunities and where they start, but I think that is a more medium-term, basic strategic development question than a slow-down question.

Q195 John Battle: I wonder if I could ask you about the repayments, if you like, for the polluter. If the polluter should pay, who should pay the cost of the damage? Recently there have been some remarks in the press that, for example, we import things from China. For simply saying that China is behind us in their effects in polluting and not doing enough to combat climate change, we should pay the price for the clean up of China because we import their goods. What would be your response to those interlocking arguments that are really saying we are the cause of the problem? It starts to echo a bit like the reparation payments for history, but I wonder what your response would be.

Professor Lord Stern of Brentford: There are a number of bits to that. The first thing is to get the incentives right. Without some kind of price on greenhouse gases, and there are various ways of doing that which we could discuss, you have an enormous market failure. So the first part of the story is to correct the market failure and get the markets to work well, and you need a price on the damage to do that. That is for efficient operation of markets from now on, that is an argument about market incentives and fixing markets; there is a separate story, which has more to do with rights and justice, which is looking backwards and saying: who is responsible for what? The way in which I think that best comes in is through the rich countries taking very strong targets, because they are responsible for more of the stuff that is in the atmosphere, they are pumping it out much more rapidly because they have much higher emissions per capita and they have got the technologies and they have got the wealth, but I think they are two separate kinds of questions, although they have some relationship. The last part is how do we get an understanding of what the consequences of my actions now really are in terms of the production that comes forward to meet the demands that I expressed? I think both production and consumption are relevant. I would not turn it into a horse race, one against the other. When the international division of labour changes, as it has changed quite dramatically over the last two or three years, there are gains to the producer and there are gains to the buyer; so those people who produce stuff which is more polluting than elsewhere have some gains from that international division of labour. On the other hand, those people who are consuming and demanding are also gaining from those products. So I actually think that we should look both at the emissions that originate in a country and that come afterwards.

Q196 John Battle: I think I agree, because I think we are still living in a nineteenth century version of what produce and consume is, and by that I mean there is a kind of traditional view, particularly in the media, that China is now a factories place, whereas Leeds is a service sector, for example. They will be the heavy

 11 March 2009 Professor Lord Stern of Brentford

producers, we import from them and, therefore, we should help them clear up. If I give another example to push the point a bit further, because I am looking at whether a framework of consumer accounting would help at all to provide direct benefits to developing countries. If I give the example of soy production in Brazil, the rain forest is being cleared for soy production which is for export to fatten up pigs, cattle, hens and chickens here for us to consume. If you push the carbon footprint back or, rather, the analysis of that food production, obviously soy production is destroying the rain forest, which is the carbon sink, so who should pay there? I am looking to see whether, accepting your point, and producers are the consumers, but should there be a framework of consumer accounting that would provide some direct benefit back to developing countries, for example?

Professor Lord Stern of Brentford: I tried to describe that in what I said. If you are looking at how much each country emits, I think it would be quite valuable to have two sets of accounts. One would be the production side and the other would be the consumption side. In the case of the UK, I myself have not run the numbers, but some people have, and you would find that from the consumption point of view of accounting, the UK's emissions per head, which are 11 or 12 from a production point of view, would be considerably higher. I think both those figures are relevant to assessing what our contribution is going forward and what our responsibility is looking backwards.

Q197 John Battle: It might mean that that would be a much greater price on the north world than the south world in the end.

Professor Lord Stern of Brentford: It would be. If you decided that each person had a fixed amount, there are many ways of doing this but, for the sake of this argument, if you decided that people would have, say, a roughly similar amount of quotas, then how much would we have to buy as the UK, we would have to buy more if the calculations on what we were actually emitting were done on a consumption basis than a production basis.

Q198 John Battle: It would also mean as well as switching the light switches off and making personal contributions, some people might have to ask questions about how many over fed chickens they consume at the expense of the rain forest. So putting the chain right back through, there could be some quite big questions.

Professor Lord Stern of Brentford: Yes, but if you are not a vegetarian, then the ranking on the meat you should worry about is that beef is the most problematic, then pork, then chicken, and then, of course, not eating meat at all.

Chairman: A supplementary from Hugh Bayley.

Q199 Hugh Bayley: Your report was based on the best science available at the time, but my instinct is that the scientists are predicting greater impacts. There was a report on *The Today Programme* suggesting that sea levels will rise further than was

predicted against a two degree average increase in global temperatures. Do you share that view, that the scientific base is harsher now than it was at the time you wrote your report, and to what extent would it be possible to update periodically, as the science changes, the findings in your report? For instance, on the basis of the science at the time you wrote the report, you said that 145 to 220 million additional persons could fall below the two dollar poverty line—updating indicators like that.

Professor Lord Stern of Brentford: In my opening remarks I did emphasise that emissions are increasing faster than we thought, the absorptive capacity of the planet is less than we thought, therefore the stocks are going up faster than we thought and, further, given any stock or temperature level, some of the effects seem to be coming through faster than we thought. So I do, indeed, agree that the emergence of further evidence on the science over these past two or three years has made it look more worrying than we set out—I should say, even more worrying than we set out in the report—and that is why I think that our targets for the levels below which concentration should be held should be stronger than we suggested in the report. In the report we suggested trying to make sure concentrations stayed in the region of 450 to 550 parts per million CO₂ equivalent, and I think I would now argue that 500 is the maximum emission, to try to keep things below that, and then over time bring it on down from there. We are 435 at the moment and we will be at 450 in six or seven years, but I think we could keep it below 500 and bring it down from there. So I would both argue that the risks are bigger and because of that the targets should be tougher than was set out in the report. Do we plan to periodically update it? I have got a book coming out on 2nd April called *A Blueprint for a Safer Planet*. Doubtless the committee will buy copies and circulate them around the membership! I have tried to articulate the kinds of things I have just described in that book, but it is only 200 pages. It is supposed to be a wider circulation. Do we plan update all the numbers in the Stern Review periodically? I think that probably would be beyond me, but I do know that the work continues and there is a tremendous amount coming out, but I think one has to rely on the profession more generally. I do not think there will be a Stern second edition in that sense.

Q200 Richard Burden: I would like to ask you to say a little bit more about how you see growth. You have been very clear in saying you are low carbon growth, not anti-growth *per se*, and you have always made the point that you do not see there being a contradiction of development in the pro-poor growth and low carbon growth. I would like to press you a little bit on what you mean by that, because there are a number of commentators who say there is actually a conflict there. Either environmental objectives do not get pursued enough and, when it comes down to it, in the development context fairly traditional models of growth are pursued or, on the other side of the argument, that because there is not a framework being developed of what low carbon

 11 March 2009 Professor Lord Stern of Brentford

growth actually means in a development context, you could end up with a form of growth that will not actually be very poor. Do you still think that the two things can be mutually reinforcing: development, pro-poor growth and low carbon growth, and, if so, how? What are the things we need to do? What is the framework we need to develop them?

Professor Lord Stern of Brentford: I think we have to do both at the same time. The two big challenges of this century are the fight against world poverty and the management of climate change, and they are inextricably interlinked. If we fail to manage climate change, we will undermine development very drastically, and if we try to put forward a programme for the management of climate change which is seen to, or does, undermine the prospects of fighting poverty over the next 20 or 30 years, we will not succeed in gathering the coalition that we have to and neither would we deserve to succeed. So from those very basic perspectives, we have to find it. Can we find it? Yes. A lot of this is about doing things in different ways which have their own attractions from the point of view of development. A lot of the low carbon sources of energy, if used on a major scale, would give us a form of growth which was cleaner, quieter, more energy secure and more biodiverse. The kind of growth path we are talking about is very attractive, for reasons which come through actually rather sooner than those associated with the management of climate risk, although, of course, the management of climate risk is enormously important. The question is: how do we manage the transition from here to there? There will be some costs along the way. I do not want to pretend that we can switch over from a high carbon growth story to a low carbon growth story without incurring some investments involved in managing that transition. In the medium term, over 20 or 30 years, there will be some investment costs as we learn and as the costs of action come down. Because the technologies are changing very rapidly, the more we put into them the more rapidly those costs will come down. The policy here is about getting between where we are now and the low carbon growth path which is so attractive, managing the costs of that transition and seeing how to do it in a way that makes the most of the growth opportunities that are there.

Q201 Richard Burden: That is helpful. One of the things I am trying to get at, though, is how we can try to make sure that in making that transition in practical terms—not in theory, but in practical terms—that the burden of that does not fall on the poorest and most vulnerable, whether it be in the least developed countries or actually parts of the population that may be middle income countries. What are the things we need to be doing to make sure that they are not the ones that are suffering?

Professor Lord Stern of Brentford: We need substantial finance. There will be important mitigation investments that need to be made, and in some cases in the short run, and in some places, they may cost more than the others. There will be places where wind power, solar power, ground source heating and geothermal, at least in terms of

investment costs early on, cost more than a coal-fired power station, and what we have to do is to come up with incentive and financing mechanisms so that people in the developing world are financially supported to make those changes. Adaptation, what I prefer to talk of as development in a more hostile climate, is expensive. When we worked on the Millennium Development Goals, and I was involved as Chief Economist to the World Bank in the Monterey Conference on Financing for Development in 2002, and I directed the writing of the report on the Commission for Africa which reported for Gleneagles, so I was there and I know, we did not take climate change into account as, in my view, we should have done, even with what we knew then—we know more now—and we have to recognise that, had we taken it properly into account at the time we did those 2002 numbers for Monterey and the 2005 numbers for Gleneagles, we would have come up with higher numbers. The Human Development Report estimates around \$85 billion a year by 2015 is the extra cost of moving towards the Millennium Development Goals in the context of a more hostile climate brought about by climate change. So resources are very important here, and they are not small. I wanted to emphasise the advantages that come with them beyond simply managing the risk of climate change, and there are many others I could go on to in terms of the empowerment that comes with being not directly dependent on a grid, and I have worked a lot in rural India and urban India. You would not want to be dependent on the grid because somebody has got their hands on your switch, and not just India but many other countries around the world. There is some empowerment too which comes from being independent. So this has quite a lot of different aspects to it, but, basically, there will be some investment costs up front in mitigation where we have to find financial mechanisms, often market mechanisms, to help supply those finances, and we have to recognise that the numbers we were talking about on development support are too small when you look at the challenge of development in a more hostile climate, or adaptation, as it is sometimes called.

Q202 Mr Singh: To what extent should developing countries now be building resilience to climate change into their development plans, and, if that is what they should be doing, what are the steps that they should be taking?

Professor Lord Stern of Brentford: I think it is crucial that they do, because it makes no sense to make your plans in the context of an assumption that the climate will be like it was in the past when it is not going to be like it was in the past; so I think there is no alternative to bringing it in. The first thing you need is information. There are no certainties here, but you need information on the probabilities of different kinds of outcome. It looks as if south-west Africa is becoming much dryer and south-east Africa is becoming much wetter—looks as if—and what we want is those who are concerned, and obviously, in the first place, the people who live

 11 March 2009 Professor Lord Stern of Brentford

there, to try and understand as best they can what the different likelihoods are—we are not going to do better than probabilities, but what the different likelihoods are of those different kinds of changes. You cannot plan agricultural extension, you cannot plan an urban sewage system, you cannot plan an irrigation system without some knowledge of the different kinds of possibilities that there would be, so that information story is absolutely crucial, and we have very good climate science research in the UK—outstanding. I am not a scientist, I am just a consumer of the science, but I think investment in the climate science in the UK, because you need the global model, because it is a global system, of course, the climate and the weather, whilst at the same time supporting observation stations, supporting local modelling of particular aspects of the climate in a way that can integrate with these global models. The Hadley Centre is working in that direction. I would say more power to their elbow, because without that information it is very difficult to make the kinds of investments that are necessary. With that kind of information, and we are going to have to guess as best we can now, we cannot wait for it all to be refined because the investments in irrigation, agriculture extension, and so on, come now, the investments in urban infrastructure come now, so we have to try to think how best to use that information as well, and, thirdly, we have to recognise that development, as I said before, in a more hostile climate costs more and they will need extra support for that.

Q203 Mr Singh: Are we clear and are developing countries clear about the adaptation measures that are required and the costs of adaptation measures, and how are the donors working with the governments of developing countries to build that into development plans?

Professor Lord Stern of Brentford: Increasingly developing countries are doing their best to understand the implications for them, and that is why I emphasise so strongly the information side of this story, and there is great variation. The number of observations that you have for Ethiopia are tiny compared with the number of observations you have for, say, France. Take countries of comparable size and population: if you look at the most vulnerable point in the world in terms of its consequences for human kind, it is probably the few hundred square kilometres in the Himalayas that feeds the Yellow River, the Yangtze, the Brahmaputra, the Ganges, the Jomuna and the Indus—if you go round, that is where they all start—and the number of observation stations there about what is happening is very thin, and those countries have to struggle to understand what those consequences might be and they need to know what is happening in the Himalayas. These are the kinds of information that is crucial. Are they working on it? Yes, they are, but with great difficulty, because the information is weak, and that is something which we can all work to support, but, as I said, you have got to use the information and you have got to face up to the reality that development is going to cost more.

Q204 Mr Singh: Are there implications for DFID there then, in terms of how they refocus the emphasis of their work, and so on?

Professor Lord Stern of Brentford: Yes. I do not speak for DFID, I have lots of friends who are in DFID and I stay close, but I do not have a comprehensive view of what they do, but I do know, through direct interaction, that they are very much seized of these issues. I know that they are investing, for example, on the information front in Africa and they are working strongly on this. In their White Paper of two years ago there is a chapter on climate change, so I think that DFID probably ahead of most, but we are all, as it were, playing catch-up here because of trying to understand just what these consequences are and likely to be and acting on the risks.

Q205 Mr Singh: Do we have any idea of the current cost in terms of the impact of climate change.

Professor Lord Stern of Brentford: Yes.

Q206 Mr Singh: Have we any words to describe what the costs might be in the future and how do we plan for that? How do we get that into our planning?

Professor Lord Stern of Brentford: For example, the World Development Report this year is on climate change, and I was last week with a team in the World Bank that is working on it, and this will, indeed, be the kind of issues where they try to move forward. What you will get is—. I gave you the Human Development Report figure. That is a couple of years old now. About 85 billion extra cost by 2015 as you run it forward. That is only a bet on 0.8 degrees centigrade, which is really small. It is big in terms of the reality of what it does to the world, but it is small in relation to what might happen to us. So these costs will be in their trillions, for sure, as you let it run forward 20 or 30 years, even if we are sensible with what we do. Of course there will be many more trillions if we do not act responsibly. So I think you are going to see these kinds of calculations come out, but I would focus particularly on the importance of understanding, country by country or region by region, what these consequences are like rather than just going, as it were, for aggregate numbers.

Q207 Mr Singh: I think a DFID study of Kenya showed the costs at 5 % of GDP—

Professor Lord Stern of Brentford: Already.

Q208 Mr Singh: —already. Is that just for droughts and the famines?

Professor Lord Stern of Brentford: I find the number in a plausible range, but, since I have not studied that DFID study, I should not comment on what it includes and what it does not include, but those kinds of number of damage now do not surprise me. Remember that we are talking about much bigger damages down the track.

Q209 Chairman: Just on that point, to some extent you have acknowledged the updated figures such as the UNDP figure in your answer just now, but the problem is that virtually no money is actually being

11 March 2009 Professor Lord Stern of Brentford

provided. Various reports suggest that even the UK has only delivered \$300 million out of a pledge of 1.5 billion. So, if we are talking about anything up to 86 billion a year being required for adaptation and a few hundred million is all that is actually being delivered by the developed countries, does not the gap suggest that we are not really beginning to engage?

Professor Lord Stern of Brentford: I do not think, as a community of people who are interested in development, we have factored this kind of challenge in to the extent that we should. I think increasingly people are becoming much more strongly aware of the issue and its implications for resources, and when you do that I think it becomes clear that we cannot within the United Nations Framework Convention on Climate Change generate the kind of resources that will be required for development in a more hostile climate. The conclusion I draw from that is that we have to think through its implications for development funding of the traditional ODA kind as well.

Q210 Chairman: We are going to come to that.

Professor Lord Stern of Brentford: We are going to have to face up to larger numbers.

Q211 Chairman: I was going to say, large numbers are what the governments are talking about for bailing out banks, and so on. Is the urgency of the situation not such that actually the economic stimulus and climate change should be one and the same thing in the present circumstances? That seemed to be the implication of your opening analysis.

Professor Lord Stern of Brentford: Yes, I have written a paper with colleagues at the Grantham Institute and the London School of Economics that the world needs a stimulus now of at least two trillion dollars to actually be spent in real terms in the next year or two, and within that at least 400 billion could go under a green hat as a green part of the stimulus. That is looking at it in aggregate terms and bottom up. So I do think that investment in new technologies, energy efficiency, bringing forward green infrastructure, and so on, should be a very big part of the stimulus. The adaptation story is a little different. What we are talking about here is short and medium term investment, particularly in the developing world, and I think we should not see that only as a matter of a stimulus package. I think it is still more important to see it in terms of our medium and long term commitments to development, because this problem stays with us. It is not a problem that is just here for the period of recession.

Q212 Chairman: Do you have a figure for the UK in that?

Professor Lord Stern of Brentford: For what?

Q213 Chairman: You said 400 billion was a global figure.

Professor Lord Stern of Brentford: I was talking about world stimulus, yes.

Q214 Chairman: You have not got in your own mind a figure?

Professor Lord Stern of Brentford: I am sure there will be more coming in the Budget, and let us look at it then. I am not sure, because I do not know what is in the Budget. I should say, but I would hope that there will be more coming on stimulus and the green stimulus, and I believe, from what the Government has said, that that is likely to be the case, but I left the Treasury two years ago, so I do not know what they would do, and when I was in the Treasury more than two years ago, if you had asked me just before the Budget, I would not have been able to tell you.

Q215 Chairman: You are free now.

Professor Lord Stern of Brentford: Yes. I have indicated where I think it should go.

Q216 John Battle: I was always intrigued, and you made me think of it last time I heard you speaking—I cannot think who it was—of an old philosophy about unknown unknowns. I kind of think the only thing we know about recessions globally is that the poor always suffer the most, and what I found most encouraging about the present agenda, if you like, is that the sustainable development, the whole question of climate change and living within our limits is coming together with the agenda to root out poverty internationally. I find it quite encouraging if those agendas converge, but my biggest struggle on this committee in Britain, and elsewhere (and Britain has got a good track record) is every time we have a G8, as one is coming up, and Gleneagles, commitments are made and people say, “Oh, yes, we will make a contribution”, but then the disbursements never quite keep with the promises and the pledges, and I worry again we will go through that process. I wonder if I can make a particular comment and ask you about Copenhagen, because already some people are writing off Copenhagen and saying we are further away in terms of targets than we thought we were, and I just wonder whether you could encourage me to say that there are real prospects for a new framework at Copenhagen. What are the chances of a new adaptation from it actually being agreed and the level of funding being pledged? Do you think we are further away from it or are we creeping nearer to it? I suspect we may be encouraged by the rhetoric, and I use that word positively, that the climate change agenda is tackling poverty, sorting out the world recession and the banks may all be on the agenda as items at the G8, but what can we sharpen up at Copenhagen and really start to get to grips with making this happen?

Professor Lord Stern of Brentford: I agree with you. It is the poorest people in the world that are hit by weather and climate catastrophes, by inadequate development and by recessions, and we have to look at those three things together, and I have covered that, but it is terribly important. I share your encouragement. Actually, increasingly people are looking at those things together. I do want to say that I have sat in international institutions for ten years and looked at the UK from the outside, and

 11 March 2009 Professor Lord Stern of Brentford

DFID is, by some way, the best bilateral agency in the world and we all have ideas for helping it along, making it even better, but we should not lose track of that and we should not lose track of how far we have come on increasing development assistance in the UK. There is very strong cross-party support for the objectives of increasing to 0.7 % by 2013, which we were articulating in 2005. I think it is very important that we have got that cross-party support for that and I find it very encouraging, and I believe that the UK, under whatever government it is, will stick to that. So as we look for more, I think it is important to recognise that, whilst historically we have not been up there with countries like Denmark or the Netherlands, we are moving in a good direction. It is vital, for the reasons we were just discussing, that we keep going and raise our sights still further. I think that governments do have to be held to account for the commitments that they make, I think in this area governments also have to be held to account for commitments that their predecessors have made, because the relationship with a developing country and its national institutions are long term relationships and they cannot just be switched on and off, and I think it is important, as we think about what might come out of the G20, that we also think about institutional structures and political structures for monitoring commitments and delivery on commitments.

Q217 John Battle: In Copenhagen do you think there will be the adaptation money there?

Professor Lord Stern of Brentford: In answer to a previous question, I think I said that we do need adaptation funding to come out of Copenhagen, but that is environment ministers. They cannot make ODA promises, and I think that at the Prime Ministerial and Presidential level we have to make sure that this is part of the understanding around Copenhagen. If we go for it in Copenhagen, we have got a good chance. The most damaging part of Copenhagen would be people saying it is all too difficult; let us do it later. If we want to do it, we can do it as a world, and we are part of the UK and it is our job to support the UK, pushing for very strong agreement.

Q218 John Battle: You do not want Copenhagen to replicate the problems with the trade rounds in Doha. You have got a positive track, I think.

Professor Lord Stern of Brentford: It is very dangerous that that happens, because in a trade negotiation you can pick up five years later roughly where you were before; not with climate change.

John Battle: Exactly.

Q219 Richard Burden: It is on the point really. If tackling climate change and combating global poverty have really got to be two sides of the same coin and more investment needs to be put into all of that, should ODA in the future include adaptation—it is actually in front of ODA—so that you increase the whole thing and it is actually seen as one funding stream rather than separate, so it comes under one minister, and so on?

Professor Lord Stern of Brentford: At one level it is unavoidable, because you cannot separate out. You cannot say this amount of this irrigation system I have been building is for climate change and this amount is for our battle against world poverty, as it might have been had the climate not been changing. It is very difficult to separate out those two kinds of things, and you can be disruptive and diversionary if you try too hard. So I think it is extremely important that the use of funding, whatever hat it sits under, is one which—. You can have an adaptation hat and you can have a standard ODA hat, but it has got to be used in a way makes it easy to integrate those things. You could, for example, have another window alongside the IDA window in the World Bank so that the people who were looking after those two windows were, roughly speaking, the same people, so that we could be sure that these things were being well blended. They have got to be blended with private investment, they have got to be blended with any of the guarantee instruments that any of the international institutions can use. It is extremely important that we do not lose the ability to bring that funding together in as easy a way as possible; so I am quite worried about excessive separation of streams. National income accounts are done in various kinds of ways, and I could give you an essay on how to see adaptation funding as a separate category in the national income accounts and I could give you another essay on how to see national income accounts putting adaptation and development funding in the same classification, and I would be worried if we got stuck on what is simply an accounting convention which can be done this way or can be done that way. It would be a very strange world if we let that have some kind of real policy significance. I fear that it might, but we should not let it.

Q220 Richard Burden: You do not think there is a danger perhaps that if the logic is to bring them together, and the logic has got to be “it needs more money put behind it”, that we could end up with bringing together not enough more money to put behind it and the result could be that actually money could get diverted away from, say, health projects, and so on?

Professor Lord Stern of Brentford: I was with you right up to the last sentence. I think there is a danger, but the danger is about the overall resources being too small in relation to the extra challenges from climate change. It is not that very last issue, which is diverting money. Investment in human capital, in the jargon that we sometimes use in health and education particularly, can be very important for dealing with climate change. A lot of this is about human resilience, a lot of it is about finding different kinds and more diversified activities which education helps you find. So the danger is that the inadequate resources are there and that those will be inadequate resources. I do not think the diversion question is the right way to look at it.

11 March 2009 Professor Lord Stern of Brentford

Q221 Chairman: It is three o'clock. I know Lord Stern has to catch his plane to Copenhagen to join that discussion, so I think we should let you do that, because I think we need you to be there. My apologies for the interruption that obviously took some time away, and thank you for giving us this opportunity to have an exchange. I think we can all only hope that Copenhagen will be about securing a deal and that the Americans, even if they cannot deliver everything that we want, come with a positive attitude and also the EU, because with Italy cutting aid and with Xavier Solana saying they should only fund a third of the developing countries' requirements against the expectation of 100 %, there are big gaps, so I guess we need you and others to try and use all your eloquence to show them the gaps to bridge.

Professor Lord Stern of Brentford: It is very nice to talk, Chairman. There are so many things to talk about, obviously. You should certainly let Mr Solana know that this is a security issue. Big numbers of people are already moving and the numbers who would have to move in the context of unmanaged climate change would be in the hundreds of millions, and what we would then have is a very protracted world conflict, because large numbers of people moving lead to conflict—surely a lesson of the last two or 300 years. So I fear those are mistakes that you describe, but we should try to argue strongly against them because they are just analytical errors.

Q222 Chairman: Thank you very much and bon voyage.

Professor Lord Stern of Brentford: Thank you very much. It was nice to talk to you.

Wednesday 29 April 2009

Members present:

Malcolm Bruce, in the Chair

Hugh Bayley
John Bercow

Richard Burden
Andrew Stunell

Witnesses: **Mr Michael Foster MP**, Parliamentary Under-Secretary of State, and **Mr Elwyn Grainger-Jones**, Head, Climate and Environment Group, Department for International Development, **Lord Hunt of Kings Heath**, a Member of the House of Lords, Minister of State for Sustainable Development and Energy Innovation, and **Mr Andrew Randall**, International Issues Advisor, Department for Environment, Food and Rural Affairs, gave evidence.

Q223 Chairman: Can I say good morning, Ministers, to you and your advisers. For the record would you please introduce yourselves and your team?

Mr Foster: On my left is Elwyn Grainger-Jones, who is the Head of Climate and Environment Group at DFID.

Lord Hunt of Kings Heath: Can I introduce Mr Andrew Randall, Advisor on International Issues at Defra. May I, Chairman, just apologise that I have been asked to go a meeting of COBRA this morning at 11 o'clock and will therefore be leaving this hearing early. I will ensure that any questions that come under my responsibility we will follow up immediately.

Q224 Chairman: Thank you for that. We have tried to re-jig the questions so that we can ask them while you are here but we quite understand, Minister. Having said that, some of our colleagues indicated they were on their way. This meeting has changed in time and I hope they will join us but the meeting is quorate which is the important thing. You will know that we decided to do this inquiry to determine the extent to which climate change was being embedded and mainstreamed within the development strategy and our predecessors carried out a pretty full report on climate change in 2002. Obviously, things have moved on quite a bit from there. At that time, DFID said its aim was to mainstream climate change into its programmes, so I wonder, Mr Foster, to what extent you have made progress in doing that in terms of country programmes. Certainly, when we go to developing countries I have to say we do not automatically get a climate change statement from DFID and I wonder whether perhaps we should. Could you explain how you feel it has been integrated?

Mr Foster: Thank you, Chairman. One of the key measures of success for us is that we do not have a project-based approach to climate change within developing countries because we think it should be integrated into the mainstream. An example of how we do it in our normal country plans, which, of course, you and the Committee will be familiar with, is that, if we take somewhere like Bangladesh, we have a programme there called the Chars Livelihood Programme where, built into the policy to bring adaptation to the impact of flooding in Bangladesh, which is an impact of climate change, is a way in

which the villagers have had the floors of their homes raised. In addition to that they are given access to a cow that is in calf, seed to grow produce for themselves and for marketing, and it is all wrapped up in one project so the people in the villages in the Chars area of Bangladesh get the benefit of having their homes protected from flooding and at the same time they have their livelihoods improved.

Q225 Chairman: I saw that case study and obviously it was an interesting one and I can see the practical benefits of it, but the question arises, particularly the bit about raising homes, as to whether that is climate change money or poverty reduction money and how you separate them out. A point of concern you will appreciate the Committee has is that, as climate change is integrated, does it compromise poverty, reduction in terms of the allocation of funds? I appreciate they need to go together but we need to determine which is proper funding for poverty reduction and which is additional funding specifically to do with climate change.

Mr Foster: The difficulty with this, I would suggest, Chairman, is that it is very difficult to separate out what is the benefit of the projects for the individuals concerned that is just climate related. In preventing people from being flooded we are helping improve their livelihoods and dealing at the same time with health and education issues within this particular project, and it is a way in which we think we win as a Department in literally having the two very tightly integrated. If we were to try and separate out the funding schemes for one or the other I think we would lose the benefit of the whole approach.

Q226 Chairman: We might want to explore that a little further in other questions. You mentioned Bangladesh. In Africa, in the specific country assistance programmes, and obviously there are big climate change implications there, how do you build those into the programmes specifically in African countries?

Mr Foster: In terms of the process that we would typically follow, Chairman, one of the approaches we have is an environmental screening process for any project over a million pounds so that you automatically consider what the impact is in terms of the environment and address the opportunities that can exist to improve the position of those that are

**29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall**

affected, but also to identify the risks that climate change poses when we deliver a project there. Also, in terms of conversations that we have with developing countries, we look on a country-by-country basis to assess what the risks and opportunities are for particular projects. Examples of conversations that we would have would be in Nepal where there is huge potential for hydro-electricity production which can deal with the country's own need for electricity and power. About a third of the country has access to electricity so there is real need there. Only 1 % of the potential is used at the moment in terms of the waters flowing from the Himalayan region, but also it is a way in which the country can sell its energy to its neighbours, namely, India, whose energy demands are well known. It is a conversation we have with them and with our multilateral partners, like the Asian Development Bank and the World Bank, in terms of how we can get the country itself to recognise what its opportunities are to deal with climate change and also with the development benefits that can accrue from good forward-thinking policies.

Q227 Chairman: You have set up the Climate and Environment Group as a policy and research division here in London. How is that interacting specifically in the way country programmes operate? How will it influence the climate change agenda in country programmes because the reality of the country programmes, is it not, is about seeing the follow-through?

Mr Foster: First, on the Centre for Climate Development, we envisage the network being operational from late summer. In terms of how we anticipate the Centre is going to be used, it will be to provide knowledge, to advise developing countries on the services that are available and also to generate new priorities for research. We have had some welcome comments from developing countries about potential involvement that they want to have with the Centre. On other aspects of research, what we have also done internally is restructure our Research Department so that we have got research people sat with policy experts in the Department so that there is face-to-face contact between those who are researching on issues such as climate change and those who are dealing with policy on that. We have maintained the integrity of the research and the independence that researchers want but, rather than just exchanging communications by email, they can sit together and have discussions about how to inform policy based on the latest research.

Q228 Richard Burden: I am getting a little confused about who is doing what. That is very helpful, what you said about creating a new Centre which is being set up this summer. However, I am not clear what its role is, how it is meant to relate to things like the Climate and Environment Group (CEG) that the Chairman mentioned, and also how that centre, as it does get under way, is going to make sure that its

priorities reflect the priorities of developing countries. Perhaps you could say just a little bit more about how the bits link together.

Mr Foster: I will ask Elwyn to come in with the detail on that.

Mr Grainger-Jones: We see the centre as both a service to our clients and essentially a coalition of thinking organisations that we can interact with in order to improve our ability to work on climate change with our clients too. There is a knowledge management role where at the moment there is quite a wide array of specialist organisations and think-tanks thinking about certain aspects of climate change but very few that really bring it all together in organisations that span not just northern organisations but also organisations in the south. We see a knowledge management role, a role providing advisory services to developing country governments, which I think is a service that we would like to outsource. We do not have the capacity ourselves to directly provide all of that advice. We want to strengthen the international system's ability to provide advice and also to generate new priority research and analysis. We have a significantly expanding research programme. It requires a great deal of effort to scale that up adequately, so we see it providing all these services. We see it being a consortium approach linking the north and the south, and in terms of CEG's interaction, we would like to have a very close interaction with that unit. We want to have a close policy dialogue. There are many areas where the policy is still unfolding, where we need more interaction with outside organisations which can see all the links that are involved in climate change, and that is the sort of dialogue we would want with this organisation. We would not see it doing all the things that climate and environment would do. We see it as an advisory and knowledge hub, something that we would draw on.

Q229 Richard Burden: Is it going to be independent of DFID or is it going to be part of DFID?

Mr Grainger-Jones: It would not be a department of DFID, no. It would essentially be a contractual arrangement where we would tender for a number of organisations to come together and provide certain services. We would not be dictating the line they would take. We would not want to suffocate them and say they had to pursue certain lines. That is not what we need from this. We need challenging ideas, we need in a sense a really healthy interaction of ideas with this group of people. There would be at the centre a management oversight arrangement where ourselves and other donors would interact as providers of finance with the body to look at whether the outputs we have set out are being achieved.

Q230 Richard Burden: So in terms of setting it up, its remit, the specs on which you are inviting tenders and so on, what involvement has anybody else had in that? Have developing countries had any input into what its remit should be and its relationship with government departments?

Mr Foster: To give you examples of the countries which were partners in the consortium expressing an interest in the climate network, I could run through a few to give you a flavour of the interest on that—the Caribbean as a region, Brazil, Mexico, Costa Rica, Guatemala, South Africa, Nigeria, Rwanda, Senegal, Tunisia, Kenya, Ghana, Egypt, China, India, the Philippines, Sri Lanka, Fiji and Malaysia. There is a lot of country interest expressed in the consortium trying to run the whole operation.

Q231 Hugh Bayley: Which Government Department takes the lead on international climate change policy?

Lord Hunt of Kings Heath: Essentially, it is the responsibility of the Department of Energy and Climate Change to lead in terms of international negotiations and also to be responsible in the UK for climate change mitigation. My other department, Defra, is responsible for climate change adaptation and also sustainable development. Of course, we work very closely with DFID and Whitehall policy on international climate change is co-ordinated through the International Climate Change and Energy Programme, so there is a lot of cross-government working on this.

Q232 Hugh Bayley: Michael, DFID is an implementation agency in developing countries for UK Government policies. What difference has DECC made to the way DFID pursues its climate change policies?

Mr Foster: We do not see DFID's role as an implementation agent for Whitehall policy on this. We engage fully with the discussions that go on. Obviously, we are looking at the development angle in the climate change discussion. Importantly, we are feeding in the development priorities for future international agreements such as Copenhagen, and our Secretary of State has laid out some very clear development targets, if you like, that can be gained from a positive settlement in Copenhagen. That is where our responsibility lies and, of course, the Secretary of State for DFID will be present at the discussions at Copenhagen.

Q233 Hugh Bayley: So the Department's role is to ensure that UK policy for international climate change takes proper account of the development dimension? If I could turn to Philip, does your Department have a responsibility through intergovernmental working to ensure that DFID's development policies are compatible with the Government's international climate change policies and objectives?

Lord Hunt of Kings Heath: I am not sure that is how I would put it. As I say, the essential components of climate change internationally are DECC leading international negotiations. As far as adaptation is concerned, in the UK Defra leads on adaptation. Internationally it is DFID which leads on adaptation.¹

Q234 Hugh Bayley: And internationally on mitigation?

Lord Hunt of Kings Heath: On adaptation.

Q235 Hugh Bayley: No, internationally on mitigation in terms of outside of the negotiations. DFID will develop policy frameworks in its work with governments, particularly where it is giving programmes support for direct to a government, and that will provide opportunities, will it not, to shape or influence, or at least propose, ideas to Tanzania, shall we say, about what its mitigation policies might be as well as its adaptation policies? Tanzania is possibly not the best example because it is not such a high carbon emitter.

Lord Hunt of Kings Heath: One has to say that in the six months that DECC has been established our key focus has been on first of all seeing the Climate Change Act through with the industry targets for the UK in the development of carbon budgets, then the 2020 agreement in Europe on 20 % GHG² reduction by 2020, 30 % which would be an international agreement, and then into the negotiations leading up to Copenhagen. That really has been the focus of our engagement. My colleagues in DECC have spent a considerable time visiting other countries where the focus has really been about Copenhagen and seeking to get to a successful conclusion. My experience and understanding is that when it comes to working with DFID there is a very close working relationship and I would not see it in the way you described in your first question as a monitoring role by DECC as far as DFID is concerned but as a very close working together.

Q236 Hugh Bayley: To take a practical example, the Environmental Transformation Fund's International Window, which I understand the two Departments jointly are funding to the tune of £800 million, and it will be providing, I understand, both grants and loans to countries, how are decisions made, for instance, on whether an International Window investment should be a grant or a loan? Which department is running it?

Mr Foster: The ETF is jointly managed by DFID, DECC and Defra. There is a government board that oversees the running of it and the Treasury and the FCO are also there as observers in terms of how this works and perhaps Elwyn could talk a little bit more about the detail of how the board operates.

Mr Grainger-Jones: They meet approximately every two months. Those meetings are very interactive. Essentially we decide the overall strategy for how we manage these funds. We decide issues by how we would allocate funds into different types of activity and how we review progress on the Climate Investment Fund, the vehicle that we have set up to manage these funds. We decide details such as what would be our approach to certain technical issues in those funds, how we approach coal, for example, and the funds themselves are managed through a

¹ Lord Hunt meant to say that internationally it is DFID and DECC that together lead on adaptation.

² Greenhouse Gas

29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall

governance mechanism on the Climate Investment Fund. That is pretty innovative, where we have potentially equal representation in these international funds, and there was a lot of discussion with NGOs and others about how this was set up, and those are international discussions, not just in the UK. Essentially, the ETF governance mechanism in Whitehall is reviewing how the international process is going.

Q237 Hugh Bayley: As for determining the UK policy, how does the UK influence the decisions that are made as to how the funds are used, whether they are, as I say, grant or loan funding streams, and how would you monitor and evaluate the outcomes which a fund contributes to?

Mr Grainger-Jones: In terms of how we would take decisions, the board takes decisions and those are approved by our ministers in respect of departments, and are decisions on the top level strategic ambitions and objectives and on financing allocations. When it comes to the more day-to-day decisions, for example, if project or programme strategies are being reviewed, there is a secretariat which is housed in DFID which advises this ETF board on how to progress what we should be advising on. Those decisions are discussed in the board. In terms of things such as grants and loans, again, that is all discussed in the board. There are certain parameters which guide that, for example, the way in which the money has been provided to it, its capital funds that we are spending, but in terms of how they then translate into how we use the grant elements of these funds, much of which is going to the forestry area, that is again discussed at the board. In terms of monitoring and evaluation, there is quite a lot of work now going into what are the concrete achievements that we are looking to achieve through the different programmes that are being set up under the Climate Investment Fund. For example, we took part in two recent international meetings about how we would be able to say what success has been achieved on the adaptation element of these funds, how you decide what is success. You have a plan first. What sort of plan? What are the success parameters? What are the projects we are looking for? Similarly on the Clean Technology Fund, we have been looking at essentially how we would judge the progress of that. The key thing is that we are looking to use the monitoring and evaluation systems that governments have been putting in place with their multilateral partners, not always necessarily generating new and additional earnings but we do need to improve the systems in place.

Q238 Richard Burden: Could we spend a few moments looking at MDG 7 and our performance and our impact on that? Perhaps, Mike, you could start off and let us know what impact you think the work of the UK Sustainable Development Commission has had in practice on DFID's approach to meeting MDG 7 on environmental sustainability.

Mr Foster: As you know, Mr Burden, the MDG 7 targets in some areas are on water; they are just about on track. On others we are off track and we need to accelerate the progress that we are achieving. Where we have made some specific progress, if we look at the water resource management side, it is being delivered through in-country programmes. We have looked at ways of improving a more regional perspective to water resource management because of the impact of climate change and the variability in rainfall. It is likely to cause greater flood potential so we have invested quite heavily in that side. An example would be the South Asia Water Initiative which is looking at the flow of water from the whole Himalaya region affecting all the countries surrounding that area on the basis of the fact that it is likely to affect some three-quarters of a billion people. In terms of our own in-country work, we have been doing that as well. I mentioned the environmental screening approach that we have and some of the discussions that we have in-country. In terms of other aspects of MDG 7, biodiversity is one of those that is a difficult one to measure and there are challenges there that the international community has about how we get a proper measure that we can verify and stand up and be accountable to on issues such as valuing the loss of and challenges to biodiversity.

Q239 Richard Burden: That is useful. We may later come back to some of the specific areas of work. What I am interested in at this stage is how DFID interacts with the Sustainable Development Commission and whether the Sustainable Development Strategy that we have across departments has impacted on DFID's work and, if so, how. If I can put it to you, some would say not very much. For example, the International Institute for Environmental Development say that DFID has not really given sufficient priority to sustainable development and they indicate that DFID only plays a minor role in the Sustainable Development Commission as the Government's advisory body. Is that fair, and if it is not fair how does DFID interact with it, and what has come out of that? What is it affecting?

Mr Foster: Where that criticism might well be levelled is that the Sustainable Development Commission (SDC) is primarily focused on the UK and works within the UK, so we have a limited amount of engagement because our remit is the more international perspective as opposed to the SDC which is pretty much UK limited in terms of its outlook.

Q240 Richard Burden: Is it meant to be?

Lord Hunt of Kings Heath: I wonder if I can answer this because I do have responsibility for the SDC. You pose a relevant question. It is the Government's independent watchdog and it is very much focused on the actions of government departments and it regularly publishes reports comparing performance between different government departments. They are very helpful because they lead departments

which do not look so good to look at their performance. In that sense, of course, it does that monitoring. As to whether its remit should be widened to encompass the areas that you have suggested, I would be very interested in the views of the Committee on that. Jonathan Porritt is due to retire from the chairmanship very shortly and we will have a new chairman. That is clearly an opportunity to look at these matters again, but, as I say, the focus has really always been on ensuring that individual government departments understand the sustainability agenda and that their policies are very much focused towards that. It is one of a number of very important planks to taking forward government policy. Another area of great interest to you, I am sure, will be the development of carbon budgets, which again will introduce a discipline to individual departments in terms of the carbon emissions that they are responsible for, but that would very much embrace the sectors which they are responsible for and I think will again be another very powerful tool for monitoring performance and driving change.

Q241 Richard Burden: So far, given the fact that the Commission has its remit across departments, both departments focusing on the international action as well as those that are focused on domestic action, what has been the impression that has been coming out of the Commission about how far DFID relates to the Commission and how far it articulates the Strategy? For example, the UK's overall Sustainable Development Strategy was published in 2005, the *Securing the Future* document, and DFID articulated its approach to that, and two years later it had a Sustainable Development Action Plan. *Securing the Future* has got these five core principles: living within environmental limits, ensuring a strong, healthy and just society, achieving a sustainable economy, promoting good governance and using sound science responsibly. My question is, if the Commission is meant to be the watchdog across government departments on how they are doing, what conclusions or assessments has it made about DFID's role in that, or is it that it has not really reached its conclusions? Does that say something about the Commission perhaps having its advisory role strengthened or links between departments strengthened?

Lord Hunt of Kings Heath: Can I just reiterate that clearly it is currently a time to review the progress of the SDC and that I would be very happy to take this matter on board and to discuss with DFID whether there are ways in which the remit of the SDC should be developed. I do want to pay tribute to the SDC. I think they have done a really fantastic job. I remember as a Minister in the Department of Health a long time ago when they were first appointed. At that time very few people knew what sustainability was about and I think they have had a hugely important role in educating and pressurising and getting government departments into a much better state, but it is a moment when we need to reflect on progress and what needs to happen in the future. As

I say, I would be very happy to take the views of the Committee on this and to explore with my colleagues whether it would be appropriate to look at a widening of their role. I have to say, of course, that there is a lot that still needs to be done within Whitehall in terms of demarcation of responsibility as well, so it is a question of focus. I ought also to say, although this is very much UK based, that one of the outputs of the Climate Change Act was to establish an adaptation sub-committee of the Climate Change Committee so that alongside the SDC and the Climate Change Committee we would also have high level advice from an adaptation sub-committee.

Mr Foster: The Sustainable Development Commission reports very much reflect rather than drive change but if it would help the Committee I do not think you have seen it but we could give you a copy of DFID's latest progress report so you get a flavour of the sort of engagement we have with the SDC.

Q242 Chairman: Thank you for that. I wonder, Lord Hunt, if I could turn to Copenhagen, knowing you have only got a few minutes. We have had some discussion and evidence to date about the likely outcomes, so perhaps in general terms first of all you could give us an indication of what you are hoping for or what you are looking to expect from that, and then also looking at what the developing countries might reasonably hope or expect from it?

Lord Hunt of Kings Heath: Thank you very much, Chairman. Clearly we are in a critical moment in the lead-up to Copenhagen and it is an absolutely critical moment for the globe in terms of getting an agreement which will hold a climate rise to under 2°C so this is a very important focus in the Department of Energy and Climate Change. There are, I suppose, three core aims to our negotiations: first, a legally binding developed country target; second, appropriate action by developing countries; and third the right level of finance and technological support for developing countries. The context and background is first the action that we took unilaterally to set in legislation a 2050 target of 80 % GHG reduction, which we think is vital in itself to the UK but also as a signal to the international community of the kind of actions that we would like other countries to take. Following on from that, we came to the agreement in December within Europe on 2020, which again very much we see as important in itself and as a lead-up to negotiations in Copenhagen. They were around, as I have said already, the 20 % GHG reduction target for 2020 but which would be increased to 30 % subject to international agreement generally. There was also very important agreements around the reduction of allowances to develop carbon capture and storage, which has been followed on in this country by the announcement last week of up to four demonstration projects. As far as Copenhagen is concerned, we have been very active and my Secretary of State has been visiting the US, China and other countries and having discussions with the administrations there. Clearly the involvement of

29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall

the US as an active participant in these discussions is a very helpful indicator of potential success. There was a week-long meeting recently by officials to start the initial process of negotiation. I cannot say that anything of substance came out of that but they were very useful discussions. I think that if you were to ask me in one line am I confident of success, I am confident that we are doing everything we can to achieve success. I believe that there are hopeful signs but there is an awful long way to go and an awful lot of hard negotiation.

Q243 Chairman: Do you share Lord Stern's view, somewhat optimistically perhaps, that actually a downturn is a good time to get agreement because there is capacity and indeed opportunity for people to get economic benefit from adopting new technologies?

Lord Hunt of Kings Heath: I am not sure I would ever say a downturn is a good time so I am not sure that I necessarily share his view.

Q244 Chairman: I do not think it is a good time; it is a good time for agreement.

Lord Hunt of Kings Heath: However, I suspect that it has concentrated minds, and what the downturn has shown is the need for international collaboration on issues that are potentially very catastrophic. There is nothing more vital to us internationally than a climate change agreement. In that sense I agree with him. I also agree with him that a move towards a low carbon economy does not mean a low growth economy.

Q245 Chairman: That is actually my next point because obviously the developing countries' concern is that they need growth more than anybody and they do not want either to be shut out of growth because of the scale of a Copenhagen agreement that does not take their needs into account or, alternatively, to be locked into the wrong sort of technology growth which will cost them later. Are you satisfied, and I am looking at both Ministers I suppose, that those concerns have been fully taken into account and, relating to that, that the cost of applying Copenhagen will be properly allocated? I just repeat the exchange that I had with Javier Solana where the EU was offering to fund a third of the impact of Copenhagen on developing countries but developing countries, not unreasonably, thought they should get 100 %, and that is a big gap.

Lord Hunt of Kings Heath: I think on cost the UK is still in the position of preparing and developing its position, but there were a lot of intense discussions at EU Spring Councils where finance was discussed. No agreement was reached in relation to hard figures but discussions took place on the kind of funding mechanisms that might be taken forward. I very much agree with your comment in relation to the fears of developing countries that they do not want to see tough international targets on GHG reductions impacting on necessary development in their country, and that is understandable, which is why I believe that climate change issues and

sustainability have to come together because clearly we wish to see countries that need to develop developing in a sustainable way, and we have to pull that together. Going back to what Lord Stern has said, he has made it clear, particularly to developing countries, that a low carbon economy does not mean a low growth economy. That is the same for this country as it is for developing countries. As far as technology is concerned, I very much take your point. I believe that the announcement that we made on carbon capture and storage (CCS) is a very important indicator of our position. 40 % of energy at the moment is produced through the use of coal, so unless we can develop CCS in a way that it can be used throughout the world, we are going to be in a great deal of difficulty.

Q246 Chairman: I have a final point and then I know Mr Bayley has a quick one and then I know you need to go. Mr Foster earlier on said that there was difficulty in separating out development costs and climate change costs. Nevertheless, the Committee's view is that somehow or other that will need to be done, not least because if there is a Copenhagen agreement there will be some compliance implications. If it is difficult to separate the costs out, how can you tell whether or not you have complied with any agreement that has been reached?

Lord Hunt of Kings Heath: I think that Mr Foster was referring to DFID's own budgetary position where I can well understand that there will be issues around how you define various expenditure heads. Chairman, you are quite right that in terms of the credibility of Copenhagen it will be absolutely essential that whatever agreement is made that the measurement of success—or not—has to be measured effectively, and people have to have confidence in the integrity of the system. I very much agree with that and clearly it is the same in relation to emissions trading schemes, where again it would be very important that the integrity of those systems can be relied upon. So in terms of authentication and in terms of monitoring, I agree that will be absolutely essential.

Q247 Hugh Bayley: I just wanted to pursue the Chairman's point about Lord Stern's comment that the downturn is a good time to drive forward the low carbon agenda. I do not think he makes this comment just because he is an optimist pursuing his cause. I think the economics underpinning that view are right. In his report Lord Stern says that you will need something like 2 % of global GDP invested in low carbon alternatives to achieve a maximum 2 % increase in the temperature target. There is a danger that you see 2 % of growth as cutting to 98 % what we produce elsewhere and therefore a terribly difficult thing to do in the downturn, but actually, if we think about it, that is not what the 2 % is doing. The 2 % is additional investment. It is not a top slice from global output; it is an additional investment in, if you like, wind farms and so on. Is not that the argument that should be made at Copenhagen—that increasing investment in low carbon alternatives is

both necessary in climate change terms but also this is a perfect time to do it because we are looking for ways in which to stimulate investment?

Lord Hunt of Kings Heath: I do not disagree and I think that there is a key challenge here for the UK. A low carbon economy is inevitable. The question for the UK is whether we are going to be at the forefront of that with all the advantage that it brings in terms of investment, jobs, skills and the like. Clearly, the same argument applies to other countries as well, so if the argument is that development towards a low carbon economy can start to fuel growth in the economy, that is something that I would agree with. I think that the advantage of Lord Stern's work has been that it has come from a very sober and realistic view of the economics and I believe that it has enhanced the credibility of the work itself.

Q248 Chairman: Thank you, Lord Hunt, for attending. We do appreciate that you have got an important meeting and we need to release you.

Lord Hunt of Kings Heath: Chairman, I am very grateful to you for allowing me to do that, thank you.

Q249 Hugh Bayley: To continue on this theme of this great debate between low carbon strategies and growth, DFID has objectives both of promoting economic growth, which I think is a fine objective, and tackling climate change, which is an equally fine and necessary objective, and yet when you put the two side-by-side it is far easier to think of examples of economic growth being detrimental to the climate. I remember when the Committee went to China, flying from Beijing to Gansu, and you looked out of the plane and saw smoke stack after smoke stack after smoke stack of factories and power stations pumping out pollution. So how does DFID reconcile the ambition to promote growth in developing countries with its ambition to limit carbon emissions? Is it actually doable?

Mr Foster: Firstly, the Government has the wider view that it is important to break this link that you described that you can only get economic growth through degradation to the climate and the environment, and it is important that that is seen not just internationally but in the UK as well, as was suggested. What we have done so far is to fund a number of low carbon growth studies in some of the middle-income countries where they are experiencing rapid economic growth, and so in that way they are a very good case study to use to get an example of how you can manage quick growth but be climate-friendly and climate-smart in the meantime. We have also conducted a couple of pan-regional studies, or mini-Sterns, ourselves to look at the knowledge and to find the best knowledge out there on how that is done. There is a lack of evidence, I have to accept Mr Bayley, about how we deliver at low-income country level, how we balance the two out, because of the experience that you have described from the plane, which is one that we must try and avoid in terms of the impact on the

environment. We have specific projects in-country which do demonstrate how economic growth and development is being pursued whilst actually enhancing the environment and mitigating some of the impacts on climate change. One example that we have that I have been lucky enough to have been to see is in Nepal, the Forestry and Livelihoods Programme, which is about management of the forest and, as we know, deforestation has a huge impact on emissions and climate change so the forestry aspect is important. The project looks to enable communities to deliver improvements in their livelihoods from better management of the forests and the examples I saw were the production of materials, envelopes, books and paper, from the products of the forest, and we have seen substantial increases in their income, so they are benefiting developmentally from the projects but actually you are also storing several hundred thousand tonnes of carbon in the new forests that are being planted and better managed. We are doing the research to find out how better to inform the process but actually in-country we are also getting our hands dirty with bilateral programmes such as the Forestry and Livelihoods Programme.

Q250 Hugh Bayley: How are you going to achieve policy consistency between the output and recommendations of the Centre for Climate and Development on the one hand and the International Growth Centre on the other? Will they, for instance, audit each other's reports before they are published and comment on them? When it comes to disseminating the findings from these bodies in your work in developing countries, how will you ensure that there is an integrated use of the findings of both in-house think-tanks, when you think that most of your work on growth in the developing countries will be with finance and trade ministries and most of your work on climate change will be with different ministries, energy ministries and environment ministries?

Mr Foster: First of all, the International Growth Centre to which you refer has itself got its own low carbon element built into it, so there is already recognition in the creation of that body of the need to tackle the low carbon element. We are also planning to run joint internal programmes between the Climate and Environment Group and the International Growth Centre, so that way we do think we can get the best out of both of those organisations in terms of policy development and research to then enable us to inform not just our own in-country programmes but because the interest that has been expressed by many countries across the world we hope to be able to then inform them with the findings on how best to take on board the knowledge and the research and the findings.

Q251 Hugh Bayley: How then will DFID seek to ensure that developing countries integrate climate change resilience into their development plans?

29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall

Mr Foster: That is an on-going challenge for us, Mr Bayley. We do it in terms of having what we believe is a compact approach to discussions that we have, so that we have got a very clear breakdown of responsibilities between what the developing countries do in return for support from the developed country. We want to have very clear and measurable reported results as part of any compact and that fits in very much with the Paris Declaration on the most effective use of aid. At a national level, in terms of the discussions we are having on the work that we do and the funding that we accrue, we are supporting climate change advocacy officers to be placed within civil society in developing countries to, in effect, put pressure within developing countries so that the issue of climate change is not forgotten. That is an important method in which we can fund this area. We are also looking at individual bilateral support to developing countries to enable them to have a stronger voice in treaties and discussions internationally. For example, we funded a part of the Nepal delegation to the recent Poznan talks. Again, that is just a bilateral in-country plan that we know will benefit a country that has huge potential to (a) be affected by adverse climate change but (b) also has the ability to help mitigate the impacts of climate change.

Q252 Hugh Bayley: I am interested by what you say about civil society and climate change advocates. Over the years I have seen dozens and dozens of small NGO projects responding to environmental pressures in one way or another, doing really good, innovatory work and often just dying when that funding stream dries up. In East Africa we saw some really good work funded by your Department in a very dry part of northern Kenya adapting to a changing and worsening environment, and work with in-shore fishermen in Tanzania to try and ensure that there was local control of fishing stocks. They are doing good work but how do you ensure that when you have worked out a policy response to an environmental pressure that you roll out the knowledge?

Mr Foster: It is going to be one of the challenges that we face, I have to be honest Mr Bayley, in terms of keeping the pressure on with regard to advocacy, keeping the knowledge flowing through that is being created, or will be created through our research hub. Where we have spent some time and made a commitment is in projects that are trying to inform any post-2012 agreement and to demonstrate on the ground some practical ways in which that is being addressed. We have a pilot programme called Climate Resilience. It is under the Climate Investment Fund package; it is managed by the World Bank; and it is designed to look at what can be done practically to deliver on low carbon initiatives in developing countries, and the idea is that actually that can help inform the debate internationally and inform the discussions that are going to go on between now and December ahead of Copenhagen.

Q253 Andrew Stunell: Can we just take a look at the sources of best practice when we are getting climate change projects right. Partly it is the small on-the-ground schemes which have been demonstrated to work. Partly it is going to be academic and professional research. The most effective research is probably going to be that which is found in the local area taking account of local eco-systems and other technology barriers and so on. Are you satisfied that the UK Government is responding to that research and, for instance, in Africa that African-based research is really being taken into account when support is given for projects? I guess the inverse of that is how do you avoid having a wallpaper approach to projects that does not feed in the local parameters?

Mr Foster: Mr Stunell, one of our flagship projects in this area is actually in Africa. It is funded under the Climate Change Adaptation in Africa scheme and it is a £24 million project over five years. It is based in Africa so that you have got the in-country feel to the nature of the research and the capacity building that is going on, and for the very reasons that you outlined. We think it is that nature of action research that really does help inform the nature of the type of changes that we are going to be expecting in different countries around the world. The African example is one where we absolutely agree with you. We are doing that. I am not saying that we are doing it perfectly or that we are doing it everywhere, but we are conscious that that is the model that we think does work on the ground and has been demonstrated, as I say, in this five-year project that we have got there.

Q254 Andrew Stunell: Do you think the scale of your decision-making or interventions is sufficiently refined to take account of that or is there a tendency perhaps by local governments as well as your intervention to simply look to blanket solutions?

Mr Foster: It is a question that is very difficult to answer in terms of what we expect local governments to do and how they are going to respond to the challenges. What we think we can do is to provide information and knowledge based on good, hard evidence and research so that the debates are at least better informed when it comes to the type of decision-making that will go on. I do not think there is a guarantee that we can give that countries will necessarily follow the best evidence and the best policy, but they have a better chance of doing so if the information and evidence is actually available for them to look at first before they make a policy change.

Q255 Andrew Stunell: You see that as a clear priority for you in terms of the dialogue with national governments?

Mr Foster: It is a priority not just in terms of informing in-country policy-making but also to inform internationally any future deal that we might be getting in Copenhagen. There is a bigger

29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall

responsibility there as well to take action now so that we have got some evidence and we have got some information available to us.

Q256 Chairman: There is no doubt at all that DFID is pulling together useful advice, practical examples and funding those, but it is a bit like Aid for Trade, if there is no trade agreement the aid is not much use, and the same applies here. Do you have any indication of what the cost of adaptation is likely to be and what sums are likely to go into the pot for discussion at Copenhagen? There is a huge variation. I have seen figures ranging from \$4 billion to \$86 billion, which is a huge difference. In that context, how much of that should be funded by the UK and, if any of it is to be funded by the UK, how should it be funded in ways that do not compromise the development budget?

Mr Foster: In term of the cost, Chairman, you are right in pointing out the sheer variation in estimates that are there for meeting adaptation. In terms of how we envisage our contribution to this, we think probably a blend of options is the best way forward. There is obviously going to be a unilateral element from general expenditure. We are interested in the Norwegian proposal that has been put forward which is to set aside at auction a small percentage of emissions allowances to fund adaptation work, so there is scope in that that would be worthy of discussion.

Q257 Chairman: Taken from a separate fund?

Mr Foster: Then there are other options such as forms of global tax mechanisms. For example, there might be a maritime bunker fuel tax or possible aviation taxes that could kick in.

Q258 Chairman: You are interested in things that could identify a separate finance stream for adaptation that is clearly distinct from development?

Mr Foster: We think that the finance has got to come from a variety of sources. It is not going to be one that government alone are in a position to be able to deliver.

Q259 Chairman: You know that the Committee expressed concern when the Prime Minister suggested that the World Bank should become an environment bank. If I am honest, the Committee slapped him down somewhat and took the view that the World Bank was a poverty reduction bank not an environment bank and that it was a dangerous step to take. I do not know whether it worked but we have not heard so much of it since. You take the point that the Committee is concerned that adaptation and development need to be separately funded and not confused or blurred?

Mr Foster: We are conscious of that debate that is going to go on and it is obviously part of what is being discussed in the run-up to Copenhagen. We know of the interest in the developing world on what is expected and what they are likely to be able to get. We think that the key for us is to get predictable

sources of finance out of any agreement as well so that countries can actually plan ahead properly to make the type of adaptations that are necessary.

Q260 Andrew Stunell: You say plan ahead, I think the United Kingdom has pledged \$1.5 billion to adaptation schemes, and if the *Guardian* is to be believed, which it is not always of course, only £300 million of that so far has been forthcoming and not a lot of that has gone into Africa, for instance. Could you say something about the rate of spend and the nature of the projects because in terms of the predictability and the planning, I would have expected the United Kingdom to be right at the front in enabling that to happen?

Mr Foster: We have a list of case studies which we can certainly provide the Committee with in detail if that was helpful, but in terms of areas I think I mentioned earlier in the session today the Chars Livelihoods Programme which is an example of where we have actively been involved in adaptation measures to help in Bangladesh. There is the SAWI initiative.³ There is a project in India. We have got projects in the Caribbean and Latin America and some in Africa, all of which we can provide the Committee with in terms of more detail.

Mr Grainger-Jones: In addition to that, the Climate Investment Fund, which I think you are referring to, on which there was a *Guardian* piece, those are a three-year series of disbursements. The first year was £100 million as the UK Government contribution. We made that contribution and the projects are being developed, but projects are not developed overnight. These are complex projects and we need to allow governments space to work up the programmes, but we have already agreed three country investment programmes from the Clean Technology Fund, so there is a lot of work underway and some pretty good country investment programmes that we have already seen. In the current financial year we will make a £200 million contribution and then in the subsequent year there will be a £500 million contribution, so in terms of the *Guardian* article, we would see the contributions actually going as planned.

Q261 Andrew Stunell: Adding up your figures that seemed to be 800 million, a one, a two, and a five, I think you have said, which does not seem to be the 1.5 billion which is in the whole programme.

Mr Foster: Is the 1.5 billion in dollars? We are talking pounds.

Andrew Stunell: You are talking pounds, I do beg your pardon. Thank you.

Q262 John Bercow: Good morning, Minister. In July 2008 DFID officials told us that no decisions had been made on whether environmental expenditures would be deducted from existing Official Development Assistance (ODA) commitments or whether there would be additional funding forthcoming specifically for work on climate change.

³ South Asia Water Initiative

Can you tell us this morning, Minister, what progress has been made by the UK on this in preparation for the Copenhagen summit?

Mr Foster: In terms of our position it has moved forward in the sense that we recognise that there is an additionality gap. I think that is the term that has been used to describe where we are on ODA compared to dealing with climate change. We recognise that ODA will not be able to deliver all of the additional finance that is going to be required to tackle climate change, but I am wary of taking it much further, Mr Bercow, because of the nature of the negotiation process that is going on ahead of Copenhagen. That is the prize that we are all looking at. We are clear that there has got to be some additionality.

Q263 John Bercow: Can you just remind me of the timescale?

Mr Foster: I think Copenhagen is December this year.

Q264 John Bercow: Of course, as you know Minister, it is always the very greatest of pleasures to receive you and it may be that such is the comprehensiveness and courtesy of your contribution this morning that you will become a serial recidivist and we might want to invite you again, I do not know. December is some considerable time away and, whilst I take note of the point that you make about the negotiations and they are very important and very sensitive and probably very confidential, et cetera, et cetera, it would be useful to have a sort of a hint or a nudge or a wink which indicates that there would definitely be some progress on this matter, even in the light of what is a very serious fiscal position here and elsewhere. If we are going to make progress on these matters it comes with a price tag. Would I be right in thinking—and I certainly do not want to tie you down too specifically—in three months' time you might have more to report?

Mr Foster: What I can promise, Mr Bercow, because you put it in such a persuasive manner, is that obviously the Government response to this particular inquiry might be an opportunity where we can inform the Committee further, and I will certainly take it upon myself, where we are able to discuss publicly a clearer picture of where we are, to write to the Committee to let them know and keep them informed of the progress that we are making.

Q265 John Bercow: Not necessarily as part of the Government's response but as an interim measure?

Mr Foster: As and when we have got more information we can furnish the Committee, then we will do that.

Q266 John Bercow: I must say that is helpful and I appreciate that and I hope colleagues will because there is nothing we dislike more than a void and a lengthy period of hearing nothing, so thank you for that. Is there a consensus within DFID on the way to deliver adaptation finance to poor people?

Mr Foster: Can I ask in what respect you mean a consensus? Could you repeat that question?

Q267 John Bercow: An agreed view about how it should be done, I give this but as an example, the provision of the resource should be, if you like, open-ended for use as decreed by the recipient or would you take the view, as I think the Dutch have done, that resources should be ring-fenced for specific types of projects? I know ring-fencing seems to be somewhat out of fashion as far as the British Government is concerned, certainly in respect of domestic policy (but that is another debate and I must not go down that avenue otherwise the Chairman will get irritated). As far as development assistance is concerned I think it is a relevant issue. Is there a sense about how this should be done, not just it is a desirable thing, rather like motherhood and apple pie, but whether there is a definitive view about how it should be done and how either permissive or prescriptive, how general or specific allocations of funds should be?

Mr Foster: Could I ask Elwyn to come in.

Q268 John Bercow: Then there are issues to do with reporting requirements and monitoring and accountability and so on, all of which are extremely salient matters.

Mr Foster: Perhaps I could ask Elwyn to come in and give a little bit more detail about our approach on this.

Mr Grainger-Jones: To some extent this whole negotiation over additionality, whether there will be additional money, has perhaps led to an approach in some areas that leads to separating out the way that adaptation money is provided right throughout the system, at the international level, at the allocation level and at the country level. In a sense, taking this question separately from the additionality question, where the money hits the ground it should be integrated, and that is a consensus view in DFID. It does not make sense, essentially, to have entirely parallel systems where there is a PRSP⁴ which looks at national development or agriculture policy which does the poverty bit of all of this, and then there is a separate thing which looks at agriculture and the climate change impacts of agriculture from a climate bit. That does not make sense. We are very keen to use and improve existing mechanisms to deliver finance to do this and we are keen to get it integrated into national planning.

Q269 John Bercow: That is quite helpful. Maybe I was a trifle opaque and maybe I should be a bit more explicit. I think there are some concerns about the international financial architecture, if I can use that pompous but on the whole accurate term. The International Institute for Environment and Development for example has noted that some developing countries have complained about the difficulty of accessing adaptation funds managed by the Global Environmental Facility (GEF), which

⁴ Poverty Reduction Strategy Programme

carries with it quite a high burden in terms both of reporting and of the obligation to co-finance. The management of adaptation funds by the GEF, which is closely linked to the World Bank, is quite problematic for some developing countries who are rather suspicious of the World Bank's role in environmental management. The World Development Movement reports that the G77 and China have both stated that funds for mitigation and adaptation in developing countries should not go through the World Bank. These are significant concerns. My understanding also is that the UK has decided to provide £800 million from the Environmental Transformation Fund to the World Bank-managed Climate Investment Facility. This is quite a lot larger sum than the UK contribution to the UNFCCC funds (£18.5 million) and it is seen by some NGOs as rather undermining those funds. There is an element perhaps of needless competitiveness and duplication resulting, even if inadvertently. Christian Aid, for example, a very respected institution, told the Committee that it was concerned that DFID would not be able to properly monitor the Bank's allocation of these funds to different investment projects. The Dutch have got around this by a process of ring-fencing, as I indicated a moment ago. My wrap-up question here is: what is the rationale for relying so heavily on the World Bank as a channel for funding when some developing countries have expressed, in some cases quite pungently, concern about the Bank's track record on the environment?

Mr Grainger-Jones: Perhaps if I could follow up on that follow-up question. In a sense, there were a number of elements to that. Perhaps taking them as I understand the question, yes, we agree that the GEF systems to access Global Environment Facility projects need to be streamlined and improved. We are working with the GEF secretariat and other Council members to reduce the transaction costs, and there are a number of ways we are trying to do that. Secondly, we are major financiers of the Global Environment Facility. We are the fourth largest donor, providing £140 million to the latest replenishment, and actively engaged in the upcoming replenishment, so it is not as if we are not funding GEF. We also provide funding to GEF-specific trust funds such as the LDCF⁵ fund which provides money for adaptation. We have met our commitments to financing that fund. Nevertheless, when we designed the Climate Investment Funds we saw scope to pilot new ways of financing climate change that currently do not sit within the way in which GEF is designed because we wanted to pilot these ways of financing climate change with a view to informing how we design the GEF of the future, and indeed the wider international architecture of the future. Also in terms of the scale of finance that we were providing and the time window we had to allocate that expenditure, we saw a clear role for the World Bank. We do not see it as a poverty-enhancing measure to restrict what the World Bank does on

environment and not to make efforts to improve the World Bank's overall specific activities on the environment. We see it as an instrument among many, and I think given the emergency situation we have on climate change we would want to use a number of organisations internationally, not only the World Bank. It does not make sense to exclude one or other when indeed there was so much interest by the World Bank in engaging actively on this agenda.

Q270 John Bercow: If I may say so, the normal response in these circumstances is almost a cultural or social phenomenon, which is to nod sagely at the outpouring of information that has just been volunteered in one's direction. I feel a bit sheepish about saying what I am about to say. It may be that the assembled multitudes listening will think this fellow really is frightfully stupid and slow-witted and bone-headed, and they may be right, but I have to say that although I regard your answer, both in terms of comprehensiveness of content and eloquence of flow, as quite unsurpassable, I am very sorry to have to tell you that I am absolutely none the wiser on the subject of the World Bank. I am going to have a final go. As I say, it may very well be my stupidity and not your lack of clarity. Let me put it to you like this: you described the governance arrangement of having the majority of developing country members on the trust fund committees of the World Bank Climate Investment Funds as, as you put it, extremely novel. This may well be the case for World Bank institutions and it might well be quite a novel approach but it does, with respect, have clear precedence under the UNFCCC, for example on the board of the Adaptation Fund, so I come back, if I may, to my rather persistent and thus far unanswered question: why is DFID and the UK so keen on the World Bank? What is going on? I am not a conspiracy theorist but I am not quite sure as to the reason for the love affair.

Mr Foster: Mr Bercow, I genuinely do not have anybody saying to me in discussions let us look at sending money through the World Bank route as the preferred option, so I do not think we are in love and certainly there is no conspiracy within DFID to prop up the World Bank this way. We are keen to encourage the World Bank to reform what it does. The international architecture does need to be looked at closely to get a decent 2012 regime in place, but we are also keen to look to deliver on the architecture through the multilateral development banks as well. I do not think that we are putting all our eggs in one basket of the World Bank, far from it. We are looking at the full range of players who will be involved and have the potential to exert a lot of influence.

Q271 John Bercow: Minister, Mr Grainger-Jones and Mr Randall, you will be mightily pleased to know that my sequence of rather pedestrian enquiries is reaching its conclusion but I have just got one question that I must put to you. What in your judgment are the strengths and weaknesses of

⁵ Least Developed Countries Fund

the proposal put forward by the Group of Least Developed Countries for an International Air Passenger Adaptation Levy as a means of raising funds for adaptation in developing countries? The related point is how will the Government ensure that tourism to developing countries is not adversely affected by any new measures agreed to mitigate greenhouse gas emissions in the aviation sector?

Mr Foster: We think that global tax mechanisms can provide a way in which additional funding can be raised to deal with adaptation. Clearly there are then going to be challenges on mitigating any adverse impact that it might have in the tourism sector that you mentioned. There is a tension that clearly exists between the development and growth potential of tourism. We know what contribution it can make to international currencies within the developing world. What we also know is that it is a major contributor, and increasingly aviation is a rapidly growing contributor, to greenhouse gas emissions, so there is a tension and a balance there, and we think that the global tax mechanism is one way in which we can raise additional funding. In terms of what we can do to mitigate the impacts on tourism and the effect it might have on tourism, we are looking currently at a scheme in South Africa to promote the concept of fair trade in tourism to make sustainable tourism an attractive option. I think Defra are doing some work in Mexico that, Andrew, you might want to mention, and in terms of the Caribbean we are also looking at working with specific projects there about how do we have a discussion about dealing with this seeming conflict between wanting to reduce the emissions from aviation compared to wanting to use tourism as one of the tools, although not the only tool, of promoting economic growth. Andrew, you might want to say something about Mexico.

Mr Randall: Yes, it is worth adding that under the Sustainable Development Dialogues that Defra leads with the Plus Five countries there are projects on a number of different issues, but with Mexico specifically there has been a discussion around sustainable tourism and how might we develop models for tourism which are beneficial for economic development, poverty eradication, and in the interests of indigenous people, at the same time minimising the environmental impacts, whether that is climate impacts or indeed impacts on eco-systems and biodiversity. That work is on-going but the intention is that that should produce recommendations which could be replicated elsewhere so it would potentially serve as a model which we could then discuss with other countries internationally. In addition there has also been some work going on with Forum for the Future looking at what a sustainable tourism model might look like for the UK's outward bound tourism. We are going to be drawing up a strategy and action plan for that later on this year.⁶

John Bercow: Thank you very much.

Q272 Chairman: It would be remiss of us not to pass on to you the very express concerns of the Tanzanian department of tourism about UK aviation taxation on long-haul flights. They are already suffering a downturn and they say that increasing that taxation would (a) reduce the number of tourists and (b) reduce the share of the tourist expenditure that accrues to Tanzania as opposed to the UK Exchequer. They felt that this should be taken into account. The point they also make is that the revenues they get from tourism are substantially used to fund the conservation of the wildlife which the tourists are actually going to see. I am not asking you to comment, I appreciate that it is a Treasury decision but, as I say, it would be very remiss of us not to mention what is a very explicit concern expressed to us by the Tanzanians.

Mr Foster: Chairman, the point has been noted and as a Department we have also had conversations with countries in the Caribbean, where we have a close standing relationship, who also fear the impact of any changes in aviation taxation.

Q273 Chairman: If aviation taxes are agreed in Copenhagen would they be specifically directed towards developing countries? Is that the sort of form of proposal that is being worked up and being considered or being recommended?

Mr Foster: I am not certain that a formal proposal is being worked up ahead of Copenhagen along these lines. I can certainly find out where discussions are on that front and refer back to the Committee, but I genuinely do not know whether that is part of the plan.

Q274 Chairman: Of course if the money were going into adaptation funds that would obviously be less reprehensible than going into the Exchequer.

Mr Foster: I understand the logic of the line of questioning.

Q275 Hugh Bayley: A couple of years ago the former Secretary of State, Hilary Benn, caused a bit of furore just before Valentine's Day by encouraging people to buy flowers from East Africa because of the development benefits and because the carbon emissions of the flowers were lower. A lot of environmentalists threw up their hands in horror. We have seen the Cranfield University study that worked out that hothouse flowers grown in the Netherlands had six times the carbon emissions of Kenyan products. Just so the public and consumers in particular are better informed, has the Government been looking at the possibility of some form of carbon labelling of produce?

Mr Foster: First of all, you are right to point out the controversy that was raised. In 2007, DFID chose Valentine's Day to really make the point of the impact on a developing country growing flowers and being paid for the growth of the flowers, but actually it was Pascal Lamy⁷ last year who also confirmed that Kenyan flowers air freighted emitted a third less

⁶ Mr Randall meant to say the aim is for this work to inform forum for the future's development of a strategy and action plan for later on this year.

⁷ Director-General of the World Trade Organisation

29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall

CO₂ than those grown in a hothouse in the Netherlands, so that argument is still there. It is incredibly complicated though when it comes to dealing with food. I am not certain whether adding to the burden of labelling is necessarily the right way forward. We certainly have not had any great calls upon DFID to put further labelling on produce, but in terms of the overall issue about informing the consumer, I genuinely think that it is a thoroughly interesting area that we should be exploring. We do a little thing on our website which is not so much a game but something you can work through to find out whether you are a smart consumer on that front, and it does challenge people to look at the whole cycle of a product rather than just the transportation element of a product and, quite frankly, that will apply to an awful lot of products that we have and it will give rise to tensions here in the UK between the argument to buy local produce to support local farmers, without consumers necessarily knowing what the climate change impact will be of that decision, let alone the developmental impact that that will have.

Q276 Hugh Bayley: Here is a simple solution. I agree with you that you do not want to burden the system with regulation unnecessarily, but given that a lot of African horticulture starts with a lower carbon content anyway than greenhouse-grown European produce, have DFID and other donors considered the possibility of using DFID resources to buy carbon offsets for horticulture from Africa to enable it to be sold as carbon zero or carbon neutral produce, which would be much easier to label? You might be able to establish an ethical consumer buying pattern that says, "I am going to go for one of these developing country products providing it has got this carbon zero label on it." Does that make any sense at all?

Mr Foster: I can understand the logic of the approach and wanting to have rational consumer choice exercised when it comes to the buying decision to actually make a difference. The success of Fair Trade labelling has obviously sparked off the thought of using this as a way in which consumers can exercise their market power to then drive change through the whole supply chain. I understand the logic of that. I am not certain that we have gone into the detail of buying carbon offsets for that purpose in mind, but we do think that there is a role to play in informing consumers about the whole rationality of the decision that they make. I accept totally that that is a longer term outcome, Mr Bayley, but at the moment we are certainly getting no pressure to deliver that type of label. I do not know if Defra have got anything.

Mr Randall: I just wanted to add that Defra is working quite closely with DFID on food security issues generally, including food security internationally, to develop increased production capacity internationally while maintaining environmental sustainability, but also, yes, domestically, food security. To be very clear, since you mentioned UK farmers, Defra's position is that

UK food security is about diversity of supply and sustainability; it is not about self-sufficiency. We are very much on the same lines as DFID are on this. One can look at the possibilities for labelling schemes but we are not interested in crude measures like food miles. It just does not do the trick. It does not take account of social and economic sustainability nor, as you have said, does it take account of the full GHG impact across the life cycle.

Q277 Chairman: Anecdotally, and other members of the Committee may have the same thing, I have explained what we saw at a flower farm in Kenya and how low carbon it was and a number of people have simply said, "Then I can buy my flowers in Tesco," the implication being that they were a bit reluctant to buy them because they thought they were high carbon when in fact they are low carbon and pro-poor as well, so it does suggest that something that advertised that fact would have a significant benefit in terms of consumer perception.

Mr Foster: I accept totally that there is this educational process that we have to go through to explain to consumers like the ones you have mentioned who can then make a better-informed choice as to the products that they buy. It is a discussion that I have in Worcestershire which is a market garden area, and the impact of decisions to buy beans from Kenya that it might have on agricultural industry locally. If you try to look at the climate change aspects, all people do focus in on, unfortunately, is the aviation side. They do not look at the fact that growing things in a greenhouse is contributing enormously to climate change.

Chairman: If Mr Quentin Davies were here, he would remind us of Ricardo's Law of Comparative Advantage which is being exploited but not always understood.

Q278 John Bercow: I do not know if you are familiar with it, Minister, but it is a theory that perhaps I need to develop at some reasonable length and perhaps I could submit a memo to the department. He is a distinguished ministerial colleague of yours now of course but he used to entertain the Committee on the subject of Ricardo's Law as well and Ludwig von Mises and Alfred Marshall!

Mr Foster: I would be going back in my studies of economics but they are familiar individuals, shall we say.

Q279 Chairman: Mr Bercow did stun Hilary Benn with a rendition of his father in one Committee session which I do not think we need to repeat. There is a particular point about tourism which is something we have also looked at. First of all, DFID does not really engage very much in promoting tourism. A point that has been made by the ODI, however, is that 80 % of low income countries include tourism in their Poverty Reduction Strategy so one of the broader questions is to what extent does DFID take account of tourism development as part of its Poverty Reduction Strategy? Is it something that it should revisit? In that context can

29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall

I say that attending a seminar on tourism sponsored by the UN World Tourist Organisation I was stunned, and indeed rebuked for it from the platform, by the fact that the British Government is withdrawing from membership of this organisation, which I have to say I found astonishing. It costs apparently €330,000 a year. There are 150 country members of which the UK is about not to be one. It was DCMS who were the sponsor and they decided that it was too expensive. Does DFID have a view on this and indeed would DFID be prepared to take up that membership? I am sure that our report will reflect that it seems to us quite shocking that we are withdrawing from such an important organisation.

Mr Foster: May I ask if I can go away and look into this particular aspect and come back to the Committee as soon as I possibly can.

Q280 Chairman: It seemed to be the case that one sponsoring department took a decision but it does not appear to have been a Government decision, just a departmental one.

Mr Foster: Let me have a look, Chairman, to see what we can do.

Q281 Hugh Bayley: To tag a point on to that, it struck me that in East Africa there are some forms of tourism which are a great deal better than others in terms of the pro-poor focus and indeed in terms of the environmental impact. It did cross my mind that it would be a good thing to encourage some fair trading classification of tours offered for sale in developed countries so that consumers could put their tourism pounds behind better rather than more damaging tours. The difficulty is that there are, we were told, dozens of different tourism classifications for quality of hotels and the way staff are treated and carbon consumption. Would it not make sense for the Government to advocate a simpler system so that consumers really knew which of the logos or rosettes matter and could therefore make more rational choices? Incidentally, would that not be a good reason for the UK to maintain a presence in the UN World Tourism Organisation so that we could advocate a more rational classification system?

Mr Foster: On the concept of having a better label or recognition or trademark of what is a green or sustainable tourist package that somebody might want to buy, I think you are absolutely right and the Foreign Office actually is supporting the establishment of a green rating system already for the hospitality industry in South Africa and they want it to be operational by the 2010 World Cup. This is a direction with which the Government would concur.

Q282 Chairman: Is there a case for DFID re-engaging in tourism, not because the promotion of tourism requires DFID's engagement, but is the extension of pro-poor tourism something that would be legitimate for them to promote, following Mr Bayley's point?

Mr Foster: We do not necessarily think that we have any comparative advantage in tourism as a department compared to other countries who do tend to lead more on tourism compared to ourselves, so it is a conscious decision that we do not promote ourselves as a major sales team for the benefit of tourism.

Q283 Hugh Bayley: Could I come back. The Minister has kindly said that he will look at the World Tourism Organisation issue specifically, and perhaps he can look at the bundle of issues that we are putting to him on tourism. The Dutch Government certainly has taken a much greater interest in tourism and development, and I understand the Minister's view about sharing out the responsibilities on development policy rather than have every donor replicating work that others are doing. Given that DFID takes a very strong interest in explaining its work to the public in Britain, where you do have good work done by another reputable development agency would it not make sense to seek in the UK as one of DFID's jobs to disseminate that information? For instance, just as an example, one of the things that I learned from the Dutch in East Africa is that by far the most pro-poor part of a European tourism package to East Africa is the handicraft sector and the local culture, where the money you spend on handicrafts goes almost entirely to poor people whereas the money you spend on food in a restaurant will go largely to an international company.

Mr Foster: First of all, I think there is some scope for DFID to support as part of our growth policy perhaps niche markets within the tourist sector that might need some support, and a Challenge Fund approach may well be a good incentive to help private industry within the developing countries engage better in promoting a pro-poor aspect to tourism. I think there is scope there. On the general promotion of tourism and the dissemination of what we do as a Department, you are probably aware of the *Developments* magazine that the Department produces. In January 2010 the edition is dedicated to tourism. Although we are not a major player in tourism—we leave that to other countries—we have not forgotten that it has an important role to play in terms of development, and that magazine is featuring tourism.

Q284 John Bercow: How is DFID assisting poor people to access appropriate low-carbon, affordable technologies to provide their basic energy needs?

Mr Foster: In terms of the agreements that we want to get, one of the key development tests that the Secretary of State has laid out ahead of Copenhagen, one of them in particular, is to support the ability to diffuse low carbon technologies to developing countries. We think that has got to be part of whatever comes out in Copenhagen. In terms of specific on-going operational programmes, Elwyn, I think you have got one or two that you might want to mention.

Mr Grainger-Jones: There are a few initiatives that we are working on. The Sustainable Renewable Energy Programme (SREP) is a fund that we are working with other donors to design. It is part of the Climate Investment Funds.

Q285 John Bercow: What is its value?

Mr Grainger-Jones: It depends how much the donors will contribute and we have not yet had the pledging meeting. I believe we are looking at a £25 million contribution, subject to it being satisfactorily designed. There is also the Global Village Energy Partnership (GVEP) which is a UK-based NGO which provides support to small businesses to provide basic energy products. We are also working with ESMAP⁸, a World Bank programme, to provide information and support at a country level. As the Minister said, there is also the overall framework to incentivise the development of low carbon technologies internationally which we hope the Copenhagen agreement will provide.

Q286 John Bercow: Of course some of these initiatives, which are by way of being at a formative stage, adjudged by your talk about pledging meetings and what people will contribute, and the emphasis very much on the future tense, nevertheless will result, I assume, from discussions that you have had with, amongst others, energy companies. One would assume that some of the discussions that you have been having will have been with these energy companies. Far be it for me to sniff at or diminish the significance of what has already happened, but would it not be a broadly accurate summary of the status quo to say that people think that this is a jolly good idea and discussions have been held about what a jolly good idea it is. In support of this jolly good idea, funds will be required, and all of the discussants think that it is indeed a jolly good idea that funds should be contributed, but it is perhaps not quite such a jolly good idea that they themselves should be expected to contribute all that much, or at any rate not until they have discovered what somebody else is going to contribute. It may be that I am drenched in cynicism, Mr Grainger-Jones, but I just have a hunch that as is very common in multilateral initiatives, and with some justification, not just by companies but by governments, that institutions are slightly reluctant to show their hand and to say, "We will contribute X," until they have got a sense of what others are prepared to contribute. I think it would probably be chronically unfair of me to use the words "long grass" to suggest that this is where these initiatives currently reside, but, equally, might it be fair to say that though conception is well-advanced, execution is still some way off? If you will forgive me, I had a sense there was quite a lot going on but I did not have a huge sense of urgency about these important matters.

Mr Grainger-Jones: From my perspective there is a great deal of urgency in terms of really ramping up the assistance that is being provided, as we set out in

our memorandum. There has been a surge of activity especially over the last few years to step up the provision, for example by setting up the Clean Technology Funds (CTF), which was a brand new initiative which from design to concrete programming has been developed very quickly. It was a 6 billion commitment to provision of funding to that initiative at the G8 last year. We are already providing our first contribution. In addition, the fund that I was just talking about, GVEP, has been up and running for a few years. ESMAP is up and running. SREP from design to pledging, and one hopes to programming, will be pretty rapidly developed. It is not an overnight thing especially if we are going to work with developing country partners to design them. It is something that we will hope to see designed from its conception about six months ago. We hope to finalise that within the next few months and get some pledging actually to start the programme.

Q287 John Bercow: Right, that is intriguing, because there was I, probably misguided fool that I am, thinking that there are three phases here, one was the conceptualisation of the scheme, the second was the pledging and the third was the implementation. I had missed out the fourth spoke which you neatly introduced in programming, so it is actually conceptualisation, pledging and programming, and what I am tentatively inclined to ask you is: at what point when all the conceptualising, which is very important, all the pledging and all the programming has been done do we actually get to the point where some resources might hit the street? In other words, it was helpful for you to say what you did in elaborating timescales about the next few months et cetera, but would I be a Panglossian optimist if I expressed the hope that in 12 months' time you might be able to come to this Committee and to tell us, with all guns blazing so to speak, with great alacrity, the first X million pounds-worth of funds had actually been distributed?

Mr Grainger-Jones: I think the CTF will start delivering projects this year. We are happy to provide the Committee with further information on what GVEP has been doing and, similarly, with ESMAP. I would just make the point that if we are spending taxpayers' money and that is being programmed in quite complex and difficult environments, designing those projects is not an overnight activity but, just to assure the Committee, certainly the urgency is there in the way that we are managing these funds and at an international level we are pushing for rapid deployment.

Q288 John Bercow: It literally occurred to me off the top of my head—and I really do not doubt the Department's commitment and I do not think there is any difference on that between us—that it is broadly analogous to something that the late John Biffen once said in a different context. I remember John Biffen when he was Chief Secretary of the Treasury saying that in terms of dealing particularly with constraining or cutting or restricting public

⁸ Energy Sector Management Assistance Programme

29 April 2009 Mr Michael Foster MP, Mr Elwyn Grainger-Jones, Lord Hunt of Kings Heath
and Mr Andrew Randall

expenditure you have to run very fast to stand still, the point being that there are all sorts of statutory obligations and expenditures that have to be made whether the government likes it or not, so the scope for discretionary expenditure or restriction thereof is comparatively limited. You just have to work incredibly hard to stand still. I sometimes feel that in these multilateral initiatives where you are having to engage with some other governments and perhaps some private sector institutions, it is quite Kafkaesque. Every time you take a step forward and think you are nearer the castle you find that you are a step further away. In a sense, one has to remind oneself to go harder and faster. My final question, if I may, is this: we have been looking at it very much in terms of what we are doing for these chaps and chapesses in a slightly British imperialist model of how we must help these people, et cetera. There is no doubt something to be said for that but often the most appropriate low carbon technologies for poor countries are developed by the countries themselves, so the other element of the equation about which I would like briefly to ask you is how DFID supports South-South knowledge transfer on such technologies?

Mr Grainger-Jones: In terms of the South-South aspect, some of that South-South transfer of technology does not need government support or public subsidy. The progress of China and India in developing their green technology industries is quite remarkable, so some of that is already happening. I guess the key aspects for us are, firstly, developing the overall framework so that, essentially, there are incentives internationally such that carbon is priced

such that those investments take place and prices decline. For example, we are hoping that with continued use the solar price will start declining and it will become more affordable for small communities to purchase solar and implement it. Secondly, we are looking quite actively at whether we can support capacity at a national level in terms of low carbon innovation. That is happening through a number of levels, working with governments on their overall policy, working out whether they have got the staff required to work with the private sector on this and also supporting multilateral development banks.

John Bercow: That is extremely helpful, thank you very much. I have to leave and there is no discourtesy intended because I have rather enjoyed this session.

Chairman: We must finish and you cannot go because we would be inquorate.

John Bercow: We must hear the Prime Minister and the Rt Hon Member for Witney, I am all agog, beads of sweat on brow. We must see Prime Minister's questions!

Chairman: Thank you very much. You will appreciate that what we are looking at is practical identifiable measurable outcomes that will actually deliver. I also would say that you have offered a number of information follow-ups.⁹ Can I point out that we are working and our staff are working now to produce the report to a very tight timetable to conform to the White Paper consultation deadline, so anything you give us as quickly as possible, we would appreciate it. Thank you and thank you, in his absence, to Lord Hunt.

⁹ Ev 199

Written evidence

Written evidence submitted by the Department for International Development (DFID)

EXECUTIVE SUMMARY

The UK believes that sustainable development and good environmental management are key to poverty reduction and meeting the MDGs. We take a multi-disciplinary approach to sustainable development, which we are integrating across our international work.

The UK has worked both at country level and through partnerships internationally to support better environmental management and better governance of environmental resources such as water, forests, fisheries, biodiversity and land. We have learnt a lot about what works well and why. We have learned that for development to be sustainable, there needs to be sound governance systems in place, services supplied by the environment that are valued and costed and political will and leadership.

Climate change is an additional layer of stress on developing countries, magnifying existing threats and stresses, exposing the dependence of the poor on natural resources, making the achievement of sustainable development even harder, and threatening to push great numbers of people into poverty.

For the UK, the changes—environmental, social, economic and political—brought about by climate change have meant a shift in the way we organise ourselves, in the way we approach sustainable development, and in the way we work. This memorandum outlines our approach, which is:

- To play a leadership role internationally on climate change negotiations—to agree to a credible, fair and ambitious deal in Copenhagen in 2009, which puts an understanding of development and the needs of developing countries at the heart of an international agreement.
- To facilitate the transition to a low carbon global economy and ensure that this does not slow the growth of developing countries and that poverty reduction is sustainable in a carbon-constrained world.
- To help protect the most vulnerable from the inevitable impacts of climate change—both through international fora and through our bilateral work at country level.
- To renew our emphasis on environmental management and sustainable development—with a particular focus on agriculture, water management and forest management—building on lessons learned and new political spaces/opportunities created by climate change.

We have only a year to reach an agreement on a framework for climate change once the Kyoto protocol ends. This is a momentous challenge, which the UK has risen to, expanding considerable efforts and resources. We work closely with our international partners, recognising that this is a new challenge for all of us that requires constant learning as we progress.

LIST OF ACRONYMS

AUC	African Union Commission
BRICS	Brazil / Russia / India / China / South Africa
CASM	Communities and Small Scale Mining Initiative
CBFF	Congo Basin Forest Fund
CCAA	Climate Change Adaptation in Africa
CCSAP	Climate Change Strategy and Action Plan
CDM	Clean Development Mechanisms
CEIF	Clean Energy Investment Framework
CGIAR	Consultative Group on International Agricultural Research
CIFs	Climate Investment Funds
ClimDev	Climate for Development in Africa Programme
CO _{2e}	Carbon Dioxide Equivalents
CTF	Clean Technology Fund
DANIDA	Ministry of Foreign Affairs, Denmark
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DFID	Department for International Development
DRC	Democratic Republic of Congo
EBRD	European Bank for Reconstruction and Development
ECOSOC	UN Economic and Social Council
EITI	Extractive Industries Transparency Initiative
ESMAP	Energy Sector Management Assistance Programme
ESPA	Ecosystem Services for Poverty

ETC	European Travel Commission ETF Environmental Transformation Fund
ETS	Emissions Trading System
EU	European Union
FCO	Foreign and Commonwealth Office
FCPF	Forest Carbon Partnership Facility
FLEGT	Forest Law Enforcement, Governance and Trade
GEF	Global Environment Facility
GHG	Emissions Green House Gas Emissions
GLOFAC	Global Carbon Finance
GoB	Government of Bangladesh
GPAF	Global Partnership for Agriculture and Food
HMG	Her Majesty's Government
ICTSD	The International Centre for Trade and Sustainable Development
IFC	International Finance Corporation
IFI	International Financial Institutions
IIED	International Institute for Environment and Development
IISD	The International Institute for Sustainable Development
IPCC	Inter-Governmental Panel on Climate Change
IPR	Intellectual Property Rights
JPOI	Johannesburg Plan of Implementation
KPCS	Kimberley Process Certification Scheme
LDCs	Least Developed Countries
LDCF	Least Developed Countries Fund
LICs	Lower Income Countries
MDBs	Multilateral Development Banks
MDGs	Millennium Development Goals
NAPAs	National Adaptation Programmes of Action
NGO	Non Governmental Organisation
OCC	Office of Climate Change
PATA	Pacific Asia Travel Association
PPCR	Pilot Programme for Climate Resilience
RECCs	Regional Economics of Climate Change Studies
REDD	Reduced Emissions from Deforestation and Degradation
SAWI	South Asia Water Initiative
SCCF	Special Climate Change Fund
SCF	Strategic Climate Fund
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
VPA	Voluntary Partnership Agreement
WWF	World Wildlife Fund
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation
WTTC	World Travel and Tourism Council

SECTION 1: SUSTAINABLE DEVELOPMENT IN A CHANGING CLIMATE

The UK's approach to sustainable development

1. The UK can claim a long standing commitment to the environment and sustainable development. At the 2002 World Summit on Sustainable Development (WSSD), the UK was instrumental in making the case for greater integration of the environment with development objectives. The Summit clearly articulated that the poor are dependent on the environment for their livelihoods and that they are particularly vulnerable to environmental change, such as floods, droughts and other natural disasters.

2. The UK's White Paper on International Development¹, published in July 2006, emphasises the centrality of sustainable development and good environmental management to DFID's overarching goals of poverty reduction and meeting the MDGs. It integrated the principles of sustainable development across a broad range of DFID's work include governance and building effective states, conflict prevention, and promoting sustainable growth. In his preface to the White Paper, the Secretary of State wrote that "the most important challenge of all will be managing our world sustainably and fairly".

¹ Eliminating World Poverty: making Governance Work for the Poor, UK White Paper on International Development, July 2006.

3. Sustainability has many dimensions—economic, social, environmental and institutional—all of which are important. For the UK, sustainable development enables “all people throughout the world to satisfy their basic needs and enjoy a better quality of life, without compromising the quality of life of future generations”². Our approach to sustainable development is multi-disciplinary to reflect the complex and diverse realities faced by poor people. Livelihoods are sustainable when they:

- are resilient in the face of external shocks and stresses (eg food prices, rainfall variability, etc.),
- are not dependent upon external support,
- maintain long term productivity of natural resources,
- do not undermine the livelihoods of others.

4. The UK’s priorities for sustainable development are set out in its Sustainable Development Strategy “Securing the Future” (2005) and DFID has further articulated them with respect to international development in its Sustainable Development Action Plan (June 2007). Securing the Future includes five core principles:

- 1) Living within environmental limits.
- 2) Ensuring a strong, healthy and just society.
- 3) Achieving a sustainable economy.
- 4) Promoting good governance.
- 5) Using sound science responsibly.

Progress towards Sustainable Development

5. There have been successes for the UK and the international community as more people have been lifted out of poverty since the 1992 Rio Earth Summit than perhaps any 16 year period in world history. Yet progress towards MDG 7 on environmental sustainability has been mixed. Evidence suggests that there is still a long way to go before we reverse the loss of environmental resources.

6. The UK has worked both at country level and through partnerships internationally to support better management of environmental resources such as water, forests, fisheries, biodiversity and land. We have learnt a lot about what works well and why. We have made significant progress in particular in managing environmental information and knowledge, strengthening environmental governance, addressing underlying institutional challenges and providing specific sectoral support to “what works well” (this is explored in section 5).

7. We have found that investing in getting the right information to the right people can have a much higher return for our funds than more traditional projects. The UK is therefore investing heavily in making information transparent and in voluntary codes of conduct.

BOX 1: EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE (EITI)

One highly successful example is the Extractive Industries Transparency Initiative (EITI), which we initiated in 2002. This supports verification and full publication of company payments and government revenues from oil, gas and mining. It currently works in more than 20 countries helping to ensure that some of the three and a half billion people who live in natural resource-rich economies get a greater share of this wealth. With leadership from the government of Azerbaijan, the UN General Assembly officially recognised the importance of this work this year.

8. We have also been successful in helping poor people gain better access to land rights, which is critical for the effective management of local resources. For example, in Cambodia, where 80% of rural households do not have formal land title, DFID supported the introduction of land rights which have been shown to increase agricultural productivity by as much as 60%.

² Securing the Future, UK Government sustainable development strategy, March 2005: http://www.defra.gov.uk/sustainable/government/publications/pdf/strategy/SecFut_complete.pdf

9. We have developed effective “Sustainable Rural Livelihoods” programmes, based on an analysis of the capital assets (physical, social, human, natural and financial) from which the rural poor derive their livelihoods, and taking into consideration the vulnerability and risks that people face, local policies and constraints and the institutional environment (see Box 2).

Box 2: RURAL LIVELIHOODS PROGRAMME IN INDIA

DFID’s rural livelihoods programme in India (£142.5 million) works with the governments of Andhra Pradesh, Orissa, Madhya Pradesh and West Bengal. It supports poor rural communities to strengthen local governance and to manage resources, access assets, services and opportunities to generate income and reduce vulnerability and risk. Women and socially excluded tribal and caste groups living in remote areas are particularly targeted.

This programme has been very successful. In Andhra Pradesh for example, it has contributed to lifting 1.3 million out of poverty.

10. The UK has also invested in research to fill the knowledge gap in critical areas for sustainable development and to support developing countries in addressing the challenges that face them (see Box 3).

Box 3: UK SUPPORT TO KNOWLEDGE GENERATION

Tackling global sustainable development is at the heart of DFID’s Research Strategy (2008–13), which focuses on sustainable agriculture, health, growth and addressing conflict in fragile states.

We are investing up to £1 billion on development research over the next five years, to help to address global challenges likely to affect poor countries and poor people the most—such as climate change, population movements, and rising oil and food prices. This will include research into the valuation of natural resources as well as looking at how political processes, policy reform and institutional issues affect natural resources management.

The DFID-supported Ecosystem Services for Poverty Alleviation (ESPA) research programme will tackle complex problems associated with the sustainable management of ecosystems, for poverty reduction. The work builds on the findings of the Millennium Ecosystem Assessment. It will help developing countries to formulate and manage successful research projects, and develop better tools to assess ecosystem services and their impacts on human well-being.

The challenge of Growth and Valuing Environmental Assets

11. Despite these successes, we know that, as a planet, we are living beyond our environmental means³. The world today is facing more environmental stress than ever before. Economic growth, which is the single most powerful means of lifting people out of poverty, and which, accounts for 80% of all poverty reduction over the past quarter century, has often been built on naturally-derived wealth and associated with environmental degradation—which can offset and surpass the welfare gains from growth, leaving the poor worse off. As the international Commission on Growth and Development noted, it is a myth that developing countries can grow now and worry about the environment later⁴.

12. Yet, it is important to note that it is not growth *per se* that causes environmental degradation, but poor policies and practices, such as ineffective regulation, taxation or property rights.

13. The means of addressing the demands of economic growth on the environment—eg through appropriate regulation—are well understood. However these are more often not applied or implemented, in part because the range of valuable services supplied by the environment have not been fully understood or costed. Many environmental services—clean water and air, fertile soil and other services provided by natural systems—have been perceived as freely available by those who consume them the most.

³ See UNEP’s Fourth Global Environment Outlook at <http://www.unep.org/geo/> and Millennium Ecosystems Assessment at <http://www.millenniumassessment.org/en/index.aspx>

⁴ <http://www.growthcommission.org>

14. The UK has looked for opportunities to encourage our developing country partners to better understand the economics of natural resources management and to build sustainable growth strategies (see Box 4). For natural resource dependent countries in particular, this has meant:

- Significantly increasing the amount of quality information available to policymakers on how natural resources and environmental services support economic growth;
- Providing specific and practical policy advice on measures necessary to sustain economic growth in the medium to long term;
- Strengthening both the amount and quality of the dialogue between Ministries of Finance and Environment/Natural Resource Ministries.

BOX 4: EXAMPLES OF UK WORK ON VALUING ENVIRONMENTAL RESOURCES AND GROWTH

In Tanzania, the UK worked with UNDP to help the Government to better integrate environmental management in its National Strategy for Growth and Poverty Reduction. As a result, 14 per cent of targets across key areas of the Strategy relate to environmental management.

The DFID/World Bank-supported economic assessment of the contribution of natural resources to Ghana's growth has led to a long-standing engagement with the Ministry of Finance on the costs of environmental degradation. Natural resources were found to generate 25% of government revenues. This initiative led to constructive engagement with the Ministry of Finance on the costs of environmental degradation—calculated to be 10% of GDP per year—and on the importance of using natural resources sustainably for improved long-term growth prospects.

15. Despite these efforts, national systems for environmental management remain largely under-funded in national budgets. DFID is making the case for more environmental funding through the budget process. The shift towards aligning donor support behind developing country priorities presents specific opportunities to do this.

The threat of climate change

16. Climate change is putting extra pressure on the sustainability of eco-systems and other natural resources that are already suffering the consequences of growing global demand driven by rising consumption and population growth. Climate change is exacerbating environmental degradation, further exposing the dependence of the poor on the natural environment and compromising their resilience and ability to adapt. Climate change impacts are likely to push greater numbers of people into poverty. The 2007 Human Development Report argues that, unless serious action is taken to prevent and prepare for climate change over the next decade, by the second half of the this century we may no longer be talking about how to speed up progress towards reaching the MDGs, but how to slow reversals.

17. Climate change is an additional layer of stress on developing countries, magnifying existing threats and stresses, and making the achievement of sustainable development even harder. The impacts of climate change will be exacerbated by other, simultaneous, stresses such as conflict, state fragility, population growth and exposure to global economic shocks.

The urgency and opportunity of climate change

18. It is evident that climate change, environmental degradation and development are inter-connected and necessitate action both specifically on climate change and on wider environmental issues. For example:

- Climate adaptation depends, inter alia, upon the sustainable use and management of natural resources, including forestry, agriculture, water and marine and coastal ecosystems;
- Mitigation of greenhouse gas emissions through avoided deforestation needs to complement sustainable forest management and help deliver co-benefits, especially biodiversity, as well as sustainable livelihoods;
- Land use change and agriculture unless done in an environmentally sustainable manner can contribute to increased emissions, and add to water stress.

19. While climate change is the biggest long term threat to the environment, it is also an opportunity to put environmental sustainability firmly back on the agenda. Various studies on climate change—and notably the Stern Review—have galvanised political interest and created the political space to take forward some pressing environmental issues across developed and developing countries. Climate change is a significant opportunity to conserve forests, for example.

20. For the UK, the changes—environmental, social, economic and political—brought about by climate change have meant a shift in the way we work and in the way we approach sustainable development. Our approach has been:

- To renew our emphasis on environmental management and sustainable development—with a particular focus on water management and forest management—building on lessons learned and new spaces created by climate change.
- To play a leadership role internationally on climate change negotiations—working to ensure that any global agreement on climate change is “development-friendly”.
- To lead the way in trying to understand what low carbon development can mean for developing countries and to help them begin to respond to the challenge.
- To help protect the most vulnerable from the inevitable impacts of climate change and to ensure that all of our bilateral programmes are “climate-resilient”.

21. For the UK, the imperative of climate change has further reinforced that we need to work coherently across sectors and government departments. The policies that we implement domestically on issues such as trade, migration, or national carbon emissions have a major impact on sustainable development in developing countries.. We have a strong cross-Whitehall partnership that helps us shape all UK policies in the service of sustainable development (see next section).

A transformation across HMG

22. Climate change has required a shift in the way the UK thinks about and “does” sustainable development, so that it supports a low carbon and climate resilient path. It has also required a step change in the resources and efforts we expand on working on sustainable development in general and on climate change in particular. This is a vast challenge—and an ever-evolving one as the science and knowledge-base are expanding and the tools/mechanisms for addressing this are being designed and refined. We work closely with our partners in developed and developing countries to make this happen and we are all learning as we progress.

23. In recognising the importance of climate change and its link to energy supply, the Government has announced important changes to the responsibilities of DEFRA, and to BERR, and created a new Department of Energy and Climate Change (DECC). DECC leads on climate change and international negotiations and coordinates the Whitehall effort on international climate change.

24. In recognition of the need for inter-departmental coordination on policy, strategy and programmes, the government has set up a series of official and ministerial-level working groups and boards that address all aspects of international climate change. The Cross Whitehall Board for the Environmental Transformation Fund is a very good example of cross Whitehall working (see Box 4a).

BOX 4A: CROSS-WHITEHALL WORK ON THE ENVIRONMENTAL TRANSFORMATION FUND

The day to day management of the Environmental Transformation Fund—International Window (ETF-IW) is led by a secretariat, made up of DFID and DECC officials, which prepares project plans and policy papers and coordinates the UK’s engagement with the Climate Investment Funds (see box 8).

A Cross-Whitehall working level virtual team provides strategic and technical advice on the day-to-day running of the programme and meets weekly.

The ETF-IW is governed by a cross-Whitehall senior officials’ board, made up of DFID, DECC, HMT, FCO and Defra. Cabinet Office and No.10 are invited as observers.

25. DFID, as the department responsible for international development, is cascading climate change objectives through its planning and monitoring tools; right from the White Paper and Public Service Agreement down to individual work plans.

BOX 5: DFID’S DEPARTMENTAL STRATEGIC OBJECTIVE (DSO) AND INDICATORS ON CLIMATE CHANGE AND ENVIRONMENTAL SUSTAINABILITY

DSO2: Promote climate change mitigation and adaptation measures and ensure environmental sustainability

Indicator 6: Policies and programmatic approaches developed for effective climate change mitigation and adaptation measures in developing countries, along with coherent international support for both.

Indicator 7: Environmental sustainability integrated into programmes

26. DFID's Climate Change Implementation Plan further sets out what each division and region will do in policy and programme terms on adaptation and low carbon development. As a minimum, DFID's policies and programmes should be climate resilient. DFID has developed a tool for assessing climate risks to its programmes. We have conducted assessments of its programmes in Bangladesh, India, China and Kenya, and how to address the risks identified. We are sharing lessons from this process with other donors, including the multilateral development banks.

27. DFID has significantly scaled up its efforts on climate change by setting up a new department called the "Climate and Environment Group" in its Policy and Research Division. It has built teams around the global framework, low carbon development, and adaptation, and it has brought in specialists from other government departments and upgraded generalist and specialist skills in DFID through tailored learning and development. These new pools of capacity act as a hub within DFID and partner organisations to develop policy, strategy and drive change internationally and within each organisation.

28. To further integrate an improved understanding of sustainable development and climate change in the way that we work, DFID is launching a "Making DFID climate smart" initiative, which will integrate thinking about low carbon and climate-resilient development throughout the work of the department. This initiative will ensure that DFID has the right resources, systems and communications in place to deliver on climate change and that DFID staff systematically make the link between climate change, sustainable development and poverty reduction.

29. Through this initiative, DFID will work to ensure that it has the right skills in the Department to take forward work on low carbon and climate-resilient development, and that all staff are able to access the information, training, policy advice and operational guidance they need to mainstream climate change thinking in their work.

30. DFID also is also increasing the number of staff working specifically on climate change issues, with eleven new posts in country offices in Bangladesh, Brazil, Caribbean, China, Ethiopia, India, Mozambique, Nepal, South Africa, Tanzania/Kenya and Vietnam. DFID is also looking longer term at the mix of skills needed across the international development community and the role of training, secondments and recruitment of experts on sustainable development and climate change in meeting these.

31. A key part of the FCO's work is reframing the international debate on climate change. In order to do this, the FCO has developed a large network of attaches specifically working on climate and energy in posts across the world. It has also set up six campaigns aimed at creating the political conditions for an equitable deal in Copenhagen in December 2009. These campaigns include the Equity campaign, which seeks to ensure that the voices of the most vulnerable countries are heard more clearly in the global debate on international climate change negotiations. The FCO has also created the post of UK Climate Security Envoy for Vulnerable Countries, which is co-located in DFID. The FCO and DFID have joint offices working on climate change in a number of countries, including India and Brazil.

SECTION 2: NEGOTIATING A FAIR AND EQUITABLE CLIMATE DEAL

32. An immediate priority for the UK is to achieve a fair and credible global deal on climate change in Copenhagen in December 2009. The deal agreed in 2009 will frame ensuing work on climate change, as emissions targets agreed and agreements on financing in particular will impact on developing countries' development options.

33. However, the challenge of delivering an effective global approach to tackling climate change goes beyond the treaty itself. The right policies, incentives, capacity and knowledge also need to be in place to help developing countries participate in securing and implementing the deal.

34. The UK has five key sustainable development objectives for the global deal, namely:

- A long-term goal with credible near-term targets that keeps any temperature rise to below 2 degrees C;
- A way of sharing greenhouse gas emissions that is fair and equitable;
- Support for developing countries to build their resilience and adapt to climate change;
- Support for technology development and transfer that benefits developing countries based on their needs and circumstances;
- A reformed carbon market that expands the reach and impact of carbon finance.

Agreeing a long term goal and credible interim targets

35. A long term goal sets the ambition for all climate policy. It provides clarity on the degree of action required and the risks (ie scale of impacts) we are prepared to accept. It can be used to guide mitigation and adaptation efforts, and provide predictable signals for investors.

36. The UK is seeking to agree, at the UNFCCC meeting in Copenhagen in December 2009, a comprehensive, global and long-term framework for addressing climate change that puts us on a pathway compatible with limiting the global average temperature increase to no more than 2°C above pre-industrial levels. This translates into peaking of global emissions by 2020 and reducing emissions by at least 50% by 2050, compared to 1990 levels.

37. A failure to achieve an ambitious goal would be a terrible outcome for developing countries: a significant rise in temperatures would lead to even greater costs in terms of adaptation.

Allocating the Global Stabilisation Target

38. Because there are many different potential trajectories that can be used to reach the same goal, agreement on the long term goal needs to be supported by an agreed-upon emissions trajectory—with a fair and effective balance of efforts required between different countries.

39. The UK's Office of Climate Change (OCC) has estimated that, on their Business-as-Usual trajectory, by 2030 developing country emissions alone will exceed the global total consistent with a stabilisation trajectory. There is no doubt that, to stabilise global emissions at a safe level, developing countries will need to mitigate⁵.

40. However, developed countries will need to take the lead and take on binding commitments to reduce their emissions by 25–40% by 2020 compared to 1990 levels. The more of mitigation developed countries commit to, the less developing countries will need in time to undertake. If all developed countries committed to reducing their emissions by 80% by 2050, it would allow developing countries' emissions to peak later and fall by less.

41. Different allocation rules do not benefit all developing countries equally. Reaching agreement on an allocation will be a major political challenge. The UK's position is based on the principle of common but differentiated responsibilities and respective capabilities. Work is underway in Whitehall on the developmentally optimal approach to allocating the global emissions reduction effort consistent with "safe" climate change. The more a methodology is based on current levels of emissions, the less space developing countries will have for their emissions to grow. This risks extending current inequalities into the future. It is important that emissions allocations do not limit poor countries' potential to grow their economies.

A fair deal on adaptation⁶

42. Climate change is already a reality, and so adaptation must be considered a priority and be part of the Copenhagen agreement. Adaptation needs to be integrated into both private and public investment decision-making at all levels—local, national and global. Provision for adaptation in a future framework should be consistent with the principle of "common but differentiated responsibilities".

- Developed countries should improve access to new, additional and predictable financial flows; help developing countries build the capacity to meet their commitments; integrate adaptation into bilateral and multilateral development programmes; and support the availability of climate information, models, methods and tools and planning and practices, so that developing countries can properly evaluate risks and vulnerabilities.
- Developing countries should produce climate resilient plans and budgets, recognising the need to prioritise cost effective adaptation measures; ensure an enabling environment to promote climate resilient investment; ensure that assistance is available to the poorest and most vulnerable; and share knowledge, experiences and data within and between regions to help other countries adapt.

Stepped Up Support on Technology

43. The development, diffusion and deployment of low carbon and climate resilient technologies are essential to both mitigation and adaptation efforts—this will require an unprecedented global partnership involving developed and developing countries. The most effective way to drive investment in new and existing low carbon technologies, and stimulate the transfer of know-how and technological capacity, is the creation of a global carbon market combined with ambitious caps on emissions and policies to drive investment towards low carbon technology.

44. In support of the above, action needs to be taken to ensure scaled up, predictable, mobilised and better oriented financial flows to support mitigation and adaptation.

⁵ This is a result of the modelling using the OCC's Global Carbon Finance (GLOCAF) model.

⁶ Section 4 analyses the UK's approach to international adaptation more fully.

How will the UK achieve this?

45. Climate change is a political problem as much as an economic, security, environmental and development problem. We need leadership to articulate this as a “grand project” that is imperative—but also achievable. The UK is working hard to ensure that the political and economic conditions are in place by December 2009 that will enable us to secure a successful outcome in Copenhagen. UK officials are integral members of the European Union working groups that work up the EU position for the UNFCCC negotiations. We have also sought for climate change to be raised in Environment, Finance and General Councils.

46. Developing countries need a strong voice in the UN climate change negotiations to ensure they get a fair deal, and the international community can support them to engage effectively. Without this voice, high level targets will be set by the major emitters rather than those most at risk. The UK is supporting the European Capacity-Building Initiatives, which supports negotiators from developing countries to engage effectively in the negotiations process. However, developing countries’ ability to shape the negotiations remains weak. So we are scaling up our support, in particular, by providing developing country decision makers and negotiators with neutral, unbiased information to help them develop country-specific/regional positions; supporting LDC negotiators to engage fully in the negotiations; and supporting developing country journalists and NGOs to attend and report on the negotiations. We have also supported developing country negotiators bilaterally, for example by funding a group of experts to advise the Pakistani government on negotiating positions, or through funding additional experts to delegations in Bangladesh and Nepal.

Financing—issues and opportunities?

47. The private sector will deliver the bulk of the funding for mitigation activities, primarily through the carbon market (see below). But there is a clear role for public money in filling the gap until the market can deliver, creating the right investment climate, and supporting adaptation.

48. Public finance will be particularly crucial for adaptation, as there is no inherent market mechanism to drive private investment into adaptation activity in developing countries. Some of the costs of adaptation are likely to be met from domestic sources. But this will need to be supported by international finance, especially for the poorest and most vulnerable countries. We therefore expect public money to play a larger role in supporting adaptation than in supporting mitigation—now and for the foreseeable future.

49. Action needs to be taken to ensure scaled up, predictable, mobilised and better oriented financial flows to support mitigation and adaptation. This needs to be done efficiently, effectively and equitably. We need to bring in International Financial Institutions, the private sector and finance ministries into discussions, learning from existing initiatives such as the Global Environmental Facility (GEF) and the Climate Investment Funds (CIFs).

50. The real challenge will be ensuring that climate finance is integrated with finance for development—both for low carbon growth and for adaptation. A number of countries have put forward proposals for ways of raising new public money—the UK is looking at these proposals carefully. We are also considering different types of instruments for delivering finance for climate change, and their governance. The key will be to develop a delivery model that can deliver at the scale and pace required, with governance that is representative, legitimate and competent.

Carbon trading

51. The UK government considers a global carbon market is the key to securing the long term shift to low carbon economies. By placing a price on carbon and reflecting the true cost to society of greenhouse gases, emissions trading will drive global emission reductions at lowest cost (key to making ambitious goals politically acceptable), and stimulate business to innovate and to invest in low carbon technology and energy efficiency by rewarding those who take action. In only a few years we have built the foundations of a global carbon market which encompasses many developed countries and much of the developing world. According to World Bank figures, the carbon market is now worth approximately \$64 billion per annum, of which \$7.5 billion flows directly to developing countries through the Clean Development Mechanism.

52. The EU Emissions Trading Scheme (ETS) is a cap and trade scheme covering around 50% of the EU’s CO₂ emissions. It is currently the major source of demand and the driver of the growth in private sector participation in the market. It is the cornerstone of the EU’s policies to meet its emissions reduction targets under the Kyoto Protocol. The scheme covers the largest emitters such as power stations and energy intensive industries such as iron & steel production.

53. Developing country participation in the carbon market is through the Clean Development Mechanism. The CDM enables rich countries to meet their targets at least cost by investing in emissions reductions projects in developing countries; and it promotes sustainable development in developing countries. There are currently over 1,200 registered projects with a further 4200 projects in the pipeline which are projected to reduce over 2.9 GtCO₂e of emissions by 2012. CDM projects occur across a wide range of

sectors and gases, with 64% of reductions coming from projects involving renewable energy, fuel switching and energy efficiency. The World Bank estimates that in 2007 alone the CDM has leveraged \$33 billion for investment in clean energy.

54. Despite its successes, the CDM is burdened by problems including an unequal geographic distribution of projects, high transaction costs, and difficulties in proving that projects are additional. Given that this is an entirely new and innovative market created solely through regulation, there is an ongoing process of evolution and learning by doing. Countries with large volumes of emissions available at lowest cost eg China, India, and Brazil have been the most successful at attracting carbon finance flows. Low income countries have been less successful at attracting CDM investments in part due to their low emissions profiles, limited capacity to implement projects, weak institutions and poor investment climates.

55. Africa accounts for only 2% of the project pipeline—less than their share of developing country emissions (4–5%). In recognition of this the Nairobi Framework was launched as a multi agency effort to scale up carbon finance in Africa. The UK government is supporting this effort in Africa through working with the UK private sector to establish AfriCarbon—an initiative intended to work closely with local project developers to get projects off the ground. Other initiatives to improve the operating environments in LICs such as the Investment Climate Facility are also important for this. For carbon finance to deliver real long term benefits for LICs, it needs to be aligned to their energy access needs.

56. As a project based offset mechanism, the CDM does not deliver any additional emissions reductions beyond the rich countries' targets and it is difficult to scale up. The UK government is working closely with partners to develop proposals to scale up emissions reductions and carbon finance flows post 2012. The intention is to closely align carbon finance with national development plans, to increase participation by LICs through moving from a project to programmatic level, and to expand the sectors covered by the market.

BOX 6: REDUCING EMISSIONS FROM DEFORESTATION AND DEGRADATION (REDD)

An agreement on an incentive mechanism for reducing emissions from deforestation and degradation (REDD) under the UNFCCC, offers the opportunity for cost-effective mitigation and low carbon economic growth in tropical forest developing countries. The UK is working with other countries and key stakeholders, including the World Bank and the UN, to mobilise support for early demonstration activity and to help ensure a successful decision on a mechanism to incentivise REDD in Copenhagen in 2009. The UK has committed £15 million to supporting demonstration efforts under the World Bank's Forest Carbon Partnership Facility (FCPF). The FCPF aims to build developing countries' capacity to engage in a future REDD mechanism and tests ways of making payments in return for emissions savings through the sustainable management of forests, in the period up to 2012.

SECTION 3: LOW CARBON DEVELOPMENT

57. We need to promote patterns of international development that are consistent with the challenges that climate change will present for developing countries.

58. Low carbon development refers to patterns of development that achieve economic and social development while ensuring a reduction in greenhouse gas emissions consistent with stabilising global emissions at a safe level.

59. This matters for all countries, even the poorest countries with emissions below 3 tons CO₂ per capita since carbon constraints in the rest of the world will have an impact on their trade opportunities, the sort of foreign investments that can be attracted and their potential to sell future emissions rights.

60. There can be no blue-print for what this pattern of low carbon development will look like. It will vary a country's level of development, its distribution of poverty and vulnerability, the structure of the economy, the anticipated impacts of climate change and the particular vulnerability or resilience the economic, social and political structures are to these impacts, and anticipated future sources and opportunities for cost-effective abatement.

61. HMG's understanding of low carbon development takes as a given developing countries' need for sustainable economic growth: low carbon development cannot be at the expense of sustained economic growth, particularly in the poorest countries. Economic growth not only has a critical role to play in reducing poverty⁷ but also in helping poor countries adapt to the impacts of climate change. As such, low carbon development must enable economic growth consistent with both mitigation and adaptation: low carbon growth and climate resilient growth. As a minimum low carbon development should not leave countries more vulnerable to the inevitable impacts of climate change and, ideally, should help increase their resilience to these impacts.

⁷ <http://www.dfid.gov.uk/pubs/files/growth-policy-paper.pdf>.
<http://go.worldbank.org/N365JLK0K0> <http://go.worldbank.org/TC26UFESJ0>

62. Yet conventional economic growth has historically been associated with an increase in greenhouse gas emissions that drive climate change. The UK is therefore working to understand, identify and support patterns of economic growth that break this link between growth and rising emissions. This is a very new area of work, and very little information exists. The UK has taken a lead in funding research into what low carbon growth can look like in developing countries, and what policy frameworks are needed to bring this about (see Box 7). Our approach is to focus on opportunities opened up by low carbon growth and to support developing countries to seize those opportunities.

BOX 7: UK-FUNDED RESEARCH AND ANALYSIS ON LOW CARBON GROWTH

- The UK has funded studies in China, India and Brazil through the Centre for Clean Air Policy http://www.ccap.org/docs/resources/62/CCAP_Developing_Country_Project-Synthesis_Report_Nov_2006_.pdf
- The UK has contributed £3.4 million to the World Bank's trust fund for the CEIF and much of this has contributed to the cost of the studies in China, Brazil, India, Mexico and South Africa organised by the World Bank.
- The UK has funded the Regional Economics of Climate Change Studies (RECCS), which have been seeking to explore alternative mitigation scenarios for key countries and developing regions and the costs and benefits of adaptation.

Developing Country Challenges

63. A certain amount of mitigation—through improving energy efficiency—will actually help promote economic growth and so low carbon development. Beyond that, developing countries face uncertainties working out what the optimal low carbon trajectory is for them. Developing countries do not know how much mitigation is in their own interests and how soon or by how far they may be called upon to mitigate⁸ (see section 2 on negotiations). Countries are concerned that many actions or technologies to reduce their emissions are very costly, and that unless they can find external finance to cover these additional costs, then mitigation would require them to reduce spending that could otherwise promote or sustain economic growth.

64. This leaves developing countries, and middle income countries in particular, with a dilemma. They are reluctant to mitigate sooner than they need to because it may well be at the expense of economic growth. Moreover, it may also be more expensive than later mitigation, as they can expect the cost of new technologies to fall. But, pursuing business as usual patterns of growth risks locking them into high carbon infrastructure (in eg power or transport sectors) which have economic lives typically lasting decades. If, as many can expect, they need to take action on their emissions in coming decades, then this new, high carbon infrastructure will call for costly retrofitting or early retirement.

65. Much of the UK's work on low carbon development will help developing countries better understand the dilemma they face and so help them make better informed decisions.

Promoting low carbon growth through technology and trade

66. The extent to which developing countries can promote low carbon growth will be dependent upon the technology available to them. Whereas some countries will develop their own technical solutions, most will have to attract and diffuse technology from other countries. It is expected that much technology transfer and diffusion will take place between private companies. Both carbon finance and, potentially, international trade are therefore relevant to this.

Technology

67. Many of the technologies needed to decouple emissions from economic growth already exist. Most, however, currently cost more than conventional fossil fuel based options, although this difference decreases when lifetime costs are considered.

68. The World Bank estimates that the additional cost of lower carbon technologies in the power sector alone will be in the region of \$30 billion a year in non-OECD countries. At present the additional private and public costs to developing country economies are met by IFI and donor grants and loans, carbon finance (such as through the Clean Development Mechanism), domestic borrowing or increased prices for consumers, but these are unlikely to be sufficient on their own.

69. The importance of technology policy to long-term climate change mitigation objectives is increasingly recognised. Both developed and developing countries need to develop, adapt and deploy a wide range of new and existing low carbon technologies, many of which will create new growth and job opportunities for

⁸ The international negotiations have so far largely focused on developed country emissions—but we know that, globally, mitigation by developed countries alone will not be enough to stabilise emissions.

developing countries. However, the technology debate within the UNFCCC negotiations is focused primarily on the issue of “technology transfer”, with highly polarised views between developed and developing countries on what this means. At one end is the view that developed countries should provide unconditional support for financing new pieces of kit in developing countries. At the other end is the expectation that developed countries should have total control over all financial expenditure in developing countries.

70. The UK’s work on this area aims to reframe the debate on technology transfer by developing a clearer understanding of the importance of technology policy in achieving our long-term mitigation objectives, and the role of developing countries, and development institutions, in delivery. Lord Stern argues that alongside getting a robust international price for carbon, technology policies are needed to incentivise private sector-led innovation, demonstration and rapid deployment of existing new technologies. The UK is working closely with development partners to bring forward fresh ideas for what a future technology agreement should look like, and how it can be made to benefit developing countries. This will need to cover issues such as the coordination of global RD&D (particularly for technologies considered to represent a significant “global public good”, such as CCS), greater collaboration with developing countries on new technology development, treatment of intellectual property rights (IPR), and greater progress on international product standards.

International Trade

71. One of the most fundamental ways in which the UK can support environmentally sustainable development is through reforms to international trade policy. Most goods traded with developing countries are derived from natural resources, providing opportunities to promote the sustainable use of those resources while also ensuring a fair deal for the poor.

72. Trade has a significant role to play in low carbon development by facilitating and accelerating the development and diffusion of low carbon goods, services and technologies. The liberalisation of the global market for low carbon technologies and other environmental goods and services can minimise transaction costs for users of these technologies and incentivise investments. For example, the WTO Committee on Trade and Environment associated with the Doha Development Agenda is looking at ways to reduce tariff and non-tariff barriers for a range of low carbon products, such as wind turbine parts and photovoltaic cells. Removing tariff and other barriers encourages diffusion of sustainable technologies, the skills needed to use them and further innovation.

73. The UK is working to ensure that the global framework of trading rules is consistent with the development of a low carbon economy, by ensuring a clear and consistent relationship between global trading rules and international environmental rules and agreements, including a post-2012 framework. In taking forward the trade and climate change work, the UK has a three pronged approach:

- Expanding the global knowledge base on trade and climate change through research programmes with i) Chatham House research on border tax adjustment, standards, IPR, special economic zones technology needs of non-BRICS; ii) The International Institute for Sustainable Development (IISD) on fossil fuel subsidies, and; iii) the International Centre for Trade and Sustainable Development (ICTSD) on the run up to Copenhagen.
- Supporting developing country networks and capacity through ICTSDs global platform on trade and climate change.
- Influencing the developed and developing world at the political and business level through political engagement on trade and climate change in the run up to Copenhagen.

74. The UK has established a cross-government Trade Policy Unit to increase coherence in Trade and Development policies. The Trade Policy Unit’s priorities for Trade and Climate Change include:

- Promoting concepts (eg Low Carbon Zones) that can complement the goals of Copenhagen;
- Reassuring business that tackling climate change can be compatible with competitiveness;
- Seeking to liberalise trade in low carbon goods through Doha and FTAs (or potential stand-alone/pluri-lateral agreements);
- Developing a better understanding of perceived/real barriers to technology transfer including IPR and working to reduce concerns;
- Promoting the benefits of harmonised standards that are mutually acceptable to developed/developing nations; and
- Using existing fora and mechanisms to promote trade measures that support our climate change objectives—this includes WTO, EU, FTAs, Multilateral Environmental Agreement, World and EU standard setting bodies, the World Intellectual Property Organisation etc.

How else is the UK helping to deliver low carbon development and growth?

75. The UK is working to better understand low carbon development, to help reduce the uncertainties developing countries face, and to help them begin to respond to the challenges. This work takes place at a number of levels—nationally, bilaterally and multilaterally—and with a range of different actors:

How we work in Whitehall

76. In Whitehall, DFID and OCC have been collaborating on understanding what low carbon growth is likely to mean in practice for different types of developing countries, including through a joint stocktake of studies into low carbon growth (most either directly or indirectly HMG-funded—see Box 7).

77. We work closely with the UK academic community and with NGOs, funding research and drawing on the research evidence base to inform policy.

How we work bilaterally

78. The UK is actively working on low carbon growth with rapidly industrialising countries (eg Brazil, China, India, Indonesia, South Africa). In these countries our priorities are to engage with the host government on issues such as low carbon growth, their participation in the Clean Technology Fund (see below) and preparation of their country investment plans, and incorporating low carbon development objectives into our bilateral programmes.

79. In low income countries where DFID has a presence, we are working to mainstream low carbon development thinking into our country programmes. In Malawi, for example, we have recently inputted to the energy chapter of the Country Economic Memorandum. Energy emerged as a major constraint to growth in Malawi, and we have worked with the Government of Malawi to explore a number of low or zero carbon options for expanding power provision in a way that is complementary to the country's broader objectives on power sector reform.

How we work multilaterally

80. The Clean Energy Investment Framework (CEIF), set up by Multilateral Development Banks, has as one of its goals to help accelerate public and private investments in clean energy. It has started to stimulate the increased finance needed to make sustainable energy investments more viable propositions. At the G8 this summer, Summit Heads welcomed the forward programmes of the MDBs, which are expected to result in at least \$117 billion over the next three years in new global energy investments, including leveraged financed from private sector sources.

Since 2006, the UK committed \$30 million to support the MDBs deliver their Clean Energy Investment Frameworks.

81. The UK has played a pivotal role in the design of the multi-donor, World Bank administered, Climate Investment Funds, or CIFs (see Box 8). The UK supported the World Bank and worked with other donors to design and establish the Funds to meet the objectives of providing co-ordinated short term finance to tackle the climate challenge and to pilot approaches for the longer term. The UK £800 million Environmental Transformation Fund—International Window (ETF-IW) will part capitalise these funds. The funds represent collaboration between Multilateral Development Banks (that will act as implementing agencies), donors and recipients to address the climate change learning and financing gap between now and 2012. They have been designed to complement and support other key initiatives including the Adaptation Fund (created under the UNFCCC), the Global Environment Facility and the UNFCCC, which will play an important role in the governance of the funds. The funds avoid climate based conditionality and include a sunset clause so that they do not pre-empt future financing arrangements.

BOX 8: THE CLIMATE INVESTMENT FUNDS (CIFs)

The CIFs are comprised of: the Strategic Climate Fund—with spending programmes on adaptation (the Pilot Programme for Climate Resilience (see section 4, Box 13); forestry and renewable energy; and the Clean Technology Fund, which will stimulate ambitious clean energy projects by topping up existing finance from public and private sources. The Strategic Climate Fund will provide a forum to receive lessons from the different programmes, to be discussed and disseminated to inform the development community and the climate change negotiations. The funds were approved by the World Bank board in July 2008, endorsed by the G8 at the Hokkaido Summit, and now have \$6.1 billion in pledges from 10 donor countries. The funds' design includes an innovative governance structure: each fund has a Trust Fund Committee and each programme a Sub-Committee, all of which have equal representation from donor and recipient countries with decisions on the use of funds made by consensus. Activities carried out under the CIFs will be country-led and integrated in countries' development strategies.

82. The UK is working to encourage the MDBs to make the most of the CEIF and CTF to support the more ambitious goals of their client countries, shifting their business away from continued financing for run-of-the-mill high carbon emitting projects. MDB concessional finance is a form of public subsidy giving it a special place in energy policy. Increasingly we will be looking to the MDBs to set an example in the standards they apply.

83. In addition to new capital resources, we have engaged with the World Bank Group on the development of its Strategic Framework on Climate Change, which was agreed at the World Bank's Annual Meetings in October 2008. It includes new targets on increasing lending to cleaner energy projects. It provides a framework for the integration of climate actions into the World Bank's country, regional and sector strategies and operations. We will continue to push the World Bank and the other MDBs to go further. We are also providing targeted resources to support new climate change posts within the MDBs.

84. Finally, we are working to ensure that our annual contribution to the Energy Sector Management Assistance Programme (ESMAP), which is housed within the World Bank, is used to support the integration of low carbon development objectives into its research and analysis. ESMAP plays an important "think-tank" role within the World Bank Group and beyond, and will be key to mainstreaming low carbon developing thinking into MDB lending operations.

SECTION 4: ADAPTATION

85. Just as climate change threatens development, development is the most credible response to the impacts of climate change. Prosperity and economic progress are the best protection for vulnerable communities. Countries with well-educated people, good infrastructure and the wealth to cope with climatic shocks will fare best.

86. But development in a changing climate needs to factor in climate risks, recognising that climate change will be felt through sectors that rely on natural resources, and which form the basis of people's livelihoods. Additional actions may be needed in certain sectors, and to assist particularly vulnerable people.

BOX 9: APPROACHES TO ADAPTATION

Adaptation means different things to different people. The Intergovernmental Panel on Climate Change (IPCC) describes climate change adaptation as "adjustments or changes...that might ultimately enhance resilience or reduce vulnerability to observed or expected climate change". DFID has evolved this definition and has identified three distinct strands to climate change adaptation; targeted adaptation, vulnerability and resilience. An effective approach to adaptation combines all three.

Targeted adaptation. Targeted adaptation involves implementing discrete and specific measures in anticipation of expected climate change impacts eg activities such as risk assessments on the impact of climate change on planned and existing infrastructure, and amending of building and planning regulations eg building on flood plains may need to be restricted.

Vulnerability. Vulnerability focuses on assisting particularly vulnerable people through additional actions such as:

- Disaster Risk Reduction aims to make poor people less vulnerable to natural hazards and more resilient to all types of disaster.
- Livelihood diversification is also an example of a response to vulnerability, as the poor often rely on a single source of income.
- Social protection, including short term safety nets and longer term measures to combat poverty. Safety nets, such as cash transfers or food aid are important mechanisms to protect poor people from the impacts of floods or droughts, allowing households to take initiatives that incur some risks, but bring potentially higher returns.

Many of these approaches to vulnerability contribute both to longer term climate resilience and to supporting the most vulnerable.

Resilience. Resilience refers to a society's or ecosystem's ability to withstand environmental shocks. Effective and rapid development is the best adaptation—strong institutions, education, health, infrastructure and a diversified economy all strengthen resilience. But resilience also requires a recognition that climate change will be felt through sectors that rely on natural resources, and which form the basis of people's livelihoods. Examples of interventions include: improving national capacity around water resource management; effective fisheries policies; considering climate impacts in agricultural policy-making, including around livestock; and addressing the causes of deforestation and forest degradation.

87. Integration of climate resilience into development planning is the most effective way for countries to adapt. National governments in developing countries need to make adaptation an integral part of development planning—rather than treating it separately or as an "add on".

88. The range of adjustments countries are likely to have to make in response to climate risk is shown in Box 9.

89. In order to achieve climate resilient development, developing country governments need the following:

- Information on what climate change impacts will look like for them, and what tools are available to respond with;
- Support for capacity and incentive building so that they can respond to the challenge of adaptation, and are given incentives to do so in a way that integrates adaptation into core development planning;
- Finance that helps meet additional costs of making development climate resilient in poorest countries from adequate and predictable sources, and allocates it according to need. There is currently too little finance available for adaptation to climate change.
- International institutions reform (such as the UN and multilateral development banks), where each institution plays to its comparative advantage.

90. The international community has a role to play in all four of these areas. In the short-term this will involve supporting developing countries within the international negotiations, and pressing for a deal at Copenhagen that meets the needs of the poorest and most vulnerable. In the longer-term, this means working on the ground to understand more about how adaptation works best in practice, and supporting the implementation of the global deal.

The UK is increasing access of developing countries to climate information and tools

91. We support the provision of better climate information. For instance, we have provided consultancy and advice to help develop the Climate for Development in Africa (ClimDev) Programme, to improve information on the impacts of climate change across Africa. This would help countries identify actions they need to take to build resilience and adapt. The programme would be implemented by the African Union Commission (AUC), United Nations Economic Commission for Africa (UNECA) and the Africa Development Bank, and we anticipate it would start in early to mid 2009.

92. Another example is UK support for the South Asia Water Initiative (SAWI) which brings together seven countries that share rivers that drain from the Himalaya (Afghanistan, Bangladesh, Bhutan, China, India, Nepal and Pakistan). The initiative aims to improve cooperation over water sharing through building knowledge, relationships and institutions. We are supporting improved access to climate change knowledge and approaches in individual countries too, including Nepal, Bangladesh and Pakistan.

93. We support a range of regional and sectoral research initiatives, such as £130 million of core support to the 15 international research centres of the Consultative Group on International Agricultural Research (CGIAR). This will support a range of programmes addressing adaptation to climate change, like breeding drought-resistance maize in twenty countries with potential direct benefits to over 320 million people. We are also supporting a research and capacity development programme in Africa—see case study 1 (Box 10) below.

94. The true costs of adaptation are poorly understood, so the UK (DFID) is jointly funding work with the World Bank, the Netherlands and Switzerland on the Economics of Adaptation. This study is looking at Bangladesh, Vietnam, Ethiopia, Mozambique, Ghana and Bolivia. Results are due in the second half of 2009, and will be used to help inform the UNFCCC negotiations in Copenhagen next December. We are also supporting initiatives at country and regional level, such as an economic and social analysis of the costs of climate change to Afghanistan, South-East Asia, the Caribbean, Brazil, Central America, South America and East Africa.

BOX 10: CLIMATE CHANGE ADAPTATION IN AFRICA (CCAA)—RESEARCH AND CAPACITY DEVELOPMENT PROGRAMME

This five year programme is helping African researchers and policy makers to identify practical ways that rural and urban people can adapt to climate change. For example, this includes looking at how to cope with more extreme weather in agriculture and shifting patterns of disease such as malaria. DFID is contributing £24 million to the programme. Examples of its work are:

- How small scale farmers in Ethiopia, Kenya, Sudan and Tanzania can modify working practices to cope with increased drought.
- How farmers in Zambia could adopt new agricultural practices, such as using different crop varieties and improved technologies to deal with a more variable climate.
- Malaria epidemic prediction in Kenya and Tanzania in response to changes in climate so that health officials can intervene more effectively.

95. The UK is also currently working with international partners to enable delivery of a set of research and tailored advisory services on climate change and development. The aim is to enable developing countries to access and use high quality, timely, and relevant research and information on climate change, to build the capacity of developing countries in climate research, and to provide the basis for transformational policy-making on adaptation and low carbon development.

96. We will ensure that our approach is flexible enough to adapt to and support any global framework emerging as a result of the Copenhagen negotiations, and will be subject to regular review.

Capacity-building and incentives

97. Developing country governments need the capacity to do the following if they are to respond effectively to the challenge of adaptation:

- develop their capacity to understand potential climate impacts at national, region and local levels—bringing in climate and hydrological modelling, analysis of trends and local knowledge. Climate science is relatively young and it is evolving rapidly; access by policy makers and practitioners to up-to-date scientific information, and to tools to adapt them to their work, is essential;
- assess risks and vulnerabilities, develop adaptation options, prioritise the most cost effective ones, and integrate them into core policies, in consultation with key stakeholders; and
- ensure that eventually all parts of government are considering climate risks alongside other risks and opportunities when they do their planning, and incorporate risk mitigation actions into all climate sensitive activities.

98. The UK is supporting capacity-building in developing countries on all these fronts through multilateral and bilateral channels. At the multilateral level, we are the second largest donor to both the Least Developed Countries Fund (LDCF) (£10 million over 2008–09) and the Special Climate Change Fund (SCCF) (£10 million over 2005–07). These are international funds held under the financial mechanism of the UNFCCC (the Global Environment Facility, or GEF). The LDCF is helping the poorest developing countries develop National Adaptation Programmes of Action (NAPAs), and the SCCF supports adaptation activities in developing country Parties to the Convention. We are also giving £140 million over 2006–10 to the GEF Trust Fund, which focuses on global goods.

99. As a board member, and through start-up funding, we are also supporting the design and implementation of the Adaptation Fund. This is a new instrument under the UNFCCC which will use money from international carbon trading (a 2% levy on the Clean Development Mechanism) to provide additional finance for countries' adaptation priorities. We are working hard to get the Fund up and running and to move it from project support to a more programmatic approach.

100. The UK works bilaterally to promote an integrated approach to adaptation and development planning. In some countries we are working bilaterally to help countries go beyond vulnerability assessment and a list of urgent adaptation priorities, to a more comprehensive adaptation strategy and putting in place institutions to oversee this. For example:

- In Malawi, DFID is working with UNDP and Norway to support the government in developing its Strategic Framework on Climate Change. This will build on the government's NAPA and coordinate and drive existing and new government and donor action on climate change. We will support the government to get better information about climate risks, gather practical experience of adaptation and low carbon development and use then use this information to facilitate dialogue with a range of stakeholders in developing the Strategic Framework.
- In Ghana, DFID is working with the World Bank, Netherlands, France and the EC to support the Ghanaian Government to plan programmes in forestry, environmental protection and minerals. This includes developing a national strategy to cope with impacts of climate change, eg on cocoa production and coastal infrastructure.
- In Tanzania, DFID is helping build government capacity in climate change and environment as part of a UN-led joint donor programme.
- In Bangladesh, DFID supported the Government to develop a climate change strategy and action plan that explicitly sets out the need to integrate this work into mainstream development planning. The strategy will be supported by donors through a multi-donor trust fund and by the multilaterals with IDA. These funds will be overseen by a high level steering committee, which will seek to coordinate climate change projects supported by different forms of funding. It is expected that eventually this will lead to complete integration of climate change in development planning. See case study 3 for more information.
- In Nepal, we are funding the government to develop its NAPA with UNDP and Danida. We are encouraging them to learn from the experience of other countries' NAPA processes, and to produce a high level strategic framework for action, as well as immediate priorities in a NAPA. It is expected that government, civil society and donors will then be able to harmonise their support behind the framework.

101. The UK believes that the global deal should include support for capacity building on adaptation, and that the way finance is provided should allow countries to move from a project approach to adaptation (as illustrated by NAPAs), to a more strategic, national plan (as Bangladesh has recently done), and eventually to full integration of adaptation into national planning and budgeting. This experience will inform long-term adaptation practice in country, not least through lessons that will inform the global deal in Copenhagen next year. The global deal should build on the lessons learned from aid effectiveness, enabling country-led planning, and supporting the integration of adaptation responses into national development planning and budgets. The UK is testing this transformational approach to adaptation practice through the Pilot Programme on Climate Resilience (PPCR—see below and Box 13 for more detail).

Adaptation Finance

102. The UK currently provides finance for adaptation through multilateral and bilateral channels. At the multilateral level, we fund the UN through the GEF, LDCF and SCCF and (through our start-up funding) the Adaptation Fund.

103. We also contribute funding through our IDA contributions to the World Bank (International Development Association lending, which focuses on the poorest countries). Our IDA contribution was significantly scaled up last year (£2.134 billion, against a contribution of £1.430 billion in the previous replenishment round), partly in recognition of the need to respond to climate change impacts through development aid.

BOX 12: SUPPORT BANGLADESH'S 10 YEAR CLIMATE CHANGE STRATEGY

- The UK helped Bangladesh develop a 10-year Climate Change Strategy and Action Plan (CCSAP) building on the National Adaptation Programme of Action (NAPA). CCSAP was launched at the Climate Change Conference co-hosted by UK (DFID) on 10 September 2008.
- UK support through UNDP provides technical assistance to the GoB Climate Change Cell, which facilitates capacity building across Government and civil society, and action research on climate change.
- By lifting 60,000 island homesteads onto raised earth platforms over the past two and a half years, around 300,000 people and their possessions have been protected from severe monsoon floods. These raised homesteads are the first line of defence against severe floods that will occur more frequently due to climate change.
- Through its community based interventions, the Comprehensive Disaster Management Programme helped some 500,000 vulnerable people by raising cluster villages above high flood levels, building flood and cyclone shelters, building embankments, and providing training on climate resilient livelihoods.
- DFID Bangladesh is one of the first country offices to pioneer a screening study to identify climate vulnerability of its existing portfolio. Some of the recommendations of this study are already being implemented (eg, plinth raising in the chars).
- DFID Bangladesh in collaboration with FCO, DECC and DFID's Policy and Research Division, has developed an HMG Climate Change Strategy for Bangladesh.

BOX 13: PILOTING TRANSFORMATIVE APPROACHES—THE PILOT PROGRAMME FOR CLIMATE RESILIENCE (PPCR)

The UK is providing multi-donor support for lesson-learning on adaptation through the PPCR. Approximately one third of the UK's £800 million Environmental Transformation Fund (ETF) will be allocated to the PPCR, and supplemented by funds from other donors. It will:

- deliver country-led programmatic funding at scale in five to ten highly vulnerable countries to enable them to go to the most advanced level—integrating resilience into core development planning and budgeting;
- provide crucial lessons on how to invest in climate resilience through national development planning, to inform the evolving operation of the Adaptation Fund;
- demonstrate that a scaled up, country-led, mainstreamed approach is possible and effective, influencing how a post-2012 deal will support developing countries to adapt to climate change.

104. Our bilateral development assistance, particularly on natural resource management and disaster risk reduction, also helps to build resilience amongst poor communities to the impacts of climate change. We are also working with the private sector to help raise awareness about why it is critical for businesses to increase private investment in adaptation in developing countries (eg from ensuring that businesses and the jobs they support are resilient, to the provision of insurance). We emphasise how the actions of the private sector can be designed in collaboration with local communities and stakeholders to improve their adaptive capacity.

105. In terms of the global deal, we want to see a financial package agreed that adheres to the principles of effective, efficient, equitable financing, with a diverse range of sources to ensure adequate, predictable, sustainable financial flows to the developing world. We also want to see measures in place help leverage the role and effort of the private sector and overcome barriers to this.

Reforming Institutions

106. At the institutional level, the UK is supporting the multilateral development banks (MDBs) and the UN to ensure that they are able to provide the right kind of support to developing countries in adapting to climate change. For instance, we are supporting mainstreaming of adaptation within UNDP and the Asian Development Bank. We are calling for the international institutions such as the UN to take a hard look at what their agencies' strengths are, and to avoid duplication of roles. We are also looking at the future institutional architectural needs of the post-2012 regime, and using our influence to encourage both the World Bank and UN system to continue their reform efforts so that they are effective, trusted institutions that developing countries will be able to work with to face the challenges ahead.

107. We are pressing for the Copenhagen deal to clearly set out who should do what, and strongly support the catalytic role of the UNFCCC.

108. In Mozambique DFID is working with Save the Children to help communities in the Zambezi flood plain improve resilience to flooding that will be made worse by climate change. The programme will develop alternative sources of income to traditional farming and fishing, such as processing agricultural products. This will help communities cope with increasing shocks and adapt to change.

109. DFID is helping fund insurance for Malawi to purchase and distribute international grain in the event of significant drought. A payout is triggered based on severity of the drought when future maize production is predicted to fall below certain levels. Similar insurance schemes have been used in advanced agricultural markets but not in poor countries.

SECTION 5: SUSTAINABLE DEVELOPMENT IN A CHANGING CLIMATE: SECTORAL IMPLICATIONS

110. Improving management at the sector level is key to sustainable development. Three out of four people surviving on less than a dollar a day live in rural areas, where their livelihoods depend on the natural environment. This section sets out examples of how the UK is working on different sectors and demonstrates how our understanding of climate change, as articulated in the previous three sections, informs our work at the sectoral level.

Agriculture and food

111. Climate change will have far-reaching consequences for agriculture that will disproportionately affect the poor. Greater risks of crop failures and livestock deaths are already imposing economic losses and undermining food security and they are likely to get more severe. According to the IPCC, by 2080, an extra 600 million people worldwide could be affected by malnutrition because of climate change.

112. The recent food crisis has made it clear that the international community has paid too little attention to productive agriculture and its links to the natural environment. We need to invest more in agriculture and the UK is committed to global efforts to double the agriculture production in Africa, double agriculture growth rates in Asia and increase investment in international agricultural research. Since April the UK Government has made a number of commitments to address both long and short term problems and to improve the security of the most vulnerable, and tackle high food prices. UK commitments to date total £868 million. The UK will spend £400 million on agricultural research over five years and a significant proportion of this will be directly related to climate change. For example, the UK supports the Consultative Group for International Agricultural Research (CGIAR) which is developing a major new programme devoted to climate change and agriculture (see Box 13b).

113. The UK's approach to agriculture policy aims to address many of the constraints to farmers' development and to support the intensification of agriculture in the context of a changing climate. This includes:

- Increasing access to fertile land, fertiliser, and seeds;
- Developing and disseminating appropriate technologies;
- Supporting markets and trade;
- Supporting national policies and strategies that focus on rural and agricultural growth;
- Securing an international system which works more effectively.

BOX 13B: CONSULTATIVE GROUP FOR INTERNATIONAL AGRICULTURAL RESEARCH (CGIAR)

CGIAR is a partnership of national governments and international organisations supporting 15 international research centres with a mission "to achieve sustainable food security and reduce poverty in developing countries through research and related activities in agriculture, forestry, fisheries, and the environment". It is estimated that without the CGIAR, world food production would have been 4–5% lower, developing countries would have produced 7–8% less, world food and grain price would have been 18% to 21% higher; and, 15 million more children would have been malnourished⁹.

The UK has been working with its partners to reform the CGIAR so that it can deliver more research and respond to today's challenges including climate change. This includes setting up a \$1 billion p/a fund, which will be used to support research such as:

- Breeding drought-resistance maize in 20 countries
- Scaling up bio-fortification of staple crops
- Increasing yields in the context of climate change
- Ensuring women's full participation in agricultural innovation

114. The UK funds agriculture and rural livelihoods programmes in more than 20 countries and many of these programmes involve some element of "adaptation" to climate change. Examples of support include:

- Support to the Malawi Government's fertiliser and seed subsidy programme. This contributed to a harvest surplus of one million tonnes in 2007.
- Support to the Government of Rwanda to develop their national strategy for agricultural transformation, making more effective use of the limited agricultural land.
- Support to a climate change programme in Bangladesh (see Box 12), which will enable the most vulnerable communities to improve their agricultural practices so that they are better able to cope with the impacts of climate extremes.
- Programmes on improved access to information (eg: CLIMDEV), aimed at improving access to climate information so that farmers can adjust their planting dates and crop choices to changing climate conditions.

115. Internationally, the UK works with the UN High Level Task Force on Food and Agriculture, which addresses humanitarian needs, short term social protection and longer term strengthening of support to sustain able agriculture and rural development. The UK has provided leadership in establishing the Global Partnership for Agriculture and Food (GPAF) needed to take this agenda forward.

⁹ This data refer to the cumulative impact of CGIAR investments since it was set up in 1971.

116. DFID plans to review its Agricultural policy and produce a new strategy in 2009.

BOX 14: FOOD MILES AND BIOFUELS: CAN DEVELOPED COUNTRIES' MITIGATION EFFORTS HAVE ADVERSE IMPACTS ON DEVELOPING COUNTRIES?

It has been suggested that we need to reduce “food miles” as the distance food has travelled is a measure of whether the food we eat is sustainable. This suggestion harms sales of food from developing countries. Almost a million African farmers and their families rely on the fruit and vegetable trade with the UK, and depend on their earnings to get their children through school and to care for them when they are sick. Research has shown that “food miles” are an incomplete way of judging whether the food we eat is sustainable and not a reliable indicator of the environmental impact of food transport. The Government is working towards a global system for pricing carbon that will eventually ensure the price of food and other products fully reflect their impact on the environment. DFID and DEFRA work closely on the issue of food miles.

There has been concerns about the impacts of biofuels on food prices—which will affect especially the poor who already spend a large proportion of their income on food. Biofuel production has had some impact on the prices of some food commodities, particularly products such as oil seeds. But biofuel production by no means explains all the price movement we have seen in the last year.

As the independent Gallagher Review into the indirect effects of biofuels made clear in the summer, biofuels can and should have a role to play in any international low carbon energy response. But they provide no silver bullet, and caution should be applied in their uptake until we have a clearer understanding of their impact on carbon emissions and food prices.

As part of its effort to address global food insecurity, the UK is encouraging industry to move rapidly to the commercial development of new technologies which would allow the production of biofuels from non-food sources—so-called Second Generation Biofuels.

Water Resources Management

117. The Stern Report and the 4th Assessment Report of the IPCC state that the impacts of climate change will be felt mainly through water—with more frequent, and more intense, floods and droughts. It is the poor who overwhelmingly suffer from this: they are most at risk from flooding and drought and typically suffer from limited access to water for agriculture and other productive uses.

118. The cost implications of poor management of water is huge: in 2007 flooding in Bihar and Bangladesh affected 70 million people, caused 4,500 deaths and resulted in the loss of 7.5 million hectares of productive cropland. The floods in Kenya of 1997–98 led to a drop of 11% of GDP and the drought of 1998–2000 resulted in a drop of 16% in GDP.

119. In recognition of this, the UK has significantly increased its focus on the water sector. DFID's new water and sanitation policy¹⁰ (see Box 14b) emphasises the centrality of improved water resources management to adapt to climate change, boost economic growth and improve security. In the policy, DFID commits to providing £1 billion over the next five years for the sector in Africa and to spend an additional £30 million on improving water resources management in Asia and Africa in light of climate change.

BOX 14B: UPDATED DFID POLICY "WATER: AN INCREASINGLY PRECIOUS RESOURCE; SANITATION: A MATTER OF DIGNITY"

DFID launched an updated policy of water and sanitation "Water: an increasingly precious resource; Sanitation: a matter of dignity" in October 2008. The updated policy identifies three key priorities for DFID:

- A stronger focus on sanitation;
- Improving water resources management to boost economic growth, cope with climate change and improve security; and
- Advancing sector governance.

These priorities reflect that sanitation is marginalised, as noted by the IDC in their enquiry into sanitation and water in 2006¹. DFID is committed to ensuring adequate investment to get the world back on-track to meet the target.

Stern and the IPCC both note that much of the impact of climate change will be felt through water. The inability of poor countries to store water has a massive impact on overall growth and they suffer huge economic losses from drought and floods. Increasing water stress will increase the risk of conflict over water. DFID is committed to improving management of water within countries and on shared waters.

The countries furthest behind on the MDG targets for water and sanitation are those where governance is poor. Political will and policy frameworks are weak and there is little or no accountability and transparency. DFID will ensure improved sector governance is an objective of all its support in the sector.

120. About 30% of DFID spending on water and sanitation goes on water resources. Our objectives are to improve water resources management at country and regional levels and to ensure that the international architecture and support for water resources management is made more effective. We are focusing on ensuring that water management for key water uses such as food and energy supports economic growth and secures livelihoods for the poor in face of a changing climate.

121. We have made a commitment to integrate our work on water resources and climate change. This will mean that water resources projects address climate change and that adaptation programmes we support include water as a critical sector. For example, integrated water resources management will be a component in the recently announced climate change adaptation programme in Bangladesh.

122. There is an increasing focus for DFID on supporting regional or transboundary water management initiatives with the recognition that climate change creates greater risks of conflict over shared waters. Current examples include funding for the South Asia Water Initiative (SAWI) involving seven countries in Asia that share waters draining from the Himalaya (see Box 15). DFID also provides funding for the Southern Africa Transboundary Water Programme through a delegated cooperation arrangement with Germany. These new programmes build on our experience with the Nile Basin Initiative, which itself is increasingly targeting building resilience and adaptation to climate change. We are also looking into the development of further regional water management work in Africa.

123. A lot of the UK's support to water resources management is channelled through multi-lateral agencies, which provide much of the finance for water resources. We are developing new relationships with the World Bank through the Water Partnership Program that will allow us to improve the quality of their lending and to mainstream climate change within future water resources investments. This will include addressing the development of hydropower as a lower-carbon form of energy, within the context of developing multi-use water storage that is resilient to climate change and supports long-term economic growth. We are also providing support to the Africa Water Facility in the African Development Bank and will use this as a mechanism to ensure greater focus on improving water management in light of climate change.

124. Improving the international architecture and support is critical to delivery of improved water management. There is no multi-lateral lead on water resources and there is poor coordination among donors and partner countries. In recognition of the urgency to improve this in light of climate change, we are currently working with WWF-UK to review the international architecture to identify how this can be improved. This will lead to a wider reform process involving the World Bank, UN-Water, Global Water Partnership (GWP) and other bilateral donors.

¹⁰ <http://www.dfid.gov.uk/News/files/water-sanitation-policy-08.asp>

125. The role of water management in supporting climate change adaptation is central in a number of research programmes, such as the Ecosystem Services for Poverty Alleviation programme. We will also support smaller, targeted pieces of research, to improve our understanding of the impacts of and options for water management in light of climate change.

BOX 15 : SOUTH ASIA WATER INITIATIVE

About 1.5 billion rely on the rivers that drain from the Himalaya-Hindu Kush into South, East and South-East Asia. These rivers drive economic growth, support food security and, through hydropower development, they are the most obvious form of lower-carbon energy in a region in dire need of power.

Projections by the IPCC show that glacier recession in the Himalaya and the Tibet plateau will initially cause increased flooding and in the long term will reduce the amount of water available for almost two billion people.

The trans-boundary nature of rivers makes managing water more complicated as decisions require agreement between neighbouring states. The UK supports the South Asia Water Initiative (SAWI) facilitated by the World Bank, which was set up to address the need to improve cooperation over shared waters in the region. SAWI looks to improve the sharing of meteorological and hydrological information between countries and to create the space for a dialogue among representatives from Afghanistan, Bangladesh, Bhutan, China, India and Nepal. The dialogue process is showing results. Participants have articulated a 10-year “consensus vision” to achieve a more equitable distribution of water resources. A research and knowledge sharing programme has also been developed and will support multi-country projects.

Forest Management

126. Forests and their biodiversity provide critical elements of the livelihoods of 90% of the 1.4 billion people living in extreme poverty. They deliver a range of services that are important for human wellbeing, including the supply of food, medicines and fibre, plus soil regulation and air purification. The global overexploitation of forest ecosystems is leading to significant habitat fragmentation and loss of livelihood. Burning and soil exposure associated with deforestation and forest degradation is also a major source of GHG emissions especially in many developing countries, accounting for about 18% of global emissions¹¹. Activities such as afforestation (planting to increase forest area) and reforestation (replanting of areas that were once forest) can help to remove carbon from the atmosphere through sequestration and storage of carbon in vegetation and soil. The Eliasch Review into the financing of forests¹² concludes that, at this rate of deforestation and tree planting, it will be impossible to keep carbon dioxide concentrations below dangerous levels. The Review estimates that the global cost of climate change caused by deforestation could reach \$1 trillion a year by 2100 and that it would cost from \$17–33 billion a year to halve emissions from the forest sector by 2030.

127. The UK’s effort on international forestry is designed to deliver a number of strategic objectives in the areas of climate change, the natural environment, sustainable development and poverty reduction. Achieving these objectives requires us to address the market failures and poor governance which drive deforestation and undermine public goods and local livelihoods. Our approach can be summarised according to four broad areas:

- *Improving governance:* Promote clearer, more equitable property rights, improve forest governance and reduce illegal logging, and public procurement policies in key timber consuming countries that specify legally and sustainably produced timber.
- *Knowledge and capacity development:*
 - Generate, share and promote better access to knowledge on key aspects of forestry, land use and climate change;
 - Develop the institutional capacity of developing countries to: implement policy, market and governance reforms, to promote more sustainable production and consumption of commodities (eg timber, biofuels and palm oil), and to participate in reducing emissions from deforestation and degradation (REDD).
- *Addressing market failures:* Promote inclusion of forest carbon in an international market, as part of a post-2012 global climate change deal to generate the very high levels of sustainable finance required to tackle deforestation (see section 2).
- *Achieving coherence and scale:* Help develop an international financial architecture and instruments that can coordinate and focus assistance and incentives at scale and develop systems that ensure that financial incentives are delivered to ground-level.

¹¹ http://www.hm-treasury.gov.uk/stern_review_final_report.htm

¹² <http://www.occ.gov.uk/publications/index.htm>

BOX 16: COMMUNITY FORESTRY IN NEPAL

A transformation has taken place in the hills of Nepal within a generation. Forests previously owned by the government are now under the control of local communities. A DFID-funded initiative called the Livelihoods & Forestry Programme¹³ is working with half a million households (11% of the population) to help them get the most out of their forests. That means more reliable access to the products they need for their daily lives and more opportunity to make money to pay for essentials. Women and other disadvantaged groups are now actively involved in the decision making that was previously controlled by a narrow elite.

BOX 17: ILLEGAL LOGGING AND FLEGT

Illegal logging is having a devastating impact on some of the world's most valuable remaining forests. Governments of some of the poorest countries in the world lose over £10 billion per year. The UK supports the Forest Law Enforcement, Governance and Trade (FLEGT) Action Plan, which brings the development assistance of the EC and the influence of the single market to bear on this problem. Within the framework of bilateral agreements (Voluntary Partnership Agreement—VPA), the EU helps timber-producing countries to reform and enforce laws, promote greater transparency of information and build systems to verify that timber has been legally harvested. The EU has passed legislation to prohibit entry of products from partner countries that are not licensed as legal. Evidence of progress is being seen in terms of reduced levels of illegal logging, greater revenue collection and a major shift in the purchasing practices of European companies.

128. Sustainable and predictable resources are required at scale to provide positive incentives that replace the income forgone by individuals not deforesting, or for the utility services provided by sustainably managing them. The forest products industry accounts for about 10 million formal jobs and many times that figure in the informal sector. International trade in forest products is about US\$ 270 billion p.a. of which developing countries account for about 20%.

129. While climate change presents a renewed premium on the conservation of forests, it is also a significant threat to the very large numbers of poor people who depend on forests for their livelihoods. Forestry institutions in many developing countries are ill-equipped to cope with projected inflows of capital. They lack the governance structures that are needed to regulate and distribute this money fairly. We need to strengthen forest tenure and use rights to protect the interests of the forest-dependent poor. Significant progress has been made on this front in the last 15 years, to the point where 27% of the world's forests are now owned or controlled by local communities and indigenous people. That process now has to be accelerated rapidly.

130. Changing the policies, the investments and the subsidies which often drive people to cut down forests is part of the story. Getting financial incentives to the people who matter on the ground is also important. We know how to make payments to remote farmers to give them an incentive to conserve their forests. The UK is now working to do this on the scale and in the timeframe that climate change science suggests are necessary.

Mineral Extraction

131. Mineral extraction can be an effective driver of growth, poverty reduction and sustainable development through the process of converting finite natural resources into more sustainable opportunities. However, mineral exploitation has also often been associated with conflict, corruption, social dysfunction and environmental degradation.

132. The focus of the UK's work on mining policy is to achieve the former and avoid the latter. This is progressed by encouraging the development of systems that ensure good governance, effective environmental and social management, the protection of rights and the equitable sharing of benefits throughout the life cycle of the mining process.

¹³ <http://www.lfp.org.np>

133. We do this multi-laterally, through mechanisms such as the Extractive Industries Transparency Initiative (see Box 1 section 1) or the Inter Governmental Forum for Mining, Minerals, Metals and Sustainable Development (see Box 18 below). We also work at the bilateral level with several countries. For example, DFID works to support the institutional and policy reform process of the mining sector in Sierra Leone, to develop the capacity to better manage the approaches of multinationals in exploiting uranium deposits in Malawi and to address private sector responsibility in the DRC's mining areas.

BOX 18: THE INTER GOVERNMENTAL FORUM FOR MINING, MINERALS, METALS AND SUSTAINABLE DEVELOPMENT (IGF)

The UK supports the IGF, which was set up at the WSSD (2002). Through this Forum, 50 member (primarily developing) countries are sharing progress on improving the management of mineral wealth for their citizens' benefit. The Forum coordinates the national reporting of progress on improving the contribution of this sector to sustainable development. The 2010–11 session of the United Nations Commission on Sustainable Development (UNCSD) will scrutinise this progress and make recommendations for any future actions.

The Forum develops good practice in the improved governance of mineral resources. Of late this has included increased discussion of the role of developing countries (notably China and India) mining sectors in fossil fuel production—where the release of methane is estimated to be a greenhouse gas 23% more potent than carbon.

134. Through its contribution to the development of tools, such as the OECD DAC's Strategic Environmental Assessment, the UK has encouraged developing country partners to assess the implications of further fossil fuel development compared to other energy choices.

135. The majority of mining activity in many resource rich developing countries is not carried out by multinationals but by artisanal and small scale mining activities (ASM). The cumulative impacts of this scale of operation can compare with large scale operations and there is often conflict between the two. The artisanal dimension of the mining sector is often characterised by poverty, vulnerability, exploitation and poor environmental, health and safety practices. ASM is a growing phenomenon. The cause of this growth can be attributed to higher commodity prices but, anecdotally, it has also been attributed to land use changes possibly resulting from climate change impacts.

BOX 19: KIMBERLEY PROCESS CERTIFICATION SCHEME (KPCS)

The FCO and DFID, through EU representation, also support the work of the Kimberley Process Certification Scheme (KPCS) aimed at removing illicit diamonds from legitimate diamond trade. For the success of the KPCS to be durable, however, there is a need to complement the policing of the diamond trade with concerted action to address the root causes of the problem of "conflict" or "blood" diamonds—namely the development needs of artisanal miners and diggers and their communities. DFID has supported a KPCS Working Group on this issue. In addition DFID supports the work of the recently launched, multi stakeholder Diamond Development Initiative working at country level on the needs of impoverished and vulnerable miners and their communities.

Energy

136. Access to basic energy services, such as lighting and cooking, remains a significant development challenge, especially in rural areas of developing countries. A quarter of the world's population, about 1.6 billion people, have no electricity at home and some 2.4 billion rely on traditional biomass fuels for cooking and heating. They are deprived of a host of modern service made possible by electricity and are exposed to the significant health hazards of indoor smoke from low quality fuels.

137. The 2002 WSSD recognised that improved access to energy is essential to the achievement of the Millennium Development Goals (MDGs). The UK is responding by:

- Co-funding (£0.95 million) the Policy Dialogue Facility of the EU Energy Initiative to help countries design energy access strategies;
- Providing core funding (£0.5 million in 2007) for the World Bank's Energy Sector Management Assistance Programme (ESMAP). This works with developing countries on policies to secure sustainable energy services to support growth and reduce poverty.
- Providing £2.8 million to enable ESMAP to work in about 12 countries to promote the development of small and medium enterprises in energy services.
- Supporting the Global Village Energy Partnership (GVEP), a UK-based NGO working to develop small private enterprises in energy services, especially in Africa and South Asia. The UK started commenced its four-year, £4 million support programme in 2007 and this has now attracted commitments of about £25 million from other donors.

138. Economic growth in many developing countries, especially in Africa, is constrained by unreliable and inadequate electricity supplies. This damages productive capacity and discourages investment, with businesses forced to use expensive emergency generators. All developing countries are striving to increase their investments in energy infrastructure in order to meet rising demand, which is forecast to increase by 45% between 2006 and 2030. About 90% of this increase will come from developing countries, and under a business-as-usual scenario, fossil fuels, such as coal, oil and gas, would be the primary sources. The potential consequences for climate change are a cause of great concern. As discussed in section 3, there is an urgent need to find ways of meeting the increasing demand for energy services while radically reducing global energy related CO₂ emissions. We need to help developing countries move onto low carbon development pathways that maximise the opportunities, while minimising the risks, associated with the transition to a low carbon energy supplies and services.

139. The UK is working to mobilise new and existing finance to help support this transition—in particular through the Climate Investment Funds (see Box 8 section 3)—and we are steadily integrating low carbon development thinking into our multilateral and bilateral programmes. For example, we are engaging with the MDBs to ensure they adopt more challenging targets on clean energy, and we are working through a number of our country offices to support low carbon growth—including China, India, Indonesia, Malawi, and Tanzania.

Transport

140. The transport sector is estimated to contribute about 14% of global emissions. Three quarters of these emissions are from road transport, while aviation accounts for around one eighth (or 1.6% of global emissions) and rail and shipping make up the remainder. Total emissions from transport are expected to more than double in the period to 2050, making it the second-fastest growing sector after power¹⁴.

141. Road transport is the dominant transport mode for both people and goods in most countries. 34% of the rural population in sub-Saharan Africa has access to transport systems; in South Asia 57% have access.¹⁵ Nearly two-thirds of African markets are effectively isolated from national and world markets because of poor market access. In contrast, substantial investments in Indonesian roads over the last 30 years have allowed poor households to successfully enter the market economy¹⁶. Ensuring that poor people have access, through transport systems, to markets and social services such as clinics and schools, is an important part of the international development agenda.

142. As part of the Clean Energy Investment Frameworks, which the UK is supporting, the multilateral development banks are actively working to address the contribution of transport in developing countries to climate change. Efforts include the Sustainable Transport Initiative of the Asian Development Bank; the World Bank's new Transport Business Strategy 2008–12 which will seek to address the transport sector's role in both mitigation and adaptation; and EBRD investments in sustainable urban transport which almost doubled in 2007 from the previous year.

143. It is likely that there will be increasing pressure to limit or reduce emissions from international aviation and shipping and developing countries may be particularly affected by this. The UK is working to ensure that the potential impact of such restrictions is fully understood, and integrated into our country programmes.

Tourism

144. Tourism can play a significant role in economic growth¹⁷—but it also contributes to between 5 and 14% of total global GHG emissions¹⁸ and can have a detrimental impact on the environment and culture of host communities. To reduce the negative impact of tourism on the environment and local communities, the UK is committed to sustainable tourism both at home and abroad and it is working to determine what sustainable tourism can mean in practice:

- DEFRA is involved in a group led by Forum for the Future, which brings together a range of stakeholders to build scenarios around what sustainable tourism might look like in 2023 and then to start implementing identified actions.
- Tourism is also one of seven task forces established under the WSSD's French-led "Marrakech Process", which focuses on sustainable consumption and production. The UK inputs into this group through DEFRA.
- The UK is member of a range of international and regional fora, including the European Travel Commission (ETC), the World Travel and Tourism Council (WTTC), the Pacific Asia Travel Association (PATA), and the EU and OECD Tourism Committees.

¹⁴ MDB Joint Report on the Clean Energy Investment Framework to the G8 2008 and Stern Review 2006.

¹⁵ World Bank, 2006.

¹⁶ World Development Report, World Bank 2008

¹⁷ The UN World Tourism Organisation suggests that tourism is a primary source of foreign exchange earnings for 46 of the 50 least developed countries.

¹⁸ UNEP 2008 (Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, Tools and Practices, see <http://www.unep.fr/shared/publications/pdf/DTIx1047xPA-ClimateChange.pdf>)

145. The UK is also working bilaterally to promote sustainable tourism in developing countries. Examples include:

- DFID has worked directly with the Government of South Africa to promote the concept and principles of fair trade in tourism, so that communities and workers benefit and the industry is more sustainable.
- The FCO is supporting the establishment and piloting of a Green Rating system for the hospitality industry in South Africa (with an initial focus on the Western Cape) which aims to be operational for the 2010 World Cup.
- The DEFRA-led Sustainable Development Dialogues are supporting a programme in Mexico to help communities benefit from the economic opportunities of tourism and to minimise the negative impacts on the local and indigenous cultures, biodiversity and the environment. The programme also aims to develop a sustainable tourism model that can be recreated in other regions.

CONCLUSION

146. Climate change is a development reality: its impacts on sustainable development are already being felt across the world. Addressing this is a momentous challenge—and the UK has expanded considerable efforts and resources in developing tools and programmes to meet it.

147. To make a difference, the UK has to focus on key areas where it has a comparative advantage. This is what we have sought to do—focusing on the global deal, low carbon growth and adaptation—and adding impetus to our sustainable development work across sectors and countries.

148. Climate change is an unfolding issue, where policies, institutions and paradigms are rapidly evolving, including in the context of international negotiations. We know that for decades to come, we will need to refine our policies and strategies and develop mechanisms and tools to enable us to implement effective solutions in support of sustainable development in a changing climate. Our current approach should not be viewed as static, but rather as an evolving platform that we are developing with our international partners.

Supplementary written evidence submitted by the Department for International Development

NOTE OF UK PROGRESS ON GLOBAL CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT SINCE THE IDC REPORT OF 2001–02: “GLOBAL CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT”

1. The UK has significantly scaled up its efforts on Sustainable Development and Climate Change since the IDC report of 2002. The UK firmly believes that supporting sustainable development and tackling climate change is key to reducing poverty and meeting the MDGs.

THE EVIDENCE OF CLIMATE CHANGE

2. Conclusions (1)(2) and (3) are still valid regarding the evidence of climate change. The effects of climate change require a response at global, national and local levels. Most countries already fail to manage their environmental resources in a sustainable way. Climate change makes this an even more urgent priority.

3. Global action is needed to help prevent dangerous climate change, by reducing emissions and building low carbon economies, and to help poor countries prepare for the impacts of climate change by building resilience.

4. The UK agree with conclusions (8), (9), (10) and (15) on the uneven global impact of climate change. Climate change is dramatically reshaping the environment upon which poor people depend. The knock-on effects from climate change include increased rainfall variability (meaning more droughts and increased flooding), reduced food security, spread of disease, increased risk of accidents and damage to infrastructure. The poor are most vulnerable to these changes and have limited capability to respond to them

THE RESPONSE TO CLIMATE CHANGE—THE NEED TO TACKLE INCREASING EMISSIONS

5. With regard to conclusion (31) climate change has received increasing international attention since the 2002 IDC report. As part of the UK 2005 G8 presidency, Climate change was a central theme along with Africa. Subsequently, the G8 have systematically had climate change on its agenda.

6. In addition, the UK has played a pivotal role in the design of the multi-donor, World Bank administered Climate Investment Funds, or CIFs. The UK supported the World Bank and worked with other donors to design and establish the Funds to meet the objectives of providing co-ordinated short term finance to tackle climate change and to pilot approaches to the long term. The funds were approved by World Bank board in July 2008, endorsed by the G8 at the Hakkaido summit, and now have \$6.1 billion in pledges from 10 donor countries.

7. We are also strong supporters to the UNFCCC Adaptation fund. The fund is a new instrument which derives its money from a 2% levy on the Clean Development Mechanism. The UK is supporting the design and implementation of the Adaptation Fund both as a Board Member and by providing start up funding. We are working hard to get the fund up and running so it can receive project proposals in 2009.

8. We agree with conclusions (6) and (30). Developed countries need to take the lead and take on binding commitments to reduce their emissions by 25–40% by 2020 compared to 1990 levels. The more of mitigation developed countries commit to, the less developing countries will need to undertake.

9. The UK acknowledges and accepts the principle of common but differentiated responsibilities and respective capabilities. Work is underway in Whitehall on the developmentally optimal approach to allocating the global emission reduction effort consistent with “safe” climate change.

10. We also recognise that large industrialising countries such as India and China—will become a major source of emissions. For such countries to decouple economic growth from greenhouse gas emissions they need to better understand their options. The UK is therefore working to understand, identify and support patterns of economic growth in our partner countries that break this link between growth and rising emissions.

11. In partnership with others, the UK has so far funded a number of low carbon growth studies in the larger emitting Middle Income Countries (MICs) including China, India, Brazil, Mexico, Indonesia and South Africa through multilaterals and think tanks.

12. We have also helped support a number of pan-regional studies (so called “mini-sterns”) and others through our network of country offices (eg Guyana). However there remains a dearth of evidence which looks into the challenges in Low Income Countries (LICs) with a primary focus on mitigating future emissions. In addition, DFID is currently working to design a Centre for Climate and Development—a multi million pound arrangement for delivering a set of knowledge management, research and tailored advisory services for developing countries. The centre will support transformational policy making on adaptation and low carbon development.

ENERGY CHOICES AND ENERGY EFFICIENCY

13. We agree with conclusion (25) that fossil fuel is likely to increase in developing countries as they seek to meet their energy demands. However the UK believes that it remains the sovereign right of the country whether or not to choose to exploit fossil fuel resources. The Clean Development Mechanism (CDM) has a crucial role to play, CDM projects occur across a wide range of sectors with 64% of reductions coming from projects involving renewable energy, fuel switching and energy efficiency increase.

14. One of the UK Government’s key objectives is to bring about a step change in global investment in low carbon technologies that will deliver a transition to a low carbon economy, including through an effective carbon market. We are working through the European Union, G8 and UN Framework Convention on Climate Change (UNFCCC) processes to develop and support a number of bilateral and multilateral initiatives for scaling up investment in low carbon energy, particularly energy efficiency.

15. We support conclusion (26). DFID Mozambique is supporting the Ministry of Energy to increase its analytical capacity and policy development in the area of biofuels. This support is for three years from 2008–11. It will be used to hire a Technical Adviser to operate under the Ministry and to help develop Mozambique’s National Biofuels Strategy.

16. In parallel, DFID Mozambique has designed a Biofuels Policy Paper aimed at participating in the policy dialogue to encourage a pro-poor approach in policy design, in the regulatory framework and in continuing monitoring and evaluation processes.

INTERNATIONAL CLIMATE CHANGE NEGOTIATIONS

17. With regard to conclusion (32), the UK believes that we will not get a good deal at Copenhagen unless developing countries have a strong voice in the negotiations, the UK has provided financial support (in the region of £550,000 since mid-2006) to help developing country negotiators and journalists prepare for and engage in key UN meetings. We have also supported developing country negotiators bilaterally and the Government makes an annual contribution to the UNFCCC fund for Developing Country Participation to enable developing country participants to attend meetings.

18. DFID is also providing analytical support to regional processes e.g. through support for Lord Stern’s work on providing support for the African Union position. We are translating policy positions into public campaigns across G8 and selected vulnerable countries—in particular through support to the Global Campaign for Climate Action (GCCA) through Oxfam, International Institute for Environment and Development (IIED), World Wildlife Fund (WWF) etc.

19. The UK is playing a leadership role internationally on climate change negotiations in Copenhagen in 2009—to agree to a credible, fair ambitious deal, which puts an understanding of development and the needs of developing countries at the heart of an international agreement.

 DFID'S APPROACH TO ENVIRONMENT AND DEVELOPMENT AND THE RELATIVE PRIORITISATION GIVEN TO CLIMATE CHANGE

20. In line with conclusion (42) and (51), the UK is working hard to support the mainstreaming of climate issues into national and local priorities. In Tanzania, the UK has worked with UNDP to help the Government better integrate environmental management in its National Strategy for Growth and Poverty reduction. Assistance included developing poverty environment indicators as part of the Strategy's poverty monitoring system and budgeting process, and work with key stakeholders in developing the strategy. As a result, 14% of targets across key areas of the strategy relate to environmental management, such as reducing land degradation, water pollution and loss of biodiversity.

21. We do not agree with conclusions (34) and (47) regarding the relative importance that DFID attributes to climate change. DFID is playing its part in tackling climate change, providing leadership at an international level on climate change and pushing forward on important initiatives to help protect the most vulnerable from the inevitable impacts of climate change -both through the international fora through our bilateral work at country level.

22. The UK has scaled up its efforts to tackle climate change (34). DFID has set up a new Climate and Environment Group in London and created eleven new climate posts in country offices. This aims to boost our capacity in tackling climate change in key countries and enhance the connection between UK policy and country led activities. For example, in Ethiopia, the new post will support the Ethiopian government assess the implications of climate change in-country and support donor co-ordination efforts. The Foreign and Commonwealth Office (FCO) has developed a large overseas network of attaches working specifically on climate and energy and appointed a UK Climate Security Envoy for Vulnerable Countries.

23. On conclusion (4), the UK has made a step change in bringing environmental and developmental perspectives together. For example, DFID India has many Rural Livelihood, watershed management, water and sanitation, forestry and carbon markets programmes and projects with an environmental component. Some of these are joint projects with DEFRA under the UK-India Sustainable Development Dialogue.

24. The UK believes that sustainable development and good environmental management are key to poverty reduction and meeting the MDGs. We take a multidisciplinary approach to sustainable development which we are integrating across all our international work as suggested in conclusion (35).

ADAPTATION TO CLIMATE CHANGE—THE ROLE OF DFID AND OTHER DONORS

25. On conclusion (49), we believe that the best way to address adaptation is for developing countries to integrate "climate resilience" into their existing process and plans. DFID is supporting this through the flagship "Pilot Programme for Climate Resilience". This programme will support a few developing countries to integrate climate risk and resilience into their core development planning, and then provide substantial programmatic resources to public and private sector investments identified through the planning process. It aims to demonstrate that a scaled up, country-led, mainstreamed approach is possible and effective, influencing how a post 2012 deal will support developing countries adapt to climate change. It will provide crucial lessons on how to invest in climate resilience through national development planning.

26. DFID has a clear mandate on adaptation and we are prioritising this element of our work (46). DFID's work on adaptation focuses on the three things that vulnerable countries need to adapt effectively: (1)finance; (2)knowledge, information and tools and (3) capacity and incentives.

27. On conclusion (48), because the true costs of adaptation are poorly understood, the UK is jointly funding work with the World Bank, the Netherlands and Switzerland on the Economics of Adaptation. This study is looking at Bangladesh, Vietnam, Ethiopia, Mozambique, Ghana and Bolivia. Results are due in the second half of 2009, and will be used to help inform the UNFCCC negotiations in Copenhagen in December (50).

28. DFID is not waiting until research is complete to support country level work on adaptation (14). By the end of 2009, the £50 million Chars livelihood programme in Bangladesh will have reduced vulnerability of half a million poor people to climatic and economic shocks. Through raising homesteads and providing assets to 50 000 women headed households, families are protected against floods and their incomes and assets double in value.

29. In line with recommendation (41), the UK has delivered on its 2005 G8 commitment to develop a tool for assessing climate risks to its development programmes. DFID has conducted assessments of its programmes in Bangladesh, India, China and Kenya. We are now sharing lessons from this process with other donors and the multilateral development banks. We have provided consultancy and advice to help develop the Climate for Development in Africa (ClimDev) Programme, to improve information on the impacts of climate change across Africa.

MAINSTREAMING CLIMATE CHANGE INTO NATIONAL DEVELOPMENTAL STRATEGIES

30. With regard to progress on conclusion (51), (52) and recommendation (53), the UK has financially supported (by approximately £250k) regional dialogues on mainstreaming climate change and scaling up responses to climate change in Latin America and Asia, with participation of more than 40 countries (43). These have also explored how low carbon investment and finance could be advanced in developing countries, side by side with their own development objectives, and with the support of the multilateral development banks, and reporting back both to the UNFCCC and to the G8 processes. The UK has also contributed resources to make possible regional negotiators meetings in Latin America and in Asia, as well as studies that evaluate the regional economics of climate change in almost all of Latin America, as well as South East Asia.

31. There has been considerable progress on recommendation (38). DFID's approach to sustainable development in developing countries is guided by the principles of the UK's Sustainable Development Strategy which is relevant to both the UK's international and domestic activities. In addition, DFID works directly with DEFRA (and in India and China provides direct support) in the development and delivery of the UK's Sustainable development dialogues. These are a key mechanism for sharing experience and lessons learned from the UK and developing innovative approaches to sustainable development.

32. As suggested by recommendation (7), DFID is assessing the potential impacts of climate change in key sectors of the economy (eg agriculture, water and health). In Kenya we are supporting a review which will look at cost options for adaptation and mitigation, make policy recommendations and increase government, private sector and civil society awareness of the economic dimensions of climate change.

INTERNATIONAL PANEL ON CLIMATE CHANGE (IPCC)

commendations (36) and (37) that the IPCC needs to focus more on adaptation issues and climate risk management is recognised by the IPCC, however it is limited by its mandate. It can review and assess what is already covered in scientific and technical literature, since it does not commission or do research itself.

32. However DFID is also working to design a "Centre for Climate and Development" which will deliver a suite of services (knowledge management, research and tailored advice) to support developing country policy-making on adaptation and low carbon development. DFID will contribute around £50 million over five years to support the services run by the Climate Centre.

CLIMATIC DISASTERS

35. The UK recognises that global warming is resulting in an increase in the frequency and severity of climatic extremes, which increases the frequency of weather-related disasters (5). DFID 2006 White Paper states that 'Disaster Risk Reduction is a crucial part of climate adaptation and particularly important to vulnerable communities'. The UK is funding significant disaster risk reduction programmes in countries susceptible to disasters.

36. In response to recommendations (13) and (19), the UK is funding a variety of organisations which work at global, regional and national levels to minimise the effects of natural disasters. For example, we are one of the leading donors to the UN International Strategy for Disaster Reduction, which co-ordinates the international disaster risks reduction system, providing £1 million per year. We are also contributing £4.4m over three years to the World Bank's Global Facility for Disaster Risk Reduction which assists governments to incorporate disaster risk reduction into their national planning.

"ENVIRONMENTAL REFUGEES"

37. The UK supports the development of policies to address refugee issues in a comprehensible manner (20). However, we do not find the term "environmental refugee" helpful. There are already high levels of migration within and between developing countries, particularly in countries like Bangladesh which are frequently hit by natural hazards. It is also important to remember that migration is driven by a range of different factors which could include environmental as well conflict related amongst others.

VULNERABILITY ASSESSMENTS

38. The UK bilateral work goes beyond vulnerability assessments (19). In countries such as Kenya, India, China and Bangladesh we have undertaken climate risk assessments, which integrates vulnerability, helping these countries define a list of urgent adaptation priorities, to develop a more comprehensive adaptation strategy and put in place institutions to oversee this.

39. For example, the UK helped Bangladesh develop a 10 year Climate Change Strategy and Action Plan (CCSAP) building on the National Adaptation Programme for Action (NAPA). CCSAP was launched at the climate change conference co-hosted by UK on 10 September 2008 (52).

THE GLOBAL ENVIRONMENT FACILITY (GEF)

40. In response to conclusions (28) and (29), DFID continues to be the fourth largest contributor to the GEF, having increased its contribution to £118 million in GEF Third Replenishment (2002–06) and £140 million in the Fourth Replenishment (2006–10), funded from the overall increase in DFID’s budget over the period. Under the Fourth Replenishment (2006–10), the UK remains the fourth largest donor to the GEF after the US, Japan and Germany respectively, contributing £140 million over 4 years of which one third goes to climate change. The UK share of the total amount pledged by all countries is 6.92%.

41. DFID’s contribution of £22 million to the UN adaptation funds (£12 million to each of the Special Climate Change and Least Developed Countries Funds) is also among the leading contributions to date.

CLEAN DEVELOPMENT MECHANISM (CDM)

42. In line with conclusion (25), the World Bank estimates that in 2007 alone, the CDM has leveraged \$33 billion for investment in clean energy. To scale up carbon finance in Africa. The UK is working with the private sector to establish AfriCarbon 1 an initiative intended to work closely with local project developers to get projects off the ground.

43. There are currently over 1200 registered CDM projects with a further 4200 projects in the pipeline which are projected to reduce over 2.9 GtCo₂ of emissions by 2012.

44. On conclusion (27) as a project based offset mechanism, the CDM does not deliver any additional emissions reductions beyond rich country targets and it is difficult to scale up. The UK government is working closely with partners to develop proposals to scale up emissions reductions and carbon finance flows past 2012.

Written evidence submitted by the Agricultural Biotechnology Council (ABC)

INTRODUCTION

1. Abc agrees fully with the importance of aiding developing nations to tackle the immense challenges posed by climate change. As extreme climate conditions increase, biotechnology can help farmers worldwide to develop sustainable methods of agriculture. Researchers in many countries are already at work developing biotech crops to handle the stress of extreme climates and drought as well as continue to produce high yields. Plant biotechnology has helped reduce climate change by lowering greenhouse gas emissions through fuel savings associated with no-till farming systems.

2. The application of biotechnology to agriculture is fully consistent with international development and humanitarian goals of the Committee. Indeed, biotechnology is making a difference today, with pest-resistant GM crops in China, South Africa and India providing stable food supplies and farmers reaping economic profit from increases yields and quality. Of the twelve million farmers who grow GM crops, eleven million are resource poor farmers from developing countries. Research Institutes and biotechnology companies provide the technology to develop individual traits, but there are real and significant economic benefits for famers, who are more productive, and for consumers who experience lower prices. On average, two thirds of the global benefits are shared “downstream”, ie among domestic and foreign farmers and consumers¹⁹. There are no simple, universal solutions for providing sufficient food in developing countries or for reducing carbon emissions, but a starting point can be protecting current food supplies whilst investing in methodologies to increase sustainable agricultural output. Biotechnology, including GM, is an essential part of the solution.

3. Abc responds to the specific themes of your inquiry as follows:

THE EFFECTIVENESS AND COHERENCE OF THE UK GOVERNMENT’S APPROACH TO SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES

4. The effectiveness of the Government’s approach to sustainable development can be enhanced through the adoption and creation of incentives for of biotechnology research worldwide. Certain traits are being developed which can greatly increase farmers’ production and income.

5. Insect-resistance is a good example. Where insect resistant maize is cultivated, farmers benefit financially both from the increased yields of insect-resistant maize (since the same price is charged for GM and non-GM maize grain) and/or from the savings—often very considerable indeed—resulting from the reduced usage of pesticides. There is also a major health benefit in the poorer countries in which many farmers spray from back-packs; the effects on them of the toxic sprays results worldwide in tens of thousands

¹⁹ GM Crops in Europe: How Much Value and for Whom? U Leuven

of illnesses and hundreds of deaths. Avoiding insect infection can also enhance the quality and safety of maize for human consumption, by reducing the propensity of the crop to fungal infection with the consequent accumulation of mycotoxins in the crop.

6. Moreover, insect-resistant cotton prevents yield losses in cotton (estimated to be worth \$5 billion annually), mainly through the damaging impact of the cotton boll weevil. The development of varieties intrinsically resistant to this weevil has transformed the productivity of the crop and the quality of the resultant cotton. Farmers in China, India, South America and South Africa have all benefited.

7. It is particularly important to note how agriculture can be “climate-proofed”. Fuel-efficient agriculture will be crucial to the future of agriculture: the introduction of GM canola in Canada has already resulted in annual savings of over 30 million litres of fuel. Cumulatively, the numbers are impressive: since 1996, the cultivation of GM soybeans in Argentina has cut fuel use by a third (more than one billion litres’ worth) with a concomitant saving of three million tonnes of CO₂.

8. Many companies are developing the drought tolerance trait, with Bayer, applying it to oilseed rape, and Syngenta, Monsanto and Pioneer (DuPont), using it in maize. Field tests show that crops are able to continue to yield under severe water stress; this is as relevant to farmers in East Anglia as it is in East Africa. Rice and cassava are also being investigated. Furthermore, both maize and oilseed rape with various genetic modifications to improve their utilisation of nitrogen from applied fertilizer or existing soil reserves are already in early field trials research.

PRO-POOR EXPLOITATION OF NATURAL RESOURCES, INCLUDING MINERALS AND FORESTS, AND THE REGULATORY FRAMEWORK FOR EXPLOITATION

9. Genetically modified crops are already helping over 12 million farmers around the world by delivering more consistent yields of higher quality crops. The vast majority of these farmers are resource-poor growers with small plots of land whose lives can be significantly improved through GM technology.

10. Terri Raney, Senior Economist of the Food and Agriculture Organisation of the United Nations suggests that the “...economic evidence available to date does not support the widely held perception that transgenic crops benefit only large farms; on the contrary, the technology may be pro-poor. Nor does the available evidence support the fear that multinational biotechnology firms are capturing all of the economic value created by transgenic crops. On the contrary, the benefits are shared by consumers, technology suppliers and adopting farmers, although non-adopting farmers are penalized as their competitors achieve efficiency gains they are denied”.

11. In order to ensure that as many farmers as possible worldwide benefit from the potential offered by GM and other aspects of biotechnology, several obstacles need to be overcome:

12. Stringent EU approval systems are likely to deter developing nations’ farmers from adopting GM if they fear not being able to export to EU markets. Furthermore, the capacity of many farmers in developing nations is limited and they may be unable to meet the EU’s 0.9% labelling law, which may lead many to believe that cultivating GM could impact on their ability to access the EU markets of conventional commodities.
13. Anti-science rhetoric regarding biotechnology and GM is too often unchallenged. If we continue to allow GM to be demonised many of the least well off will miss out on the opportunities it could offer.
14. Insufficient business models and an unpreparedness to invest in the necessary infrastructure for biotechnological projects often hamper progress. It is therefore important to try to establish public-private partnerships that can provide the framework and funding for agricultural development.
15. Abc believes that there are several key actions the UK Government should take in order proactively improve adoption of agricultural technologies worldwide:
 16. Progress research into the potential international social and economic benefits of GM in conjunction and collaboration with the biotechnology industry.
 17. Continue to pressure the EU Commission and EU Member States to ensure a working EU regulatory approval process for GMOs, including more timely and predictable approvals in line with the rest of the world.

18. Recognise the link between biotechnology's potential and the Government's positions on international development.
 19. Consistently underline the importance of scientific debate and to stress that the anti-GM lobby need to be placed under the same scientific scrutiny as the biotechnology companies.
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**Written evidence submitted by Dr Ian Bailey, Senior Lecturer, School of Geography,
University of Plymouth**

1. My academic background is in human geography, specialising in climate policy and environmental politics. I have published two books and 26 refereed journal articles on aspects of environmental policy and my current research focuses on climate policy in the UK, Germany, the EU and Australia. My latest edited book (*Turning down the heat: the politics of climate policy in affluent democracies*, with Hugh Compston, Palgrave Macmillan) examines domestic climate politics in developed countries and does not explicitly consider the situations in developing countries. However, the international context clearly forms an important component of national climate politics and policy.

2. In the following sections, I consider three themes outlined by the Committee where I have sufficient expertise to offer comment: potential adverse impacts for developing countries of steps by developed countries to mitigate climate change; the impact of choices about power generation and energy sources; and opportunities for developing countries presented by "sustainable" approaches such as carbon trading.

Potential adverse impacts for developing countries of steps by developed countries to mitigate climate change, including in the context of the "post-2012" negotiations, and potential benefits for developing countries of related technology transfers

3. The majority of the EU and UK's internal policies to mitigate climate change do not appear to have major adverse impacts for developing nations from what has been observed so far, with the exception of choices about power generation and energy sources. This is discussed in the subsequent section and in this section I concentrate on international linkages created by the Kyoto Protocol and the EU climate strategy that have potential repercussions for developing countries.

4. One of the main potential adverse effects for developing countries of developed countries' efforts to mitigate climate change is how the post-2012 negotiations deals with the issue of limits on international emissions trading and other flexibility mechanisms. These instruments have the potential to increase financial transfers to developing countries that may aid sustainable development. However, the basic concern—discussed frequently in the literature—is that some developed countries may seek to relax current constraints on their use of flexibility mechanisms in order to reduce the risk of defaulting against international commitments. This could reduce the incentive for developed countries to reduce greenhouse gas emissions domestically and may also reduce the overall mitigation effort if flexibility mechanism credits are less robust than verified national emissions reductions. This, in turn, may increase the adaptation burden on developing countries. The UK government has thus far sought to minimise its use of flexibility mechanisms and this approach should be continued for the post-2012 negotiations alongside attempts to persuade its developed-world negotiating partners not to seek a major increase in the use of flexibility credits. There is the further concern that funds will not be directed towards countries in greatest need. This issue is discussed in more detail below.

5. Another perennial question in international climate negotiations is whether developing nations should accept binding emissions targets. There seems little prospect of a blanket agreement by developing countries forming part of the post-2012 deal, although the EU is pressing China and India to commit to reducing emissions to 15–30% below "business as usual" by 2050. Neither China nor India have given any ground on this issue yet but the hope must be that they will take on a commitment if: (i) Annex I nations commit to the stronger targets proposed by the EU; and (ii) there is a significant increase in technology and fiscal transfers to assist them to develop cleaner development trajectories. Anthony Giddens suggest a three-track system in his soon to be published book on the politics of climate change. This involves developed countries have emissions reduction targets, most developing countries agreeing targets based on carbon intensity per unit of economic output rather than absolute emissions, and the world's poorest countries being given additional financial assistance targeting only adaptation.

6. EU *border tax adjustments* (BTAs) to penalise carbon-intensive imports from non-Annex I countries have been debated in recent months, although the former EU Trade Commissioner, Peter Mandelson, appeared to rule out BTAs as problematic under WTO rules and almost impossible to implement. Although BTAs appear to offer a way to dealing with carbon leakage caused by the eastward shift of manufacturing emissions to supply western markets, any move in this direction is likely to damage relations with major developing-country negotiating partners and may indiscriminately penalise poorer nations seeking to import goods to the UK. Strategies based on positive rather than negative financial incentives are more likely to enjoy success in the bridging the gap between developed and developing nations on climate policy.

The impact of choices about power generation and energy sources in both developed and developing countries and the linkages between these

7. This is a complex issue, to which it is difficult to give a straightforward answer. However, at the core of this question are concerns about the UK's emerging energy gap and the likelihood of increasing dependence on other countries to meet the country's energy needs (as seen by recent gas imports from the Middle East). Greater self-sufficiency through renewables (and, for some, nuclear power) has to be the ultimate goal since it addresses both energy security and climate change. It also directly influences the amount of adaptation effort that will be needed in developing countries if the UK substantially reduces its greenhouse gas emissions through a major increase in renewables capacity.

8. Strategies that increase energy linkages between developed and developing countries are more problematic in relation to meeting energy and climate priorities, first, because of the potential for geopolitical tensions arising from increasing fuel supplies from overseas sources and, second, because many of the benefits of international trade in fuels go to oil multinationals rather than developing countries themselves.

9. Some increase in energy imports is, nevertheless, inevitable in the short to medium term and it seems unavoidable that an increase in nuclear power will be needed unless major advances in energy efficiency can be secured and intermittency issues with some renewables can be addressed. However, this should not detract from the longer-term strategy to achieve a step increase in the UK's renewable energies capacity. The UK's record on renewable energies has been weak compared with many of its European partners, mainly as a result of governments' over-reliance on market mechanisms to incentivise investment and failure to adopt a feed-in tariff system similar to that of Germany. Mitchell, C., (2007) *The Political Economy of Sustainable Energy*, Palgrave provides a clear and thoroughgoing analysis of the UK's track record and policy options.

10. In terms of how this impacts on energy linkages, the development of a more coherent UK strategy, responding to the EU's Second Strategic Energy Review and renewable energy directive, would provide new opportunities for both technology and policy transfer to developing countries. The latter, as well as facilitating policy change in developing countries, could be utilised to promote policy spillover, a process in which one step towards the integration of climate considerations into other policy areas increases functional or political pressure for further policy integration and more ambitious mitigation strategies. This form of policy spillover is becoming evident in the EU and UK climate strategies (eg the EU climate change and renewable energy package), and its application through policy-transfer partnerships may assist developing countries to develop economic strategies that involve significantly below "business-as-usual" emissions increases.

11. A further question concerns the extent to which the EU and UK should encourage biofuels and biofuel imports from countries like Brazil. This may produce economic benefits for some developing countries, although there are many questions marks about the environmental and economic impacts of biofuels once deforestation/ biodiversity loss and control of biofuels operations are taken into consideration. Too strong an emphasis on biofuels by European countries may also tempt more developing countries to move into biofuels production as a means of increasing export earnings, leading to unsustainable patterns of development and a further shift towards western nations importing sustainability from the developing world. Stronger controls and improved monitoring (possibly through internationally recognised and verifiable certification) will be needed if biofuels are to form a major part of future energy strategies.

Opportunities for developing countries presented by sustainable approaches, such as carbon trading, direct fiscal transfers and addressing the needs of increasingly environmentally-sensitive consumers

12. The collective labelling of the approaches named above as "sustainable" is misleading and the sustainability merits of each should be examined separately.

13. Carbon trading and other Kyoto flexibility mechanisms are inherently problematic in relation to promoting sustainable development in developing countries because they suffer from conflicting objectives and interests. On the one hand, they facilitate low-cost compliance with international commitments by developed countries; on the other, they have been touted as promoting sustainable development through the channelling of funds to developing countries. It is questionable whether these objectives can be compatible on a consistent, long-term basis because the incentive for funders (of both credit- and project-based mechanisms) is to seek out financially attractive investments rather than those in areas with greatest sustainable development or climate-change resilience needs. Several studies have identified the concentration of CDM funding towards a small number of developing nations (especially India, China and Brazil) and the lack of funding going to Africa as a weakness. The development opportunities from carbon trading and other flexibility mechanisms are, therefore, likely to be felt unevenly between countries and are poorly oriented towards sustainable development. Similarly, instability in carbon markets combined with the periodicity of compliance deadlines provides an uncertain framework for stable and sustained investment and benefits.

14. It is also uncertain whether demand from environmentally-conscious consumers in developed countries can be an effective, long-term mechanism for promoting sustainable development in developing countries. Factors like the global economic downturn can shift consumer preferences rapidly from

environmental to financial concerns and information on consumer choices can be confusing and contradictory. Clearer guidelines for consumers and codes of conduct for businesses may help to support existing “fair trade” and similar labelling in improving the sustainability credentials of products imported from developing countries.

15. Direct fiscal transfers theoretically offer a more controllable way of encouraging sustainable development in developing countries, although questions often surround where funds are directed (climate and development priorities are not always well-balanced) and how funds are spent once received. Such approaches also tend to be regarded as inefficient compared with market-based instruments, although some of this is due to the fact that fiscal transfers do not target lowest-cost/highest-return development opportunities to the same extent as market instruments but, rather, if properly managed, focus more directly on sustainability priorities. Evaluations of market-based instruments and direct fiscal transfers often seem to equate cost-effectiveness with effectiveness in achieving desired policy outcomes, in this case promoting sustainable development, such that cost-effectiveness becomes the default objective. Cost effectiveness is clearly important in determining spending priorities but not to the neglect of overall priorities.

16. Ensuring that a clear focus is maintained on sustainable development objectives—including adaptation/resilience building to climate change—requires appropriate institutional arrangements to oversee fiscal transfers. Please refer to the supplementary paper by Richard Sandbrook, which some committee members may be familiar with. The types and scale of institutional arrangements proposed in the paper would require significant international cooperation, but could conceivably be adapted to enable government departments to perform “light-handed” oversight of direct fiscal transfers.

17. Of the three instruments, direct fiscal transfers appear to provide the clearest framework for achieving consistent, long-term funds to assist developing countries adapt/build their resilience to climate change while promoting economic development. All the mechanisms discussed have their drawbacks, however, and increasing direct fiscal transfers is clearly more difficult in the current economic downturn as government borrowing increases. The European Commission’s proposals to increase allowance auctioning in the EU emissions trading scheme may provide additional revenue, although there will be competing demands on this. Greater earmarking of other energy-related fiscal revenues (eg fuel duties or domestic emissions trading schemes such as the Carbon Reduction Commitment) and/or long-term funding commitments to assist climate change adaptation/sustainable development in developing countries may therefore be required to supplement market-based measures.

Written evidence submitted by Blue Skies

1. Blue Skies is a fresh fruit cutting business with production facilities in Ghana, Egypt, and South Africa. The company specialises in exporting high quality, just harvested, fruit products to Europe in the cargo holds of passenger aircraft. The group supplies fresh cut fruit and juices to retailers including Waitrose, J Sainsbury, ASDA, Albert Heijn and Monoprix.

2. Blue Skies is recognised as a model for sustainable development in the developing world. This year we have received a Queens Award for Enterprise in the Sustainable Category and we are proud of our ethos of adding value to products at source.

3. Airfreight is a key to our sustainability as it allows us and companies like us to cut and pack highly perishable produce in Ghana, Egypt, South Africa and Brazil and deliver it to our customers within its very limited shelf life. This brings significant socio-economic benefits where we operate. Our biggest factory is in Ghana which employs over 100 people, supports 150 small holder farms and exports over ten tonnes of processed fruit per day. This equates to 1% of Ghana’s total exports and 20% of Ghana’s pineapple exports.

4. Key facts and figures:

- a. Founded in 1998. Pioneered fresh-cut fruit.
- b. Built upon a culture of fairness, trust and respect.
- c. Supplies 12 major European retailers.
- d. The company has grown by 25% every year for the past 10 years.
- e. 2008 group turnover likely to be £32 million.
- f. Employ over 2500 people in Ghana, Egypt, South Africa and Brazil.
- g. Presented with Queens Award for Sustainable Development in 2008.

5. Impact in Ghana:

- a. Employ over 1,000 people in Ghana.
- b. Lowest salary is four times the national minimum wage.
- c. Contribute £2.5 million to the local economy per year through salaries. Biggest employer in the Eastern Region.
- d. Economic development has improved living conditions in Nsawam and Dobro and enabled investment in small businesses.

- e. Growers benefit from a long term, sustainable approach. Loans, payment within seven days, continuous training and support, premium price.
 - f. Supports a supply base, in Ghana, of 150 small-holder farms.
 - g. Responsible for 1% of Ghana's total exports, 30% of pineapple exports and 70% of mango exports.
 - h. £90,000 invested in community projects to improve the lives of farmers and their communities who supply Blue Skies per year.
 - i. 100% of waste is recycled at source. Organic waste is composted, waste water is recycled.
 - j. Standards achieved: GlobalGAP, LEAF (Linking Environment and Farming), Fairtrade, Soil Association Organic, Soil Association Ethical Trade Organic, BSCI (Business Social Compliance Initiative), British Retail Consortium (Food Safety), IFS (International Food Standard).
6. Challenges:
- a. The weak pound against the dollar has devalued our sales value by 25% as most of our earnings are in pounds whilst nearly all our costs are in dollars.
 - b. The sharp increase in oil price earlier this year significantly increased our costs; however the failure by some of the airlines to proportionately pass on the recently reduced oil price is putting additional strain on our business.
7. Recommendations for Government:
- a. Ensure airlines operate fairly and do not profit from volatile oil prices at the expense of developing world producers.
 - b. Ensure adequate funds are invested into alternative fuels for aviation to avert severe impacts of Climate Change and Peak Oil.
 - c. Encourage further government, public and private-sector support for ethically sourced products from the developing world.
 - d. Provide funding for renewable energy projects for businesses in developing countries.

Written evidence submitted by British Airways plc

INTRODUCTION

1.1 British Airways welcomes the opportunity to submit evidence to the International Development Select Committee's inquiry into "Sustainable Development in a Changing Climate".

1.2 The airline's main base is London Heathrow Airport, the UK's primary international hub airport and one of the busiest airports in the world. BA also operates from eight other airports in the UK, and worldwide, to more than 150 destinations over 70 countries. It employs 43,000 people, of whom 38,000 work in the United Kingdom.

1.3 British Airways offers almost 550 flights in total to and from Heathrow each weekday, with a further 190 services a day to and from London Gatwick daily and more than 40 per day to and from London City.

AVIATION AND THE ENVIRONMENT : A BRIEF OVERVIEW

2.1 Much has been written and discussed about aviation's contribution to climate change. Regrettably, much of the debate is inaccurate and exaggerates the industry's impact. The Stern Report, published in 2006, states that the aviation industry's CO₂ emissions currently account for less than 2% of global greenhouse gas emissions. It also suggests this will rise to less than 3% by 2050 under business-as-usual predictions.

2.2 British Airways believes the industry should pay for its environmental impact and supports emissions trading as the best and fairest method to do this. The UK aviation industry has taken a strong lead in improving its environmental performance through Sustainable Aviation, a coalition of aircraft and engine manufacturers, airlines and airports, and continues to review, develop and improve all aspects of its operation.

2.3 British Airways supports the inclusion of aviation in the post-2012 global climate change policy. This should be achieved through a sectoral approach that reflects the principle of common but differentiated responsibility, whilst avoiding competitive distortion in air transport markets.

 THE ROLE OF AIR TRANSPORT

The role of transport, including aviation, in economic development in developing countries, particularly freight and exports, and the impact of such transport on the environment

3.1 British Airways' comments are restricted to point four of the Committee's Terms of Reference on its inquiry into Sustainable development in a Changing Climate, with specific reference to aviation.

3.2 It is widely recognised that air transport is a driver for economic development, and this is applicable to developing countries as it is to mature economies. It offers access to markets for goods and services, and facilitates the movement of both tourists and migrants, which add value to developing nations.

3.3 In 2007–08, British Airways imported 55,000 tonnes of perishable cargo into the UK through its specialist facilities at London's Heathrow and Gatwick Airports. 29,000 tonnes arrived from Africa (mainly Kenya, South Africa and Egypt) and 20,000 tonnes from the Americas (Brazil, the Caribbean and California). The remaining 6,000 tonnes were shipped from Thailand, India, South Asian and Mediterranean countries.

3.4 The freight comprised mainly soft fruits, green vegetables, flowers and fish. British Airways has seen a growth in the preparation and packaging of these goods at source, which we believe is driven by economic grounds—the prepared food is lighter and so incurs lower cargo charges, meaning either less weight is carried resulting in lower emissions, or more is carried for the same amount of emissions.

3.5 Almost all of this produce was carried in the belly-holds of scheduled passenger flights, rather than in specific dedicated freighter aircraft.

3.6 Furthermore, processing plants have lower operating costs in the source countries, with a greater supply of manpower and less mechanisation also contributing to a lower carbon footprint.

3.7 This has contributed many millions of dollars to local economies and producers, and enabled many local communities to thrive. British Airways offers the following two examples of air transport contributing to local economies.

3.8 A case study by the Department of international Development of Blue Skies, a Ghanaian food co-operative, reports that the organisation “provides training and support to over 150 farmers, 78 of whom are small-holder organic farmers. Its fresh-cut fruit factory employs 1,700 people and through salaries alone, injects over £2 million into the local community every year. The company accounts for around 1% of Ghana's total exports.”²⁰

3.9 A second example is in South Africa, where a strategic infrastructure project is being created in KwaZulu-Natal known as the DUBE Trade Port (DTP). A critical component of this investment is King Shaka International Airport, which is being constructed as part of the overall DTP initiative to provide for direct long-haul international flights and expanding domestic flight network.

3.10 Apart from the tourism benefits the airport will bring, the DTP plans include integrated trade and agricultural export zones. The trade zone will be linked to the airport's air freight facilities and will provide a dedicated area for the import and export of high-value goods to and from KwaZulu-Natal. It is seeking to attract investment through industries that are critically dependent on specialised air freight capabilities that guarantee timely delivery.

3.11 The agricultural export zone will provide land and facilities for the cultivation and export of high-value farming products and include pre- and post-harvest facilities. The agricultural zone and airport will then enable established and emerging farmers and co-operatives to become successful exporters of high-value perishable goods, benefiting both the local economy and population.

3.12 To understand the impact of such transport and overseas production on the environment, we recommend to the Committee the a joint study between the University of Wales, Bangor and the University of Surrey led by Professor Gareth Edward-Jones et al on the Comparative Merits of Consuming Vegetables Produced Locally and Overseas.²¹ Professor Edwards-Jones' study found that to accurately evaluate the impact on the environment of food produced at local, regional (European) and international level, all aspects of the production, packaging and transportation processes from food to table should be included in any assessment.

3.13 This includes soil preparation (fertilisers, pesticides, water etc), machinery, heating and growth stimuli, mechanised packaging, refrigeration, storage and all types of transportation. It offers a more comprehensive picture of the true environmental cost of food, and highlights that even if a product from one location has high transport emissions, these may be offset if other aspects of the life-cycle result in lower emissions than the alternatives on offer.

²⁰ <http://www.dfid.gov.uk/casestudies/files/africa/ghana-ernest.asp>

²¹ RELU—Rural Economy and Land Use. Results from the study include the collection of international comparative data from sites in the UK, Europe and Africa. The project combines the expertise of soil scientists, biochemists, health economists, agriculturalists, environmental scientists and sociologists from the University of Wales Bangor and the University of Surrey (University of Surrey).

 SUMMARY

4.1 Air transport is a vital component in the economic development of developing countries. It offers import and export opportunities to grow the economies, attracting inward investment and facilitating the export of goods to key international markets.

4.2 Without air transport services, the products of Blue Skies and the DTP agricultural export zone—and those of numerous other producers and co-operatives throughout the developing world—would not arrive at their key markets, denying economic growth opportunities to many countries and individuals.

This is an interdisciplinary research project funded under the Rural Economy and Land Use (RELU) Programme of the Research Councils, UK (ESRC, NERC and BBSRC).

British Airways

4 December 2008

Written evidence submitted by the Department for Culture, Media and Sport

Thank you for your letter of 29 October 2008 addressed to the Secretary of State for Culture, Media and Sport, the Rt Hon Andy Burnham MP about the United Kingdom Government's decision not to renew its membership of the United Nation's World Tourism Organisation. I am replying as the Minister for Tourism and I hope that you will accept my sincere apologies for this very delayed response which was caused by an administrative error.

On 29 July last year, my predecessor, the Rt Hon Margaret Hodge MP, wrote to the Secretary General of the UNWTO, Mr Francesco Frangialli, to give him 12 months notice of our intention to, regretfully, withdraw from the organisation on 1 August 2009.

The reason for this withdrawal is, quite simply, the need to prioritise scarce resources. Following a tight spending review settlement in 2007, difficult decisions have had to be made about the allocation of financial resources in this Department and its Non Departmental Bodies and, after much thought, we regretfully concluded that, under the circumstances, we could not justify the €314,000 cost of the UNWTO membership fee.

Please be assured that this decision was made after careful consultation with all the relevant Government Departments, including the Department for International Development and the Foreign & Commonwealth Office.

The British Government continues to be as supportive as it can of the UNWTO. For example, on 11 November last year I was the keynote speaker at a World Tourism Ministers' Summit organised by the UNWTO. I also met separately with their Secretary General on the same day.

I hope that this letter answers your concerns and would like to apologise, once again, for the delay to your reply.

Barbara Follett
Parliamentary Under Secretary

4 February 2009

Written evidence submitted by E.ON UK

1. E.ON UK is one of the UK's leading power and gas companies, generating and distributing electricity, and retailing power and gas to industry and residential customers. We generate electricity from a range of sources, including coal, gas and oil, and from renewable energy sources including on and offshore wind farms and biomass schemes. We are part of the E.ON group which has interests throughout Europe and in the United States. E.ON is the second largest nuclear operator in Europe and one of the largest renewable generators. E.ON expects to invest €6 billion in renewable energy in Europe and the United States up to 2010 and to have 10GW of renewable capacity in operation by 2015. In the UK we are developing a number of projects, including a gas-fired combined heat and power plant at Grain, a proposed new coal-fired power station at Kingsnorth, and offshore wind projects either under construction or planned, including the 1000MW London Array scheme in the Thames Estuary. We are also actively engaged in developing carbon capture and storage (CCS) technologies.

GLOBAL GROWTH IN ENERGY DEMAND AND FOSSIL-FUEL USE

2. We very much welcome the Committee's inquiry. The IEA projects in its 2008 Energy Outlook reference scenario that global primary energy demand could grow by 45% from 2006 to 2030, with coal accounting for more than a third of incremental global energy demand in non-OECD countries to 2030. Over half of this demand growth is projected to occur in India and China, with China expected to construct as much as 1000GW (1GW = 1000MW) of coal-fired capacity by 2030 (this compares with the 25GW of coal-fired capacity currently on the UK system). As the IEA points out, this level of growth in demand and in the use of fossil fuels is not consistent with the reduction in global CO₂ emissions required to mitigate sufficiently the effects of climate change.

3. The global response to this must include radical improvements in energy efficiency standards as the most economic means of reducing CO₂ emissions. More rapid deployment of non-fossil fuel sources, including nuclear and renewable energy sources, are also required, where countries have access to economic sources of renewable energy or are in a position to support new nuclear development.

4. However, it also needs to be recognised that fossil fuels will remain a major source of fuel for electricity generation. Coal in particular is both most widely available geographically and has the longest-lived reserves at current consumption rates. It will therefore inevitably be widely used by many developing countries to meet their growing demand for energy. For developed countries such as the UK, it can be an important component of a diversified energy supply which delivers secure energy, provides back up for intermittent wind generation, and avoids overreliance on any single fuel source, such as imported gas.

CARBON CAPTURE AND STORAGE

5. We therefore need to find ways of using coal and other fossil fuels which do not lead to significant increases in CO₂ emissions to the environment. CCS technologies capture the CO₂ emissions from fossil-fuelled power generation, transport and store them in suitable deep geological formations. CCS offers an opportunity to break the link between new fossil generation and increasing levels of CO₂ whilst maintaining the many benefits of coal-fired generation. Substantial deployment of CCS to fossil plant from the 2020s onwards can play a major part in ensuring that emissions of greenhouse gases do not exceed levels which could create unacceptable risks for the global environment.

6. Developed countries such as the UK have a responsibility to lead the international effort to develop, demonstrate and deploy CCS and other low carbon solutions, and to facilitate the transfer of these technologies to developing countries. The UK and wider European energy sector has an important role to play in this. E.ON's development and commercial deployment of reliable sources of low or zero carbon generation, including wind, biomass and marine sources of renewable energy, will help make these technologies available on an affordable basis to developing countries as they play their part in reducing CO₂ emissions over the longer term. The UK is also particularly well-placed to demonstrate CCS given its experience with coal-fired generation and the availability of depleted gas or oil fields on the UK Continental Shelf which can be used for permanent storage. E.ON has also been devoting substantial resources to develop carbon capture and storage.

7. The priority now is to demonstrate CCS at a commercial scale which will then prove suitable for deployment on coal-fired power plants in the UK and other developed countries and then increasingly in the major emitting, developing countries such as China and India during the 2020s.

8. CCS is not currently commercially viable, and in fact costs have increased significantly in the last five years, due in part to the increase in the costs of raw materials such as steel. Energy companies cannot fund early demonstration projects as the energy price, even incorporating a carbon price, does not reward the investment. International co-operation is needed, both between companies and governments. The EU has proposed to fund 12 large scale CCS demonstration projects across Europe and the recent European Council on 11 and 12 December has agreed that up to 300M emission allowances from the EU Emissions Trading Scheme (see para 12 below) should be available to Member States to help co-finance these projects.

9. The UK Government has already initiated a competition to fund one large scale CCS demonstration project. The UK's current coal fired power stations are approaching the end of their life cycle and these older less efficient plants are not suitable for the demonstration of carbon capture. Consequently the UK requires a new high efficiency coal fired power station if we are to demonstrate this technology successfully and at reasonable cost. E.ON has therefore entered a CCS project into the Government competition at our proposed new power station at Kingsnorth. This power station will use supercritical boiler technology and will generate electricity 20% more efficiently than existing plants, thereby producing 20% less CO₂ for the same amount of electricity generated. To proceed with the CCS demonstration, we will need consent for the power station itself and we are currently awaiting a decision from the Secretary of State for Energy and Climate Change.

10. Once the technology has been demonstrated both at scale and commercially (which will require additional demonstrations either in the UK or elsewhere in the EU or internationally), it will be available for retrofit either to power stations already operating at that time or for installation with new projects. Our preferred approach to rewarding CCS investment at that point would be for the investment to be justified by avoiding the cost of CO₂ emissions imposed by the EU ETS (see para 12 below). Retrofitting CCS before

the carbon price is high enough to justify the investment would require some additional Government support. In addition the E.ON group has already stated that, once CCS has been commercially demonstrated, it will not build any coal stations after 2020 without CCS fitted.

11. It would not be rational to retrofit the whole of Kingsnorth with CCS at this stage. This would both be expensive, given the current state of development of the technology, and would simply replicate the same demonstration technology several times, with no opportunity for learning from experience. However, once commercially demonstrated, we will fit CCS to the remainder of the plant once regulatory and market conditions reward the investment, as discussed in the previous paragraph.

12. The E.ON group also has a programme of CCS development across Europe. E.ON is working to promote the transfer of CCS to China, for example through collaboration with Tsinghua University on the optimisation of post-combustion capture processes—as part of the CAPRICE project—and through active encouragement of Chinese and Indian partners' involvement in our entry into the Government's CCS demonstration competition. The UK Government CCS competition encourages technology transfer as part of the judging criteria and we feel that this is a strong point of our entry.

POLICY MECHANISMS TO INCENTIVISE LOW CARBON TECHNOLOGIES IN THE DEVELOPED AND DEVELOPING WORLD: THE EU ETS AND PROJECT CREDITS

13. The primary driver of low carbon emissions in the power sector in the UK and Europe is the EU Emissions Trading Scheme (EU ETS). This imposes a reducing cap on emissions from the power sector and other large emitters and enables permits to emit CO₂ (emissions unit allowances) to be traded between participants within the scheme. If the cap is set significantly below the level of emissions which would have been required on a business as usual basis, this shortage creates a carbon price which incentivises use of lower carbon fuels and investment in low carbon technologies. However, the EU ETS does allow market participants to invest flexibly in a way which both meets the CO₂ reduction targets but also allow investment to support other policy objectives, such as security of supply. It is therefore possible, within the EU ETS, to invest in a limited number of coal-fired plants to maintain secure energy supplies. Once CCS is demonstrated commercially, the EU ETS will incentivise generators to fit CCS to such plants to avoid the costs associated with buying permits to emit CO₂.

14. The EU ETS is the only international policy mechanism actively in use and can be extended to other developed countries to broaden its global coverage. A number of other countries, including the US, are expressing interest in developing similar schemes which could be linked to the EU ETS, creating an increasingly global cap on carbon emissions. It is not a suitable mechanism to control emissions in developing countries at this stage and is most suitable for economies with functioning competitive energy markets but it could be extended to them at a later date. Its flexibility in allowing a range of investments within an overall cap is one of the features which could make it attractive to developing countries.

15. The EU ETS can also assist with the transfer of low carbon technologies in the interim period as it permits the purchase of 'project credits' to count toward the reductions in emissions required by the scheme. Project credits are CO₂ reductions achieved by using the flexible tools Joint Implementation/Clean Development Mechanism (JI/CDM) created within the framework of United Nations Framework Convention on Climate Change to ensure that the most cost-effective reduction potentials were tapped throughout the world, not just in any one nation or group of countries. Under the CDM, project activities in developing countries which achieve CO₂ savings which would not otherwise have been made without the investment taking place can count toward the quantified limits imposed on developed countries. This enables developed countries to apply technologies, such as CCS, in developing countries and supports the transfer of these technologies to these countries, helping them achieve reductions in their own right.

16. The EU and the UK must deliver a substantial proportion of its greenhouse gas reduction targets through domestic action and not through project credits. However, excessive restrictions on project credits could reduce the cost effectiveness of global greenhouse gas abatement, and could undermine efforts to assist developing countries with emission reduction projects. The appropriate balance is a matter for governments to determine either at the EU level in the case of the EU ETS or at national level in respect of sectors not covered by the EU scheme.

SUMMARY

17. The continuing growth in use of fossil fuels, including coal, is inevitable in the developing world to meet their increasing demand for energy, irrespective of action taken by more developed economies such as the UK. If the international community is to achieve its climate change goals, it will be essential to develop and apply technologies which will substantially reduce emissions from fossil fuels. CCS is a means of breaking the link between increased fossil fuel use and higher emissions. The UK and other developed countries have a leading role to play in developing and applying CCS and the priority now is for the UK to demonstrate this technology at a commercial scale. CCS can only be demonstrated on a new coal plant and we have therefore entered our Kingsnorth project into the Government's CCS competition. The EU ETS is the most efficient means of driving low carbon emissions in the EU and can be extended to other developed

countries and ultimately to countries such as China and India to cap emissions at a global level. In the interim, project credits allowed under the Kyoto Protocol can play a valuable role in encouraging the transfer of low carbon technologies (including CCS in due course) to developing economies.

Written evidence submitted by FlyingMatters

1. FlyingMatters is a coalition of organisations that support sustainable growth in air transport. Our membership includes trade unions, business, tourism groups, farmers in the developing world, as well as the aviation industry (aerospace manufacturers, airlines, airports and air traffic control). A full list of members is attached at Appendix 1.

2. We welcome the opportunity to respond to the International Development Committee's inquiry into "Sustainable Development in a Changing Climate". This submission will focus on the two elements of the inquiry which are relevant to the work of FlyingMatters. These are:

- the role of transport, including aviation, in economic development in developing countries, particularly freight and exports, and the impact of such transport on the environment; and
- the role of tourism in economic development, and the potential for sustainable tourism.

3. We welcome the inclusion of these levers of development within the remit of the inquiry. We believe that the role of aviation is vital in ensuring that developing nations can take full advantage of the opportunities presented by the growth in international tourism and those presented by consumer markets in developed nations for fresh and other produce from developing nations.

4. We have consistently argued for a balanced approach to the twin challenges of development and climate change which recognises the significant economic importance of air transport links to developing countries and sets this against the relatively small carbon footprint of those in the developing world.

5. This is not to suggest that the climate change impact should be ignored but it does need to be contextualised within the overall contribution of the activity and what the industry is doing to reduce that impact further.

6. According to the Intergovernmental Panel on Climate Change (IPCC) aviation accounts for approximately 2% of global carbon emissions and they predict this will rise to 3% by 2050.²² Taking into account non-CO2 factors would put this figure at 6% in 2050 on a mid-range scenario. According to Sustain, air freight of fresh produce is responsible for less than 1 per cent of those emissions²³.

7. A number of members of the FlyingMatters coalition will be submitting their own detailed evidence to the committee, including ABTA/FTO and BlueSkies setting out the value of tourism and trade to the developing world and how these can be sustainable.

8. FlyingMatters has recently engaged with a range of organisations working with farmers in the developing world including the Kenya and Ghana High Commissions. This was prompted by proposals by the Soil Association to remove organic status from air freighted fresh produce. We heard from producers in the developing world that, for them, there is no alternative to air freight. This is because the process of "adding value" to their produce means that the food has a very short shelf life and would not survive any other form of transportation. Air freight is an expensive form of transport and is used out of necessity.

9. We also heard how the fresh cut produce industry in the developing world is contributing to the achievement of the Millennium Development Goals, particularly on adding value at source and the employment and education of women.

10. FlyingMatters is concerned that misguided attempts by organisations such as the Soil Association to address the very small climate change impact of air freight will have a disproportionate impact on thousands upon thousands of farmers in Sub-Saharan Africa. These farmers would effectively be squeezed out of the UK market causing severe economic and social hardship to those reliant on trade with the developed world as their route out of poverty.

11. International tourism conveys equally important benefits where there is no domestic market to speak of which is capable of generating jobs and investment on the same scale. Jobs mean access to decent food, housing and, crucially for future development, education.

12. It is impossible to over state what this means to the communities reliant on tourism or on exporting fresh produce.

13. It is therefore imperative that policy decisions are based on the most authoritative sources of information about the climate change impact of aviation and the best available evidence of the impact of policy proposals on those at the sharp end in the developing world.

14. The full range of work being undertaken by the aviation industry to address its environmental impact must also be understood and taken into account.

²² Intergovernmental Panel on Climate Change, 2007. "Climate Change, 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the intergovernmental Panel on Climate Change".

²³ Sustain (2006) Airfreight of fresh horticultural produce from the least developed countries: A round table seminar, London.

15. Aviation already has a great track record of achieving improvements in respect of environmental issues. This includes greater efficiencies in fuel consumption, fuel emissions, noise emissions, and the ability to fly longer and further, so eliminating a mass of en-route refuelling stops.

16. Looking ahead, and continuing to provide even more improvements, there is a Europe-wide industry target to reduce the fuel consumption of new aircraft by 50% by 2020. This is on course to be met and the industry is already exploring targets beyond 2020. The UK aerospace industry spends £2.5 billion on research and development every year—the vast majority of which is geared to mitigating and reducing environmental impact. The UK aviation industry established the Sustainable Aviation initiative in 2005 which brings together all parts of the industry as signatories to more than 30 commitments to improve environmental impact on the ground and in the air. This is a world first.

17. All signatories to Sustainable Aviation (SA) are implementing individually appropriate strategies with a view to achieving the commitments relevant to them within the required timescale. Different timescales apply to different commitments—some can be delivered in the short term others are longer term commitments. In its first year SA gave top priority to its goals and commitments on climate change and local environmental impacts.

18. We believe that consumers should have access to balanced, factually correct information on which to base their choices—both in relation to what they buy in supermarkets and the holidays they choose to go on.

CONCLUSION

19. Recognising that aviation already is a leader in meeting environmental challenges, the aviation industry is working even harder to reduce its environmental impact. It is investing in developing new technology which will deliver cleaner, greener planes. This is coupled with support for market-based mechanisms, such as emissions trading, which will ensure emissions reductions across the economy. We believe that this is the best way to protect the access of people in the developing world to the benefits of aviation whilst at the same time the industry plays its part in combating climate change.

20. We urge the Committee to recognise that the debate around climate change and international development is a complicated one and that there is no single easy answer. We do not believe that proposals such as those from the Soil Association embody social equity or proportionality and represent a ‘stick’ rather than a ‘carrot’ approach to long term sustainability.

APPENDIX 1

MEMBERSHIP AS OF NOVEMBER 2008

- ABTA
- ACTE (Association of Corporate Travel Executives)
- African Organic Farming Foundation
- Airbus
- Amicus Section of Unite
- AOA (Airport Operators Association)
- AUC (Air Transport Users Council)
- BAA
- BACA (Baltic Air Charter Association)
- BATA (British Air Transport Association)
- BBGA (British Business and General Aviation Association)
- BIFA (British International Freight Association)
- Blue Skies
- Board of Airline Representatives UK
- Boeing
- British Airways
- DHL
- easyJet
- Emirates
- Farmers Own
- Flybe
- Fresh Produce Consortium
- FTO (Federation of Tour Operators)
- GMB Trade Union

- KOAN (Kenya Organic Agriculture Network)
- Macquarie
- Manchester Airport Group
- Monarch Airlines
- NATS
- Prospect
- QinetiQ
- Rolls-Royce
- SBAC (Society of British Aerospace Companies)
- SPAA (Scottish Passenger Agents' Association)
- T&G Workers Section of Unite
- Thomas Cook
- TUI Travel
- Tourism Alliance
- TUC (Trades Union Congress)
- Virgin Atlantic Airways

Supporters:

- British Chambers of Commerce
 - CBI
 - Visit Britain
 - Visit London
-

Written evidence submitted by the Fresh Produce Consortium (FPC)

1. The Fresh Produce Consortium (FPC) is the trade association for the fresh produce industry in the UK. We represent importers, food service companies, wholesalers, packers and processors, retailers, exporting third countries and many more organisations that have an involvement with the industry. We welcome the opportunity to provide evidence to the Select Committee's debate.
2. Carbon footprints of and carbon emissions associated with the production, trade and distribution of fresh produce are issues which the industry takes extremely seriously and the FPC is actively engaging with the Carbon Trust and other bodies to look at ways in which this sector can identify sources of emissions and reduce the carbon footprint of companies and products.
3. We believe that focusing solely on the method of transport of imported food as a basis for determining whether it is "good" or "bad" from an environmental perspective is short-sighted and misleading to consumers. Transport accounts for only one element of the carbon emissions of a particular product and therefore looking at the carbon footprint of the whole product supply chain—through the use of life cycle assessment—would be a far better way of determining its environmental impact.
4. Air freighted imports of fruit and vegetables account for 0.2% of total UK greenhouse gas emissions and air freighted food is responsible for 11% of all UK food-chain greenhouse gases. Sixty percent of air freighted fresh produce is brought to the UK in the bellyhold of passenger aircraft and there is no evidence to suggest that fewer planes would fly if less imported fruit and vegetables were eaten. Air freighted fresh produce on dedicated cargo planes accounts for 0.12% of total UK greenhouse gas emissions.
5. There is growing evidence that in some circumstances importing outdoor-grown produce may produce less greenhouse gases than growing the same commodity in UK greenhouses heated by fossil fuels. On the other hand, in some cases and for social and economic reasons, buying local may be more advantageous. However, Manchester Business School, in their 2006 report to Defra, concluded that "evidence for a lower environmental impact of local preference in food supply and consumption when all food types are taken into consideration is weak.... So, while there are no grounds from the available data to argue 'local good—global bad' as a general statement, this could be true for certain foods, as could the reverse."
6. Furthermore, the idea of food miles looks simply at the distance the item of food has travelled from farm to retail outlet and there are clearly many other factors relating to fossil fuel use and emissions along the food chain which must also be taken into account.

7. Indeed, Defra's 2005 Food Miles report concluded that "a single indicator based on total food kilometres is an inadequate indicator of sustainability". The FPC believes that not only would the use of food miles-based labelling or trade restrictions lead to unconstructive discrimination, it would also lead to consumers developing a false sense of "eco-security" in the belief that foods with low food miles are always good, and foods with high food miles are bad.

8. The Food Ethics Council's report "Flying food: Responsible retail in the face of uncertainty" states that: "air freighted food makes a much smaller contribution to total UK emissions than other aspects of farming and food. Compared with the 0.3% of total UK emissions associated with food air freight, fresh fruit and vegetables in total account for 2.5%, refrigeration for 3.5 %, alcoholic drinks for 1.5%, and meat and dairy for 8%."

9. Much of the world's economy is built on trade and reducing barriers to trade in a considered and proportionate way can often have significant benefits both to the suppliers and consumers of commodities traded on world markets. Trade is a valuable tool that is recognised by the European Commission for its role in aiding development. According to the Commission, trade policies can provide opportunities for promoting economic development and tackling poverty (EU DG Trade 2005).

10. The International Institute for Environment and Development (IIED) claims that the inclusion of sub-Saharan African (SSA) nations in the high value horticulture and flower markets has been a success story for those countries (MacGregor 2007). According to the IIED, the UK imported over £200 million of fresh fruit and vegetables from SSA in 2005, and the quantity of exports from this region continues to grow. These exports are worth £100 million to Kenya alone, and this trade provides employment for about 135,000 people directly. One million people also benefit indirectly through support and employment in ancillary industries. Forty per cent of all air freighted FFV comes from SSA and the vast majority of this (32,500 tonnes) comes from Kenya, with the next biggest source of fresh fruit and vegetable exports by air being Ghana, with 8,000 tonnes. Kenya is the single biggest airfreight exporter in SSA, exporting 91% of all their fresh fruit and vegetable exports to the UK by air.

11. The Department for International Development (DFID) is responsible for a vast amount of work in the developing world which is helping to alleviate poverty and stimulate sustainable development. When the Soil Association's proposals to remove accreditation from air freighted organic produce were first publicised in October 2007 the DFID responded by saying: "We are worried about the livelihoods of the African farmers who don't meet these extra standards and we're worried about the costs of additional certification for the farmers that do meet the standards. We know from our support to the Fairtrade Foundation that certifying new products can take from six months to several years and costs between tens and hundreds of thousands of Euros.

12. Oxfam also commented: "If UK consumers are genuinely concerned about lowering emissions to combat climate change, they should look closer to home. Food miles associated with the export of fresh fruit and vegetables from sub-Saharan Africa equate to only 0.1% of the UK's entire carbon emissions. Switching to low-energy light bulbs can reduce more emissions than rejecting fresh fruit and vegetables from Africa—and doesn't affect the 1.5 million people in Africa who depend on agricultural exports to the UK for a living".

13. While the quantity and economic value of organic fresh produce imports arriving in the UK are small they nonetheless represent increasingly valuable income streams to those involved and placing restrictions on such trade could have serious consequences for rural economies in developing countries. More importantly, however, the impact of Soil Association policy on other elements of the industry and on consumers' consciousness should also be considered. Moves by the Soil Association to restrict air freighted organic imports could set a dangerous precedent for other food and fresh produce sectors which would have a far larger impact on developing countries.

14. The UK's Department for International Development (DFID) acknowledges that robust action is necessary in order to begin to tackle climate change, but the Department believes that restricting airfreight in order to try to reduce GHG emissions will have negative economic impacts on the least developed countries which do export horticultural produce to the UK. DFID argues that policies aimed at reducing emissions should also acknowledge that:

- Agricultural growth is essential to economic development;
- Increased productivity means cheaper food, more jobs and higher incomes;
- Agriculture is the most likely source of growth in Africa—70% of the poor work on the land.

Written evidence submitted by International Alert

SUMMARY

1. This submission relates to the extent to which climate change adaptation is integrated into DfID's development policies, which is the second listed area of interest to the Committee in the Inquiry on *Sustainable Development in a Changing Climate*.

Our main points are that:

2. Most of the countries receiving DfID aid are experiencing climate change already, and in the majority of cases this has significantly raised the risk of violent conflict.

3. DfID has made recent strides towards addressing climate change but there remains much to be done both to integrate the response that those countries facing the double-headed risk of climate change and violent conflict into development policies and to give this work sufficient priority.

4. If development policies of donor countries, including the UK, do not sufficiently integrate climate change adaptation or give it the priority it warrants, then violent conflict will almost inevitably undermine any progress towards either the Millennium Development Goals or their successors. This is not currently happening.

5. New development policies are urgently required which address the key consequences of climate change in developing countries, which are:

6. Political instability Weak governance structures underlie the problem of vulnerability to the impact of climate change. Weak governance is one of the key links in the chain of the consequences that flow from climate change. Climate change will put increased pressure on basic state functions such as the provision of health care and the guarantee of food security. Failed states, fragile states and states in transition, where such institutions either do not exist or are already unable to provide for the basic needs of their citizens are particularly at risk.

7. Economic weakness Economic instability will leave communities highly vulnerable, both to sudden environmental shocks and slow erosion of their livelihood security. The socio-political impacts of climate change will affect poor countries more than further developed states. Poorer countries, which tend to be agrarian states, will be far more susceptible to falling crop yields, extreme weather events and migratory movements. In poorer countries there is no insurance, either private or state based, against the effects of crop failure. These impacts of climate change will hinder economic development and the lack of economic development hinders the ability to adapt to climate change. Empirical studies show that poor countries facing additional pressure are more prone to conflict. Climate change can thus increase obstacles to economic development, worsening poverty and thereby increasing the risk of violent conflict in these states.

8. Food insecurity In many areas, the physical effects and the socio-political consequences of climate change will combine to have a profound and destabilising effect on ordinary people's daily lives by reducing food security. The problem here is not simply food shortages but uncertainty of food supply.

9. This may be the result of losing arable land to desert and of shorter growing seasons but can equally be caused by changes in the food supply chain, such as the loss of roads through flooding (and in other places the loss of rivers through persistent drought). Political instability and violent conflict also have an effect on food security. Humanitarian assistance can temporarily fill in when there are food shortages but cannot address the underlying problem of lack of food security—and it is only when food security is restored that people can feel safe. In the absence of food security, conflict and migration are almost inevitable consequences.

10. Demographic changes—migration and urbanisation Demographic changes always entail a change in power systems and resource allocation. Climate-change related movements of people will place strain on host communities that already have scarce resources, whether because of population growth, government policy or as an effect of climate change itself. In such circumstances, there is a higher risk of violent conflict. Some of the world's mega-cities are on the coast and are themselves at risk over time from rising sea levels. The combination of population growth, inward migration, declining water supply, other basic shortages and rising sea levels in a city of 15–20 million or more inhabitants adds up to a challenge with which even the most effective city and national government would find hard to cope. Where governance is poor, a social disaster seems close to inevitable.

FACTUAL INFORMATION

1. Climate change has led to an increased risk of armed conflict in 46 countries with a total population of 2.7 billion people.

2. There is a high risk of instability as a result of climate change in a further 56 countries with a total population of 1.2 billion.

RECOMMENDATIONS TO THE COMMITTEE

1. Move the issue of conflict and climate change higher up the domestic and international political agenda. DfID Ministers, and parliamentary colleagues from all parties have a crucial role to play in achieving this.
2. Support research on the indirect consequences of climate change, particularly on the likely social and political consequences in specific countries, regions and localities. DfID has already commissioned some pilot work; this must be the start of a far greater engagement leading ultimately to the full integration of climate change adaptation with the thrust of the UK's development agenda.
3. Prioritise adaptation over mitigation measures in fragile states and ensure that adaptation addresses the social, political and economic as well as the natural consequences of climate change. In many developing countries. While a low carbon economy is ultimately important in low income, poorly governed states, the near-term risk is being overwhelmed by the social as well as the natural consequences of climate change.
4. Invest in good governance for climate change. Developing competence on adaptation needs to be treated as part of good governance everywhere. This means investing in capacity of developing countries to manage adaptation effectively.
5. Prepare to manage migration. Research identifying likely migration flows can help identify both migrant and host communities where dialogue should be started early to help manage the process. This is a crucial factor that should be integrated into development policies.
6. Ensure National Adaptation Plans of Action are conflict-sensitive. NAPAs should take account of a state's socio-political and economic context and conflict dynamics as part of the policy making process to ensure they are genuinely tailor made to the context. This is not currently the case.
7. Climate-proof peacebuilding and development. Peacebuilding and development strategies should include adaptation to climate change and make explicit how activities on these three interconnected strands strengthen one another. This is not currently the case.
8. Engage the private sector. Guidelines are needed to help companies identify how their core commercial operations can support adaptation. Governments have a vital role to play in doing this.
9. Link together international frameworks of action. Greater efforts are needed to link the variety of separate international approaches with the related issues of peacebuilding, development, adaptation and disaster management. DfID can and should play a lead role in forging this international consensus.

ABOUT INTERNATIONAL ALERT

1. International Alert is an independent peacebuilding organisation that has worked for over 20 years to lay the foundations for lasting peace and security in communities affected by violent conflict. Our multifaceted approach focuses both in and across various regions; aiming to shape policies and practices that affect peacebuilding; and helping build skills and capacity through training. Our regional work is based in the African Great Lakes, West Africa, the South Caucasus, Nepal, Sri Lanka and the Philippines. Our thematic projects work at local, regional and international levels, focusing on cross-cutting issues critical to building sustainable peace. These include business and economy, gender, governance, aid, security and justice. We are one of the world's leading peacebuilding NGOs with an estimated income of £8.4 million in 2008 and more than 120 staff based in London and our 11 field offices. International Alert is grateful for the support of our core donors: Irish Aid (Department of Foreign Affairs Ireland); Danida (Danish International Development Agency); DFID (UK Department for International Development); The Netherlands Ministry of Foreign Affairs; Sida (Swedish International Development Cooperation Agency); and SDC (Swiss Agency for Development and Cooperation).

Written evidence submitted by IIED (International Institute for Environment and Development)

SUMMARY

1. HMG attention to climate change in developing countries is greatly to be welcomed. IIED hopes, however, that this will reinvigorate wider HMG efforts towards the sustainable development of poor countries—rather than substitute for them. Of particular concern is DFID's concentration on the economic and social aspects of climate change, neglecting the environmental component of the phenomenon. Climate change has several root causes—economic (unfettered growth), social (consumption patterns) and environmental (ecosystem degradation through eg misuse of land). Climate change also has several consequences—economic (production system collapses), social (poverty and vulnerability) and environmental (further ecosystem degradation through eg loss of biodiversity and changed flows of water). Attention to the combined economic, social and environmental aspects of climate change would be more robust and much more consistent with the sustainable development objectives of the International Development Act, the UK Sustainable Development Strategy and the UNFCCC.

2. This submission recommends that:

- a) HMG should promote SD principles as the fundamental framework for building the multilateral and national institutions needed for tomorrow's world.
- b) HMG's international development programme should address the combined SD priorities of social justice, low-carbon economy and biosphere protection.
- c) In particular, DFID should give greater attention to SD, given the social and environmental implications of its focus on growth. This will require:
 - complements to DFID's "upstream" poverty reduction strategy/budget support work—supporting diverse drivers of change towards SD;
 - promoting climate screening, climate proofing, climate capacity, and their synergies with DFID's poverty reduction work;
 - a focus on ecosystem management as a key aspect of building resilience;
 - promoting "socially just and sustainable management of natural resources" rather than "pro-poor exploitation of natural resources";
 - supporting scale-up of pro-poor tourism through public policy development—given the rapid growth of tourism in poor countries today, and building on DFID leadership in the late 90s and early 2000s;
 - supporting real agents of change towards SD in developing countries and not merely central ministries—civil society, business, local authorities, etc; and
 - a serious rethink of DFID's SD Plan, so that it becomes an effective operational guide, rather than window-dressing;
- d) The mooted "Rio + 20" review and "Post-MDGs Initiative" should be supported, as they (respectively) present opportunities to learn about what works for SD in developing countries and to put these centre-stage in development policy.
- e) The Sustainable Development Commission needs to raise the profile of its international work above the status of a barely visible "cross-cut" activity.
- f) Meeting UK environmental priorities through market-based approaches needs to be balanced with supporting the development priorities of low-income countries. Carbon trading emphasises mitigation, not adaptation; and campaigns for local food to reduce food miles damage the prospects for exports. Ensuring the participation of small-scale producers in market-based sustainability approaches is a challenge for both carbon trading and certification of sustainability claims. IIED promotes an "AdMit" approach that combines mitigation, adaptation and engagement with small-scale producers.

3. *We attach a copy of IIED's submission to the Environmental Audit Sub-Committee's inquiry into the role of DFID in Trade, Development and Environment.* Although this is almost three years old, we note that the observations contained in this submission almost all apply today.

4. *IIED is an international policy research institute, working for sustainable and equitable global development.* Set up in 1971, just before the first UN Earth Summit in Stockholm, IIED was a major contributor to the Brundtland Commission of 1987, the Rio Earth Summit of 1992, and WSSD in 2002 in Johannesburg. Based in London, IIED works through a wide range of long-standing relationships with partners in the developing world—and notably with local research groups—thereby ensuring that our policy advice and advocacy at national and international levels are well informed by local realities. IIED's work broadly falls into five areas: climate change, natural resources, urban, markets, and governance—all of which emphasise low-income countries' work towards sustainable development.

Q1. *The effectiveness and coherence of the UK Government's approach to sustainable development in developing countries*

HMG's sustainable development goals and definition

5. *DFID's attention to climate change impacts on development is greatly to be welcomed, but seems to have substituted for any wider "sustainable development" (SD) pursuit.* DFID has concentrated on the economic and social aspects of climate change, neglecting the environmental component of the phenomenon. Climate change has several root causes—economic (unfettered growth), social (consumption patterns) and environmental (ecosystem degradation through eg misuse of land). Climate change also has several consequences—economic (production system collapses), social (poverty and vulnerability) and environmental (further ecosystem degradation through eg loss of biodiversity and changed environmental flows of water). A balanced attention to the combined economic, social and environmental aspects of climate change would be more robust and much more consistent with the UK's sustainable development objectives and the UNFCCC.

6. *There are inconsistencies between DFID's definition of sustainable development and those accepted elsewhere:* Although SD appears as a goal in the International Development Act (IDA), its definition is inconsistent with that of the Brundtland Commission, the UK Sustainable Development Strategy (SDS), and most developing countries' SD policies. The IDA accords the International Development Minister too much “wriggle-room” in defining SD. In practice, DFID interprets SD in terms of *sustained economic growth*—rather than the integration of economic, social and environmental objectives where possible, and informed trade-offs where integration is not possible (the interpretation we commonly observe in developing countries).

7. *HMG should ensure that DFID's work abroad is consistent with UK and developing countries' understanding and pursuit of SD.* For example, DFID should encourage the same kind of bottom-up approaches to SD innovation and planning that Defra and others are encouraging within the UK. It would attempt to identify and support the wide range of existing SD activity in developing countries—activities that are often driven by civil society, enlightened businesses, local authorities and line ministries, rather than the finance and planning authorities with which DFID's engagements have become increasingly confined.

HMG's institutional coherence regarding SD in developing countries

8. *The international dimension of the UK Sustainable Development Strategy (SDS) needs to be strengthened.* It is to be welcomed that the revised UK SDS has an international dimension, an advance on the first version. For the SDS to support developing countries, however, DFID would need to take a lead role. Yet DFID's engagement in the UK SDS has been noticeably lightweight. DFID's own SD Plan appears to be a mere administrative rearticulation of what it was going to do anyway; we cannot identify any major areas where DFID has included major changes as a response to the SDS. We understand that the process of preparing and reporting on the DFID SD Plan barely involves senior DFID officials or their major policy-making fora. Yet the pursuit of SD surely involves fundamental assessment, reflection and new decisions?

9. *The current framework for dividing departmental responsibilities for international SD commitments is outdated.* This results from a bureaucratic sifting following the 2002 WSSD, and is based on “obvious” division of responsibility, with little in the way of creative partnerships or mutual monitoring. Probably less than 1% of DFID staff knows of this set of responsibilities and understands its implication for their own work. The framework seems to be used for one-off reporting purposes, rather than preparing strategies for supporting developing countries.

10. *The Sustainable Development Commission (SDC) is a global leader in SD, but is inadequately linked to developing country realities.* The SDC is an acknowledged global leader in analysis and policy formulation, and is well-linked with counterparts in the OECD. However, it is less well linked to developing country counterparts (eg the many national councils for SD, or multi-stakeholder groups attached to poverty reduction strategies). Although international SD issues are apparently “mainstreamed” in the SDC's work programme, they do not appear as a separate programme area. This lack of overt and consistent attention to international issues, and to DFID's role in developing countries in particular, results in an incomplete view of the UK's international footprint (both positive and negative aspects of that footprint). The SDC should be strengthened in its ability to engage with DFID and others who aim to pursue SD with developing country partners; this should result in a more positive view of DFID, and in DFID, regarding its international SD role.

11. *HMG has been a significant supporter of international assessments of progress in SD, but has not yet made these systemic:* Defra and DFID have supported the Millennium Ecosystem Assessment (MA) and the International Assessment of Agricultural Sciences and Technology for Development (IASTD), as well as research on the impacts of UK biodiversity and non-biodiversity policies and investments on developing country environments (by JNCC and Scott-Wilson). However, there have neither been adequate HMG responses to the findings of these one-off assessments—even in relatively high-profile cases such as the MA, nor efforts to install analogous approaches into mainstream development planning and monitoring.

DFID's SD performance

12. *DFID's work has often pursued some of the principles of SD, even if that has not been its overt aim.* It is important to encourage positive discussion of SD in DFID, to enable the department to be cognisant of its many SD contributions (as well as its weaknesses). A number of recent Inquiries have resulted in DFID's reputation in matters environmental or sustainable being “blackened”, damaging morale of concerned officers in the system and perhaps marginalising these important issues within forward-looking plans. Below, we cover intragenerational equity, intergenerational equity, development within environmental limits, institutional change to support sustainability, and monitoring progress towards sustainable development.

13. *Intragenerational equity—DFID has an acute focus on governance but relative blindness to poor people's environmental needs:* Here, DFID's strong focus on poverty reduction and improving governance to tackle inequality and corruption is invaluable. Unless we achieve an equitable approach to resource use in an

increasingly resource-constrained world, we will lock into enduring conflicts between groups for water, good land, energy, etc. DFID's governance work is well-placed to tackle the rights problems of, eg, people who might be displaced from national parks or forest reserves. In this sense, DFID's governance work is potentially more valuable than any "biodiversity support" that some environmental groups might expect DFID to give.

14. *However, the particular environmental rights and needs of poor groups are given inadequate attention by DFID.* If issues such as water poverty, sanitation poverty, and lack of access to land are picked up by local-level participatory poverty assessments as part of the poverty reduction strategy (PRS) process, they are dropped again when it comes to shaping the PRS in discussions with developing country finance authorities.

15. *Intergenerational equity—DFID takes a rather short-term view and lack of consistency in support over time:* DFID has a weak long-term view, in spite of its attempts to install a horizon-scanning facility. It exhibits inconsistency in its theory of change, and consequent rapid policy flux with major changes every few years (the latest development fashion invariably being accompanied by invidious "fatwas" against previous development fashion...). Promising approaches for SD are regularly and inexplicably dropped eg the sustainable livelihoods framework and support for national SD strategies (required by Agenda 21 and apparently important enough for the UK itself to have an SDS) were heavily promoted in the 1990s and then dropped in favour of PRS procedures, in spite of their value beginning to be realised in developing countries. This would be understandable if it was the result of DFID learning from past approaches that these approaches were not helpful, but lesson-learning with aid recipients does not take place concerning sustainability.

16. *Development within environmental limits—a good DFID knowledge base (internal and in key partners) is, however, underused:* DFID maintains a policy and research group which is examining some significant climate change issues and, to a lesser extent, local and global environmental issues (albeit not within a coherent SD framework). The climate and energy teams have offered international leadership in engaging with developing countries, and in producing advice on balancing mitigation, adaptation and energy portfolio needs in developing countries (Q2). There has been some highly significant support to the provision of clean water and (to a lesser extent) sanitation. However, the environment team is given very little priority except for a watching brief and reporting, and has been allowed to diminish in size, scope and influence. The lack of high-level DFID leadership for integrating environmental issues as a foundation for development, in both internal planning and external dialogue, exacerbates the lack of incentives for regional and country offices to act.

17. *"Environment safeguards" are still treated as a one-off hurdle in DFID programme development, rather than as a constructive set of guidelines* on how to make the most of environment for poor people and how to ensure their protection from environmental damage. There is no clear framework for identifying, understanding and acting on ecological factors, either on the positive side (basing sustainable livelihoods and economies on environmental assets) or on the negative side (environmental risk schedules and management regimes). In neither case are the costs and benefits of investment in environmental management assessed. Almost no support is offered to developing countries to build their own institutions to do this. Consequently UK aid may, in some cases, be actively harming poor people's prospects for SD in the pursuit of "pro-poor exploitation of natural resources" (Q7).

18. *Institutional change to support sustainability—in PRSs and budget support, DFID has excellent entry points into the "mainstream", but does not use them for SD:* DFID's focus on governance change may, at times, address some of the political, market and institutional constraints that are the underlying causes of poverty, environmental problems, and economic unsustainability, as discussed above. However, more could be done if environmental governance were more routinely included in governance support, and if environmental information and stakeholders were routinely engaged in PRSs.

19. *DFID takes PRSs or their equivalent national development planning processes very seriously,* which offers the potential to weave together a comprehensive plan and budget that builds on sustainability goals. However, DFID makes very little effort to encourage engagement of environmental authorities or environmental interest groups in those processes. And, because these processes are increasingly linked directly to developing country budgets, this is shutting off opportunities to restructure expenditure for SD.

20. *We are equivocal about budget support and SD.* On the one hand, there are indications that budget support has improved the predictability, flexibility and reliability of aid delivery, in theory increasing the chance for developing countries to develop longer-term SD policies and plans. On the other hand, DFID's emphasis on budget support is politically risk-averse when it comes to institutional change—its focus on central planning and finance authorities tending to cut out opportunities to support the many diverse national and local actors who in practice are the real "drivers of change" towards SD—NGOs, civil society organisations, watchdogs, local authorities, academics, local businesses, etc. Many of these actors are also key deliverers of outcomes' ie those who work "at the end of the MDG delivery chain", and who might be

in a position to change prevailing practice towards SD. Many of these constraints are perhaps inevitable if the PRS/Budget Support model is pursued; a further constraint being that the PRS tends to be both marginal to private sector investment and immune to sustainability issues—its effective “added value” being to help a country to play “short-term donor games”.

21. *Monitoring progress towards sustainable development—this has been limited in DFID:* At national level, development monitoring tends to exclude the non-financial realities facing poor people, and notably their environmental deprivations. DFID’s focus on financial targets, whether 1–2\$/day or per cent budget support, exacerbates this. At global level, the heavy emphasis on the MDGs—a construct created by the UN Secretariat with only indirect input from developing countries—means that DFID’s work on sustainability is skewed by the MDGs’ inadequate incorporation of sustainability factors (an odd set of indicators shoehorned into MDG7). Potentially stronger sustainability goals that might also be monitor—from Rio, Joburg and the MEAs—are not used (they are collected for DAC aid statistics, but are not reviewed within DFID).

Learning the lessons of SD in developing countries—and adjusting policy: the potential value of a “Rio + 20” review and the “Post-MDGs” Initiative

22. *With other donors, DFID is currently supporting IIED in helping stakeholders in developing countries to reflect on progress towards SD, and on the mechanisms and tools that have supported this.* Preliminary findings indicate the value of:

- Public environmental expenditure reviews in developing countries, assessing what each sector is gaining and investing in environmental asset and risk management.
- A shift from planning for “priority sectors” to planning for “priority outcomes”, enabling environment and sustainability interests to show what they can contribute to all such outcomes (instead of being absent as a “non-priority” sector).
- Working on sustainability with “mainstream” institutions such as finance and planning ministries rather than environment authorities (an entry point open to DFID) especially by making the economic case for environmental investment.
- Supporting civil society in watchdog roles, in improving calls for environmental justice, and in generating new approaches to SD in the kind of flexible “policy space” that aid programmes can offer.
- Taking seriously the OECD-DAC Paris Declaration, which has called for strengthening countries’ own sustainability systems, rather than requiring countries to follow multiple donors’ own “safeguard” measures.

23. *This (and much more) research from IIED, ODI, IDA and LDC institutions needs to be reviewed at high levels in DFID—not to tinker with development policy at its margins, but to reshape approaches towards sustainability.* With IUCN and WWF, IIED has been reviewing such lessons and exploring what the shape of a future SD agenda might be: it is likely to fall into three areas: social justice, decarbonising economies, and biosphere protection.

24. *With the exception of UNFCCC, DFID is only very weakly engaged with the international institutions and fora that enable developing countries to define SD and to negotiate positions eg CSD, UNEP, IUCN, etc.* Even if DFID is (rightly) not too impressed by some of these initiatives, it ought to be identifying and supporting the wide range of bottom-up institutions, ideas and traditional knowledge that can support SD within LDCs, so that they are in a position to truly inform the prospective 2012 Rio + 20 exercise, and to shape the “Post-MDGs” Initiative. For several years now, IIED’s research and advocacy partners in developing countries have been calling for SD principles to be reflected in the design of all multilateral and national structures that are needed for tomorrow’s world. They are concerned that powerful countries are not also promoting SD seriously as an international framework or *lingua franca*.

Q2. *The extent to which climate change adaptation is integrated into DFID’s development policies*

25. *DFID’s 2007 White Paper has clearly made climate change, including adaptation, an important (if not yet fully integral) part of DFID’s overall strategy.* Since then, DFID has made significant efforts to develop activities at international and national policy levels, country programme level and research level to support adaptation to climate change. These include the Climate Change Adaptation in Africa (CCAA) research programme, capacity building of climate change negotiators from the least developed countries through the European Capacity Building Initiative (ECBI) through the Policy Dept, and support to the Climate Change Trust Fund (MTDF) in Bangladesh through its country programme strategy for Bangladesh. These have a valuable “bottom-up” character, involving local scientists and stakeholders—indeed, they are more participatory than many other DFID activities.

26. *DFID should prioritise climate screening, climate proofing, climate capacity, and their synergies with DFID's poverty reduction work.* While the above (and further DFID initiatives) are important elements of ensuring that adaptation to climate change is integrated into DFID's development policies, they could be considerably enhanced and speeded up by:

- *Climate screening:* assessing of all major DFID spending programmes at Policy, Programme and Research levels for vulnerability to adverse impacts of climate change.
- *Climate proofing:* where indicated by the above, including climate risk management, adaptation and mitigation measures in work at country level, especially for the least developed countries where DFID has significant Country Strategies. For example, DFID needs to do a bit more to make sure all its development work in sectors such as agriculture, health and water management considers climate change. There is no point digging a bunch of new wells if the whole area is going to dry out entirely.
- *Climate capacity:* In addition to climate screening and climate proofing its own portfolio at policy and programme level DFID also needs to support government and civil society groups within programme countries (with a focus on the least developed countries) to be capable of climate screening and climate proofing their own investment portfolios.
- *Climate change impact information:* As climate change impacts are difficult to predict with great accuracy and as the science improves over time, a prerequisite for making adaptation decisions will be the provision and availability of up-to-date and accurate climate change impact information. Thus, supporting capacities to generate and update climate change (especially impact assessments) for particularly vulnerable regions and countries should be supported as matter of priority (by both the country programme as well as research departments of DFID).
- *Synergies between poverty reduction and climate change adaptation:* There is a great deal of overlap between the poorest people living in the poorest countries, and the communities and countries that are most vulnerable to climate change. Thus it is advisable to link the poverty eradication agenda with adaptation to climate change. This means investing in ways to “mainstream” adaptation to climate change into regular development (or “sustainable development”) planning, policies, projects and programmes at country, region and global levels.
- *Resilience conferred by ecosystems:* The extent to which the links between climate change and environment more generally are addressed seem to be confined to Kyoto-related mechanisms, notably REDD schemes. A more fundamental understanding of how biodiversity protection can increase resilience against climate shocks needs to be factored into climate change work—in other words, inform that work by the economic, social and environmental “pillars” of sustainable development.

Q5. *The role of transport, including aviation, in economic development in developing countries, particularly freight and exports, and the impact of such transport on the environment*

27. *The aviation industry is a small—although fast-growing—contributor to greenhouse gas emissions.* Per kilometre travelled, its impact outstrips that of any other form of transport. As today's technology seems unlikely to reduce that impact significantly over the next 25 years, aviation has become a key issue in climate change policy. Nowhere are the concerns about aviation expressed more vocally than in relation to tourism and air freight.

28. *Aviation presents a development dilemma:* Tourism and air freight are very important for poverty reduction and growth in many developing countries. Tourism generates up to 40% of GDP in many developing economies (see Q6). Many jobs are supported in part by the fresh produce trade with the UK (over one million livelihoods in Sub-Saharan Africa). The sustainability of tourism, fresh produce trade and other industries reliant on aviation cannot be “fixed” simply by attention to air travel without reference to the other environmental, social and economic factors that contribute to sustainability.

29. *Whilst air travel is iconically climate-unfriendly, there is no a priori reason why a lower carbon budget needs to cut out long-haul travel.* HMG should be concerned both with the quantity of air travel and with raising its quality—or its sustainable development utility, considered from a holistic viewpoint. HMG will wish to ensure that environmental concerns do not inevitably trump development needs. Limiting the options for people and materials to travel to and from developing countries limits opportunities to upgrade industries and skills in those countries. It limits export opportunities for fresh produce. It constrains imports of vaccines and drugs for human and animal health. And it greatly reduces wider business opportunities. The history of economic failure of many colonial territories that became cut off from major shipping routes reminds us that connectedness and mobility are key to development.

30. *Simplistic solutions are not always helpful:* Many air travellers and people working in the travel industry see carbon offsetting as a viable green solution to the aviation problem. But offsetting schemes based on tree planting or forest conservation may simply shift sustainability problems from air travel to land

use in developing countries—and consequently to the poor groups who are dependent on that land. Forest-based offsetting schemes may result in communities losing access to land that has become designated as protected carbon stores; schemes are also subject to considerable uncertainty, in terms of permanence and displacing land use.

31. *Solutions need to be informed by economic, social and environmental considerations—a holistic, SD perspective:* “Quality” could be raised by highlighting and rewarding destinations with good environmental records (carbon plus all other aspects of good environmental management), where there are genuine benefits for the poor living in these countries. Differentiated air travel levies based around per-capita carbon emissions from individual countries—ie higher for developed than developing countries—could provide one such nudge to the industry, and reward carbon prudence. Preliminary calculations by IIED suggest that a small levy per trip could raise US\$8–10 billion a year towards adaptation (see Q8).

32. *Fair miles not food miles:* UK concerns about the carbon footprint of food imports can work against the interests of developing countries to increase exports, for example concerns about the emissions from air-freighted flowers and vegetables from Africa. Food miles need to be seen in perspective. Fresh fruit and vegetables from Africa account for just 0.1% of all UK emissions, and per capita emissions from Sub-Saharan Africa are miniscule compared to those in industrialised countries. The development benefits of the exported fresh fruit and vegetable sector in Sub-Saharan Africa are substantial, supporting 1 million plus livelihoods. (see Q8)

Q6. *The role of tourism in economic development, and the potential for sustainable tourism*

Tourism’s contribution to national economic development

33. *Tourism is a major international industry that is growing fast, particularly in developing countries:* The World Travel and Tourism Council estimates that in 2008 the industry contributed 9.9% (US\$5,890 bn) to global GDP in 2008 and accounted for one in every 12 jobs. In 2007, international tourist arrivals were over 900 million—up from 800 million in 2005 and double what they were in 1990. Although the Middle East led the growth in visitor numbers, developing countries have shown significant increases. Asia and the Pacific account for 184 million of the 900 million arrivals (up 10% on 2006) and Africa 44 million (up 7%). Average annual growth in tourism receipts since 2000 is 4.1% at a global scale, but 7.8% in Asia; 8.6% in Central America; and 6.9% in Sub-Saharan Africa. Finally, the UN World Tourism Organisation predicts continuing growth along a similar trajectory to 2020.

34. *The vast majority of countries where tourism is a significant contributor to the country’s GDP are small island states—particularly in the Caribbean.* The total amount of tourism revenue earned by any country is closely related to arrival figures (as the stats above show), and thus countries with high arrivals numbers receive high levels of receipts. However, countries where tourism makes the most significant contribution to the national economy (in terms of proportion of GDP earnings) are not necessarily those with the highest levels of receipts—such as small islands.

35. *The direct and indirect contributions of tourism cannot be underestimated.* WTO estimates that tourism’s contribution to GDP is up to 40% in small island states and developing economies, compared to advanced economies at between 2 and 12%. Indirect contributions include, but are not limited to:

- Enabling other businesses through establishment and upkeep of necessary business infrastructure—eg hotels, restaurants of a high standard, internet and other communications.
- Air freight opportunities for local producers and for imported goods.
- Visiting friends and family opportunities are enhanced, and in developing countries often a significant proportion of journeys on new routes.

Distributional impacts of tourism—can tourism benefit the poor?

36. *Tourism clearly makes a significant and growing contribution to the national economy of many developing countries—including the least developed countries.* However, its size and significance reveals little about its distributional impact.

37. *Because of its significance and rapid growth in developing countries, tourism affects the livelihoods of many of the world’s “poor” both positively and negatively:*

- Many of the characteristics of the industry lend themselves to pro-poor growth: it is labour-intensive (on average, more labour-intensive than manufacturing) and employs a high percentage of women and unskilled workers; it can build on the natural and cultural assets of the poor; “eco-tourism” is suited to certain remote areas with few other livelihood and development options; it has high potential for multiplier impacts which stretch to SME and informal sector development.
- However, tourism development can disadvantage the poor—displacement of people from national parks and “pristine” coastal areas, increasing local livelihood costs, losing access to resources, and other social and cultural disruption.

38. *Pro-poor impacts are not guaranteed without intervention.* Traditionally much revenue from tourism is captured by foreign companies (hoteliers, tour operators etc) or is retained in metropolitan centres. Maximising the pro-poor impacts of tourism requires intervention by both government (in form of supportive policy and legislative framework) and the private sector (in terms of local employment, sourcing and support policies). “Responsible tourism” is being increasingly embraced by the private sector as part of a broader “corporate social responsibility” agenda and improved attention to thorny issues such as local employment conditions and local/sustainable procurement are becoming increasingly mainstreamed. Analogous public policy development is less evident, or lags behind rather than leading—reducing the potentials for poor groups to reap wider benefits from tourism, and for removing systemic anti-poor biases in tourism development.

39. *DFID helped to lead the field in pro-poor tourism in the late 90s and early 2000s, but is no longer active—in spite of the rapid growth of tourism in poor countries today.* Work for DFID by IIED, ODI and the International Centre for Responsible Tourism brought the aspiration for “pro-poor tourism” closer to the mainstream of the tourism industry (if not the development business). It offered the original thinking on pro-poor tourism strategies now adopted by the UN World Tourism Organisation and others. The DFID Tourism Challenge Fund pioneered a private sector approach to the issue. DFID could build on this track record, now encouraging attention to the public policy environment in its partner countries and within other development agencies.

Can tourism be sustainable?

40. *Whether or not tourism can be sustainable depends very much on our definition of sustainable tourism.* Some understand this as tourism that can be sustained or grow over the long term (a view of SD consistent with the International Development Act), others as a particular form of tourism that does not undermine environmental and social parameters (a view more consistent with the UK SDS).

41. *Developing countries’ reliance on an industry that is so investment-intensive, notoriously volatile and reliant on air transport brings its own set of challenges:*

- Tourism is an industry that requires considerable investment in set-up, infrastructure, training and importantly run-on costs of marketing. This is often not available in small island states or developing countries, creating challenges of ownership, wealth distribution and impact on other productive sectors.
- Tourism growth is also unreliable—like other exports, tourism demand depends strongly on economic conditions in the tourist generating countries; it is also subject to additional influences such as threat of terrorism or civil unrest; and environmental perspectives of consumers. Climate change also affects tourism—as climate-conscious consumers cut down on air travel and as changing climatic conditions affect the natural resource base on which much tourism depends (eg affecting the viability of small island destinations because of sea level rise or storm frequency; affecting the attractiveness of natural resources such as coral reefs; exacerbating the problem of high levels of water demand associated with tourism). Equally, advice dispensed on reducing carbon footprints from tourism include taking longer breaks in one place—which could ensure higher economic impacts in destinations that are successful in attracting tourists. As Tony Blair famously said he did not want to limit UK public’s choice of holiday destinations on the back of climate change arguments.
- Aviation is an integral part of international travel, especially to developing countries which are usually far from OECD markets and, given its impacts on GHG emissions, the aviation component of tourism is unsustainable (see Q5).

42. *If aviation is taken out of the equation, “responsible tourism”, “pro-poor tourism”, “fair trade tourism” and other movements are already making a contribution to the development of a tourism industry that meets “triple bottom line” criteria of economic, social and environmental sustainability.* Sustainability standards and criteria abound, and there are many examples of good practice to counter the often cited examples of unsightly tourism sprawl along coastlines, cultural disruption, economic displacement and so on.

43. *HMG has made significant contributions, as far as the UK outbound tourism industry is concerned, in particular through its support to the UK Sustainable Tourism Initiative—now the Travel Foundation.* Greater attention is however required to consumer awareness and public policy within destinations. Sustainable tourism cannot be achieved without this combination of public, private and civil society levers. The issue is thus not to identify what needs to be done to make tourism sustainable, but how to scale up the current movement beyond the most responsible operators to the mainstream; beyond niche destinations to the mass tourism resorts; and complementing global standards with compatible local standards that make sense for in-country SD goals. It is clear that the success of niche movements such as fair trade tourism will help build the business case for the whole industry to begin adhering to sustainability standards.

Q7. *Pro-poor exploitation of natural resources, including minerals and forests, and the regulatory framework for exploitation*

Rethinking “pro-poor exploitation of natural resources”

44. *“Pro-poor exploitation of natural resources” is potentially a one-way street to environmental and—ultimately—social ruin, if it raids nature to fix a part of today’s perceived development problem.* Instead, what is needed is “socially just and sustainable management of natural resources”. To get there, we need to put decision-making in the hands of those with the rights and capabilities to bring such management about. Thus our focus should be on securing the rights and strengthening the capabilities of those who are often currently marginalised. For this we need:

- Governments to adopt and follow through recent positive policy reforms.
- Civil society organisations and the private sector to support small-scale natural-resource enterprises much more vigorously.
- Donors to increase their support to the above.

Governments and governance of natural resources

45. *The governance of natural resources in developing countries is inherently difficult:*

- Laws are often contradictory and incoherent across natural resource-dependent sectors such as agriculture, mining, forestry, trade, land allocation, road building and infrastructure.
- Rights to own and access natural resources are unclear or easily overridden, and procedures for communities to secure rights are onerous.
- Natural resource access and use rules are stacked in favour of large-scale institutions, which treat small-scale enterprises and communities with disdain. Illegal activity often underpins political systems and patronage.

46. *As a minimum, a governance system that works for natural resource development needs:* strong and fair rules and institutions; macro-economic and sectoral policies to in tune; strong civil society engagement and local control of natural resource management; and independent monitoring. To get there, useful starting points are:

- Actively seeking practical, cross-sectoral approaches—integrating actions in agriculture, forestry, infrastructure, products industry, employment creation.
- Focusing on areas where institutional capability and local property rights can be combined with good natural resource management practice.
- Adopting “learning group” approaches involving: mixed disciplines outside formal institutional constraints doing honest diagnostics of what really works and does not; building partnerships and tactical work to developing counterweights to governance frameworks that are regressive in practice; transparency initiatives and research/information use; catalytic court cases; policy reform opportunism; and champions for key issues.

Small natural resource-based enterprise

47. *Small natural resource-based enterprises are the predominant form of enterprise in most developing countries, and are increasing in number.* Some are good news, and some are bad news for sustainable local development. They work best for local development when rights and policy are favourable. This often requires turning much of the natural resource governance system “on its head”—to stop rigging the rules in favour of large-scale actors only. Once this is done, effective approaches for “socially just and sustainable management of natural resources” can then focus on financial instruments, information, connections between enterprises and support agencies, and capacity.

48. *To make progress in supporting sustainable small-scale natural resource-based enterprises, useful starting points are:*

- Removing barriers eg to accessing land and resources, business registration, credit, policy forums.
- Making good information available eg databases of small enterprises, business service providers, market trends.
- Linking, promoting, and building capacity eg strengthening associations, marketing councils, business support networks.
- Making finance available eg credit lines, guarantees, subsidies, microfinance.
- Consumer mechanisms eg procurement policies preferring small enterprises, certification, and initiatives to distinguish community natural resource products in the market.
- Watchdog activities eg independent forest monitoring, and other approaches to level the playing field for big and small scales.

HMG has been a leader in this field—but needs to pick up the ball again, given increasing pressure on natural resources for poor people as both producers and consumers

49. *HMG has had a strong track record to date—but seems to have “dropped the ball” recently:* Several strong DFID country programmes emphasise parts of the above agenda. A few years ago, DFID led the donor field in innovative analytical approaches such as “sustainable livelihoods” and “drivers of change” analysis that would help to identify and develop pro-poor, sustainable resource management regimes. But these approaches have lost prominence in DFID’s work (in spite of becoming common practice in developing country planning institutions themselves). DFID has also been a leader backing influential programmes such as the Extractive Industries Transparency Initiative and the Forest Law Enforcement, Governance and Trade programmes. These are two areas where we applaud DFID’s continuing strong leadership.

50. *However, much more could be done by HMG/DFID to learn the lessons of what works and what does not, and to deepen support* for approaches that engage directly with existing political systems that stifle local natural-resource based development; as well as integrating disjointed efforts into practical packages at effective scale. Without this, there are risks that attempts at “pro-poor exploitation of natural resources” may result in poverty traps at local level (eg people being led to work small plots of unviable land) or “resource curses” at national level (eg imbalanced attention to forest or mineral exploitation resulting in uncompetitive other sectors). Thus HMG/DFID may wish to consider:

- *Collaborative approaches.* Collaboration is essential for natural resources work—often requiring multidisciplinary teams that can appreciate differential powers within communities, and multi-sectoral approaches that can co-create programmes with government, NGOs and the private sector, to provide a wider vision and engagement with local/ regional actors.
- *Crossing scales.* Effects at higher and lower scales should be considered, with cross-scale analysis and planning routinely conducted and such analysis examined against simulations of long-term processes at other scales—use modelling to provoke (not divert) thinking.
- *Timeframes long enough for adaptive work to deliver.* There is a need for support over longer timeframes to enable natural resource management efforts to be adaptive and responsive. Quality and depth should be the aim—with effective impact tracking—to generate useful, reliable solutions for a subset of problems rather than poor ones for many.
- *Innovation funds.* Relatively small proportions of funding programmes (say 20%) should be set aside for innovative ideas and one-off initiatives that meet programme aims should be considered.
- *Between-project funding.* Ways in which funding can be made available between programmes, to maintain networks in priority areas and avoid “feast and famine” programmes amongst key institutions, should also be a priority.

Q8. Opportunities for developing countries presented by sustainable approaches, such as carbon trading, direct fiscal transfers and addressing the needs of increasingly environmentally-sensitive consumers

51. *Meeting the environmental priorities of high-income countries through market-based approaches may not always be compatible with the development priorities of low- and middle-income countries.* Carbon trading emphasises mitigation, not adaptation; and campaigns for local food to reduce food miles damage the prospects for exports. Ensuring the participation of small-scale producers in market-based sustainability approaches is a challenge for both carbon trading and certification of sustainability claims.

Carbon trading

52. *There are very few CDM projects in LDCs:* Opportunities for many of the poorer developing countries from carbon trading have been limited. Clean Development Mechanism projects have been concentrated in middle-income countries, and there are very few projects in Africa (less than 2% of the CDM pipeline in March 2008). Yet FDI to Africa has been increasing in recent years, notably in sectors such as infrastructure which could be eligible for carbon finance. This suggests that it is not the overall investment climate in Africa that is the main reason for the lack of investor interest in CDM projects. Requiring investors in new capital projects to identify the CDM potential of their projects before government approval is given may be one way of boosting the share of CDM finance going to Africa.

53. *And there are limited livelihood impacts from CDM projects:* CDM projects have not had major positive impacts on livelihoods of local communities because they have tended to focus on large scale HFC destruction projects, N2O abatement or landfill gas recovery, none of which involve significant employment generation. This situation is starting to change as some smaller clean energy projects are coming on-stream. Land-based projects, which might be expected to benefit rural communities, remain restricted by the rules of the CDM.

54. *There are a few examples of CDM projects which demonstrate its development potential.* One example is the Kuyasa project in South Africa which improves thermal performance of low-income housing units and solar water heating in Khayelitsha, Cape Town. This project has been certified under the CDM Gold Standard (an independent set of standards addressing social, economic and environmental issues). But it has

suffered from financing constraints and has not been able to expand beyond the initial pilot households. Some of the CDM projects supported by the World Bank Community Development Carbon Fund have also provided benefits for local communities as part of a planned community benefits package. There are also new funds with explicit social or development objectives such as UNDP's MDG Carbon Facility and the Brazil Social Carbon Fund. But considerable support will be needed from donors and NGOs to help small scale projects in poorer countries access these funds.

55. *The voluntary carbon market gives more attention to small-scale projects with development attributes, but is also often dependent on donor funds:* Voluntary carbon markets have targeted small producers and land-based activities but have required a heavy input of donor funds. Meeting the demands of the carbon market while continuing to provide social benefits and ensure wide participation has proved challenging. If there is a more sustainable role for donor funds, this might be in ensuring that developing country capacity is installed.

56. *Adaptation should be incorporated in carbon projects:* CDM and voluntary carbon projects are focused on emission reductions, which may not be a high priority for developing countries. In most poor communities in developing countries, where emissions are very low compared to those in the North, adaptation to the impacts of climate change is the greater priority. If HMG is to support sustainable development in poor countries, it is necessary to ensure that these countries' priorities are reflected in carbon projects, in particular to look at ways that adaptation to climate change can be incorporated in carbon projects. IIED's "Admit" Initiative addresses both mitigation and adaptation: it is based on increasing awareness that consumers who wish to reduce the damage caused by greenhouse gas emissions might also be willing to invest in adaptation, provided that rigorous standards can be met. Admit is developing a set of standards for community-based adaptation projects which will provide quality assurance to purchasers (see Q2).

57. *Other mechanisms to raise funds for adaptation need to be explored, such as a levy on air travel:* An internationally collected levy on international air passengers could contribute significantly to existing adaptation funds without burdening national budgets. Preliminary calculations by IIED suggest that a small per trip levy could raise US\$8–10 billion a year towards adaptation (see Q5).

Addressing the needs of increasingly environmentally-sensitive consumers

58. *There is limited participation of small producers in environmental certification:* Certification of sustainability claims has expanded and for some products such as coffee is beginning to move beyond a mere "niche" status. However, with the exception of Fairtrade, certification is not reaching smaller producers because of the high transaction costs involved in application to the schemes, some management requirements, and verification. Empirical evidence on the impact of Fairtrade is generally positive in social, environmental and economic terms, (at least for coffee) but is more mixed for other types of certification.

28 November 2008

Annex

THE ENVIRONMENTAL AUDIT SUB-COMMITTEE

TRADE, DEVELOPMENT AND ENVIRONMENT: INQUIRY INTO THE ROLE OF DFID

BRIEF MEMORANDUM BY IIED, 27 MARCH 2006

DFID has, over the last decade, offered international leadership in intellectual and policy terms for integrating environment and development. Particularly well appreciated DFID contributions include:

- Promoting the sustainable livelihoods framework, which has improved understanding of the many assets (including environmental assets) on which poverty reduction depends.
- Key documents and seminars on the links between poverty and the environment offered at the 2002 WSSD, which have subsequently influenced most other donors.
- Supporting, and twice chairing, the OECD ENVIRONET as a way to improve environmental harmonisation among donors on eg strategic environmental assessment.
- Catalysing the more informal Poverty Environment Partnership as a means to share learning between donors and identify best practice on eg environmental fiscal reform.
- Designing and implementing a comprehensive "environmental screening" procedure for DFID activities, which addresses environmental potentials as well as negative impacts—and which other donors have copied (eg Irish and Belgian aid).

- Promoting a post-Kyoto regime that ensures a fair deal for developing countries, addresses both mitigation and adaptation to climate change; offering clear information; and supporting engagement by their stakeholders in international negotiations.
- Announcing research strategies in climate change, environment/natural resources and sustainable agriculture that will include significant involvement of Southern groups; and a science and innovation strategy that will also help to build capacity.

However, DFID's leadership has been less evident in responding to the environmental aspects of poverty in specific low-income countries (LICs). There are a few effective DFID environmental projects, eg in Kenya, India and China. But these are in a minority amongst other kinds of activity. Moreover, there has been no comprehensive review of DFID environmental activity—either as part of its recent environment policy review or as a recommendation from it. Without such facts, IIED can only observe that:

- There has been no coherent, deliberate approach to ensuring good environmental information, analysis, prioritisation and planning in country-driven approaches.
- If environment does not “come up” in discussions on country plans, it is not pursued further—even if it might have been identified as a priority by local people in the Participatory Poverty Assessments usually performed for country-based planning. (This point is well documented by DFID studies).
- Existence of environmental activities tend to correlate with DFID environmental adviser presence in-country or interest of the country office head.

The recent publication of “DFID's approach to the environment” (2006) is extremely welcome in view of the imbalance between DFID's intellectual/policy leadership and practical support to LICs. This policy paper commits to greater attention to three key needs. IIED supports these three levels as a useful framework, but emphasises that more needs to be done to make them operational and to engage the geographical and multilateral divisions of DFID. Observations of gaps and recommendations follow for each of these three areas:

1. Addressing the underlying institutional reasons for environmental problems in LICs. IIED welcomes this emphasis because it offers potential synergies with the cross-DFID priority of improving LIC governance. However, DFID staff need more guidance to understand how the underlying (institutional) causes of both poverty and environmental degradation are similar, and how to design DFID governance programmes to address both. Much more is needed if the institutional base for managing the environment in every LIC is to be adequate:
 - supporting civil society to articulate environmental concerns, to claim rights and to actively manage the environment;
 - building basic environment information capabilities that reach to the heart of LICs' own poverty monitoring and development planning processes; and
 - strengthening the capacity of environmental authorities to make their case to treasuries, and then to deliver effective environmental management.
2. A commitment to supporting environmental management where this can be shown to contribute directly to poverty reduction. IIED welcomes this commitment because it reveals an understanding that environmental management is a foundation for lasting development. It is neither appropriate nor efficient for DFID to address all the environmental issues facing LICs. Rather, DFID should concentrate on the major environmental deprivations and hazards suffered by the poor, and/or the best environmental potentials for improving livelihoods and economic growth.

Whilst DFID has contributed usefully to a number of international processes that identify the generic case to invest in the environment for poverty reduction (eg the multi-donor Poverty Environment Partnership), the challenge now is making full and specific investment cases at the country level. However, neither the PRS planning process, nor DFID's own country assistance strategies include adequate diagnostics or consultations which would enable specific environmental priorities to be identified. This will also require particular attention to investigating drivers for and against the “resource curse” at macro level, and “poverty traps” at micro level.

Finally, to give confidence to DFID country heads to invest more in the environment, it would be helpful to draw together the lessons from DFID's varied environmental projects—which have worked; which have not; what the costs and benefits have been; and what has contributed to success or failure?

3. Managing environmental risks associated with development assistance. IIED welcomes acknowledgement of the environmental risks associated with development assistance. However, DFID's Approach to the environment gives no details of how risk management is to be achieved. The current “environmental screening note” procedure is fine on paper, but is separate from other procedures, is very often applied too late in the day with inadequate technical consideration of both environmental threats and (especially) opportunities. It has tended to be applied to projects rather than to broader programmes or policies. Thus it has become little more than one bureaucratic step, and one which has been “pushed” by DFID environment advisers with little

other “power base”—serving to reinforce “negative” impressions of the environment, ie as a block to development plans, rather than an asset for development. A more integrated approach to the environment is needed throughout the activity cycle.

More should be done to consult with local environmental expertise and stakeholders. Further environmental risks arise when DFID neither listens to, nor responds to local groups that both suffer from and understand environmental problems—thereby risking the reversibility of poverty reduction programmes. Although in-country procedures often exist to integrate local people’s perspectives into “country-driven” planning—such as Participatory Poverty Assessments—DFID’s promotion of, support to and use of these procedures should be strengthened.

In addition, DFID’s management board does not, as far as we can ascertain, maintain an environmental risk profile or horizon-scanning exercise to inform long-term development (although recent inclusion of environmental scenarios in horizon-scanning processes for the White Paper is a very welcome innovation).

Several constraints limit the potential of DFID’s Environment Approach—many of them deriving from the current “development model” pursued by DFID:

DFID’s Environment Approach is unlikely to be achieve more than any “bolt-on” exercise unless key DFID policy and structural issues are addressed:

- A larger DFID budget and limited range of aid delivery instruments. The fact that DFID’s budget is growing rapidly tends to favour big, simple, “efficient” development processes and relationships with central authorities in LICs. Budget support is the epitome of this trend. Environmental assets, environmental deprivations, environmental governance and environmental management play no central part in such processes or the development models they aim to support. Indeed, at national level the specificity, complexity, uncertainty and diffuse responsibilities for environment are very difficult to reconcile with such models. Local stakeholders (key for integrating environment into development) and research groups (key for handling environmental uncertainties) tend to have been marginalized by budget support approaches. DFID’s extra funds need to be accompanied by extra responsibility to tackle the wider impacts of bigger expenditure. As a minimum, more needs to be done to lay out the “theory of change” that underlies budget support, to assess its sensitivity to environmental issues, and thus to incorporate environment in budget support planning and monitoring.
- A static or reduced overall DFID staff complement, and disproportionate reduction in environmental and natural resources skills. The reduced staff exacerbates the problems inherent in “big, simple models” and creates internal incentives for “efficiency” that are greater than those for equity or diversity. IIED is pleased that the HQ complement of environment advisers has been maintained (although some policy teams eg the Urban Rural Change Team have been disbanded before their conclusions have been fully internalised). In contrast, there have been significant and apparently ill-planned reductions in environmental advice in geographical offices. This may be due to a lack of oversight of the cumulative effects of all country office heads facing few incentives to employ anybody but economists, governance advisers and administrators. This would be less of a problem if DFID environmental advice were being replaced by eg agreements with other donors in-country to take responsibility for (cross-donor) environmental advice, or if DFID country offices were better linked with in-country sources of environmental expertise such as local universities and NGOs. There are signs that DFID is now below critical mass in environmental advice—its advisers are amongst the best, and efforts should be made to retain them and place them in strategic positions. This should be complemented (but not substituted for) by reinstatement of the in-house environment training modules for non-environment staff.

Other major DFID-wide directions could be more promising for the environment—if there were more active promotion and implementation of its Environment approach:

- Donor harmonisation: On the one hand, efforts to implement the OECD Paris agenda on aid effectiveness are promising if they result in a more coherent and prominent cross-donor approach to (a) taking responsibility for environmental integration; (b) coordinating environmental activities in-country; and (c) the environmental reporting requirements of country authorities. For example, the donor group on environment in Tanzania, coordinated by Denmark, is working fairly well. On the other hand, efforts at donor harmonisation can take up so much time and political capital that attention shifts even further away from the environmental stakeholders who are already marginalized so much in country-driven approaches.
- More development assistance delivered through multilateral institutions: It can be effective to deliver more aid through multilaterals such as the World Bank and the EC if, at the same time, DFID strengthens its commitment as a shareholder to assure the highest quality in multilaterals’ environmental policy and procedures, and scrutinises their implementation. Yet the BTC oil pipeline experience, amongst others, suggests that DFID is happy merely to defer to the development banks, rather than to adopt a continuous improvement approach. Neither does DFID’s new SD Action Plan attempt to address the new European Consensus on sustainable

development. With the closing of 11 years and 10 programmes of DFID's Renewable Natural Resources Research Strategy, there is now considerable UK expertise that could be deployed by DFID to improve environmental integration in the activities of the multilaterals...

- Programme Partnership Agreements: PPAs are analogous to budget support, offering DFID a way to provide long-term, predictable supplies of flexible assistance to trusted agencies. From July 2006, IIED will join WWF so that there will be two organisations concerned with environment that have Programme Partnership Agreements with DFID. For these “environment” PPAs to work well, “carrots and sticks” need to be established: for DFID country/regional office heads to engage with these PPAs; for the PPAs to work coherently together (and with the “development” PPAs); for WWF's PPA to encourage local civil society to articulate environmental issues; and for IIED's PPA to offer better information and analysis on poverty-environment links at national level.
- Joint working with Defra and the UK Sustainable Development Strategy (SDS): There has been recent progress in balancing DFID's (fairly clear) international development agenda with Defra's international environmental agenda (which has not always been very clear in relation to local and national environmental issues). The UK SDS appears to have offered a good framework for a mutual exploration and harmonisation of roles between DFID, Defra and the FCO. However, following the flurry of activity in preparing the SDS, this has not really been pursued very actively beyond DFID's production of an SD Action Plan; it is not clear how the latter commits DFID to anything that it would otherwise not have done.
- Focus on climate change: DFID's climate change initiatives are well appreciated (see p1). In addition, DFID has been bold in highlighting the direct links between consumption patterns in the North and climate-induced vulnerability in the South. There is a danger that DFID's focus on climate change becomes a substitute for balanced attention to the range of environmental deprivations and hazards facing poor people—“ticking the environment box” in one step. Instead, The links need to be clarified between climate variability/change and soil, water, biodiversity and environmental health, etc—so that climate change becomes a useful “entry point” for environmental action. DFID's upcoming climate change research programme offers potential here.
- Focus on agriculture: Two recent DFID documents, Strategy for Research on Sustainable Agriculture 2006–16 and Policy Strategy “Productivity growth for poverty reduction: our approach to agriculture”, have usefully raised the profile of agriculture and rural development. But there are inconsistencies. The research strategy promotes a wider definition of “agriculture”, including wildlife management, forestry, and fisheries. This is welcome, as it recognises farmers' diverse livelihoods and accommodates the possibility of a future where such activities function better with each other and with environmental processes. Yet the agricultural policy adopts a narrow definition around farming—and a commercial focus aimed principally at national economic growth. Whilst the policy reveals valuable appreciation of the roles of value chains and market access, rather than merely supply-side activities, poverty is treated as purely income-based and the “safety net” functions of agriculture are not well addressed. The problems faced by poor people in accessing environmental assets are not addressed as a priority; neither are the impacts of agribusiness gaining preferential access to such assets.

In both the policy and research strategy, a narrow emphasis on farming technology is inadequate and inconsistent with the importance of demand-side constraints and with the other natural resource activities on which farmers depend. There is little emphasis on technology for soil and water management, on other means to sustain the environmental asset base of agriculture, and on approaches to minimise the energy intensity of farming technology. Finally, there is inadequate commitment to more inclusive science and technology, including building on traditional knowledge which has proven so effective at working with natural processes—rather than against them. Here, DFID's support to the current International Assessment of Agricultural Science and Technology for Development is to be welcomed, as it will attempt to bring together “scientific” and traditional knowledge from almost a hundred countries.

In conclusion, DFID needs to improve efforts towards MDG7, because this is one of the most “off-track” MDGs. IIED welcomes this inquiry by the Environmental Audit Sub-Committee and hopes that it will offer timely information and compelling ideas that will influence the current International Development White Paper process. Ultimately, development is not merely a function of improved supply of finance to central governments. Development is achieved through the accumulation and management of a portfolio of assets—including environmental assets—in ways which improve both their productivity and the equitable sharing of associated costs and benefits. The evidence from national MDG reporting is that MDG7 (“Achieve environmental sustainability”) is highly off-track, and that progress towards many other MDGs is hindered by under-investment in environmental assets. DFID needs to benchmark—and then regularly review and report on—its investment in MDG7 according to the three categories in its Environment approach.

Memorandum submitted by Jodie Keane and Christopher Stevens, Overseas Development Institute (ODI)

SUSTAINING DEVELOPMENT DURING CLIMATE CHANGE—INTERNATIONAL ASPECTS,
BY JODIE KEANE AND CHRISTOPHER STEVENS

SUMMARY

1. Action is required across the board to prevent climate change derailing development—much of it in the developing countries. This written submission focuses attention on just two of the international aspects of the adjustment, because they are ones on which the European Union (EU) is a major actor. It argues that current EU policy is insufficiently nuanced to protect development.

2. The first issue is EU biofuel policy. It has an impact on the choices that are made on power generation and energy sources in both developed and developing countries. We believe that the policy pendulum has now swung too far from unbridled optimism and pessimism about the potential role of biomass production in developing countries to alleviate the impact of rising energy prices on all net energy importing states.

3. The second issue concerns the European Emissions Trading Scheme (ETS)—and its relationship to the Clean Development Mechanism (CDM), which offers opportunities to an increasing number of developing countries. The ETS has been vital for the success of the CDM to date, but recent EU policy states that if no agreement is reached on the successor to the Kyoto Protocol it will limit the volume of certified emissions reductions obtained through the CDM and used by European businesses.

4. A failure to agree reductions in emissions after 2012 will remove the need for carbon offsetting at the multilateral level and therefore the CDM. Such a “beggar thy neighbour” policy is not conducive to promoting continued support for the transfer of clean energy technologies to the developing world, nor does it send out the right signals to investors in both developed and developing countries.

EU BIOFUEL POLICY

5. Biofuels may be very important for developing countries—and so is the impact of biofuel policy. It is important to remember that developing countries are affected both as potential producers (for their own use or export) and as consumers (of crops displaced by biofuels and of energy). So even though only a small number of countries are likely to emerge as exporters of biofuel feedstock, a much larger number will be affected by industrialised country policy—favourably if it reduces energy prices for the net importers and unfavourably if it pushes up food prices for the net importers. Since Europe is a major producer of biofuels, with an estimated 10% share of world bioethanol production, its policies can have a significant effect (ODI 2008e).

6. The pendulum of European opinion on biofuels has swung wildly in recent years, from an unjustified optimism to a similarly excessive pessimism. By the end of the first quarter of 2008 there were widespread calls for a rethink on strategies to promote production in both the developed and developing worlds. These were heavily influenced by the spike in prices of staple foods on international markets which, it is generally recognised, were partly caused by the production of biofuels to meet targets set in North America and the EU (ODI 2008b; 2008c; Mitchell 2008; Rosegrant 2008). Stern (2008) discusses the potential of second-generation biofuels (that do not directly compete with foodstuffs but are more technologically sophisticated) but not the first-generation. This is despite the potential for first-generation biofuel production in some developing countries.

7. We believe that the scepticism has gone too far and, in particular, fails to distinguish between biofuel production that is good for development and that which is bad. Despite the public perception of biofuels production as competing with food crops, it is important to distinguish between crops, countries and food production systems. Moreover, it needs to be considered that developing country households typically grow both, food and biofuels, and that biofuel production could provide a stimulus to agricultural productivity. Whilst it is certainly the case that many poor countries do not have enough unused arable land with the potential to develop the production of feedstock—either for national transport fuels, or for local energy supplies including electrification—the benefits of developing biofuel in the developing world are not only limited to countries that have spare land. More biofuel means less use of fossil fuels. Models show that this would help reduce the price of oil, to the benefit of other developing countries that cannot grow biofuel feedstock (ODI 2008b).

8. As a result of concerns over the Green House Gas (GHG) pathways of biofuels the EU has adopted sustainability criteria. The GHG emission saving from the use of biofuels and other bioliquids must be at least 35%, applicable from 1 April 2013 (EC 2008a). The European Commission (EC) will report on the requirements of a “sustainability scheme” for biomass energy uses by 31 December 2010 (ODI 2008a).

9. Some developing country producers such as Brazil appear better able to meet GHG pathway and sustainability criteria than do European producers. But the current restrictions on their access to the EU market will need to be lifted if they are to gain directly. Other developing country producers may be disadvantaged by the inclusion of sustainability criteria—not because they cannot meet them, but because they cannot afford to prove compliance. ODI has recently reviewed a number of existing agricultural standards attached to product labels, and its research suggests that few low income and less developed country exports are covered because compliance costs are high and that this acts as a barrier to exporting (see ODI 2008d).

10. The EC will review in 2015 its 10% target for the biofuel content of petrol and diesel by 2020, as a result of concerns over food prices. But it has also been stated that at least 20% of the EC's 2015 target and 40% of the 2020 goal must be met from crops that do not compete with food or feed and from second-generation biofuels (which are more technologically sophisticated, using enzymes, steam heating or other treatments).²⁴ There has been a shift from food-competing biomass to non-food-competing biomass production. Whilst ensuring that increased use of biofuels does not have an adverse impact on food prices, it is undesirable to introduce a mandatory rule that disadvantages those developing country producers that are able to expand their production of first-generation biofuels without compromising food security. Arguably it serves to increase the protection afforded to European producers (who have easier access to second-generation technology).

11. The precise level of EU imports exclusively for biofuels is currently not known. The EU's tariff codes, for example, do not distinguish between denatured ethanol for biofuel and that for other industrial uses. But it is clear that trade in biofuels is limited: in 2007 around 8% of ethanol and 12% of biodiesel were traded. Almost all ethanol exports came from Brazil and China, with the United States of America (USA) as the single largest importer followed by Japan. Biodiesel was exported by Argentina, Indonesia, Malaysia and the USA; with the EU and Japan as the two main destinations (ODI 2008b).

12. Trade is much influenced by tariffs. Table 1 shows those applying to ethanol: the EU imposes a tariff that in early 2007 was the equivalent of a 52% ad valorem charge to imported ethanol, while the US tariff was equivalent to 28%. These represent very strong protection against ethanol for the world's most efficient producing area, Brazil.

Table 1

APPLIED TARIFFS ON ETHANOL IN SELECTED COUNTRIES, AS OF 1 JANUARY 2007

Country	Applied MFN tariff (local currency or ad valorem rate)	At pre-tariff unit value of \$0.50/litre		Exceptions
		Ad valorem equivalent (percent)	Specific rate equivalent (US\$/litre)	
Australia	5% + A\$0.38143/litre	51	0.34	USA, New Zealand
Brazil	0%	0	0.00	From 20% in March 2006
Canada	C\$0.0492/litre	9	0.047	FTA partners
European Union	€0.192/litre	52	0.26	EFTA, GSP
Switzerland	CHF 35/100kg	46	0.232	EU, GSP
United States	2.5% + \$0.51/gallon	28	0.138	FTA partners, CBI partners

Note: ethanol is classified for trade purposes as HS 2207.10, undenatured ethyl alcohol.

Source: Steenblik, 2007 quoted in FAO 2008

13. In the case of the EU, the key reason why trade is limited is that those countries most likely to be able to supply biofuels cost effectively (and carbon efficiently) face significant tariff barriers, whilst it is not in the interest of those countries that export duty free to include biofuels in their mix of products supplied to the EU. In other words, for sound commercial reasons countries that have preferential access do not use it to sell bioethanol, whilst those that might sell do not have liberal access. Bioethanol (Harmonised System heading 2207) enters duty free under some preferences, but it does not when supplied by the largest world producers such as Brazil and China. Moreover, every EU member has a different set of complex rules on denaturing, which makes compliance for imports expensive.

²⁴ See http://www.europarl.europa.eu/news/expert/infopress_page/064-36659-254-09-37-911-20080909IPR36658-10-09-2008-2008-false/default_en.htm

14. It follows that to increase imports in an environmentally friendly way requires either the removal of import barriers from countries like Brazil that can produce bioethanol in ways that result in substantial carbon savings, or an increase in production in the sugar-exporting African, Caribbean and Pacific and least developed states to a level at which they exhaust European market demand for the higher-priced sugar products (ODI 2008b). But it is worth remembering there are opportunities that arise from the development of biofuels for developing countries either through taking advantage of the potential to export biofuel or feedstock to the EU, or by developing domestic biofuel industries that could create new jobs and save foreign exchange (*ibid.*).

THE CLEAN DEVELOPMENT MECHANISM (CDM)

15. This is the principal tool within the climate regime established in 1997 to encourage trade in Certified Emissions Reductions (CERs) between developing and developed countries, enabling developing countries to tap into a new market and source of income and achieve a form of “green growth”. So far the developing countries most involved in the trade have been China, Brazil, Mexico and India, but an increasing number of poorer countries are now becoming involved. So any threat to its continued vitality must be of concern.

16. The CDM was designed to help developing countries (known in the jargon as “non-Annex 1 countries”) to pursue sustainable development with additional investment from developed and industrialised countries. The binding emission targets of the Kyoto Protocol, coupled with the CDM, make it possible for both developed and developing countries to achieve green, or greener, economic growth. They provide an incentive to reduce emissions in developed countries and to encourage investment in cleaner energy sources in developing countries.

17. Although the growth of the emissions traded has been impressive, the scope for further expansion of the market for emissions reductions is potentially huge. The ETS and CDM are currently trading only around 0.5% of annual GHG emissions. Global anthropogenic GHG emissions are in the region of 49 billion tonnes of CO₂e per annum (IPCC 2007), calculated on the basis of emissions in 2004.

18. The global carbon market encompasses a number of different actors, but the institutional and legal framework of the global carbon market—within which the CDM plays a crucial role—is set out by the United Nations Framework Convention on Climate Change (UNFCCC). The post-2012 climate change regime hinges on the level of emissions reductions developing countries can agree to meet.²⁵ A failure to agree reductions in emissions after 2012 will remove the need for carbon offsetting at the multilateral level and therefore the rationale for the CDM. Although this worst-case scenario may be unlikely, the uncertainty of the post-2012 climate change regime may well constrain further investment in CDM projects, which may in turn stall the continued growth of clean energy projects.

19. The EU is attempting to use a form of extra-territoriality to exert pressure for a new set of targets. Its ETS Directive of January 2008 (EC 2008a) states that if no satisfactory international agreement is reached, the amount of CERs allowed into the ETS from 2013 will be limited to the 2008–12 level of 1,400 million tonnes. It has made clear that: “additional use of CERs and Emission Reduction Unit[s?] (ERUs) should be provided for once there is an international agreement on climate change [post 2012], from parties which have concluded that agreement” (EC 2008a:17–18).

20. The ETS has been vital for the success of the CDM to date with EU buyers taking a very large proportion of sales in 2007. If no agreement is reached on emissions reductions at the multilateral level post 2012, purchases by European businesses and governments could be severely limited. The policy has been adopted by the EU, of course, to encourage other countries to agree reduction targets and to support efforts to conclude a new global agreement (Capoor and Ambrosi 2008). But it involves risks: unless agreement is reached it will adversely affect developing country suppliers and the current uncertainty may serve to constrain further investments in these countries.

21. The impact of this cutback could be widespread. Although over half of all registered CDM projects are based in either India or China, and only 2% are in sub-Saharan Africa (as of August 2008), this concentration is changing. Africa’s share of transacted CDM projects has increased over the period since carbon trading began and this is likely to continue as the type of project supported by CDMs changes. The bigger countries are better able to supply industrial gas projects (which account for the bulk of the value of CDMs issued to date) but poorer countries can supply hydro and biomass energy projects (which are much more numerous). A look at the number of CDM projects registered within country and per capita gross national product implies that there is no clear relationship, and the same is true for those awaiting validation and registration (ODI 2008a).

22. As opposed to limiting use of the CDM unless agreement on a post-2012 agreement is reached, a bolder strategy for the EU would be to promote purchases made by European companies from developing countries through other private voluntary certifying bodies (of which there are many), benchmarked to the criteria of the CDM. Such a strategy would promote less of a “beggar thy neighbour” policy and could

²⁵ Signatories to the UNFCCC are referred to as Annex 1 countries and are all developed countries.

stimulate increased private sector engagement less confined by the bureaucracy of the UNFCCC system. It would also provide signals to investors in both developed and developing countries on continued support for and the potential of scaling up the transfer of clean energy technologies.

REFERENCES

- Capoor, K. and Ambrosi, P. (2008) “State and Trends of the Carbon Market 2008”, World Bank: Washington, DC, http://carbonfinance.org/docs/State___Trends--formatted_06_May_10pm.pdf
- EC (2008a) Proposal for a Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, European Commission: Brussels, http://ec.europa.eu/energy/climate_actions/doc/2008_res_directive_en.pdf
- EC (2008b) “Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading system of the Community”, European Commission: Brussels, http://ec.europa.eu/environment/climat/emission/pdf/com_2008_16_en.pdf
- European Parliament (2008) “More Sustainable Energy in Road Transport Targets”, press release http://www.europarl.europa.eu/meetdocs/2004_2009/documents/pr/722/722155/722155en.pdf
- FAO (2008) State of Food and Agriculture. Biofuels: prospects, risks and opportunities, <ftp://ftp.fao.org/docrep/fao/011/i0100e/i0290e.pdf>
- IPCC (2007) “Climate Change 2007: Synthesis Report”, IPCC Fourth Assessment Report, IPCC: Geneva, <http://www.ipcc.ch/ipccreports/ar4-syr.htm>
- Mitchell, D (2008) A Note on Rising Food Prices, World Bank Policy Research Working Paper, http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2008/07/28/000020439_20080728103002/Rendered/PDF/WP4682.pdf
- Observer 15 June 2008 “Stern plans credit rating for carbon offset deals” <http://www.guardian.co.uk/environment/2008/jun/15/carbonoffsetprojects.carbonemissions>
- ODI (2008a) Achieving Green Growth in a Carbon Constrained World, Background Note, ODI: London, www.odi.org.uk/resources/odi-publications/background-notes/2008/green-growth-carbon-trading.pdf
- ODI (2008b) Production and use of biofuels in developing countries, European Parliament Briefing, written with ProForest.
- ODI (2008c) Review of the Indirect Effects of Biofuels: Economic benefits and food security, Report to the Renewable Fuels Agency (RFA), www.dft.gov.uk/rfa/_db/_documents/Report_of_the_Gallagher_review.pdf
- ODI (2008d) A review of ethical standards and labels: Is there a gap in the market for a new “Good for Development” label? ODI Working Paper 297, <http://www.odi.org.uk/resources/odi-publications/working-papers/297-good-for-development-label-ethical-standards-trade.pdf>
- ODI (2008e) “Biofuels and Development: Will the EU help or hinder?”, ODI Briefing Paper, www.odi.org.uk/resources/odi-publications/briefing-papers/32-biofuels-development-eu.pdf
- Peskett, L. and Harkin, Z. (2007) “Risk and Responsibility in Reduced Emissions from Deforestation and Degradation”, ODI Forestry Briefing 14: London, <http://www.odi.org.uk/fecc/resources/briefing-papers/fb15-0712-redd.pdf>
- Rosegrant, M (2008) Biofuels and Grain Prices: Impacts and Policy Responses, Director, Environment and Production Technology Division, IFPRI <http://www.ifpri.org/pubs/testimony/rosegrant20080507.pdf>
- Steenblik, R. (2007) Biofuels—at what cost? Government support for ethanol and biodiesel in selected OECD countries, Global Subsidies Initiative, http://www.globalsubsidies.org/files/assets/Brochure_-_US_Update.pdf
- Stern, N. (2008) Key Elements of a Deal on Climate Change, Chair of the Grantham Research Institute on Climate Change and the Environment, London School of Economics, http://www.lse.ac.uk/collections/granthamInstitute/publications/KeyElementsOfAGlobalDeal_30Apr08.pdf
- Stern, N. (2006) The Economics of Climate Change, HM Treasury, http://www.hm-treasury.gov.uk/stern_review_final_report.htm

**Written evidence submitted by Leo Peskett, Research Fellow, Climate Change,
Environment and Forests Group, Overseas Development Institute (ODI)**

Following the evidence session held on 3 March 2009, here are the figures I promised:

- According to UNFCCC website, China has an average annual reduction of 147,318,958 metric tons from the CDM. This is compared to their average annual emissions of 7,527 Million Metric Tones CO₂e (according to Congressional Research Service: <http://ftp.fas.org/sgp/crs/row/RL34659.pdf>) (ie about 2% of emissions). Therefore the reductions aren't "significant" compared to what they are still emitting.
- China has 60% of the CDM market. See here for amount of CERs from China: <http://cdm.unfccc.int/Statistics/Registration/AmountOfReductRegisteredProjPieChart.html>

We could do the same for India, but the figures would probably be similar.

Written evidence submitted by Nestlé UK

1. As you will be aware, Nestlé has a strong legacy of investment and trade in the developing world having built our first factory in Latin America in 1921. Today, 45% of our factories and 48% of our employees are based in developing countries.

2. Our principle is to manufacture, when possible, in countries from which we source commodities, rather than to export the raw materials. Regional manufacture for regional markets means our products have fewer miles to travel, and also allows us to become fully integrated into the social, cultural, and economic life of the countries in which we operate.

3. Equally important to our core business is our commitment to sustainability and corporate social responsibility which is reflected through our concept of Creating Shared Value—a belief that in order for a company to create value for its shareholders over the long term, it must bring value to society as a whole. This is reflected across our supply chain and in the many programmes and projects that Nestlé supports, including those that work toward attainment of the UN Millennium Development Goals (MDGs).

4. Nestlé fully supports all eight MDGs and considers them important objectives for improving the state of the world and in addressing the most pressing needs of people, particularly in developing countries.

5. Nestlé believes that, especially in a "changing climate", the issue of water scarcity is no longer just an environmental issue, but is fast becoming a national and international security issue.

6. The globe is facing a severe near-term crisis of increased demand on limited resources. The UNDP predicts that by 2025, if present trends continue, two-thirds of the world's population will suffer from water stress and one quarter from severe water shortage.

7. Agriculture places the greatest demand on water resources, accounting for 70% of fresh water withdrawn, with the remaining 30% used by industry and households.

8. The problem has been exacerbated by the recent surge in biofuels production—itself the result of policy decisions made in response to climate change and the use of fossil fuels. Not only has this placed increased pressure on food supplies, by diverting arable land away from food production, but has also put further stress on already strained water resources.

9. For example, the US Department of Energy calculates that as much as 10,000 litres of water are needed to produce five litres of bio-ethanol. Biofuel production has been heavily subsidised, and the resulting incentive to divert food crops away from use as human food is underpinning already high crop prices. These effects are felt most keenly in the developing world, and often in countries less able to adapt to a changing climate.

10. Rising demand for biofuels has also contributed to growth in the palm oil industry. Nestlé is committed to supporting and participating in the search for a practical and sustainable solutions to the palm oil/deforestation problem.

11. Nestlé has consistently opposed the mandatory 10% target for use of biofuels in transport fuel, as outlined by the Renewable Energy Directive. We were therefore encouraged by the decision taken by the European Parliament's Industry, Research and Energy Committee on 11 September 2008 to support the Turmes report which had called for the reduction or outright rejection of this mandatory 10% target for biofuels by 2020.

12. We welcomed the Committee's decision to move away from the use of agro-fuels, highlighted by the amended text specifications that at least 20% of the 2015 target and 40% of the 2020 goal must be met from "non-food and feed-competing" second-generation biofuels or from cars running on green electricity and hydrogen.

13. Nestlé has long supported sustainable energy use: over the last five years, Nestlé has reduced its energy consumption per tonne of product by 28% and its greenhouse gas emissions by 32%. However, we believe that any decision on the use of energy sources must be based on a systematic cost benefit and life cycle analysis, taking into consideration the social and environmental impact, including the effects on food prices and water.

14. There is no question that we have to reduce our consumption of fossil fuels. But biofuels derived from food crops planted exclusively for that use are clearly the wrong solution. While there are substitutes for oil, there are not any for water.

15. Sustainable development in a changing climate means encouraging the responsible use of water. Water is still treated as a limitless resource in too many communities, and one reason is a lack of an appropriate pricing structure. One example of a market-led mechanism is tradeable water rights, where farmers can decide among themselves what is the correct price. We need a system that provides incentives to invest in best practice and new technology in agriculture. Reasonable pricing policies would help by encouraging the use and development of water efficient crops and smart irrigation systems.

16. At the World Economic Forum in Davos in January 2008, Nestlé chairman Peter Brabeck-Letmathe spoke about how more companies should sign up to the CEO Water Mandate, run in partnership with the UN Global Compact, which outlines a framework for businesses to address water sustainability in their operations and supply chain.

17. Nestlé itself has made significant reductions in water use. Whilst Nestlé production has nearly doubled in the past 10 years, its water consumption has been reduced by 29% in absolute terms. Waste water has also been reduced by 37%.

18. At the same time, in the Developing World, Nestlé helps educate farmers, children and the public about what can be done to alleviate water stress. 675 Nestlé agronomists and more than 5,500 contractual agricultural extension workers are working with over 530,000 farmers to introduce water management techniques which can lead to significant water savings.

19. A current project that will specifically address the issue of sustainable development in a direct way is Nestlé's submission to The Prime Minister's Business Call to Action, whereby Nestlé, working through its agronomists on-the-ground will train farmers in Central Africa in improved storage and agricultural practices to reduce mycotoxin spoilage of Légumes- increasing yields, reducing the need for imports and directly increasing farmer incomes by \$900 per annum. A very direct and practical project to build sustainable farming incomes in Developing Countries.

20. In summary, we strongly believe that businesses, alongside other stakeholders, have a key role to play in bringing about positive, sustainable changes in developing countries. This is increasingly important when facing the challenges posed by climate change.

November 2008

**Written evidence submitted by the Population and Sustainability Network (PSN),
and Marie Stopes International**

Population and Sustainability Network has been established to clarify and communicate the importance for sustainability of both population and consumption factors. It aims to bring together development, environment and reproductive health NGOs, government departments, academics and others, to increase leverage on population issues.

Marie Stopes International works through a partnership of agencies in 40 different countries working to improve sexual and reproductive health. Together, the partnership has almost 30 years experience of providing maternal health services in developing countries across four continents.

This paper reflects the joint position of both organisations. We welcome this inquiry as an important opportunity to highlight the role of population growth issues and include them into the discourse and policy response to climate change.

I. EXECUTIVE SUMMARY

I.I This paper aims to provide an overview of the ways in which demographic trends interface with climate change, in both impacts and drivers.

I.II It explores the ways that rapid population growth and high fertility exacerbate vulnerabilities to the impacts of climate change. It seeks to illustrate with the use of examples, how high population growth, high fertility and poor sexual and reproductive health in Less Developed Countries (LDCs) undermine coping capacity on two levels:

1. By compromising robust environmental systems upon which many people depend for their livelihoods and survival.
2. By impacting on human well-being and human capital thus sustaining vulnerability.

I.III While adaptation is at the heart of this discussion, we also explore some of the research about how population growth is understood to impact on GHG emissions and to what extent population growth should be considered in climate change mitigation policy.

I.IV A key resource for this paper is a series of reports entitled National Adaptation Programmes of Action (NAPA), submitted by 38 of the least developed country governments outlining their country specific priorities for climate change adaptation. The NAPAs were submitted to the UNFCCC, and are valuable for the contribution they make to improving local stakeholder participation, as they were intentionally developed in a consultative way to include the voices of the poorest and most local groups. Many identify rapid population growth as an issue that exacerbates the impacts of climate change.

I.V The policy recommendations for this paper are as follows:

1. LDCs characterised by rapid population growth should be supported to integrate family planning into their programmes of adaptation to climate change.
2. In this context family planning should not be perceived as inherently driven by “population targets”, but as a beneficial, relatively inexpensive policy intervention in its own right with likely ensuring favourable effects on demographic trends.
3. The Department for International Development should coordinate their policy response to climate change in such a way that fully integrates all development sectors, including the sexual and reproductive health department. A coherent policy response that combines harmonised efforts and a horizontal approach would have reinforcing benefits, for both mitigation and adaptation to climate change.

1. CLIMATE CHANGE, THE ENVIRONMENT AND POPULATION GROWTH

1.1 Climate change as an internationally recognised phenomenon is happening beyond all reasonable scientific doubt. The earth is warming as a result of anthropogenic activity, which is impacting on the earth’s natural systems of positive and negative feedback processes, causing dramatic alterations to the global ecosystem. During this period it is predicted that we will see a period of unprecedented environmental change, including increased frequency of floods and droughts, storms and cyclones, pests and diseases, sea level rise, land use changes and loss of biodiversity, to name but a few.

1.2 The case to be made here is not how, why or whether climate change will impact on the environment and human populations; for the purposes of this paper this has been taken as a given. Instead, the aim is to show how population growth as it happens in the Least Developed Countries asserts an additional pressure on top of these changes and also contributes to them.

1.3 According to the UN 2006 Revision of the World Population Prospects, world population is likely to increase from the current 6.7 billion to 9.2 billion in 2050. This increase is equivalent to the total number of people living in the world in 1950 and it will be absorbed mostly by the less developed regions, where population is projected to rise from 5.4 billion in 2007 to 7.9 billion in 2050. There are numerous ways in which population growth is relevant to climate change policy planning. However so far the phenomenon of population change and demographics has largely been absent from the international climate change discourse.

1.4 Three likely reasons why population does not feature as in climate change policy planning have been advanced by John Bongaarts, a leading demographer at the Population Council and Brian O’Neill, a climate scientist at the National Centre for Atmospheric Research. These reasons are that (1) the real problem is consumption, (2) not much can be done about population and (3) strengthening population policies leads to coercion (Leiwan Jiang 2008).

1.5 This paper seeks to illustrate why these three barriers to including population issues into climate change dialogue are unfounded. These are as follows: (1) the case to include population issues into climate change policy is not to divert attention from the immediate and urgent necessary reductions in GHG emissions from energy intensive consumption, mainly in the minority and rich world, but to perceive it as a synergistic intervention with virtues in its own right. (2) Population growth projections are often based on assumptions that fertility decline to date will continue. In many places the family planning programmes that have been responsible for this decline are crumbling, due to decreased investment over the past 15 years. (3) Population policies have led to cases of coercion in the past which means today every effort must be made to upholding the highest quality of woman centered service delivery offering a wide range of culturally acceptable, non-coercive and temporary forms of contraception.

2. ADAPTATION AND DEFINITIONS OF VULNERABILITY

2.1 A useful understanding of “vulnerability” is offered by the UN Environment Programme in their 4th Global Environment Outlook report:

“[Vulnerability] is defined here as a function of exposure, sensitivity to impacts and the ability or lack of ability to cope or adapt.” (UNEP 2007)

2.2 Vulnerability might be an exposure to changes in the natural environment, disrupting the way people use or depend on it, which is a primary concern in the context of climate change. Also important to note is exposure to forces like extreme price fluctuations, underlying socio-economic, institutional and environmental conditions.

2.3 “Vulnerability is useful to describe places, people and ecosystems that suffer the most from changes in environmental and/or human induced variability or change, and identifies the underlying causes.” (UNEP 2007)

2.4 The precursors of vulnerability are most often linked to instances of poverty in as much as this reduces people’s capacity to adapt to or cope with sudden or unexpected changes. In this respect it is crucial that all sectors of development programmes are streamlined with climate change adaptation policies. At the very least it demands that the programmers and policy makers are well versed in the new dynamics expected to arise due to climate change.

2.5 It is well known by now that while the majority of the activity driving the causes of climate change stems from the rich north while the people that will be disproportionately affected by climate change will be in the global south.

2.6 The world’s poorest are the most vulnerable to climate change for more than one reason. While at times the existing and often difficult climatic conditions of a developing country may be exacerbated by further temperature increases and weather variability, the people in developing countries often depend more acutely and directly on the natural environment for subsistence and livelihood. This relationship is further compounded by numerous ancillary stressors and low adaptive capacity, often characterised by poverty, underdeveloped economies, poor health, and limited scientific and technological capabilities (IPCC 2007).

2.7 The purpose of this paper is to illustrate some of the ways that population growth interfaces with climate change. Here we look at how population growth, characterised by high fertility acts as an extra stressor exacerbating capacity to cope or adapt to climate change and weather variability. Additionally this paper explores work already completed around the relationship of population growth to future emissions scenarios.

2.8 Our key conclusion is that increased investment in voluntary family planning services can make a significant contribution to both adaptation and mitigation strategies and programmes.

3. POPULATION GROWTH AND VULNERABILITY

Two kinds of coping capacity:

3.1 The relationship between high population growth and its impact on the environment is not undocumented. What is less apparent is the way that population growth, characterised in developing countries by high fertility and very often accompanied by poverty, affects coping capacity to climate change or human induced environmental changes. In this case we are concerned with two kinds of coping capacity:

1. Robust and healthy environmental systems (eg agriculture, biodiversity hot spots, fisheries and forests,) that are resilient against increased weather variability predicted from climate change.
2. Human well being; the coping capacity of people and communities is characterised by good health, secure and adequate livelihoods, personal security and good information and knowledge about the expected direct and indirect impacts of climate change.

3.2 The causal chain by which high population growth interacts with these two kinds of vulnerability follows different pathways.

3.3 In relation to point one; UNEP, in their 4th Global Environmental Outlook Report (2007) use the drivers- pressures-state-impacts-responses (DPSIR) framework in analysing the interaction of environmental change. At a local level population growth is identified as a key driver of environmental degradation.

3.4 Degradation means that environmental systems are weakened to the possible impacts of climate change, hence compromising their capacity to cope and increasing not only their vulnerability but also that of the people that depend on them. Other key drivers are consumption and production patterns, scientific and technological innovation, economic demand, markets and trade (UNEP 2007). “Demographics” most often meaning high population growth but also spatial distribution patterns and migration, asserts pressure on water resources, land use practices, biodiversity, fishery management and forests.

3.5 This model is further supported by analysis carried out on the National Adaptation Programmes of Action reports (NAPA). These are reports submitted by the governments of 38 of the Least Developed Countries (LDCs) to the UNFCCC. NAPA reports provide a process for LDCs to identify priority activities that respond to their urgent and immediate needs with regard to adaptation to climate change. The NAPA reports take into account existing coping strategies at the grassroots level, and builds upon these to identify priority activities. In the NAPA process, prominence is given to community-level input as an important source of information, recognizing that grassroots communities are the main stakeholders. While their shortcomings have been identified these relate to the functionalities between countries and implementing

agencies, for instance the difficulties with affecting follow up activities and securing funding (Ayers 2008). They are however hugely valuable for the purpose of this argument due to the input from the local stakeholders themselves.

3.6 A large majority of the 38 NAPA reports identify rapid population growth as a factor that exacerbates the detrimental impacts of climate change. Over half of NAPA reports cite population growth as a main driver for environmental damage, land degradation and soil erosion; thereby sustaining food insecurity and poor agricultural yields. Just under half of reports cited population growth as a key driver of some of the key consequences of climate change, including fresh water shortages, loss of biodiversity, deforestation, and shortages of grazing land per capita. The key implication here is that the governments of many LDCs believe that the harmful affects of climate change can be better mitigated by addressing rapid population growth as a component of the overall programme to adapt to the affects of changing climatic conditions. This is perhaps an unsurprising finding given that the population growth rate of many LDCs exceeds 2% a year and hence will lead to a doubling or tripling of their populations by 2050.

3.7 Five of the most frequently mentioned factors that the country reports show to worsen synergistically due to high population growth and climate change are:

- Population pressure on fresh water availability

National studies have shown that soil moisture would decline under future climate change. When coupled with high consumption, increased population growth, high variation in rainfall and high rate of evaporation, a looming water crisis appears likely.

Sudan. p.19 2007

- Population affecting soil degradation/ erosion- implications for agriculture

Loss of biodiversity, herbal plants, life and physical injuries are most prominent in the highland areas. This is mainly due to high population density leading to pressure for arable land (over cultivation), deforestation and soil degradation resulting in frequent landslides.

Uganda. p. 48. 2007.

- Shortage of land per capita/ over grazing

“Vulnerable regions receive more and more migrating populations from regions with high density of population and where natural resources have reached a critical level of degradation.”

Rwanda. p. 37. 2006

- Deforestation

“..many gazetted/ closed high forest and mangroves are threatened by deforestation, the major causes being encroachment due to high population pressure and over- utilization.”

Sierra Leone. p. 78. 2007

- High population density/ migration to coastal areas

A doubling of the coastal population is expected in as little as 12 years.. coastal areas are most vulnerable to climate change due to the anticipated rise in sea level, floods and other consequences. Unfortunately, the effect of sea level rise is already being experienced in Coast region, in Bagamoyo District. In this region sea level rise has resulted into inundation of some traditional water sources. This process has resulted into salinization of shallow water wells, the only source of domestic water supply.

Looking at this trend, there is an immediate need to take action to curb the situation, otherwise if unchecked; people living along the coast will be forced to migrate to other areas, something which may cause social conflicts and other environmental degradation due to overpopulation and utilization of resources.

Tanzania p51 2007

3.8 “Population pressure” in this context should be understood as a phenomenon that compounds human vulnerability to climate change, and exacerbates pressures on the environment exerted by a rapidly changing climate system. At the same time, it also significantly compromises the aspirations of LDC governments to feed, clothe, house and educate their populations.

3.9 Conversely, however, traditional adaptation efforts have been criticized as being dominated by “technical” sector responses often overlooking more “people focused” aspects of human vulnerability. The NAPA reports, for example reflect this sectoral, and largely technical area of focus as they tend to emphasise agricultural or other technical adaptation responses. Reforestation, education programs, drought resistant crop varieties and seasonal climate forecasts are frequently mentioned adaptation strategies.

3.10 Alternative adaptive strategies, to the sector, impact driven ones as described above might promote complementary adaptation measures that would centre on personal well being; both physical and emotional. Fssel and Klein (2006) describe health measures such as vaccination against climate sensitive vector born diseases and improving nutritional status as examples of alternative adaptation strategies. These kind of adaptation strategies would bolster the second kind of coping capacity described above; human well being.

3.11 In a case study seeking to include the voices from those most at risk of climate change, fieldwork was carried out with communities living and working as pastoralist herders in the Sahelian zone of Senegal. In a relative degree of severity they listed factors they considered most aggravating to daily life so that these could be lineated with those stemming from climate stress. They listed health as the number one concern with lack of money and poor quality food coming closely behind (Tschakert 2007).

3.12 The health impacts of climate change are compounded by rapid population growth and high population density. It's possible to see this relationship operating at both the societal and household scale.

3.13 In an LDC at societal level, a rapidly growing human population can put enormous stress on an already struggling healthcare system. Uganda's NAPA report describes where climate change imposes increased burden on the health services in Uganda such as floods that lead to increased incidences of cholera and diarrhoea:

“The high population and growth rate of Uganda is not matched with growth in health services and wealth... the high population puts additional stress on the natural resources and weak health infrastructure.”

Uganda NAPA, p 11

3.14 At the household level, high fertility acts as a proxy for rapid population growth. Absent family planning services and poor sexual and reproductive health result in high and often risky fertility patterns. The concurrent health impacts of absent or poor quality family planning and reproductive health services are numerous. It is estimated that if the needs of the 200 million women who have expressed a desire to either delay or prevent pregnancy were met with high quality, voluntary family planning programs then these could prevent 23 million unplanned births, 22 million induced abortions, 142,000 pregnancy-related deaths (including 53,000 from unsafe abortions) and 1.4 million infant deaths a year (UNFPA/ Guttmacher 2004). One third of the global disease burden amongst women of reproductive age derives from ill sexual and reproductive health (UNFPA/ Guttmacher 2004).

3.14 High fertility and lack of family planning also means that a girl is less likely to complete secondary education or develop her own economic autonomy. In Sub-Saharan Africa, between 8% and 25% of girls who drop out of school do so because of an early pregnancy (IPPF written evidence to the APPG hearings).

3.15 Health and education make up the cornerstones of human capital, which is fundamental for coping capacity and reducing vulnerability (UNEP 2007). Hence poor or absent family planning services and sexual health programs significantly disadvantage many of the world's poorest women facing the growing challenges of climate change. The cost of providing the voluntary family planning services that address these problems could be one of the most significant investments made to improve the wellbeing of women and girls in the poorest countries.

4. WOMEN'S VULNERABILITY IS UNIQUE

4.1 An increasing amount of work is being completed exploring the gendered dynamics of climate change. In developing countries women are amongst the most vulnerable groups to climate change; not only do they account for larger proportions of the agricultural workforce but they also have fewer alternative income opportunities, crucial at times when climate variability affects agricultural yields and food security. Women are responsible for managing the household and reproductive and care giving duties, which in turn limits their mobility and renders them vulnerable to natural disasters and other locally specific sudden changes.

4.2 Dwindling natural resources also disproportionately affect women, as they have to walk further to find fire-wood and collect water. Worldwide women and girls spend about 40 billion hours collecting water-equivalent to a year's labour for the entire workforce of France (UNDP 2006 p. 312 UNEP), and in some countries women and girls spend more than two hours a day collecting water (UNICEF 2004 p.312 UNEP). As water resources become increasingly unstable with the progression of climate change the demands on women's time and workloads are likely to increase.

4.3 Efforts, hence, by policy makers and programmers interested in minimising the adverse impacts of climate change should ensure that policies address issues of women's empowerment or at the very least are highly sensitive to the gendered dynamics.

4.4 Many benefits like health and human capacity, including education, produce wider benefits for a woman's family and community and are more easily attainable with good reproductive health. In particular the opportunity for a woman to space and time her births, and the provision of obstetric and post natal care, will dramatically improve a woman's health and resilience.

4.5 A statement by the Department for International Development to the All Party Parliamentary Group on Population, Development and RH claims:

“The ability of women to control their own fertility is absolutely fundamental to women's empowerment and equality” (DFID 2007)

4.6 Gender differences must be considered not just in terms of differential vulnerability, but also as differential adaptive capacity. During a natural disaster for example women play a key role in protecting managing and recovering lost household resources, and often develop innovative strategies to address

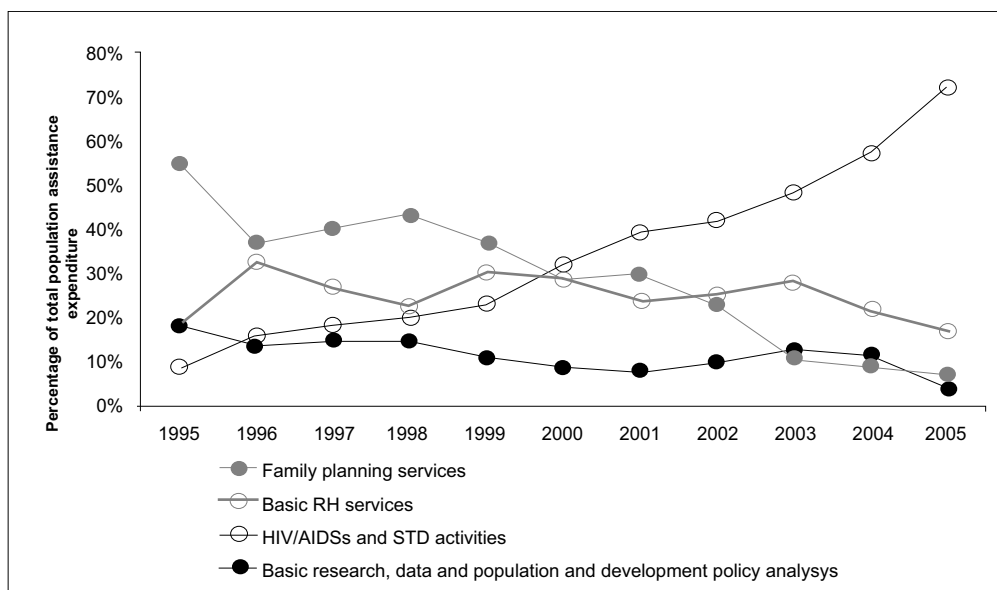
climate change impacts (WEDO 2007). Case studies in Senegal, Bangladesh and Ghana demonstrate grass roots women groups developing coping strategies related to energy and forestry, agriculture, water resources and trade (WEDO 2007). Women thus must be perceived as powerful agents of change and should be fully integrated into climate change mitigation and adaptation strategies at all levels.

5. FAMILY PLANNING

5.1 Population growth projections are often based on assumptions that fertility decline to date will continue. In many places the family planning programmes that have been responsible for this decline are crumbling, due to decreased investment over the past 15 years.

5.2 It is not uncommon to hear policy makers disregard family planning as an unimportant aspect to fertility reduction on the premise that female education will be enough to stimulate reproductive preferences in line with demographic transition. This is a significant oversight; for a woman to have full control over her reproductive preferences she will need the means to prevent the pregnancies she has now decided are unwanted.

5.3 Family planning is a relatively inexpensive intervention. It is estimated that to provide high quality family planning services to the 200 million women who would like to delay or prevent their next pregnancy, the costs would be in the margin of \$3.9 billion a year (Gutmacher/UNFPA)—a fraction of the hundreds of billions, possibly trillions of dollars that are estimated to be the total cost of mitigation and adaptation to climate change. UNFPA/ NIDI resourceflows.org/ APPG, Return of the Population Growth Factor.



5.4 The 1994 International Conference on Population and Development (ICPD) in Cairo reached a consensus about the importance of reproductive health. Since that time, there has been a reduction in funding for family planning programmes, partly due to its replacement by HIV/AIDS as the global sexual and reproductive health and rights priority and partly because USAID funds under Republican administrations have been subject to the “GAG rule”. This rule stipulates not that US tax payers money cannot be spent on “abortion related activities”⁶ (such a ruling, the Helms Amendment, has been in place since 1973) but that, in order to be eligible for USAID funding, an organization could not spend any other funding from any other source on such activities. This has led to an apartheid in sexual and reproductive health services in many countries, in which family planning and abortion services (where available) are offered by entirely separate organizations, so that the most obvious part of abortion aftercare—ensuring that the woman who has evidently had unprotected sex is given access to contraception—does not take place, principally because USAID contraceptive services must demonstrate that they have nothing whatever to do with abortion services.

5.5 There are numerous and complex obstacles to family planning. Various “Population control” programs of the 20th century were well known for employing coercive methods to achieve desired population/ fertility reduction targets. These programs cast a long shadow since they were very far from protecting the rights of individuals and couples they worked with. Efforts must remain therefore firmly oriented towards upholding the highest quality of woman centered service delivery offering a wide range of culturally acceptable, non-coercive and temporary forms of contraception. LDCs that highlight population programmes as a part of adaptation strategy must be supported by the international community in this respect.

6. POPULATION GROWTH AND CLIMATE CHANGE MITIGATION

6.1 So far this paper has examined the relationship between high population growth, high fertility, poor sexual and reproductive health and vulnerability. The implications for adaptation policy are thus apparent; namely increased investment in high quality voluntary family planning programs for those that are crumbling, and renewed commitment to sexual and reproductive health goals. The grounds for these interventions should be considered as central to helping individuals and women cope with changes in the natural environment, but perceived as leveraging wider benefits of population stabilisation.

6.2 In this context family planning should not be perceived inherently driven by “population targets”, but as a beneficial, relatively inexpensive policy intervention in its own right with likely ensuring favourable effects on demographic trends.

6.3 The so far little mention of population growth in respect to mitigation is because in the context of development and climate change what matters to the global poor is adaptation, but mitigation can not be ignored.

6.4 The framing of population growth in the context of mitigation is altogether a more difficult relationship to explore. Not only in the ethical sense, given that it is simply wrong to claim that the high population growth mainly occurring in the south is one of the key drivers of climate change today, given that the poor account for a very small amount of GHG emissions, disproportionately less than their population share, but also because so little research has yet been dedicated to it. Growth in population has however been identified to be an important source of GHG emissions in the future (O’Neill). Nicholas Stern explains, in his seminal report the Stern Review, that per capita emissions growth in the developing world, where the majority of population growth is projected to take place, will rise significantly faster than in the developed world (Stern Review 2006).

6.5 The current research that exists, seeks to feed population scenarios or variants (low, medium and high, produced by the UN) into emissions scenarios. Building upon the emissions scenarios produced by Intergovernmental Panel on Climate Change, Brian O’Neill, a climate scientist at the National Centre for Atmospheric Research in Washington has adjusted some of scenario modelling to include more detailed analysis of the variables.

6.6 The overall conclusion of this work is that in general you can associate a smaller global population with lower emissions, but it’s not going to guarantee a low emissions scenario on its own (O’Neill 2008). While population is a major factor in emissions scenarios, reducing population growth on its own would not be the answer to emissions reductions. There are multiple other significant drivers behind growing harmful GHG emissions that cause climate change.

6.7 O’Neill amongst others working in both the demographic, health and climate sectors argue that considerations of population issues, which start from individual well being and that respect rights should be part of climate policy dialogues, where as up until now they have remained absent. A likely reason for this absence is the dangerous misconception that linking population issues with climate change is being used to “hijack” the debate and direct attention away from the current key drivers.

6.8 A larger global population at any level of consumption will inevitably make it more difficult to curtail emissions than a smaller one. This is exemplified in the Kaya identity published in the Stern Review.

CO2 emissions from energy =

Population x (GDP per head) x (energy use / GDP) x (CO2 emissions / energy use)

Stern uses this equation to demonstrate the main drivers of energy related emissions growth, which he says are:

“...economic growth, technological choices affecting carbon intensity of energy use and energy intensity of output, and population growth.” (Stern Review 2006)

6.9 Nevertheless a good deal of current global population growth will continue no matter how effective family planning programs are because so much of it is the result of high population momentum gathered from previous growth: there are always larger cohorts of people having children from one generation to the next. Additionally fertility has dropped in most parts around the world, and globally stands at 2.54 births per woman (UNFPA 2008). However where fertility is higher, namely in the least developed countries, which is as high as 7.16 in Niger for example, but stands at an average of 4.6 there is good scope for high quality voluntary family planning programs coupled with female education and health care to act not only as an adaptation strategy but also as mitigation against carbon emissions of the future.

6.10 Outside of the scope of this paper but equally significant factors of concern are general population demographics encompassing large scale migrations (particularly cross border), spatial distribution (especially along coast lines and to urban centres), population/ age structure and household composition.

6.11 The difficulty in framing population growth within the context of climate change mitigation policies is that there seems so much scope to undo the hard won victories achieved at Cairo. The fear remains that as soon as family planning is considered a population/ climate change policy, the purpose for which is to explicitly reduce population sizes this will compromise the integrity of such programmes, which are

fundamentally based on Cairo principals. In a situation such as this, the consequences for reproductive health and family planning might be at best; lower quality services or at worst grave infringements of human rights. The other anxiety is that if “population policies” are adopted aggressively by governments seeking to address climate change it is likely that they will be taken over by departments or ministries that would not normally address these issues thus throwing open huge opportunities for ill practice.

6.12 Many argue that family planning coupled with education and efforts to address underlying drivers of high fertility offer a high cost effective investment option. O’Neill points out that if you have a fixed long term policy goal for climate change, for instance a targeted emissions reduction—“how much less costly would it be to achieve (through changing the energy system) to reach that goal if you had a lower population path rather than a medium one?” (O’Neill 2008)

7. CROSS SECTOR ENGAGEMENT

7.1 We need to support reproductive health as a basic right in itself not as an explicit motive behind population targets. With this in mind it is easy to see the benefits of a cross sector framework simultaneously addressing population-health- environmental (PHE) issues. A policy response across multiple domains would ensure that programmes always build on the theoretical and programming expertise of generations past. The PHE framework is growing in popularity and has recently been launched as a government initiative in Ethiopia, part of the wider East African PHE movement to increase coordination and dialogue amongst sectors working in both the population/ health and environmental fields.

7.2 “Ethiopia is home to two of the world’s biodiversity hotspots, each of which comprises at least 1,500 species living in a rapidly shrinking habitat. Land is needed to grow food, yet agricultural yields have dropped and traditional farming practices are proving unsustainable. With more than 77 million citizens—and with the population growing by more than two million annually—Ethiopia must strike a better balance between human survival and preservation of natural resources.” (Ethiopian PHE network brochure).

7.3 There are valuable lessons to be learnt here for the British Government’s response to climate change. With increased coordination across department teams there would be greater opportunity for harmonizing a collective response to climate change, which in turn would improve the quality of adaptation policies and address key underlying vulnerabilities. With climate change presenting one of the key development challenges of the 21st century every team at the Department for International Development should prepare for the unexpected challenges that lie ahead and mitigate against the potentially gravely damaging impacts.

8. CONCLUSION

8.1 This paper has explored and illustrated the ways that population growth currently interfaces with climate change and is likely to do so in the future hence arguing it is vital to address these issues in an open debate, encompassing actors across sectors. There is huge scope to develop an approach that addresses underlying causes and vulnerabilities, and one that no longer shies from the topic of population, as is so often the case with climate change policy dialogue.

8.2 Policy planning and budgetary allocation must account for the fact that family planning services are in decline (see earlier section on family planning) and also reconcile this with the significant leveraging benefits it can bring at the individual, household, societal and global level, not only in the context of climate change but across the board. Whilst heeding concerns about the possible wrong way to link population growth and climate change and respecting the gravity of the mistakes made in the past, it is perhaps significant to revisit the language of the 1994 Program of Action, to which 180 countries signed:

“...recognizing that the ultimate goal is the improvement of the quality of life of present and future generations, the objective is to facilitate the demographic transition as soon as possible in countries where there is an imbalance between demographic rates and social, economic and environmental goals, while respecting human rights.” Emphasis added

8.3 It is fundamental to openly bring population back into the debate since it will underwrite every other difficulty that climate change triggers. This is not meant to be seen as an effort to divert attention or urgency away from the other necessary climate change policies which address reducing GHG emissions from energy intensive consumption activities, but to present a synergistic, reinforcing intervention developed within a win/win framework.

BIBLIOGRAPHY

The All Party Parliamentary Group for Population, Development and Reproductive Health, 2007. *The Return of the Population Growth Factor, its impact on the millennium development goals* available at www.appg-popdevrh.org.uk

Ayers, J. “Progress on Implementing the NAPA” in *Tiempo—A bulletin on climate and development* No. 69. October 2008. pp. 15–20

Department for International Development (DFID) 2007 *Written evidence to the All Party Parliamentary Group on Population, Development and Reproductive Health* available at www.appg-popdevrh.org.uk

Ethiopia, Population, Health and Environment Consortium. Network Brochure, available at www.phe-ethiopia.org

Füssel, H-M, & Klein RJT. 2006 “Climate Change Vulnerability Assessments: An Evolution of Conceptual Thinking” in *Climatic Change* Vol. 75, No. 3. Springer, Netherlands pp.301–329

Intergovernmental Panel on Climate Change. (2007) *Fourth Assessment Report*. United Nations Environment Program, World Meteorological Organisation

International Planned Parenthood Foundation (IPPF) 2007 *Written evidence to the All Party Parliamentary Group on Population, Development and Reproductive Health* available at www.appg-popdevrh.org.uk

Jiang, L. 2008 *Combating Global Warming Brings Population Back to the Agenda* RH Reality Check. www.rhrealitycheck.org/blog/tag/population-and-climate-change

O’Neill, B. 2008. Edited transcript of presentation called *Population and Climate Change: Relationships, Research and Responses*. Woodrow Wilson International Centre for Scholars, Environmental Change and Security Program Washington

O’Neill, B. Landis MacKellar, F and Lutz, W. 2001 *Population and Climate Change* Cambridge University Press, International Institute for Applied Sciences Austria (IIASA)

Stern, N. 2006 *The Stern Review: The Economics of Climate Change*. The Office of Climate Change, HM Treasury. London, UK.

Tschakert, P. (2007) “Views from the Vulnerable- Understanding the climatic and other stressors in the Sahel” in *Global Environment Change* Vol. 17 p 381–396

United Nations, World Population Prospects, (2007) The 2006 Revision. United Nations Department for Economic and Social Affairs. ESA/P/WP.202. United Nations: New York

UNFCCC, 2006 Republic of Rwanda *National Adaptation Programme of Action to Climate Change* UNEP, Rwanda Ministry of Lands, Environment, Forestry, Water and Mines. UNFCCC. <http://unfccc.int/2860.php>

UNFCCC 2007 Sierra Leone *Adaptation Programme of Action*. Ministry of Transport and Aviation. UNDP <http://unfccc.int/2860.php>

UNFCCC 2007 Republic of Sudan *National Adaptation Programme of Action*. Ministry of the Environment and Physical Development, Higher Council for Environment and Natural Resources <http://unfccc.int/2860.php>

UNFCCC 2007 United Republic of Tanzania *National Adaptation Programme of Action*. Division of the Environment, Vice President’s Office. UNDP, GEF <http://unfccc.int/2860.php>

UNFCCC Republic of Uganda *Climate Change National Adaptation Programme of Action*. 2007 UNEP, Uganda Ministry of Environment, GEF. UNFCCC. <http://unfccc.int/2860.php>

UNFPA 2005 *Financing the ICPD Programme of Action* United Nations, New York

UNFPA *State of the World Population 2008, Reaching Common Ground, Culture, Gender and Human Rights*. United Nations Population Fund. NY

UNFPA, The Alan Guttmacher Institute Adding it Up, 2004 *The benefits of investing in sexual and reproductive health care*. United Nations: New York

United Nations Environment Programme, *Global Environment Outlook 4, environment for development* 2007. United Nations: New York

The Women’s Environment and Development Organisation (WEDO), with ABANTU for Development in Ghana, ActionAid, Bangladesh and ENDA in Senegal. 2008 *Gender, Climate Change and Human Security. Lessons from Bangladesh, Ghana and Senegal*. WEDO, New York

Written evidence submitted by Research Councils UK (RCUK)

SUMMARY

- Addressing the challenge of development in a changing climate will require strong collaboration across research, policy and practice. Climate change and sustainable development should not be carved up into silos.
- There is a growing fragmentation of climate governance internationally; it is not clear how UK based initiatives and programmes might interact with this “architecture” beyond the UNFCCC.
- RCUK notes the active role DFID and other government departments have played in establishing relevant international networks and programmes, as well as cross Research-Council programmes in the UK.
- An aspect of climate change requiring adaptation is changing sea level; RCUK supports research to help predict such changes. Further integrated research programmes on local and regional impacts of climate change are required to inform climate change adaptation policies.

- It is essential that developed countries continue to take steps to mitigate climate change. However, livelihoods of poor and marginalised people can be negatively affected by schemes to mitigate climate change, as can be experienced with the conversion of food crop land for biofuels. Mitigation policies must therefore be well formulated to deliver “win-win” solutions for both mitigation and poverty reduction.
- Post-2012 more attention needs to be given to genuine technology transfer of low carbon technologies especially to the smallest and poorest developing countries eg sub-Saharan Africa.
- There is genuine technological choice available in favour of low carbon options at reasonable cost. If ambitious carbon reduction targets for 2050 are to be reached, the power sectors of at least developed countries will need to be essentially completely de-carbonised by then.
- Commitments to coal fired electricity in developed and developing countries highlights the need to develop effective and reasonably cheap carbon capture and storage (CCS) technology, an area being pursued by RCUK.
- Improvements in transportation and infrastructure can help to promote development eg by reducing transport costs on exports from developing countries. However, there is a trade-off between using and developing transport systems, and climate change mitigation.
- Promoting pro-poor exploitation of natural resources eg minerals, forestry and water, will require multilevel governance approaches to address conflicts across local, national, regional and global scales, between poor and wealthy groups, and between private and public interests.
- The Research Councils have expertise to offer DFID in regard to its priority theme of water resources management, including translating this into assistance for developing countries.
- There is little evidence to suggest that carbon trading is a sustainable approach in developing countries. Costs and benefits of carbon trading will be researched in greater detail by Research Council funded activities.

INTRODUCTION

1. Research Councils UK (RCUK) is a strategic partnership set up to champion research supported by the seven UK Research Councils. RCUK was established in 2002 to enable the Councils to work together more effectively to enhance the overall impact and effectiveness of their research, training and innovation activities, contributing to the delivery of the Government’s objectives for science and innovation. Further details are available at www.rcuk.ac.uk.

2. This evidence is submitted by RCUK on behalf of all Research Councils and represents their independent views. It does not include or necessarily reflect the views of the Science and Innovation Group in the Department for Innovation, Universities and Skills. The submission is based on contributions from the following Councils:

Economic and Social Research Council (ESRC)

Natural Environment Research Council (NERC)

3. ESRC is the UK’s leading research funding and training agency addressing economic and social concerns. ESRC funds work both on, and in, the developing world, and also work on social and economic studies of science and technology. Details are available at www.esrc.ac.uk.

4. NERC funds and carries out impartial scientific research in the sciences of the environment and trains the next generation of environmental scientists through support to universities and its research and collaborative centres. Details are available at www.nerc.ac.uk. NERC’s contribution is based on input from the British Geological Survey (BGS), the Proudman Oceanographic Laboratory (POL), the UK Energy Research Centre (UKERC), the Centre for Ecology and Hydrology (CEH) and NERC science Theme Leaders.

5. The Research Councils are co-operating with one another and with relevant government departments in the United Kingdom Collaborative on Development Sciences (UKCDS). UKCDS has climate impacts considerations at the heart of its current set of work-streams. Further details are available at <http://www.ukcds.org.uk/>.

Theme 1. *The effectiveness and coherence of the UK Government’s approach to sustainable development in developing countries*

1.1 Addressing the challenge of development in a changing climate will require strong collaboration across research, policy and practice. Looking forward, the UK Government must respond by engaging with the relevant stakeholders, both in the UK and internationally, to ensure the response is needs-based, flexible and coordinated.

1.2 Investments in development must be informed by a sound evidence base. In the case of climate change and development, there are large gaps on climate change impacts, vulnerability and processes. Relevant Government bodies must engage with civil society and the research and funding communities to support the

generation of necessary conceptual frameworks, evidence and learning processes. The Government must also recognise that different groups in society may hold different views of sustainable development problems and goals. Negotiation, deliberation and explicit consideration of trade-offs must become part of the research and policy process.

1.3 Unless policy strategies in relation to trade, energy, transport, agriculture and development are aligned with the goal of bringing down greenhouse gas emissions, they will systematically undermine the effectiveness of UK climate policy strategy. The agenda cuts across so many stakeholders and so many disciplines that Government departments must be open to cooperation and collaboration nationally and internationally and to new approaches and new ways of doing things. The Global Health Strategy is a realisation of this in terms of health. The new Department of Energy and Climate Change (DECC) should give due regard to the development agenda in its work and engage more fully with the Department for International Development (DFID). Climate change and sustainable development should not be carved up into silos.

1.4 Policy must reflect that this is a complex problem with probably no “silver bullets”. There is a need to be prepared to challenge policy framings and approaches that are over-simplifying the problem, or pointing in problematic directions. Government should not rush into rigid policy decisions (use a “Do no harm first” approach), as occurred with recent biofuels target setting and subsequent links with food price crises²⁶.

1.5 One specific issue is a growing multiplicity or “fragmentation” of climate governance internationally/trans-nationally²⁷ and it is not clear (in the UK and indeed elsewhere) as to how UK based programmes and initiatives might interact with this “architecture” beyond the UNFCCC²⁸ (eg from the World Bank, Type II Partnerships, Foundations such as Rockefeller and Clinton, urban-based networks eg C40²⁹, and many networks established by private and community actors). This is a big challenge for the effectiveness and value added of UK government policy and intervention.

1.6 DFID engagement in the relevant cross research council programmes is welcome eg Living With Environmental Change (LWEC)³⁰ (in which it is a partner), Global Uncertainties; security for all in a changing world³¹ Energy³² and Ecosystem Services for Poverty Alleviation programme (ESPA)³³, which is part of LWEC. It should continue to seek to influence the agenda setting to ensure development needs are considered where appropriate. DFID should also consider appropriate mechanisms to ensure that the evidence generated from this research informs its policy and programmes. Government should put greater emphasis on getting research into use to maximise the impact of its important investments in research.

Theme 2. *The extent to which climate change adaptation is integrated into DFID’s development policies*

2.1 Climate change may reverse “development gains”, and hit the poorest hardest. Funding for adaptation is very important. Capacity and resource transfers will be critical in adequately supporting developing countries embed climate change adaptation within national development strategies, tackling both the short and long-term shocks and stresses associated with climate change. Adequate social protection mechanisms, including emergency preparedness, early warning and response systems must be in place to support the most vulnerable. Evidence on trade-offs between alternatives must be made explicit.

2.2 Innovative research collaborations are required to ensure that the needs of those who are adapting can be effectively and efficiently met. Thinking and approaches from resilience studies, understandings of complex systems, and technology studies all have roles to play. The research community should be fully representative and mechanisms should be put in place to enable (even require) the community to work together rather than in silos. Resources must be dedicated to “shaping the research questions” and not just answering what researchers feel the questions should be. UK sponsored research undertaken in developing countries must engage fully with local partners and put in place effective legacy strategies. Knowledge exchange should leave a tangible footprint and be central to generating developing country buy-in to adaptation policies.

2.3 A problem with implementing adaptation strategies is that the scientific community does not always have sufficient understanding of the actual environmental impacts of local and regional climate change, and how such impacts provide positive and negative feedbacks to the climate system. Further fully integrated programmes of environmental impact studies are required to properly inform adaptation policies. This is a priority area for LWEC research, although the amount of work to be undertaken in developing economies is uncertain at present, but international links are being created to provide opportunities for these economies to be able to benefit.

²⁶ <http://www.ifpri.org/PUBS/ib/FoodPricesPolicyAction.pdf>

²⁷ Biermann et al working paper from IVM, Free University Amsterdam. <http://www.glogov.org/images/doc/WP34.pdf>. Accessed 13/11/2008

²⁸ The United Nations Framework Convention on Climate Change

²⁹ <http://www.c40cities.org>

³⁰ <http://www.nerc.ac.uk/research/programmes/lwec/>

³¹ <http://www.rcuk.ac.uk/research/ccprog/security.htm>

³² <http://www.rcuk.ac.uk/research/ccprog/energy.htm>

³³ <http://www.nerc.ac.uk/research/programmes/espa/>

2.4 DFID is currently in the process of integrating adaptation into its development planning through numerous capacity building approaches. It has been pro-active in participating in international networks, such as the multi-agency VARG (Vulnerability and Adaptation Resource Group). It has also participated in the development of tools to assist in the delivery of development assistance—notably ORCHID³⁴. DFID has also invested in training for its country desk officers; two courses on climate change have been run by the University of East Anglia Overseas Development Institute in the past two years. Starting with capacity building within the development agency is critical to ensure that adaptation to climate change is fully understood by those people in charge of delivering assistance to others, so to ensure that climate change is always factored into development assistance.

2.5 Climate Change Adaptation Africa (CCAA) is a joint programme of the International Development Research Centre, Canada (IDRC) and DFID.

2.6 Changing sea level is one climate change impact requiring adaptation. DFID should be interested in any science that will predict regional variations of sea level as a refinement of estimates of global sea level rise. A sea level rise even as little as 1m is serious eg for Bangladesh, with regional differences of this order possible.

2.7 NERC, ESRC and DFID have joined forces in a multi-disciplinary research programme ESPA to address how to achieve sustainably managed ecosystems. This work aims to contribute to reducing poverty and improving well being in developing countries. ESPA is part of the cross council LWEC initiative. Eight themes have been developed from the outputs of commissioned scoping studies, focussing on areas where the collaboration between NERC, ESRC and DFID has the potential to make a significant impact on the research and poverty alleviation agendas. In parallel with developing these themes ESPA has undertaken a funding round to strengthen research capacity. The aim of the call was to build equitable and sustainable networks and partnerships between individuals and organisations in Southern and Northern locations in advance of the planned full research programme. There was considerable interest in the call, with 58 full proposals received. Eleven proposals were funded, totalling £1.4 million.

Theme 3. Potential adverse impacts for developing countries of steps by developed countries to mitigate climate change, including in the context of the “post-2012” negotiations, and potential benefits for developing countries of related technology transfers

3.1 It is worth emphasising the costs developing countries will bear if developed countries do not take action to mitigate climate change. Many of the preceding points make clear (as does World Bank research and the latest Human Development Report) that climate change has the ability to reverse decades of development progress^{35,36}. Although it can be complex (as the following paragraphs illustrate) there is no fundamental reason why well formulated climate mitigation policies will impact on poor people adversely.

3.2 The livelihoods of poor and marginalised people can be hit hard and negatively by developments aimed at mitigating climate change, as experienced with the conversion of food crop land for biofuels, and with forest protection/afforestation schemes that exclude local users. Attention within schemes eg under the Clean Development Mechanism (CDM) of the UNFCCC and voluntary carbon markets needs to focus on identifying combinations of technology and institutions that are “win-win” in both mitigation and poverty-reducing terms.

3.3 There is considerable concern that the economic costs of climate mitigation will deepen poverty and result in a net loss in the standard of living in poorer parts of the world. For example, climate change itself may increase the incidents of vector borne disease; but to abate climate change may divert resources away from people eg health care, which in itself would put those at further risk from vector borne disease³⁷.

3.4 Trade offs between mitigation and adaptation to climate change are particularly important in terms of food production and consumption. There is significant potential that mitigation policy could undermine food security in poor parts of the world. Also, any specific mitigation policy needs to be explored in a broad context of poverty and economic globalization. This is illustrated by the following example (paragraph 3.5):

3.5 Promoting “local” food systems seems to be an obvious policy choice to help reduce carbon emissions. However, “local” food systems—defined in terms of the distance between producers and consumers—are likely to be vulnerable to climatic related problems such as droughts or floods that may reduce harvests in affected areas. In this case, a global food system, where the food trade allows produce to move easily around the world, may be better adapted to more volatile climatic conditions³⁸. However, the idea that “local” food systems are better for mitigation while “global” food systems are better for adaptation must include an understanding of the underlying incomes of different groups of consumers. History suggests

³⁴ http://www.ids.ac.uk/UserFiles/File/poverty_team/climate_change/ORCHID_Bangladesh_Summary_Research_Report_2007.pdf

³⁵ World Bank Group, (2003) Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation Washington D.C: World Bank Group.

³⁶ UNDP (2007/2008) Fighting Climate Change: Human Solidarity in a Divided World Palgrave.

³⁷ Tol, R., and Dowlatabadi, H. 2001. Vector-Borne Diseases, Development & Climate Change. Integrated Assessment 2: 173–181.

³⁸ Fraser, E., Mabee, W. and Figge, F. 2005. A Framework for Assessing the Vulnerability of Food Systems to Future Shocks. Futures 37: 465–479.

that in times of economic volatility, when poor and rich consumers are both competing for the same food supply, it only takes a very minor climatic problem to spark massive problems. This was apparent during the Victorian period when el Niño induced droughts sparked a massive famine across much of India, not because the rainfall anomaly was particularly harsh but because this was when the poor Indian consumers were being included in the European market for food³⁹.

3.6 The CDM—the main potential international mechanism—formally has both emissions reduction and technology transfer objectives. However in practice emissions reduction is primary and technology transfer is limited. This makes the attractiveness of CDM to developing countries much more limited than it could be. In future reforms post-2012, much more attention needs to be given to genuine technology transfer within emissions reduction initiatives. Appropriate support must be provided to developing countries to engage in the “post-2012” negotiation process, also building relevant capacities within different stakeholders. Climate change is a global problem that requires global solutions. Reaching a deal through the UNFCCC process is critical.

3.7 Technology transfer of low carbon technology is a potentially powerful way of both mitigating emissions and improving the capacity of developing countries in low carbon industry. The UK government could work with UK corporations operating outside of the UK in terms of reducing their contributions to greenhouse gas emissions in developing countries, creating scope for technology transfer, and developing appropriate technology solutions.

3.8 While developed countries have deployed a wide range of mitigation policies, they now (especially the EU) make emissions trading central to their overall strategy. Through various linking initiatives, this allows some incorporation of developing countries into mitigation commitments made by developed countries, especially via the CDM. Here, developed-country-financed mitigation projects in developing countries can be credited against developed country commitments. This has both positive and negative impacts; positive, in that developing countries can contribute to worldwide mitigation without significant cost to themselves and because they may benefit from at least a limited amount of technology transfer; but, negative, insofar as the CDM overwhelmingly concentrates on larger and/or middle-income countries, especially India and China. Correspondingly smaller, poorer countries (eg nearly all of sub-Saharan Africa) hardly feature in CDM and there is correspondingly less opportunity for technology transfer of low carbon technology.

3.9 A more general point is that diversity in developing countries resources, environment, and vulnerability makes a top down assessment of adverse impacts potentially unreliable. Assessment of both risk, and inversely opportunities, of new technology to individual developing countries can only be made robustly when considered at a local level. Enabling local-level assessment is reliant on knowledge and people capacity within developing countries, and a willingness by the translating partner to enter into technologically open collaborations.

Theme 4. *The impact of choices about power generation and energy sources in both developed and developing countries and the linkages between these*

4.1 There is genuine technological choice available in favour of low carbon options at reasonable cost and Governments have substantial control over power sector investments—which are often very large. If ambitious carbon reduction targets for 2050 are to be reached, the power sectors of at least the developed countries will need to be essentially completely de-carbonised by then.

4.2 There is a need to support the scale-up of low carbon solutions: IPCC found that assessed stabilisation levels can be achieved by the adoption and scale-up of a set of technologies that are either already available or expected to be on the market in the next decades. Narrowing the gap in energy efficiency between developed/developing countries would provide benefits in both climate change mitigation and development.

4.3 In relation to support to the scale-up of low carbon solutions, the role of the UK’s own Energy Technologies Institute is about demonstrating and supporting new energy efficiency and renewable energy technologies. The NERC supported UKERC has created roadmaps for the development and deployment of a number of technologies including marine renewables, photovoltaics and carbon capture and storage. These refer mainly to the UK but may have wider application. Decisions to lock in to high carbon solutions by developed countries are both incompatible with long-term power sector needs for abatement, and may justify commitments to coal fired electricity in developing countries eg India, China and Brazil plan to build many more plants in the next 20 years. The UK can also use its influence with the World Bank- as a major contributor to its funds- to steer the institution away from support to the fossil fuel industry^{40,41}.

4.4 Commitments to coal fired electricity in developed and developing countries highlights the need for intensive developed country efforts to develop effective and reasonably cheap carbon capture and storage technology (CCS). If plants in developing countries are built capture-ready and if the geological and

³⁹ Fraser, E. 2007. Travelling in Antique Lands: Studying Past Famines to Understand Present Vulnerabilities to Climate Change. *Climate Change* 83: 495–514.

⁴⁰ World Resources Institute (2008) Correcting the World’s greatest market failure: Climate change and multilateral development banks <http://www.wri.org/publication/correcting-the-worlds-greatest-market-failure>

⁴¹ Tellam, I. (ed), (2000) *Fuel for Change: World Bank Energy Policy- Rhetoric and Reality* London: Zed Books

engineering research for sequestration is done very soon, then some of the effects of this massive coal build can be mitigated. Without such measures, the efforts of the developed world in carbon abatement will be almost meaningless. The UK and EU have already made a reasonable start in developing CCS (the EU hopes for 12 demonstration plants within a few years) but more urgency and public commitment is needed if the technology is to be developed in time. There is a concentration of CCS expertise within RCUK. The NERC centre BGS has been working in China (NZEC⁴² and COACH⁴³) and recently in India, Pakistan and Bangladesh. BGS is at present proposing new projects in India (for Defra), and China, in response to an Engineering and Physical Sciences Research Council (EPSRC) call for proposals on “Collaborative Research with China on Cleaner Fossil Fuels”⁴⁴. UKERC is supporting an interdisciplinary PhD studentship held at Edinburgh University on “Sites, regulations and policies for CCS in India”.

4.5 There are signs that developed countries may be returning to new nuclear power investment as a carbon mitigation strategy. Finland and France are already constructing new reactors and the UK, USA and others may follow. This will make a (probably quite small) contribution to mitigation in developed countries but it raises significant issues for relations with developing countries, who are likely to argue that they can legitimately have access to the same nuclear technology for climate change reasons. While some countries (China, India) are already pursuing new nuclear investments, many developed countries are reluctant to allow some developing countries access to nuclear technology because of proliferation concerns. Where “sensitive” technologies are denied to specific developing countries this may hamper efforts at co-operation between developed and developing countries and strengthen the idea—already common if not always fully justified in developing countries like India—that the developed world and its associated multinational companies are systematically depriving developing countries of the best (low carbon and other) technologies.

Theme 5. The role of transport, including aviation, in economic development in developing countries, particularly freight and exports, and the impact of such transport on the environment

5.1 There is a trade-off between reducing our carbon footprint by buying fewer food and other products from overseas and the development imperative of supporting smaller producers in export-led economies, as well as difficulty in trying to address both issues simultaneously.

5.2 Theories of economic geography suggest that more remote locations have to pay higher transport costs, which reduces per capita income. Improvements in transportation and infrastructure can therefore help to promote development and cost-benefit analyses need to take into account general equilibrium effects through improvements in market access.

5.3 Nonetheless, it is important to keep in mind that the fundamental problem for development in many parts of the world (eg much of Africa) is not remoteness but weak institutions, and the associated problems of expropriation that reduce incentives for investment and development. Good institutions are therefore a necessary condition for development. Once this necessary condition has been fulfilled improved integration into the regional and international economy can elevate economic prosperity.

Theme 6. The role of tourism in economic development, and the potential for sustainable tourism

6.1 The role of tourism in economic development is threatened by climate change impacts which may include sea level rise wiping out tourism beaches. Sea level rise and its impacts is an area covered by research institutes such as the NERC research centre POL.

6.2 The overall use of productive coastal areas and continental shelves by developing countries is wider than just tourism; NERC areas of operational oceanography and hydrology are relevant here.

Theme 7. Pro-poor exploitation of natural resources, including minerals and forests, and the regulatory framework for exploitation

7.1 Promoting the pro-poor and sustainable exploitation of natural resources will require governance approaches that recognise local (including informal) institutional and tenure arrangements, and address the wider circumstances of poverty and conflict that sometimes push poor people into unsustainable use practices. Multi-level governance and regulatory frameworks are required, that explicitly address the conflicts and trade-offs between goals and institutions across local, national, regional and global scales, between poor and wealthy groups, and between private and public interests.

⁴² <http://www.nzec.info/en/>

⁴³ <http://www.co2-coach.com/>

⁴⁴ <http://www.epsrc.ac.uk/CallsForProposals/Archive/CleanerFossilFuels.htm>

7.2 Earlier efforts to commercialise the use of natural resources in developing countries have often resulted in inequitable outcomes, leaving disproportionately small share of benefits to local communities whilst at the same time exposing them to increased environmental burdens and risks. This has been the case with for example shrimp aquaculture in Asia⁴⁵ and mineral extraction throughout the developing world⁴⁶.

7.3 Wealth released as a result of minerals extraction is simultaneously an opportunity and a threat to developing countries. Although mineral endowments should enable poorer countries to embark on a path to sustainable economic development, the evidence shows that without effective governance and a transparent fiscal environment, resource-rich developing countries can often move in the opposite direction toward poverty and instability. The wealth created by mining can also cause more localised social impacts on communities, as can the environmental impacts which inevitably arise as a result of the extraction and processing of minerals.

7.4 Although formalised extraction by large, medium and small enterprises is the familiar face of mining in the West, informal artisanal and small-scale mining (ASM) is a major activity for poor people in the developing world. An estimated 100 million people worldwide are economically dependent on ASM for some or all of their livelihoods, and the social, environmental and economic issues associated with ASM pose a considerable challenge to governments and donors alike.

7.5 In the past, local communities have used communally accessible natural resources such as forests, wetlands and pastures as safety nets during periods of environmental stress such as droughts⁴⁷. The role of natural resource base is particularly important as a safety net to the poorest and most vulnerable people in local communities. As climate change will primarily be experienced as increased climate variability and more intense extreme weather events, natural resources will continue to play an important role in the future as safety nets for those who are unable to climate-proof their livelihoods. Therefore, effective environmental governance aimed at sustaining physical stocks of natural resources should form an important part of a strategy for adaptation to climate change in developing countries, alongside measures such as the promotion of market access, income growth and increase in human capital calculated to reduce the climate sensitivity of livelihoods⁴⁸. It has also been shown that sustained stocks of natural resources can help to recover from the effects of natural hazards such as the 2004 tsunami in Asia⁴⁹.

7.6 The impact of climate change on the hydrological cycle is receiving growing attention. This is to be welcomed given the Fourth IPCC Assessment Report's gloomy outlook on water—particularly in Africa. But, there is a real danger that debates on climate change water links become detached from local realities. First, water security is not determined by water availability; extending access and affordability remain key, particularly to the natural storage provided by groundwater aquifers in sub-Saharan Africa (SSA). Second, other pressures on water resources will, in many cases, dwarf the impacts of climate change. In SSA, for example, population growth, urbanisation and the push for irrigation development will shape demand, at least until mid-century⁵⁰. It is therefore important that DFID maintains a balanced perspective, recognising that the political economy of water access (rather than absolute availability) will continue to shape poor people's water security, and that climate change is one of a number of pressures on water pressures (and often not the most important).

7.7 On regulatory frameworks, DFID support for water resources management (WRM) (a priority theme under DFID's new water and sanitation policy) is welcome. Drawing on the arguments above (and those in the Stern Report), the best approach will be to strengthen water resources management to build resilience to climate variability—in terms of both scarcity and floods—rather than look for “new” climate change policies and approaches. Current thinking on WRM emphasises the need for pragmatic, flexible approaches that are tailored to local hydrological, institutional and political contexts. Key questions concern how DFID “support” for WRM will be translated into assistance for developing countries and, related to this, how DFID will maximise use of UK expertise in this area. The research councils (in particular, NERC research centres BGS and CEH) have a much to offer in this respect. The SPLASH EraNet may be helpful in this area⁵¹.

7.8 Better WRM is underpinned by better resource assessment and monitoring. In SSA in particular, assessment and monitoring have been chronically under-funded, and capacity in these areas is low. DFID could make a real difference here, drawing on the scientific expertise and experience of institutes such as BGS and CEH to help shape its WRM assistance, and facilitating (and funding) north-south capacity building and twinning arrangements between UK centres and developing country governments, research institutes

⁴⁵ W. N. Adger, P. M. Kelly, N. H. Ninh, Eds., *Living with Environmental Change: Social Vulnerability, Adaptation and Resilience in Vietnam* (Routledge, London, 2001).

⁴⁶ Muradian, R., Martinez-Alier, J. and Correa, H. 2003. International capital vs. local population: the environmental conflict of the Tambogrande mining project, Peru. *Society and Natural Resources* 16 (9): 775–792.

⁴⁷ Paavola, J. 2008. Livelihoods, Vulnerability and Adaptation to Climate Change in Morogoro, Tanzania. *Environmental Science & Policy* 11: 642–654.

⁴⁸ Paavola, J. 2008. Livelihoods, Vulnerability and Adaptation to Climate Change in Morogoro, Tanzania. *Environmental Science & Policy* 11: 642–654.

⁴⁹ Adger W.N., Hughes, T.P., Folke, C., Carpenter, S. et al. 2005. Social-ecological resilience to coastal disasters. *Science* 309 (5373): 1036–1039

⁵⁰ ODI, 2008. Future directions in water and sanitation. Calow R C. Opinion No. 114, Overseas Development Institute, London.

⁵¹ <http://www.splash-era.net/>

and training centres. New RCUK centres in China, India could have an important role to play here. A key need is to build capacity in the area of groundwater resource assessment, monitoring and management given SSA's growing dependence on groundwater storage. Even without the prospect of climate change, further and much needed development of groundwater to meet the Millennium Development Goals and support growing irrigation demand needs to be informed by a much sharper understanding of geology and recharge processes⁵².

7.9 ESPA (aligned to LWEC) aims to address the challenge of how to sustainably manage ecosystems, which contribute to poverty reduction. The Millennium Ecosystem Assessment showed that the loss of services from ecosystems is a significant barrier to reducing poverty, hunger and disease. By achieving sustainably managed ecosystems, the work aims to reduce poverty and improve well being in developing countries.

Theme 8. Opportunities for developing countries presented by sustainable approaches, such as carbon trading, direct fiscal transfers and addressing the needs of increasingly environmentally-sensitive consumers

8.1 There is no evidence as of yet to suggest that carbon trading is a sustainable approach in developing countries. In fact, evidence from research at UEA, notably by Professor Katrina Brown and Dr Esteve Corbera suggests that there are few if any trickle-down benefits from the Clean Development Mechanism in South America⁵³. Costs and benefits of carbon trading will be researched in greater detail as part of the work programme of the ESRC funded Centre for Climate Change Economics and Policy at London School of Economics and at the University of Leeds.

8.2 Beyond community forestry, there needs to be more attention to innovative combinations of technology/institutional arrangements that are both pro-poor and sustainable. Emerging approaches to biofuels, renewable energy technologies and "biochar" soil management exemplify opportunities that warrant further exploration.

8.3 Across sectors governance of forestry and clean development is absolutely critical to securing outcomes favourable to poorer groups. This is the central focus of Prof Newell's ESRC Climate Change Leadership fellowship on The Governance of Clean Development⁵⁴. Flows of finance and investment do not automatically go where they are needed most; instead they need to be steered, regulated and managed by the correct combination of actors, institutions and an inclusive policy-making process.

RCUK

November 2008

Written evidence submitted by SABMiller plc

SUMMARY

1. SABMiller welcomes the opportunity to submit evidence to the International Development Select Committee. Our submission addresses the question of "the effectiveness and coherence of the UK Government's approach to sustainable development in developing countries".

2. Climate change is an issue of growing global concern which demands action from all sectors of society. Reducing our energy and carbon footprint is one of SABMiller's 10 sustainable development priorities and is equally applicable in developing markets as it is in Europe or the US. Our work in this area ranges from energy efficiency programmes to renewable energy investments.

3. However we feel that the main contribution we can make to this consultation concerns the impact of climate change on water resources. Within this context we focus specifically on DFID's new water strategy, "Water: An increasingly precious resource".

4. While this strategy acknowledges that water is central to climate change, in our view it does not make enough provision for the active pursuit of partnerships and strategic collaboration with the private sector.

5. For example, it recognises that effective water resources management will be dependent on supporting "work by international agencies and developing countries to collect and use global and regional information on rainfall, and on surface water and groundwater hydrology, in order to manage water resources better, and to develop regional and national plans for coping with the impacts of climate change", but it does not make reference to, or show an understanding of how, private sector expertise could add significant value to this process.

⁵² ODI, 2008. Future directions in water and sanitation. Calow R C. Opinion No. 114, Overseas Development Institute, London.

⁵³ Corbera, E., Kosoy, N. and Martínez Tuna, M. 2007. Equity implications of marketing ecosystem services in protected areas and rural communities: Case studies from Meso-America. *Global Environmental Change* 17: 365–380.

⁵⁴ <http://www.esrcsocietytoday.ac.uk/esrcinfocentre/viewawardpage.aspx?awardnumber=RES-066-27-0005>

6. SABMiller, and others in the private sector, have extensive experience of water issues and water resources management -both of which have been identified by DFID as a key priority for action.

7. We would like to share that experience with DFID and other policy makers and help to develop practical policy measures designed to harness the strengths of the private sector and encourage more public-private partnerships. Specific recommendations on how to achieve this are set out at the end of this document.

A BRIEF INTRODUCTION TO SABMILLER

8. SABMiller is one of the world's largest brewers with brewing interests and distribution agreements across six continents; we are also one of the world's largest bottlers of Coca-Cola products.

9. With a heritage rooted in Africa -a continent with 66% of the world's poor and 315 million people living on less than a dollar a day -we are very conscious of our responsibilities to society. As long as markets are competitive and free, the private sector will succeed and make profits only when they manage relationships effectively, use resources efficiently and meet society's needs.

10. SABMiller takes its responsibility to reduce harmful greenhouse gas emissions seriously: over the last four years we have improved our average brewery energy efficiency by 15% including significant improvements in our operations in emerging and developing markets.

11. SABMiller has set itself the demanding target of reducing water use per litre of beer by 25% by 2015. This initiative will save around 20 billion litres of water every year by 2015. In 2008, SABMiller used an average of 4.6 litres of water for every litre of beer produced and aims to reduce this to 3.5 litres by 2015. The industry average is 5 litres.

12. More information is available at www.sabmiller.com

RECOGNISING THE ROLE OF THE PRIVATE SECTOR

13. The private sector has accumulated a range of skills, resources and global experience in water management in a changing climatic context. This is reflected in our operations and policies and through the partnerships that we have developed with local and international stakeholders in addressing the water issue.

14. In July 2007 SABMiller's Chief Executive, Graham Mackay, became a founding signatory of the United Nations CEO Water Mandate. This is an initiative which grew out of a collaborative partnership between the United Nations Global Compact, the Government of Sweden and a group of committed companies and organisations dealing with the problems of water scarcity and sanitation.

15. The initiative acknowledges that the private sector, through the production of goods and services, impacts on water resources -both directly and through supply chains. Endorsing CEOs acknowledge that in order to operate in a sustainable manner, and contribute to the vision of the UN Global Compact and the realisation of the Millennium Development Goals, they have a responsibility to make water-resources management a priority, and to work with governments, UN agencies, non-governmental organisations, and other stakeholders to address this challenge.

16. We are also working closely with the World Economic Forum and are a signatory to their water initiative. WEF has recognised the importance of the private sector in tackling global water issues. It has brought together a group of global companies to work on the issue. The signatories have been charged with creating innovative partnerships on water management involving research, development, farming, NGO and Government communities. They have also pledged to implement sustainable water practices within their supply chains and existing networks.

17. We have also been active at a local level. In March 2008 we hosted a dialogue on water resources in Dar es Salaam, with WWF, Wateraid, Care International, the local water company and other local stakeholders attending. Significant common ground was found and together we will pursue an agenda to lobby for improved river water supply to Dar es Salaam through better public investment and water governance.

SABMILLER'S EXPERIENCE

18. We have invested substantial resources in time, money and expertise to find ways to adapt to the effects of climate change on water. During the past year, we engaged a specialist consultancy to evaluate the high level, long-term water availability for each of our facilities. Using proprietary databases along with the new World Business Council for Sustainable Development water tool, we mapped all our breweries, malting operations and soft drinks plants against the water challenges they face now through to 2025.

19. Following on from this work, our sustainable development and group technical teams have built a watershed mapping tool to enable each of our plants to determine a more detailed picture of the pressures they face at a local level. Using this tool, during 2008-09 we will be completing watershed mapping exercises at around 30 breweries facing potential long-term water stress, developing detailed action plans for each.

20. We are also looking at the opportunities offered by more efficiently irrigated crops, rainwater harvesting and other techniques to protect water resources across our supply chain.

21. SABMiller's industry-leading stance on water is cemented by a recent water-footprinting project implemented by its South African subsidiary SAB Ltd. The work, undertaken with strategic advice from WWF, identifies not only how much water is used at each stage of the supply chain, but goes further to calculate the proportion of available local water resources that this represents. This enables SABMiller's full time agronomists to focus their efforts on engaging with farmers who need to become more water-efficient. SABMiller is one of the first companies to conduct such a footprinting exercise.

PARTNERSHIP

22. SABMiller is keen to work constructively with DFID to identify effective ways of harnessing private sector expertise in water resource management. We believe closer cooperation with business in formulating and delivering policies for addressing water scarcity in developing countries will reap considerable benefit.

RECOMMENDATIONS

To achieve this partnership, SABMiller recommends that DFID:

23. Conducts a thorough review of how it can harness private sector expertise.
24. Advocates that the donor community looks more closely at harnessing private sector resources to address water resources management as an adaptation to the effects of climate change.
25. Reviews funding priorities to promote public private partnerships where these deliver on DFID objectives.
26. Arranges to meet with private sector representatives to discuss practical ways in which more strategic partnerships with the private sector can support DFID in its watershed mapping objectives.
27. Develops broad-based guidelines for DFID and for businesses on how partnerships could be pursued, at the departmental as well as country level.

Written evidence submitted by Saferworld

INTRODUCTION

1. The International Development Committee's inquiry announcement states that it will "consider how the UK Government can best promote development which is sustainable and lifts people out of poverty and which promotes effective adaptation strategies in developing countries".

2. This submission will make the case that for truly sustainable development, which most effectively lifts people out of poverty, the UK Government must promote development—and, here specifically, climate change adaptation policy—which is sensitive to the particular socio-political realities of the context in which it takes place. Consequently, it will focus on addressing two of the consultation themes:

- The effectiveness and coherence of the UK Government's approach to sustainable development in developing countries.
- The extent to which climate change adaptation is integrated into DFID's development policies.

3. Although this submission will look at DFID's role globally, specific lessons will be drawn from some of Saferworld's recent research into the links between climate change, insecurity, migration and conflict in Bangladesh. [This research is unpublished at the time of writing but will be published as a case study example of the impact of climate change on security and conflict in early 2009.]

The submission will look at:

- What is needed for sustainable development?
- The lessons to be learnt from Saferworld's experiences in Bangladesh.
- DFID's existing commitments around conflict and conflict sensitivity, and the extent to which climate change adaptation is integrated with them.
- Specific recommendations for how the UK Government can best promote effective adaptation strategies in developing countries.

What is needed for sustainable development?

4. It is right to say that environmental sustainability is essential for the achievement of the Millennium Development Goals, but it is only one aspect of what will make for truly sustainable development—and not the only area on which climate change adaptation policies will have an impact.

5. Violent conflict undermines development and, in its 2006 White Paper, *Eliminating world poverty: Making governance work for the poor*, DFID acknowledged that insecurity and violent conflict keep people poor, noting that “violent conflict reverses economic growth, causes hunger, destroys roads, schools and clinics and forces people to flee across borders”. Thus, they concluded that “tackling violent conflict and its underlying causes is essential if we are to make progress in the fight against global poverty”.⁵⁵

6. However, there is also a growing recognition that development activities—if poorly designed or implemented—may themselves be a cause of conflict. Subsequently, DFID’s 2006 paper *Preventing Violent Conflict* suggested that its work should “take account of the impact our aid might have in increasing or reducing the chances of violence”.

7. And so, if violent conflict has such a corrosive effect on development gains, and development itself may inadvertently contribute to this violence, then for development to be truly sustainable it must ensure that, at the very least, it has the minimum negative impact on conflict and, at best, actually goes some way to addressing the root causes underlying conflict.

8. There are of course many issues that will be necessary to address in order to achieve truly sustainable development, and conflict is only one of them. But its detrimental effect on wider development (not to mention immediate human tragedy) makes it an extremely important one. If the UK Government’s approach to sustainable development is to be most effective—in terms of helping lift people out of poverty—then it must, at the very least, “do no harm” in terms of its impact on the chances for violent conflict. And if it is to be coherent, then it must ensure that this concern to be “conflict-sensitive” runs through all of its programming, including the strategies it promotes to help countries adapt to climate change.

9. Lastly, and as *Preventing Violent Conflict* acknowledges, “conflict sensitivity also applies to work in countries which are not currently affected by violent conflict”. This is because many conflicts “simmer” below the surface of the everyday and it is in exactly these kinds of situations that development assistance is most likely to inadvertently deepen the conflict or lead to violence.

Conflict and climate change: Lessons from Bangladesh

10. “f, as we expect, climate change causes more frequent natural disasters, reduced availability of freshwater, and shocks to food production and livelihoods, it may exacerbate existing tensions and the risk of violent conflict, most of all in the poorest countries.” (DFID, *Preventing violent conflict*, 2006)

11. This observation from DFID is borne out by field research conducted by Saferworld in Bangladesh in 2008. Bangladesh is at real risk from the impact of climate change with half of its total landmass less than two metres above sea level and its geographical position making the country particularly vulnerable to cyclones, river and coastal flooding and rising sea levels. There is a danger that, as the impact of climate change on the frequency and intensity of natural hazards increases over time, levels of insecurity will rise and could result in social and political instability in Bangladesh.

12. Climate change is projected to fuel the migration of communities in Bangladesh away from areas that are vulnerable to naturally-occurring hazards, “source areas”, to areas that are less vulnerable or to neighbouring countries, “destination areas”. This in turn may lead to insecurity in the regions of origin, transit and destination because of increased competition over already scarce resources and livelihoods. Research findings highlight the causal linkages between climate change and insecurity, with migration identified as a possible trigger for violent conflict.

13. As part of this research, Saferworld held focus group discussions with over 230 people in communities affected by issues such as coastal flooding, erosion, saltwater inundation and the influx of climate induced migration, as well as conducting over 50 key informant interviews with journalists, politicians, local government officials, the police, donor institutions, civil society members and academics.

14. The results of these discussions show that, whilst the effects of climate change itself may serve to exacerbate people’s existing insecurity, it is likely to be the adaptive measures taken to cope with these additional pressures that constitute the biggest risk to violent conflict.

15. People in Bangladesh are very used to dealing with natural disasters, but the insecurity they produce has been heightened as climate change increases their severity and frequency. Consequently, the coping mechanisms people use are evolving and Saferworld research shows that increasing numbers of people are now choosing permanent migration over temporary migration.

⁵⁵ Preface, *Preventing Violent Conflict*, DFID, 2006.

16. Bangladesh has a long history of temporary migration and, when periodic natural disasters make people's livelihoods untenable, temporary migration is often used to look for an alternative way to make a living until conditions enable a return home. More permanent migration is both costly and often emotionally difficult but, despite these considerations, an increasing number of people are taking the decision to migrate permanently as more severe and frequent natural disasters make livelihoods increasingly difficult to sustain, even when using temporary migration as a coping mechanism.

17. In popular migratory destinations land is becoming scarce and expensive, with people settling on ever more marginal tracts. Many people are forced to reside on parcels of government owned land, "khas", which are becoming increasingly crowded and subject to competition. Migrants living on some khas have been subject to violent extortion from local gangs demanding money to let them stay. And angered by falling pay levels perceived to be a consequence of an influx of migrant labour, groups of indigenous residents have also been linked to violent attacks on migrant communities.

18. And so, although climate change has not yet led to high levels of violence or conflict in Bangladesh, socio-political pressures are increasing as more and more people migrate away from climate related insecurity, and insecurity in migratory destinations grows due to competition over land and resources. In a country which faces challenges around weak governance capacity, a history of conflict and effective rule of law, such pressures may well lead to an increase in incidents of violent conflict.

19. And yet, the UN Framework Convention on Climate Change (UNFCCC) "National Adaptation Programme of Action" (NAPA) for Bangladesh does not mention the prospect of large-scale migration and associated socio-political problems. Subsequently, it falls short of recommending any action which would help absorb these pressures in a way that could prevent insecurity turning into instability and violent conflict.

DFID's existing commitments around conflict and conflict sensitivity, and the extent to which climate change adaptation is integrated with them

20. Since 2001, DFID has been conducting Strategic Conflict Assessments to analyse the conflict causes and drivers in a country and then, crucially, relate that information to how they programme their work. However, there is no uniform guidance on when these assessments should be conducted or how they should link into the planning, implementation and monitoring / evaluation phases of the programme cycle and, subsequently, it is unclear how much the results of these assessments have influenced subsequent programming.

21. 2006's *Preventing Violent Conflict* aimed to draw together DFID's thinking on conflict—including that which also appeared in that year's White Paper. It noted that in order to prevent violent conflict, "... it is essential to understand what's going on in a society, strengthen relationships between disparate groups and promote policies which encourage equality and inclusion." The paper also made commitments to:

- "Assess the causes of conflict and insecurity as part of our new governance assessment and use this to shape UK development policy and programmes."
- "Make sure that development projects do not inadvertently make worse social tensions that cause violence."
- "... [tackle] underlying causes of conflict through our development work and supporting political and social processes that manage conflicts peacefully."
- "... provide more financial and political support [at the country level] aimed at increasing UN, EU and AU capacity to identify, analyse and tackle underlying causes of conflict."
- "... adapt our human resource policies and processes to ensure we have people available with the right experience and abilities to work in states affected by conflict and that they are enabled to work effectively. We will continue to build knowledge and understanding amongst staff."

22. On 4 September 2008, the UK signed up to the Accra Agenda for Action (AAA) which committed donors to conduct "joint assessments of governance and capacity and examining the causes of conflict, fragility and insecurity", as well as monitoring implementation of the Principles for Good International Engagement in Fragile States and Situations.

23. Although this monitoring of the Principles is to be done on a voluntary basis, it could certainly be considered appropriate for "best practice" befitting one of the world's leading donors. The Principles state that the "long-term vision for international engagement in fragile states is to help national reformers to build effective, legitimate, and resilient state institutions, capable of engaging productively with their people to promote sustained development".

24. In order to realise this vision, the Principles suggest that donors take context as the starting point and do no harm (pointing out that interventions can inadvertently create societal divisions and worsen corruption and abuse, if they are not based on strong conflict and governance analysis).

Specific recommendations for how the UK Government can best promote effective adaptation strategies in developing countries

25. Adaptation strategies and programmes in developing countries can have a positive as well as negative impact on peace and security. A carefully planned and implemented adaptation strategy based on an understanding of the potential peace and conflict impacts, has a key role to play in reducing insecurity and preventing conflict. Conversely, adaptation strategies which do not take into account conflict risks can have unintended negative impacts and exacerbate the potential for violent conflict.

Make adaptation strategies conflict-sensitive

26. The UK Government needs to ensure that climate change adaptation strategies are effective and have the most positive impact. Serious work needs to go into looking at the long-term consequences of climate change on peace and security and the socio-political impacts of adaptation strategies so that their implementation does not exacerbate existing tensions but builds on peacebuilding opportunities through adopting a conflict-sensitive approach. Currently, many adaptation strategies are short-term in focus, and do not contain adequate provisions relating to the likely security and conflict-related aspects of climate change. It is important to take a long-term preventative approach to addressing the security and conflict-related risks of climate change as reactive measures to security crises are by their nature short-term, unplanned and ultimately unsustainable.

27. Governance and the ability to adapt to climate change play a crucial role in creating security and stability. These factors will also determine whether the consequences of climate change will lead to violent conflict. The UK Government is well placed to support governments affected by climate change in the development of conflict-sensitive national adaptation strategies and strengthen governance mechanisms to prevent climate-induced socio-political pressures from leading to conflict and instability.

Support local governments and communities

28. Many developing countries have limited capacity to adapt to climate change and address the security and conflict-related risks. Government endeavours will be more relevant, sustainable and ultimately strengthened if local governments and communities are provided with a more central role in the development of adaptation strategies. As many climate induced security issues are essentially local in nature, local governments and communities will be able to identify effective and locally-sensitive initiatives and policies. This empowerment could also reduce insensitivity in strategy design and implementation and thus minimise the potential for climate change-induced insecurity and conflict.

Develop regional adaptation strategies

29. The prospect of millions of people being forced to migrate from areas made uninhabitable as a result of climate change also raises concerns over the impact on regional security and stability. It is crucial that capacity is also built at the regional level to respond to and prevent the risk of heightened insecurity and conflict as a result of climate change. This could include the development of regional climate security policies and conflict-sensitive regional adaptation strategies fostering relationships between communities and governments across borders.

Conduct research on socio-political impacts of climate change

30. Although a relationship between climate change, security and conflict has been recognised, very little evidence based research has assessed how these issues affect each other and impact on overall personal and physical security. This knowledge gap should be addressed as a matter of priority. In particular, research at the national and sub-national level is needed to better understand the long-term socio-political impacts of climate change. Research should map the likely movement of migrants from source areas to destination areas both within and across countries. This would show patterns of potential migration and help to identify likely security and conflict impacts that could be addressed through effective early warning and conflict prevention strategies and action. This information can also be used to inform the development of conflict-sensitive local, national and cross-border adaptation strategies.

**Written evidence submitted by Dr. Murray Simpson, Senior Research Associate of Oxford University
Centre for the Environment**

The following information is in answer to the queries from the Parliamentary Select Committee on International Development concerning the United Kingdom's membership of the United Nations World Tourism Organization (UNWTO) and its relevance.

The UK is member of a range of tourism related international and regional organizations, including the European Travel Commission (ETC), the World Travel and Tourism Council (WTTC), the Pacific Asia Travel Association (PATA), and the EU and OECD Tourism Committees.”

- None of these has as wide a membership as the UNWTO.

Is UNWTO more expensive than other similar organizations?

NO.

- Of all UN agencies, UNWTO at Euro 320,000 a year, is by far the least expensive for the UK.
- For example, UK’s UNESCO contribution at Euro 14,000,000 is 45 times as high: to WHO at Euro 20,800,000 is 60 times as high: to FAO at 22 million Euro is 70 times as high.
- Annual membership fee is calculated based on UK’s GDP, population and tourism receipts.

What does the Government gain from being a member of the UNWTO?

- Specifically UNWTO is engaged in a range of activities inside and outside the UN system that are helpful to UK in its management of foreign visitors engaging in domestic tourism (although key aspects of this area are devolved to the regions.) in its responsibilities at a European level and in its actions in relation to UK travelers going abroad.
- These include statistics and market analysis, response to the economic downturn, pandemic / disease control, response to other emergencies (eg natural disaster, terrorism etc), the UNWTO are developing a consumer oriented portal for emergencies www.sos.travel that will complement UK government actions to help UK citizens caught in these situations.
- It is the leading organization dealing with tourism and climate change and it plays a similar role in relation to sustainable development and environmental improvement.
- UNWTO is the leading organization promoting both Corporate Social Responsibility and Ethics and is heading a global campaign on protection of children in the sector.
- It has an integrated private sector participation & an emerging special sectoral initiative with the Global Compact, which is important for UK companies—particularly the consultant sector which received more than the membership dues in contracts in 2008.
- UNWTO is very active in supporting tourism activities in poor and emerging markets in keeping with UK’s international development agenda generally and its support for Africa specifically—including response to the digital divide and tourism & sustainable development.

Could there be some political reason for withdrawing?

NO.

- Not at all—in fact there is every political reason for remaining in Membership given UK belongs to all UN agencies so this would be an anomaly in the UK’s general efforts to advance its interest across the UN system.
- UNWTO has a strong relationship with the Commonwealth countries and the last Ministerial Conference in London in November 2008 called on the UK to withdraw its resignation from UNWTO, believing that all countries need to support the standards and systems of UNWTO.
- UNWTO works closely with many multilateral and regional organizations of political interest to UK—including for example OECD and EU.

Does it matter which Department pays for the membership?

YES.

- Very much so—in fact DCMS is not the main beneficiary of UNWTO services—other departments where there is a strong linkage include DFID, DFRA, FCO, DBERR etc.
- DCMS has slashed its international tourism support staff so would have difficulty in managing the full portfolio—even if it were inclined to do so, which it is not.
- DCMS contribution was allocated from Visit Britain funds—which have also been slashed—and UNWTO activities do not generally relate to Visit Britain targets.

NB none of the organizations listed in the question have the scale, scope or specialization to meet UK’s broad international interests in areas impacted by the sector. The decision to withdraw was taken for reasons that do not stand up to holistic analysis.

The above information has been prepared by Dr. Murray Simpson, Senior Research Associate of Oxford University Centre for the Environment in liaison with senior colleagues in the tourism sector, the international development sector and Professor Geoffrey Lipman, Assistant Secretary General UNWTO.

Written evidence submitted by Sussex Energy Group, SPRU (Science and Technology Policy Research) at the University of Sussex

1. EVIDENCE CONTRIBUTED BY

Sussex Energy Group, SPRU (Science and Technology Policy Research) at the University of Sussex. The University of Sussex is a core partner of the Tyndall Centre for Climate Change Research.

2. SUMMARY OF MAIN POINTS

1. There is no one policy fits all solution to sustainable, low carbon development in developing countries. Appropriate policy depends crucially on country and technology-specific criteria.
2. There is limited empirical evidence available upon which to develop policy geared towards low carbon development.
3. Empirical evidence that is available highlights a need for policy makers in developed and developing countries to better understand the nature and role of low carbon technological capacity which is critical to securing sustained low carbon development in the long term.
4. A better understanding of the nature and role of technological capacity in facilitating economic development based on low carbon technologies is also integral to facilitating agreement between north and south within international climate and development negotiations.
5. The interactions between climate and trade policies need to be assessed with care. Measures to reduce carbon emissions in developed countries should not be used as an excuse for a more protectionist trade policy.

3. ABOUT US AND THE EVIDENCE BASE FOR THIS RESPONSE

This response was prepared by experts in low carbon development and technology transfer from the Sussex Energy Group, University of Sussex (<http://www.sussex.ac.uk/sussexenergygroup/>). The evidence we have provided builds on a strong history of empirical research in the area of low carbon development and low carbon technology transfer to developing countries. Of particular significance to this inquiry is the fact that the evidence we enclose draws on our recent policy oriented empirical work in India and China, a unifying theme of which is to attempt to move away from the political rhetoric that dominates discussions in these areas towards evidence based policy recommendations. Our recent research includes:

- The DEFRA funded UK-India collaborative study on low carbon technology transfer which we have led in partnership with colleagues at The Energy Resources Institute (TERI) in India and at the Institute for Development Studies (IDS) here at Sussex. This work was commissioned by the UK and Indian governments as part of the Gleneagles Dialogue on climate change and clean development and is feeding directly into the technology negotiations under the UN Framework Convention on Climate Change. See <http://www.sussex.ac.uk/sussexenergygroup/1-2-9.html>
- Our research through the Tyndall Centre (funded by NERC, ESRC and EPSRC) to develop scenarios for China's carbon emissions to 2050 and 2100. The aim is to explore how China could live within its share of a global "carbon budget". This research is providing crucial in depth analysis on when and what changes are needed in China's economy and energy system, and the policy incentives required to promote these changes. See <http://www.sussex.ac.uk/sussexenergygroup/1-2-11.html>
- Our work through the Tyndall Centre on carbon emissions embodied in trade with China. This analysed the embodied emissions in exports from, and imports to, China. It revealed that nearly a quarter of China's total carbon emissions in 2004 were a result of net exports to the rest of the world. This emphasises the significant impact of global trade on the effectiveness of current carbon emission policies. It reinforces the need for OECD countries to take a lead in emissions reductions, and for low technology collaboration with developing countries like China to be properly addressed in a post-2012 global climate agreement. See http://tyndall.webapp1.uea.ac.uk/publications/briefing_notes/bn23.pdf

4. INSIGHTS FOR THIS INQUIRY

This response focuses on two of the questions in the inquiry's terms of reference:

1. The effectiveness and coherence of the UK Government's approach to sustainable development in developing countries.
2. Potential adverse impacts for developing countries of steps by developed countries to mitigate climate change, including in the context of the "post-2012" negotiations, and potential benefits for developing countries of related technology transfers.

Our response focuses on three related issues:

- Achieving sustainable low carbon technology transfer to developing countries.
- Understanding the north/south divide on the role of technology in international climate policy.
- Interactions between international climate policy and international trade policy.

4.1 *Achieving sustainable low carbon technology transfer*

Low carbon technology transfer from developed to developing nations will play a key part in delivering future carbon emissions reductions. It has the potential to allow developing nations to continue to develop economically whilst mitigating future emissions that would otherwise be associated with the rapid economic development currently observed in countries such as India and China. The need for developed countries to facilitate the transfer of low carbon technologies to developing nations is therefore recognised in Article 4.5 of the UN Framework Convention on Climate Change (UNFCCC). It is this aspect of the UNFCCC that provided the carrot that attracted most developing nations to become party to the Convention. It is also the aspect that has caused most controversy and made the least progress in the negotiations since the Convention was agreed.

Despite the high profile controversies surrounding technology transfer within international negotiations, inadequate empirical evidence currently exists upon which to base policy. The different stages of development of low carbon technologies, from R&D through to commercial diffusion, introduce new and unique barriers, opportunities and policy challenges which are not yet properly understood. These are made more urgent by the need to achieve rapid diffusion of low carbon technologies to avoid dangerous climate change.

Our empirical work in India and China at the University of Sussex has highlighted a number of key considerations that should guide policy if technology transfer is to contribute to sustainable, low carbon development in the long term.⁵⁶ Three of these are particularly relevant to this inquiry:

1. *No on policy fits all solution*

There is no "one policy fits all" solution to facilitating low carbon technology transfer. Relevant policy interventions vary according to the nature of the technology, its stage of commercial development and the political and economic characteristics of both supplier and recipient countries.

2. *Horizontal AND vertical technology transfer*

Due to the early stage of development of many low carbon technologies, vertical technology transfer (transfer of technologies from the research and development stage through to commercialisation) is as much an issue as horizontal technology transfer (transfer from one geographical location to another, including transfer from developed to developing countries). A key policy goal must therefore be to establish internationally collaborative initiatives that involve both developed and developing country firms in the development of new low carbon technologies. It is only via such early involvement in technology development that developing countries will develop the necessary technological capacity to make low carbon growth sustainable (see item 3 below).

3. *Developing low carbon technological capacity*

In order to be sustainable, technology transfer must take place as part of a wider process of technological capacity building in developing countries. Technological capacity refers to a country's capacity to develop, market and operate technologies, in this case low carbon technologies, in its own right rather than relying on importing them from other countries. Empirical evidence from decades of studying processes of technological innovation suggest that technological capacity development is vital to creating the conditions necessary for new technologies to be able to be adjusted to local conditions and then diffuse through an economy ie it is not enough for low carbon technologies to simply be imported into developing countries, companies in recipient countries also need to understand the tacit and intellectual knowledge that underpins a new technology, and then adapt that technology to local needs and conditions.

⁵⁶ Further important considerations are set out in the executive summary to the UK-India collaborative project mentioned above, available at http://www.sussex.ac.uk/sussexenergygroup/documents/uk_india_tt_executive_summary_final.pdf

When thinking about low carbon technology transfer and sustainable development we are therefore not only interested in individual technologies, but the impact those technologies have on the broader technological capacity in that country. A useful image is a drop of water (the transferred technology) hitting the surface of a pond. The pond represents the technological capacity of the country receiving the transferred technology. In the long term, it is the ripples that spread across the pond as a result of the transferred technology that are the most important consideration if our goal is sustainable, low carbon development. These ripples represent the impact of the transfer of low carbon technologies on the overall technological capacity of recipient countries. It is this capacity that enables future innovation to take place and that is most likely to ensure long term adoption and development of low carbon technology in recipient countries. Building technological capacity is especially important in developing countries where long term economic development and poverty reduction are central concerns.

4.2 *Understanding the north/south divide on the role of technology*

It is also important to understand that there are fundamental differences in the motivations for developed and developing nations coming on board as a Party to the UNFCCC. Most importantly, these different motivations are underpinned by alternative ideas on the role of technology under the Convention. These different ideas translate into different lenses through which to interpret the limited empirical evidence, and the different lenses lead to conflicting policy recommendations. This is why there is such a marked difference between the position of countries such as the US on technology transfer, and the position of some developing countries such as China and India⁵⁷. This is particularly exaggerated in relation to intellectual property rights (IPRs) with developed nations arguing that the tightening of IPR legislation would encourage technology transfer, whilst developing nations argue that an international fund should be created to buy up and make publically available IPRs for low carbon technologies.

Our research has demonstrated that both the lenses referred to above (those used by developed and developing countries) are based on a flawed understanding of how the process of technological capacity building happens in reality. It is possible that a better understanding of the process of low carbon technological capacity building and the role it plays in facilitating low carbon growth could facilitate agreement on this issue between developed and developing nations. Such agreement is critical to a post-2012 climate agreement but is jeopardised by the continued priority that all nations tend to give to maintaining or improving their competitive advantage relative to other nations. This tends to overshadow any political rhetoric on sustainable development and poverty alleviation, and must be addressed if a fair post-2012 agreement that contributes to sustainable development in developing countries is to be achieved.

4.3 *International climate policy and international trade policy*

International trade has experienced unprecedented growth over the last few decades as part of the on-going process of globalisation. However, as demonstrated by the controversy surrounding each round of international trade negotiations, there are many questions about the impact of international trade on the environment and equity. The environmental consequences of international trade have been highlighted further by the emergence of climate change as the most important international environmental issue.

Since only some countries are required to reduce their carbon emissions under the Kyoto Protocol, “carbon leakage” from the export of emissions to developing countries without emissions caps has become a focus of concern. There is considerable disagreement about the extent of this problem—with many studies emphasising that only a small number of economic sectors would be adversely affected by strong caps on emissions in the EU or the USA⁵⁸.

Carbon leakage is defined in various ways. One of the broader definitions expresses is at the emissions embodied in exports from non-Annex I countries (those without emissions caps) to Annex I countries (those that have emissions caps). Of course, there are many reasons why such “leakage” may occur—including relative labour costs, the geographical location of resources as well as differences in environmental regulations. However, it is useful to note that emissions embodied in traded goods can be very significant.

Our research on China has shown that international trade accounted for 23% of China’s total carbon emissions in 2004⁵⁹. This was due to China’s large trade surplus, but is also due to the relatively high level of carbon intensity within the Chinese economy. This figure was more than double the UK’s emissions in the same year. The equivalent emissions figures for 2005 and 2006 are likely to be larger as China’s trade surplus has grown sharply since 2004.

This result suggests that there is some value in calculating the emissions of countries in two different ways—the conventional method that includes emissions from within that country (though often excluding its share of international aviation and shipping); and a “consumption-based” method that includes

⁵⁷ UNFCCC Ad Hoc Working Group on Long-term co-operative Action Under the Convention (2008) Ideas and proposals on paragraph 1 of the Bali Action Plan: Note by the Chair. UNFCCC, 20 November.

⁵⁸ eg Carbon Trust (2008) EU ETS impacts on profitability and trade: a sector by sector analysis. London: Carbon Trust.

⁵⁹ http://tyndall.webapp1.uea.ac.uk/publications/briefing_notes/bn23.pdf

emissions from goods and services consumed by the country, irrespective of where those goods and services originate. It is unlikely that consumption based method will replace the established method, it could be used as a “shadow” indicator in a post 2012 climate deal⁶⁰.

The use of such a shadow indicator could inform policies that include greater assistance and resources for the developing countries that produce goods for consumption in the developed world. For example, there is extensive discussion of sectoral climate change agreements. These could extend the coverage of future international agreements beyond the 27% of global emissions covered by Kyoto. Furthermore, they could help target efforts at sectors such as iron and steel that are thought to be difficult to decarbonise. For developing countries, well designed sectoral agreements could include technology assistance measures. These could help to close the significant “efficiency gap” between developed and developing countries in many energy intensive industries.

A further policy option that is gathering increasing attention is the imposition of a levy on goods imported into countries or regions that have carbon emissions caps. In a recent speech, the President of the European Commission Jose Manuel Barroso proposed that importers of goods to the EU could be required to purchase emissions permits to reflect their embodied carbon⁶¹. Similar policies have also been put forward by politicians in the United States. These proposals have provoked the inevitable charge of “protectionism”, and may be subject to challenge within the World Trade Organisation. Any move in this direction would therefore need to be evaluated with care. If implemented, these would need to treat developing countries and Annex I countries differently to ensure consistency with the principle of “common but differentiated responsibilities”. This could be partly achieved by coupling such a policy with compensatory financial and technological assistance for industries in non-Annex I exporting countries.

5. RECOMMENDATIONS TO INFORM THE COMMITTEE’S DELIBERATIONS

1. The UK negotiating position on low carbon technology should be subjected to an appraisal with the aim of integrating a more thorough understanding of the role of low carbon technological capacity development in developing countries into the policy approaches currently under consideration.

2. The UK should seek to influence its negotiating partners in the EU and other developed nations to prioritise the development of new low carbon technological capacity in developing countries. This should include a combination of:

- a. Establishment and promotion of international collaborative research, development, demonstration and deployment mechanisms, based on an analysis of best practice for such initiatives (this will be informed by the final report of the UK-India collaborative study due out at the end of Feb 09⁶²).
- b. Encouraging foreign direct investment on the basis of less integrated transfer arrangements where local experts, suppliers and manufacturers are used and trained to understand the nature of new technologies.
- c. Establishment of financing mechanisms to facilitate a) and b) above.

3. Additional empirical research must be commissioned to inform policy on low carbon technology transfer to developing countries. It is particularly important to draw on applied case studies of real technologies in real world situations.

4. The interactions between climate and trade policies need to be assessed with care. There is scope to assist developing countries through policies such as international sectoral agreements. However, measures to reduce carbon emissions in developed countries should not be used as an excuse for a more protectionist trade policy.

Written evidence submitted by Thomas Tanner, Research Fellow, Institute of Development Studies (IDS) at the University of Sussex⁶³

1. It relates to two of the committee’s areas of investigation: Its primary focus is on “the extent to which climate change adaptation is integrated into DFID’s development policies, while the evidence also bears upon the effectiveness and coherence of the UK Government’s approach to sustainable development in developing countries”.

2. DFID’s policy for adapting development cooperation to climate change is outlined in its Third White Paper, published in 2006. It is driven in particular by the Gleneagles Plan of Action, output of the G8 Gleneagles Summit in 2005. The Plan calls on the World Bank to “develop and implement ‘best practice’

⁶⁰ Peters, G. P. (2008). From production-based to consumption-based national emission inventories. *Ecological Economics* 65(1): 13–23.

⁶¹ Barroso, J. M. (2008). *Europe’s Climate Change Opportunity*, Speech to the Lehman Brothers, London.

⁶² See <http://www.sussex.ac.uk/sussexenergygroup/1-2-9.html>

⁶³ This submission is from the perspective of Dr Thomas Tanner and should not be treated as representative of the Institute of Development Studies as a whole.

guidelines for screening their investments in climate sensitive sectors to determine how their performance could be affected by climate risks, as well as how those risks can be managed” and invites other major multilateral and bilateral agencies to adopt the World Bank guidelines, or develop and implement similar guidance” (G8, 2005:10).

3. In considering the integration of climate change adaptation into DFID’s development policies, it is instructive to outline some of the process-based elements that may be required to ensure such integration. These can be considered in a range of different areas, including:

- a. Awareness-raising and knowledge sharing—to ensure that DFID staff and partners are aware of climate change issues, how these relate to their work, and options to manage potential risks and take advantage of opportunities.
- b. A supportive policy environment—to provide high level backing regarding the importance and justify the resources required for integrating adaptation into development policy.
- c. Adequate levels of human resources—to deliver adaptation as part of development policy.
- d. Tools and methods for adaptation in a development context—to assist with the process.
- e. Institutional coordination mechanisms—to ensure that policy is consistent across DFID, across HMG, and across ODA members.

4. Taking this framework into consideration, this submission briefly sets out a SWOT analysis (examining strengths, weaknesses, opportunities, and threats) of the extent to which processes are in place to ensure that climate change adaptation is integrated into DFID’s development policies.

5. STRENGTHS

- a. High level policy guidance was provided by the 3rd White Paper on International Development of 2006: *Eliminating World Poverty: Making Governance Work for the Poor*, which dedicated a chapter to climate change and a substantial section on using natural resources for sustainable growth. This also includes a commitment to develop guidance by 2008 to screen all development investments for the effects of climate change. This is reinforced by commitments made at EU level (eg *EU Strategy on Climate Change in the Context of Development Cooperation*, 2004), at the G8 (*Gleneagles Plan of Action*, 2005), and OECD (*Declaration on Integrating Climate Change Adaptation into Development Co-operation Adopted by Development and Environment Ministers of OECD Member Countries*, 2006).
- b. DFID has undertaken a series of pilot projects looking at the integration of disaster risk reduction and climate change adaptation into development programming. Work to develop and implement a methodology called ORCHID was undertaken by IDS in collaboration with DFID offices in India and Bangladesh (see Annex 1). Similar work was undertaken in DFID Kenya using a related methodology and in China, a similar DFID-funded project looked at integration within government of China water sector programmes.
- c. DFID has produced a range of awareness-raising activities and outputs. These have been mostly directed at its DFID staff, including a formative paper linking poverty and adaptation (AfDB *et al*, 2003), the creation of a set of informational keysheets in 2005 (DFID, 2005; currently being updated), and more recent creation of country briefing notes for DFID offices.
- d. Cross-Whitehall engagement has been significant, particularly to input development perspectives into international policies coordinated by DEFRA (now Department for Energy and Climate—DEC) for the UN Framework Convention of Climate Change (UNFCCC).
- e. DFID has developed a well-staffed group in Policy Division on climate change including a specific team climate change adaptation, and a virtual policy team on climate mainstreaming.
- f. Increasing numbers of DFID advisory staff are explicitly addressing climate change issues within their job titles and job terms of reference.

6. WEAKNESSES

- a. There is limited evidence of the integration of adaptation with related issues of environmental management and disaster risk reduction.
- b. Whilst there has been a rapid expansion of resourcing and effort related to climate adaptation, this has come at the same time as a reduction in human resource capacity to tackle environment issues in the context of development. Advisory capacity previously assigned to cover environmental issues now has the additional burden of climate change.
- c. Awareness raising materials and capacity building activities have been primarily directed at DFID internally rather than development partners. As DFID’s work become increasingly up-stream, the onus for mainstreaming increasingly falls on these partners, yet they may be less well equipped to do so in terms of knowledge, political support and tools.

- d. Despite the growth in numbers of DFID staff working on climate change, there have not been many externally available communications and policy on climate change. The main outputs have been limited to the White Paper in 2006, the climate change elements of the research strategy in 2008 and statements at the UNFCCC negotiations. This may have limited DFID's ability to influence others regarding the issues around climate change and development.

7. OPPORTUNITIES

- a. DFID is currently taking stock of its mainstreaming efforts across environment, disaster risk reduction, and adaptation. This provides a major opportunity for an integrated approach that builds all three issues into development cooperation in a way that maximises synergies and minimises duplication.
- b. DFID has included climate change as one of the central strands of its new research strategy, with the Secretary of State committing over £100 million to climate change research over the next ten years. Mechanisms need to be in place to ensure that the results of such research are brought to bear on DFID's own policies and practice.
- c. The creation of a low carbon development policy team under the climate change group in DFID provides an opportunity to ensure that adaptation efforts are coordinated with mitigation efforts. Whilst not constraining the rights of developing countries to grow, low carbon will need to be one of the considerations around adaptation activities to ensure that adaptation does not exacerbate the climate change problem.
- d. As integrating adaptation into development policy is a relatively new area of work, this submission focuses primarily on the extent to which the conditions exist to enable this process. A more rigorous results-based analysis of the extent of integration is therefore required.

8. THREATS

- a. The current public, political and media interest around climate change may not be sustained, leading to the subject dropping off the agenda. The food crisis and financial crisis respectively demonstrate how other issues may divert attention from the urgency of both adapting to and mitigating climate change.
- b. Placing attention on adaptation is valued because of the need to enable the most vulnerable citizens, who have had the smallest role in creating the problem, to tackle climate shocks and stresses. However, best available science (IPCC 4th assessment report, 2007) emphasises that adaptation can only serve as a palliative measure, and significant efforts are required to stabilise atmospheric levels of greenhouse gases in order to minimise the disruption to the climate system. Adaptation efforts must also therefore avoid further locking development into high carbon intensity pathways; integrating adaptation and mitigation of climate change is crucial.
- c. Finance through UNFCCC mechanisms to assist adaptation is likely to create parallel processes which are not subject to the same checks and balances as Official Development Assistance (ODA). DFID will need to ensure that UK development cooperation complements other channels of adaptation funding to avoid duplication.
- d. A pressure to demonstrate and account for funding streams on adaptation (perhaps due to commitments made under the UNFCCC) may add to pressure to separate adaptation from mainstream development rather than integrate it. Integration means spending on adaptation is less easy to track and account for.

Annex 1

CLIMATE RISK SCREENING IN DFID PROGRAMMES

9. IDS has played a central role in assisting DFID in undertaking climate risk assessments to integrate adaptation into its portfolios of investments at country level.

10. Donor portfolio screening has emerged as one of the dominant approaches for the integration of climate change adaptation into development cooperation. The approach incorporates lessons from mainstreaming other cross-cutting issues such as gender and HIV/AIDS into development activities. It also draws on the risks and opportunities framework currently used in environmental screening of development projects, which derive from concepts of Environmental Impact Assessment (EIA) and Strategic Environment Assessment (SEA). A distinguishing feature of the climate risk assessment approach developed here is the direction of impact: the approach assesses the potential impacts of climate-related events and processes on programme objectives and activities, rather than of programme activities on the environment.

11. In response to these policy drivers, pilot climate risk assessments (CRA) of DFID country programmes in Bangladesh, India, and Kenya, were initiated in 2007. These assessments aimed to:

- a. Estimate the extent of fiduciary risk to the development cooperation programme.
- b. Develop adaptation options to mitigate this risk and assess their feasibility, costs and benefits.
- c. Develop a methodology to build institutional capacity to manage climate change related risks and opportunities for development cooperation investments.

12. A methodology was developed (known as ORCHID) to enable development cooperation actors themselves to assess current and future climate risks and to develop adaptation and disaster risk reduction options to manage these risks where necessary. In Kenya, the methodology was modified somewhat to incorporate a broader sector level analysis.

13. The methodology involves the active participation of programme managers and staff in determining risks, in evaluating current risk management, and in developing and prioritising adaptation options. This process is guided by a resource person with a broad understanding of development, disaster management and climate change. It considers climate change adaptation as an ongoing process of risk management rather than as a single discrete output, and emphasises on raising awareness and disseminating knowledge.

14. The screening compares project objectives and activities with historic climate records, future climate trends, impact projections, and vulnerability analysis. For each programme objective and activity, a list is made of those activities that already contribute, to some extent, to mitigating risks from climate change. In addition, a wide range of potential adaptation options are identified to tackle residual or unmanaged risks and to exploit opportunities to strengthen adaptive capacity. These potential options draw on existing experiences and emerging good practice in disaster risk reduction and adaptation, as well as on expert and stakeholder review processes.

15. The screening showed how the DFID programmes already contribute to vulnerability reduction and building of broader adaptive capacity, both as part of good development practice and some existing targeted activities relating directly to climate shocks and stresses.

16. In Bangladesh, the risk assessment identified a prevailing level of risk to almost all projects from regular catastrophic disaster events. DFID-B already supports disaster risk reduction and climate change adaptation initiatives through targeted interventions such as the Comprehensive Disaster Management Programme.

17. Current and future climate risks are already being managed by existing activities of the Chars Livelihoods Programme, including the raising of homesteads on earth mounds above the 20-year flood line. Other recommended options for managing risks included greater attention to infrastructure design in health, education and private sector development programmes, as well as non-structural measures such as livelihoods diversification, education, training, and improved research and monitoring.

18. The ORCHID assessment of climate risks in suggests that DFID programmes as a whole should:

- a. Continue to support dialogue on disaster risk reduction and climate change adaptation in key sectors.
- b. Seek to integrate adaptation priorities elaborated by national governments in future programme development.
- c. Increase emphasis on urban areas, given that existing levels of rural-urban migration are likely to be reinforced by climate change impacts.
- d. Develop a UK government, multi-donor approach to stimulate international dialogue around crucial but complex and politically-charged issues of mass migration and trans-boundary water issues.

19. For more information on climate risk screening of DFID programmes, please visit: www.ids.ac.uk/climatechange/orchid

Written evidence submitted by Tourism Concern

TOURISM AND CLIMATE CHANGE

SUBMITTED BY TRICIA BARNETT, DIRECTOR, TOURISM CONCERN

TO FLY OR NOT TO FLY?

Given the heightened awareness of the contribution of flying to climate change, how should the ethical traveller best manage their responsibilities to the planet? Holidays can, if carefully managed, generate significant income for impoverished destination countries. As such, tourism is actively promoted by governments and international financial institutions as a means of economic development. So what would be the consequences for these countries if tourists decided that long-distance travel is no longer an option?

On the other hand, many destination countries are already bearing the brunt of the impacts of climate change, such as the rising sea levels threatening to engulf low-lying island states such as the Maldives, and violent hurricanes that rip through the Caribbean with increasing force and frequency.

These are ethical dilemmas that have not been much in the public arena. Flying has featured heavily in the debate on climate change, as has the fact that poor countries are facing a problem not of their making. However, there has been minimal discussion in the UK about the interplay between tourism, development and global warming and how these should best be managed.

A FEW FACTS

Certain facts speak for themselves. Firstly, in the long term, international tourism shows no signs of slowing down, with China, India, Russia and other emerging economies becoming major players. Three-quarters of British outbound tourists travel by air. Since the 1960s, global air passenger traffic has risen by nearly 9% per year. Air fares are around 42% cheaper today than they were 10 years ago in real terms.

Air travel is currently responsible for emitting 700 million tonnes of carbon each year, and is growing at a rate of five per cent annually. This amounts to about 3% of total global emissions. Long-haul international flights cruising at high altitudes add substantially to the problem. Aircraft pollutants released into the high atmosphere have an enhanced greenhouse effect, and aircraft emissions are thought to be at least twice as damaging as ground level emissions. Short-haul flights are disproportionately polluting because of the large amount of fuel they burn in order to reach cruising height, followed almost immediately by a descent.

The airlines' claim that they are scapegoats and that aviation represents a mere fraction of the problem. They also claim to be developing new technologies to reduce their impact on the environment. For example, British Airways aims to halve its carbon emissions by 2050. But their reduction plans are largely dependent on emissions-trading schemes, which are themselves problematic.

TAKING A POSITION

Hard line campaigners argue that, with global warming on the increase, flying to take a holiday is no longer an option. At the other extreme are those whose position is often embedded in their business as tour operators, who argue that we should not just focus on flying when there is so much else that we do which results in the emission of greenhouse gases. They are more likely to suggest carbon offsetting flights as a way of managing the problem. This position is supported by the UK government through its aviation and climate change policies. They acknowledge that travel and tourism contribute to climate change, but at the same time support the expansion of the industry.

Somewhere in the middle are those who would like to travel ethically and who support the rights of people living in developing countries. They recognise that those people are not responsible for global warming and that without alternative livelihoods, their lives will be further embedded in poverty if holidaymakers fail to arrive.

UNSUSTAINABLE SOLUTIONS

Carbon offsetting was, for a while, considered to be the way through this dilemma for the traveller. However, whether carbon offsetting does anything more than making owners of offsetting companies wealthy and appeasing our own guilt has since been called into question. First, offsetting does not prevent our flights from contributing towards global warming; it also allows travellers to think that they don't need to reduce their emissions at source. Funds raised through offsetting schemes are not necessarily spent in the most meaningful and beneficial manner. The consumer clearly has a role in reducing carbon emissions but the imperative must also lie with national governments and international bodies to take full responsibility by legislating and regulating industry to effect the required systemic changes.

Our partner organisation in India, Equations, speaks for many when it argues that for "fossil fuel companies and airlines, offsets represent an opportunity to 'greenwash' their activities. Offset schemes tend to lull the customer into falsely believing that human activity that directly exacerbates climate change is effectively 'neutralised,' with no impact on the climate. So airline companies, which oppose aviation taxes and would never advocate that people simply choose not to fly unnecessarily. Instead, through carbon offset companies, they would rather present the section of climate-conscious passengers with the option of flying 'free from concern' over the impact of their emissions. This shift to what is essentially an unregulated and disguised form of eco-taxation away from the company and onto the consumer has gained airline companies an enormous amount of favourable but farcical publicity". (Equations, March 2008).

Carbon trading is also questioned. Airline companies—like other industries and economic sectors—are allocated a limit for carbon emissions each year. If they go over that limit, they will need to buy extra carbon credits from other sectors or companies which will invest that money to improve their own carbon footprint. Known as carbon or emissions trading, this mechanism is thought by some to be the best incentive to finance and implement clean technologies. The response from the South questions this. T. T. Sreekumar from the National University of Singapore and co-founder of Kerala Tourism Watch writes: "It was with great pain

and bafflement that the developing world received the news of the European Union's decision to enforce carbon trading. The market argument has been overstretched and it fails to address the issue of social justice in any satisfactory manner. It helps legitimise increased exploitation of southern energy sources by the North, a strategy that clearly smacks of neo-colonial economic subjugation." (Contours No.3 Oct-Nov 08). In addition, bio-fuels, first welcomed as a possible alternative to fossil fuels, have become a traumatic contributor to the rising costs of food, as land has been turned into massive agri-businesses that feed no one and contribute to the loss of bio-diversity. Neither carbon trading nor bio-fuels are sustainable.

DEPENDENCY ON TOURISM

Tourism Concern has always challenged the "monoculture" approach to tourism growth that leads to a precarious over dependency on what is a highly fickle industry. However, until more balanced ways of bringing in revenue have been established, it's important to hear what people living in the developing world have to say when we make our decision to fly or not to fly.

Fei Tevi from the Pacific Conference of Churches in Fiji recognises the fragility of small islands, particularly low lying ones. The impacts will be disastrous on the islanders. He is, however, also well aware of the fact that earnings from tourism contribute substantially to GDP. The tourism industry's World Travel and Tourism Council estimate that by 2018, tourism will be worth 80% of GDP in Antigua and Barbuda, and account for 95% of all jobs. This will be the highest dependency on the planet. The Caribbean is already the most tourism dependent region in the world, constituting 31% of GDP. The transition to another economic sector that would generate similar income returns to tourism is something that Tevi thinks the bigger countries can consider. A better strategy for the low-lying coral atoll countries is to develop new policies that will lead to reduced emissions in the destinations themselves. (Contours, Thailand, Oct-Nov 08).

Felix Finisterre of St. Lucia argues that, since the removal of preferential trade tariffs for bananas—previously St Lucia's main export crop—his Caribbean island would face mass unemployment without tourism. Although tourism in St Lucia is not typically characterised by fair wages and exemplary working conditions, the consequences, if tourists stopped coming, would be disastrous. Alternative livelihood options are extremely limited. The island is non-competitive in manufacturing and export, even for inter-island and regional trade.

What are the choices for countries such as St Lucia? Not only does tourism create employment in both the formal and informal economy, but it opens up opportunities for linkages into other sectors, not least the environmental sector. Tourism helps to conserve the environment and opens up new sites and attractions for livelihoods. Tourism is the best guarantee of environmental conservation—loss of the industry would result in over exploitation of St Lucia's natural resources, including forests and fisheries, as people search for alternative means of subsistence.

In particular, the British and European market is critical to St Lucia, providing 30% of annual visitors. On average, European visitors stay longer than their American counterparts, thereby contributing more to the economy, Finisterre argues that the loss to the tourism industry, should British and European visitors decide not to travel so far because of global warming, would result in the loss of vital government taxes and, to put it simply, "social chaos".

A SUGGESTED WAY FORWARD

Tourism Concern does not believe that to simply stop flying is the solution, as this would destroy the livelihoods of many people who depend upon tourism for an income. However, we are committed to promoting a responsible and sustainable approach both at home and while visiting other people's countries on our holidays.

Governments should be doing so much more. They must take urgent steps to devise and implement conventions, protocols and resolutions to reduce climate change. International agreements should include fuel taxes for aircraft, and governments must commit to limiting aviation growth while investing in sustainable energy technologies.

The tourism Industry lags behind many others in recognising its responsibilities in relation to climate change and the environment. It has an enormous carbon footprint. It consumes huge quantities of water and energy and fails to manage its waste. It must reduce its climate footprint and seek out and invest in alternative, sustainable energy technologies. It has to invest in a sustainable future.

National Destination Governments must recognise the imperative of legislating to reduce energy and water consumption in tourism establishments. They too must look to investing in renewable energy and developing mitigation and adaptation projects.

Every organisation involved in tourism has a responsibility to work towards change.

PERSONAL RESPONSIBILITIES

Most of us can do more to cut our own personal emissions—both at home and when we are away.

Tourism Concern supports people in destinations to get a better deal from tourism. We have never suggested that we should not travel. But we do have to do it better: forget weekend trips to New York for shopping, or a long weekend to Dubai for the fun of it! When we do go we should go for as long as can and we should go less frequently. One big trip a year—maximum if we are flying. Even better, if we want to travel far-a-field, this would be one long-haul holiday every alternate year—maximum. And, when we get there, we should treat it with respect and ensure that our hosts feel pleased that we have come. We should all do what we can to use public transport where possible, limit water use and switch everything off in our room when we are not in it. We all have the responsibility to do everything we can to balance our presence there on an environmental front—including telling the hotel manager how important the environment is to us and that the little red button maintained permanently on their televisions, really ought to be switched off.

Written evidence submitted by the Travel Foundation

THE ROLE OF TOURISM IN ECONOMIC DEVELOPMENT, AND THE POTENTIAL FOR SUSTAINABLE TOURISM

1. Created in 2003, The Travel Foundation is an independent charity which operates internationally to help the travel industry and its stakeholders develop and deliver tourism that creates new local economic opportunities, protects the environment and promotes local culture.

2. The Foundation is unique in its approach to sustainable tourism to the extent that we focus on the “package” tourism market. Working in partnership with the UK outbound travel industry, we aim to demonstrate that mass tourism can also be sustainable tourism. We work with many of the UK’s largest travel companies, such as Thomas Cook and TUI as well as the travel trade bodies, ABTA, The Federation of Tour Operators and the Association of Independent Tour Operators.

3. Much of our work in the area of local economic development is project-based, developing and implementing pilot projects that increase income-generating opportunities for local people through the creation of linkages between local producers and suppliers, and the tourism industry. The pilot projects have seen encouraging initial results. During 2009, the organisation will be evaluating the impact of many of these initiatives and gathering relevant statistics.

4. The Travel Foundation is beginning to collaborate with development organisations such as Oxfam, as well as international travel trade associations in western Europe and North America. This is part of a plan to introduce scale as the next phase of our activities.

5. The Overseas Development institute has carried out empirical research into tourism supply chains.

6. The Foundation’s pilot projects in economic development have focused on three areas of the supply chain—fresh produce, excursions and local artisanal goods.

INCREASING THE SUPPLY OF FRESH PRODUCE

7. Barriers exist that limit opportunities for local, small-scale farmers to supply the tourism industry. These include: reliability and quality of supply, capacity to supply in volume and capacity to supply the type of produce required.

8. In the Gambia, the Foundation has set up a “demonstration” farm, in partnership with Concern Universal, providing a facility to trial new crop varieties and agricultural techniques, to assist farmers in meeting the demands of the hotel industry. Farmers are trained in growing crops tolerant of the rainy season, new vegetables eg carrots, which aren’t traditionally grown, and new methods of cultivation. Through the “Gambia is Good” marketing and distribution mechanism, local produce is now supplied to 80% of the hotels and restaurants, reducing the need to import produce from neighbouring countries, and improving local livelihoods. The farm also functions as a tourist attraction, generating income to support research and training activities and promoting local foods to tourists.

9. A similar “adopt a farmer” project in Tobago has also improved opportunities for local farmers to supply the hotel industry, increasing local incomes by up to 400%.

PROVIDING NEW INCOME-GENERATING OPPORTUNITIES THROUGH EXCURSIONS

10. Excursions and attractions provide opportunities to increase local economic benefits from tourism. Excursions can be community-led and managed, providing new income-generating opportunities. Excursions also encourage tourists to explore beyond the resort areas, spreading tourist spend into other regions and reducing outward migration from rural areas.

11. Working in partnership with Estrela (local NGO) in Salvador (NE Brazil), new excursions have been created providing opportunities for tourists to experience local Afro- Brazilian culture through theatre, dance, art and music. The excursions are sold through tour operators and provide a new income source for women and youth community groups, while enabling them to remain in their communities.

12. Similarly, in Thailand, in partnership with CBT-I (local NGO), successful links have been established between nine communities and individual tour operators. Tourists are invited to experience the daily lives of local, rural communities, generating income for the communities through an excursion fee and the sale of local crafts and other products.

INCREASING THE SUPPLY OF LOCALLY-PRODUCED GOODS

13. Locally-produced handicrafts and other goods provide income generating opportunities as well as maintaining local skills and traditions. The challenges involved in selling to hotels and tourists include: price, access to market and the appeal of the goods to the purchaser.

14. In Sri Lanka, a lace-making centre has been set up, training young women in traditional lace-making, which was a dying art. Products have been developed to meet the needs of today's market, in terms of price and consumer preference, and are sold through excursion visits to the centre and directly to hotels. To spread the risk of targeting solely the tourist market (which itself is not very robust in Sri Lanka) efforts have been made to establish links to export markets.

15. Maya honey producers in Mexico have traditionally sold their produce at local markets and to neighbouring communities. Profit margins are very low due to high transport costs in getting to the markets. A lack of capacity to meet health & hygiene standards has also prohibited the sale of their product to the tourism industry. By providing the necessary training and equipment to meet industry standards, these communities are now able to provide high quality, locally-produced honey for sale as breakfast items, souvenirs, and as an ingredient for spa products.

THE POTENTIAL FOR SUSTAINABLE TOURISM

16. Travel Foundation pilot projects have demonstrated that tourism can be developed that provides local economic benefits, without compromising the business needs of the travel industry or the needs of the consumer.

17. In developing these projects, a number of lessons have been learned, which we consider to be essential in creating long-term sustainable tourism.

18. *Access to market*

The Foundation works in close partnership with the UK travel industry and its suppliers providing a link between local producers/suppliers and potential markets. In developing these links, it is essential that travel businesses can see a commercial value in purchasing the goods or services. This may include the opportunity to provide a unique, quality experience for their customers, reduced costs of buying locally, or meeting CSR requirements in terms of "community".

19. *Meeting industry standards*

In addition to considerations of price, reliability of supply etc, products and services need to meet regulated industry standards. For example, excursions need to meet tour operator health & safety standards, food items need to meet health & hygiene standards.

20. *Understanding the consumer*

One of the barriers to local producers/suppliers selling their products and services to tourists is the lack of knowledge of consumer needs. In relation to products, for example, producing garments in a style or size inappropriate to the market. For excursions, there is often a lack of understanding about what the consumer seeks from the experience. In Sri Lanka, the Foundation has helped to increase the income of local beach operators by providing training in customer care, personal appearance, and sales techniques.

21. *Ensuring the equitable distribution of benefits*

Communities can often be engaged in the delivery of tourism experiences while receiving limited economic benefits. Maasai communities involved in a "Village Tourism" experience in Kenya for example were receiving minimal income from safari visits, resulting in aggressive sales techniques and an uncomfortable experience for tourists. By implementing a new voucher system, guaranteeing a fixed fee from visits, revenue to the villages has increased by over 800% as well as customer satisfaction with the excursion.

22. *Understanding local culture and priorities*

Tourism products and services need to be developed within existing social, cultural and economic frameworks and need to recognise local priorities. For example, farmer training in the Gambia focused initially on womens' cooperatives. The work had limited success because it failed to recognise that cash crops are traditionally grown by men, and subsistence crops by women. Similarly, the project faced a number of challenges in encouraging farmers to grow new crops during the rainy season, when the rice is traditionally harvested, despite these new crops having a much higher potential economic value.

23. *The challenges of mass tourism*

Developing sustainable tourism for the "package" tourism market presents a number of challenges. In a sector with low profit margins and price-sensitive customers, local products and services need to be commercially attractive. Excursions, for example, need to recognise the structure of the industry and allow tour operator reps to earn a reasonable commission as well as be competitively priced in relation to other available excursions.

24. *Multi-stakeholder participation*

To ensure long-term success and sustainability, initiatives need to have multi-stakeholder involvement at all stages. Community-based tourism projects, for example, often fail because the needs of the tourism industry and their customers are not taken into account. Similarly, industry-driven initiatives, for example excursions, can sometimes lead to negative customer experiences, because of a failure to take into account the needs of the "host" community.

Written evidence submitted by the United Nations Industrial Development Organisation (UNIDO)

EXECUTIVE SUMMARY

Potential impact for developing countries of steps by developed countries to mitigate climate change and potential benefits for developing countries of related technology transfers

Important to differentiate between net energy importers and exporters. The overall impact of developed countries mitigation measures are likely to be positive for the developing countries. UNIDO has some concerns about the impact on trade with developing countries from climate conscious western consumers reluctant to buy goods with larger carbon footprints from developing countries. UNIDO is actively engaged in the transfer of climate change technologies to the developing world. These transfers represent opportunities for SMEs in developing countries provided financial and training needs can be addressed. UNIDO and DESA have been appointed by the Secretary-General as co-convenors of the UN's efforts to promote the transfer of climate friendly technologies. UNIDO is working with ISO in drawing up an International Energy Management Standard which will be applicable to both the developed and the developing world.

The impact of choices about power generation and energy sources in both developed and developing countries and the linkages between these energy sources

The Director-General of UNIDO is chair of UN Energy, bringing together all the UN organizations engaged in the field of energy. An International Conference "Towards an Integrated Energy Agenda beyond 2020" will take place in Vienna in June 2009. Developing countries have an overriding need to develop even in the face of climate change. They have some concerns about Western pressure to take up untested renewable energy technologies, particularly where subsidies are required to promote uptake. Appropriate renewable energy technologies represent a real opportunity for developing countries to develop their manufacturing sectors particularly in areas not linked to national grids and where power supplies are unreliable.

Opportunities for developing countries presented by sustainable approaches, such as carbon trading, direct fiscal transfers and addressing the needs of increasingly environmentally-sensitive consumers

Sustainable industrial development poses challenges and opportunities for enterprises in developing countries. UNIDO is working with SMEs providing training, guidance and access to relevant technologies to enable them to take full advantage of the opportunities. Environmental services in the developed world has created a €300+ billion industry. Indications are that this will soon be replicated in the developing world. UNIDO has an important role to play in promoting the necessary industrial support institutions—

environmental laboratories, cleaner production and energy efficiency centres, waste management, air pollution, industrial design, environmental consulting and training. UNIDO is working with UNEP (UN Environment Programme) on a Green Industry initiative.

Pro-poor exploitation of natural resources, including minerals and forests, and the regulatory framework for exploitation: Matter of policy choice

UNIDO's experience has shown that abundant natural resources in developing countries often results in unfulfilled economic potential, the crowding out of manufacturing, (the so-called "Dutch disease") widening income inequalities, increasing poverty and violent conflicts. This need not be the case. UNIDO has found that the output of manufactured or tradable goods can increase, if developing countries use the revenues from resource extraction to increase domestic investment. Pro-poor exploitation of natural resources entails the promotion of locally based suppliers of inputs needed by extractive industries. The greatest impact of economic growth on poverty reduction occurs in those countries where small and medium enterprises (SMEs) actively participate in local and global value chains converting resource-based comparative advantages into competitiveness. UNIDO has been active in this area for many years. UNIDO is supporting the development of the Action Plan for the Accelerated Industrial Development of Africa which was drawn up by the Heads of State and Government of the African Union meeting in Addis Ababa, Ethiopia, in January 2008.

UNIDO's Industrial Development Report 2009 subtitled "Breaking in and moving up: New industrial development challenges for the bottom billion and the middle-income countries" spells out a concrete, practical framework for transforming resources into sustainable industrial development. The Report has been written by Paul Collier, author of "The Bottom Billion" and will be launched at Lancaster House in London on 23 February.

Potential impacts for developing countries of steps by developed countries to mitigate climate change, including in the context of the "post-2012" negotiations, and potential benefits for developing countries of related technology transfers

1. The experience of the United Nations Industrial Development Organisation (UNIDO) has been that in the short to medium term, it is important to differentiate between developing countries that are net energy importers and those that are net energy exporters. The increased use of renewable sources of energy and energy efficient technologies by the developed countries in their mitigation efforts is likely to reduce supply constraints for fossil fuels, and therefore reduce their cost. In general, this would have positive impacts for developing countries that are energy importers but negative impacts on developing countries that are energy exporters. As the majority of developing countries are net importers, the overall impact on developing countries is likely to be positive. There will probably also benefit developing countries with abundant sources of renewable energy located near developed countries, which could become important sources of renewable-energy based electricity for these countries.

2. UNIDO has some concerns about the possible impact on trade resulting from more climate-conscious consumers in developed countries becoming more reluctant to buy goods with larger carbon footprints from the developing world. We do not yet have any figures to back this up. But in the longer term this may well impact on the effectiveness of our trade capacity related work aimed at increasing access to developed markets—eg, the EU—for products (particularly food and agricultural products) from the developing world.

3. That apart, our overall assessment is that in the longer term, all developing countries are likely to benefit from the mitigation efforts of developed countries. Without these measures, the negative impacts of climate change would have disastrous consequences on global development.

4. UNIDO is actively engaged in transferring climate friendly technologies to the developing world. We do this through a variety of mechanisms using our extensive global network of Cleaner Production Centres and more broadly through our environment and energy, trade capacity building, and productive activities programmes. It is clear to us that the transfer of climate friendly technologies to developing countries can have real economic and environmental benefits for developing countries. The greater use of energy efficient technologies by industry in these countries will not only reduce their greenhouse gases (GHG) emissions but also increase their competitiveness locally and globally. The scanty data available suggest that industry in the developing countries is significantly more energy inefficient than industry in developed countries, so large gains appear to be possible. In any transfer programmes, it is important to stress the business benefits of such technology transfer since enterprises in developing countries are far more likely to take up these technologies where there are clear economic benefits. In UNIDO's view, it is unrealistic to expect an enterprise in a developing country to take up cleaner technologies where there is no obvious economic benefit to it. A particular problem for SMEs (Small and Medium Sized Enterprises) in developing countries is their inability to secure financing and receive adequate training to enable their companies to operate in a more energy efficient manner. This is where UNIDO has a significant role to play.

5. It is also important to consider “technology transfer” in its broadest sense, ensuring that the transfer of hardware is always combined with the capacity development necessary to ensure that these technologies are operated at maximum efficiencies, individually and within the larger systems of which they are a part. Once again, training is an essential component of this process.

6. In this context, it is important to note that the UN Secretary-General has appointed UNIDO and the UN Department of Economic and Social Affairs (UN DESA) as the co-convenors of the UN’s efforts to promote the transfer of climate friendly technologies.

7. As manufacturing hubs, developing countries can also benefit from manufacturing and transferring to developed countries more energy efficient technologies/products, or technologies/products that otherwise minimize greenhouse gas emissions. UNIDO is working closely with the International Standards Organisation (ISO) in drawing up an International Energy Management Standard for Industry. In doing this, we will need to ensure that energy efficiency standards are sufficiently flexible to enable their adoption by developing countries. There will be the need for capacity development at the productive level, but also in standards and certification systems, to ensure barriers to trade from the developing countries are minimized. Handled properly, UNIDO foresees that climate friendly technologies should present developing countries, particularly middle-income countries, with export opportunities. Concrete examples are evident in China which now has a substantial and growing industrial sector devoted to the manufacture of renewable energy technologies, most notably solar panels. UNIDO is active in encouraging South-South cooperation to facilitate the spread of Renewable Energy and Energy Efficiency technologies to other parts of the developing world.

The impact of choices about power generation and energy sources in both developed and developing countries and the linkages between these energy sources

8. UNIDO is currently chairing UN Energy a body which brings together all the UN organizations engaged in the field of energy. In this context, we will be organising an International Conference focusing on the need to develop a sustainable long-term solution to meeting the world’s energy needs beyond 2020. The conference will take place in Vienna from 22–24 June 2009.

9. Our experience has shown that the choices made by developed countries about power generation and energy sources will have some impact on the choices made by developing countries, the resource endowments of individual countries are likely to play a greater role in decisions over power generation. For example, those developing countries with domestic coal or other fossil fuel supplies will find it very difficult not to use these supplies for power generation unless the costs of alternatives are brought down considerably. As the availability of Renewable Energy technologies becomes more widespread, costs will come down. UNIDO’s activities have shown that appropriate Renewable Energy technologies represents a very real opportunity for developing countries to develop their manufacturing sectors, particularly in areas which are not linked to national grids and where power supplies are currently unreliable or non-existent.

10. UNIDO has found that infrastructural differences between developed and developing countries limit the linkages between choices. Developed countries have extensive national grids, whereas the developing countries do not. There are therefore many choices of technologies linked to electricity generation and transmission being considered and adopted in the developed countries that are not very relevant to developing countries. At the same time, there are technology needs in the developing countries (the use of small-scale renewable sources linked to stand-alone mini-grids, for instance) for which the developed countries might not have solutions. In general, the difference in scale of energy demand between many developed and developing countries could mean weak linkages between the choices about power generation and energy sources made by the two groups.

11. The overriding need of developing countries to continue their development even in the face of climate change compared to the overriding need of the developed countries to move strongly towards low-carbon economies might well also limit linkages between choices. For instance, there is concern in many developing countries that to mitigate climate change they are being encouraged to take up technology for energy generation that have not yet been proven to be economically viable in the developed countries unless significantly subsidised (which developing countries cannot afford to do). While some of the emerging economies already have the ability to lead in the development of technologies, the majority of developing countries do not. They are therefore, for legitimate reasons, unwilling to spend scarce resources on power generation and energy sources that are not fully proven. This makes it all the more important that the developed countries, perhaps in cooperation with the more technologically advanced developing countries, lead by example and thereby bring down the cost of these technologies.

12. There is a specific case where linkages between choices could be strong, and that is the case where developing countries with good renewable energy endowments are located near developed countries. In such cases, some developing countries could develop renewable energy-based sources where they otherwise might not. This is not only because of their proximity to developed countries, but also because of the subsidy regimes adopted by the latter for electricity based on renewable energies. These subsidies make it economically viable to generate such electricity and transmit it to them.

Opportunities for developing countries presented by sustainable approaches, such as carbon trading, direct fiscal transfers and addressing the needs of increasingly environmentally-sensitive consumers

13. It is clear to UNIDO that sustainable industrial development will pose challenges for enterprises in developing countries, especially for the SMEs that make up the bulk of the industrial sector in these countries. However, these challenges should also create business opportunities for alert entrepreneurs in these countries with sufficient foresight and willingness to take risks. This is where UNIDO can help working with SMEs and entrepreneurs, providing training, guidance and access to relevant technologies to enable them to take full advantage of opportunities where they exist.

14. At the domestic level: As occurred in the developed countries from the 1960s onwards, as the populations in developing countries grow—especially their growing middle classes—they will demand safer and healthier products, more modern and more efficient appliances, and functioning environmental services (safe drinking water, waste water treatment, waste management, air pollution controls, and so on). With respect to environmental services alone, similar pressures in the developed countries have created a €300 + billion industry, along with all the new jobs this has entailed. The latest environmental challenges the world faces—climate change and growing water scarcity, to name only two—are spawning new industries. The rapidly growing renewable energy industry is the most obvious manifestation of this trend. This is also one in which developing countries already have a significant presence.

15. The rapidity with which these new industrial trends manifest themselves in the developing countries will depend on the willingness of governments to create the necessary enabling environments: developing—and even more importantly implementing—the necessary environmental laws and regulations; articulating other required sectoral policies (for instance, in the energy sector). It will also require promoting the necessary industrial support institutions—environmental laboratories, cleaner production and energy efficiency centres, waste management companies, engineering companies offering wastewater treatment and air pollution services, industrial design companies, environmental consulting companies to name a few, as well as creating or expanding the necessary university degree programmes and, even more importantly, the necessary supportive vocational training programmes. UNIDO has an important role to play in all these areas and with more resources we could do even more.

16. At the international level: Globalization is creating opportunities for developing country entrepreneurs to offer green goods and services to consumers in the developed countries, or to join global value chains offering such goods and services. Here, the menu of such goods and services is very wide. Developing country enterprises are already serious players in the global renewable energy industry. The bulk of the more efficient appliances sold in the developed countries are manufactured wholly or partly in the developing countries. Waste management is also going global, with used products in the developed countries (scrapped metal products, waste electrical and electronic equipment, even waste paper) moving to the developing countries for recycling and reuse. While much of this trade is still North-South, there is growing potential for it to be South-South. UNIDO is actively involved in pushing this forward working together with UNEP (UN Environmental Programme) on its Green Industry initiative.

17. UNIDO has found that, as with all globalized goods and services, enterprises in the developing countries must be able to manufacture green goods and services at the levels of quality required by the global market and certify that this is so. Once again, the ease with which they can do this depends on the willingness of governments to create the necessary enabling environment. In this regard, industrial support institutions are particularly important that can assist enterprises to meet quality standards, and the metrology and conformity assessment institutions that can allow them to make the necessary certifications. Through the relevant global mechanisms, governments can also work to ensure that private standards are developed that do not penalize the developing countries, that national environmental requirements are not used as technical barriers to trade, and that in the particular case of global waste management this is not used as a way of dumping hazardous and non-hazardous waste in developing countries unable to manage them correctly.

Pro-poor exploitation of natural resources, including minerals and forests, and the regulatory framework for exploitation: Matter of policy choices

Resource curse and bad governance

18. Natural resources are randomly distributed across the earth's surface. Unfortunately, this distribution has led to unequal outcomes. Some countries have abundant natural resources. Some people in countries have claim to abundant natural resources. Other countries have few or no natural resources. Or, within countries, many poorer people have little no ownership or claim to natural resources. Yet, the abundance of natural resources can give rise to many opportunities to increase incomes, reduce income inequality and poverty, and accelerate overall economic and social development. On the other hand, this favourable scenario has not been the experience of a number of developing countries in recent years. UNIDO's experience has been that invariably, abundant natural resources have led to largely unfulfilled economic potential, leading to performance being far below potential, the crowding out of manufacturing, widening income inequalities and increasing poverty levels with many large-scale violent conflicts. Development experience is littered with examples on all continents. The abundance of natural resources has often been viewed as a "curse" rather than a "blessing". This "resource curse" is often termed the "Dutch disease". This

is the case when the discovery of an abundant natural resource or a significant increase in commodity prices raises the real value of country's currency, making manufacturing and exports ("tradeables") less competitive with other nations, increasing imports and decreasing exports.

19. The richness of a country's natural resource endowment should not, however, further underdevelopment and push many more into poverty. Such a state of affairs often stems from inept policies and lack of good governance. The development experience of a number of resource-rich countries shows that "resource curse" is not inevitable and that sound economic policies can mitigate its ill effects and work positively for pro-poor growth. The recent development experience of Botswana, Brazil, Oman, Indonesia, Malaysia, and Thailand speaks powerfully on this issue. The problem is not the resources themselves but how the revenues from these resources are used. This is the fundamental policy challenge for pro-poor growth. This is not an easy matter. Governments have not always handled the abundance of natural resources well. Resources have often been wasted or illegally expropriated to the detriment of the poor in rural areas and overall sustainable economic growth and poverty reduction.

20. UNIDO has found that the output of manufactured or tradable goods can increase, if developing countries use the revenues from resource extraction to increase domestic investment. They must consider using a large part of the revenues for investment instead of consumption and spending money on the right projects which generate the best social returns. Sadly, they do not always have the capacity to do so. They must also be able to moderate the increase in demand for non-tradable consumer goods and services which occurs when countries are flush with natural resource revenues to avoid fuelling the "Dutch disease". Hence, prudent investment and good governance dampen the tendency towards the Dutch disease by both augmenting supply and moderating demand. Understanding the critical level of governance to avoid the so-called "resource curse" is crucial.

Pro-poor exploitation of natural resources: the promotion of local suppliers and SMEs

21. UNIDO's experience has shown that pro-poor exploitation of natural resources entails the promotion of locally based suppliers of inputs needed by extractive industries. While the production of these inputs requires locally-specific knowledge, it will also require activity-specific knowledge that is not available locally. Policy instruments, incentives and support systems should thus promote small and medium enterprises and the required skills to meet the demands of extractive industries.

22. While economic growth generally reduces poverty, it does so at different rates in different contexts. The greatest impact of economic growth on poverty reduction occurs in those countries where small and medium enterprises (SMEs) actively participate in local and global value chains which convert resource-based comparative advantages into competitiveness.

Spreading the pro-poor spill-over effects of construction booms

23. Construction booms are generally closely related to resource extraction. As commodity booms generate revenue booms which in turn if properly used sharply increase savings and public investment. Such investment takes two forms: equipment and structures. Most public investment is in infrastructure so that the boom in public revenues leads to a boom in the demand for the construction sector. UNIDO research suggests that the empowerment of the poor in the local resource-based production of building materials can lead to income generation and employment creation for the poor.

24. Not only does the construction sector provide a critical link between resource revenues and effective investment, it also potentially provides the key link from resource revenues to the labour market. Construction can employ precisely the young males who, if left unemployed, are most susceptible to crime and violence. Again, this transmission depends upon the capacity of the construction sector to expand output. Spreading pro-poor spill-over hinges largely on the institutional and business support services that encourage small and medium enterprises in the vertical integration of the production of construction materials.

25. UNIDO has been active in this area for many years. As an example of a more recent development UNIDO has been active in supporting the development of the Action Plan for the Accelerated Industrial Development of Africa which was drawn up by the Heads of State and Government of the African Union meeting in Addis Ababa, Ethiopia in January 2008.

Regulatory framework for transforming resources into sustained development

26. In the forthcoming UNIDO Industrial Development Report 2009 subtitled "Breaking in and moving up: New industrial development challenges for the bottom billion and the middle-income countries" UNIDO spells out a concrete, practical framework for transforming resources into sustainable industrial development. The Report has been written with Prof. Paul Collier, author of "The Bottom Billion" and will be launched at Lancaster House in London on 23 February 2009.

Written evidence submitted by David Woodward (independent consultant)

SUMMARY

1. Climate change and binding constraints on global carbon emissions represent a profound change in the economic environment for development. Responses to this change to date by DFID and others, as to other failures of the current model of economic development, have been limited to piecemeal “add-ons” directed to adaptation and mitigation at the country level. This is wholly inadequate.

2. The fundamentally different context of accelerating climate change and responses to it, together with the failures of the current economic model to deliver on global objectives such as poverty eradication and health for all, indicate an urgent need for a fundamental reconsideration of the economic model itself.

3. This submission presents some starting points for an alternative approach to economic development, based on the author’s paper “More with Less”, to be published by nef (the new economics foundation) in January. This approach is founded on a shift from focusing on economic growth as the central objective of development to the achievement of societal objectives: meeting basic needs, increasing well-being, and ensuring environmental sustainability.

4. The alternative economic model described revolves primarily around a revitalisation of rural economies, taking advantage of the synergies arising from consumption patterns at low-income levels and the potential for widespread application of micro-renewable energy technologies in rural areas, exploiting the potential for considerable cost reductions and technological improvements from the creation of a mass market.

5. While there is some potential for movement in this direction, major progress would require changes in the global economy. Current international discussions, in response to the financial crisis, could provide an opportunity for such change; but only if they are much more inclusive and have a much broader agenda than is currently envisaged.

6. DFID should actively promote such a process, within the UK government and internationally; and should give serious consideration to alternative approaches to development rather than continuing to promote neoliberal and growth-focused approaches.

IMPLICATIONS OF CLIMATE CHANGE FOR THE ECONOMIC ENVIRONMENT FOR DEVELOPMENT

7. Climate change represents a fundamental change in the global context in which development must take place in the coming decades. Globally, we need to reduce carbon emissions drastically, by around 60–80% from their 1990 level by 2050. Allowing for further increases since 1990, and continued growth of the global economy and recent and projected rates, this implies a reduction relative to global production and consumption (global carbon intensity) to between about one-twelfth and one-thirtieth of the current level. Moreover, the period available for this reduction (if we are to have any real chance of limiting the global temperature rise of 2°C) is further shortened by the faster increase in atmospheric concentrations resulting from higher-than-projected emissions since 1990.

8. This implies a rate of reduction in global carbon intensity of 7–11% pa, to be sustained over a period of 30–35 years, compared with an increase of 3% pa between 2005—an immediate change of 10–14% pa. By comparison, the reduction between the 1960s and the 1980s in response to the oil price crisis of the 1970s (which entailed a more than tenfold increase in oil prices, with devastating consequences for the global economy, and particularly developing countries) was just 1% pa over the course of two decades.

9. The current assumption is that this can be achieved through the application of new technologies for the reduction and/or sequestration of carbon emissions. However, even on the most favourable assumptions, it is at best highly questionable whether this can be achieved by means of known and anticipated technologies. Moreover, there are serious doubts about many of these technologies in terms of their potential scope (eg carbon sequestration), net effects on carbon emissions and other environmental impacts (eg biofuels, nuclear energy), sustainability if widely applied (eg available reserves of uranium for nuclear energy), and potential effects on development (eg impacts of substantial biofuel production on basic food prices).

10. We therefore cannot simply assume that carbon emission reduction targets will be achieved through technological changes without adverse effects on development. In practice, the coming decades are likely to be characterised by a combination of:

- (a) consequences of failing to meet global carbon emission targets (more frequent and severe extreme weather events);
- (b) consequences of efforts (successful or otherwise) to achieve these targets (eg higher energy and transportation costs, higher food prices due to greater biofuel use, greatly reduced long-distance tourism, reduced demand for exports, etc); and
- (c) consequences of responses to climate change itself (including reduced aid budgets due to revenue losses and diversion of public spending) and its knock-on effects (eg more restrictive immigration policies).

11. For most, if not all, low-income and least developed countries, and many middle-income countries, the implications of such changes are unambiguously negative, and in many cases very severe.

12. Such negative effects are important, not only because of the (potentially very considerable) human costs, but also because of their implications for adaptive capacity in the countries concerned. By undermining adaptive capacity, they will also greatly magnify the economic and social effects of climate change itself. There is a real risk that a large proportion of the developing world will be locked into a downward spiral of economic failure, reversal of human development, declining public sector effectiveness and reduced adaptive capacity, culminating in eventual social and economic collapse.

RESPONSES TO THE CHANGES IN THE ECONOMIC ENVIRONMENT FOR DEVELOPMENT RESULTING FROM CLIMATE CHANGE

13. However, while DFID has been one of the leading development agencies internationally on climate change and development, its response has fallen far short of this fundamental change in the global context for development. Like the mainstream development community more generally, DFID's response to climate change has closely mirrored their reaction to concerns about the impact of structural adjustment programmes on poverty, health and education in the late 1980s and early 1990s. In both cases, the issues have been treated as secondary concerns, and essentially separate from the process of development; and the response has been to maintain the same underlying economic model with limited "add-ons" at the country level—social safety nets and relative protection of health and education spending in the former case; and programmes for adaptation to and mitigation to climate change in the latter case.

14. This raises two fundamental issues. First, it raises the question of what development is for. In the 1980s and 1990s, we found that the preferred neoliberal model of development was not fulfilling our social and human development objectives of poverty reduction and the improvement of health and education. Over the last decade, serious questions have emerged as to its environmental sustainability and its resilience to global environmental processes, notably climate change. If the basic economic model is failing to achieve our societal goals, or even to allow societies to adapt to this failure, then continuing to promote this model, subject only to minor and piecemeal correctives, seems an inappropriate and inadequate response. Rather, these failures indicate a need to reconsider the model itself, and to investigate alternatives which might be more beneficial.

15. Second, the focus of such "add-on" responses exclusively at the national level belies the nature both of development and of climate change as fundamentally global processes, in need of global responses. While there are wide variations in (and equal uncertainties around) likely manifestations of climate change in different localities, they are the product of global rather than local emissions and atmospheric concentrations of carbon dioxide.

16. These two considerations are inter-related. The evolution of the global economy over the last 25–30 years, through the process of commercial globalisation, has made national economies increasingly dependent on the global economy—and thus seriously curtailed the policy space available to any national government. If one compares only the options available to a national government within the global economic system as it currently operates, taking all other countries' policies as given, it is quite predictable that the result will favour the current model, because it is designed specifically to favour and promote this model. If one also, implicitly or explicitly, makes such assessments on the basis of economic models which are based on the economic theory which underlies this approach, and applies its objectives (primarily economic growth) as the criteria for success, the circularity of logic makes such a result almost inevitable—but also entirely meaningless.

17. This indicates an overwhelming case for reconsidering the underlying neoliberal economic model which DFID continues to support and promote; and to do so at the global level (that is, while making available the necessary policy space through appropriate changes in the global economic system) rather than only on a country-by-country basis. Only on this basis can a judgement be made about the appropriateness or otherwise of the promotion of a particular economic model on a global basis.

BASIC PRINCIPLES FOR AN ALTERNATIVE APPROACH TO DEVELOPMENT IN THE CONTEXT OF CLIMATE CHANGE

18. The obvious starting point for such a reconsideration is the basic purpose of development, and of the economy more broadly. At the most basic level, this might be considered to comprise:

- (a) fulfilling basic needs (poverty eradication, broadly defined);
- (b) increasing quality of life (well-being); and
- (c) sustaining these achievements over the long term (sustainability).

19. This requires a shift away from economic growth as the primary criterion of success or failure of economic policy. Economic growth is not intrinsically good or bad. It is good to the extent that it promotes the fulfilment of basic needs and/or increases quality of life, and bad to the extent that it undermines them in the long term, for example through adverse environmental effects.

20. What, then, might an alternative model look like, if it placed these three societal objectives at the centre of policy design in the context of climate change? Clearly, this would require further consideration, research and analysis. However, the following proposes a possible starting point for such consideration.

21. The association of carbon emissions in developing countries with urbanisation suggests an increased focus on reinvigorating rural economies as a driver of development. Rural-led development would help to slow rural-urban migration, reducing the strain on urban infrastructure, and would be more effective in reducing poverty, which is greatest in rural areas.

22. However, the focus of the current model on agriculture, and particularly export agriculture, as the basis of rural development, has had limited benefits—partly because of the weakness of many tropical agricultural prices over the last 30 years (which itself largely reflects the increase in their supply due to widespread promotion). Equally, agriculture is among the sectors most vulnerable to the impacts of climate change; and growing awareness and concern about climate change is already encouraging a shift towards local purchasing—a trend which can be expected to intensify over time. At the same time, as the recent food crisis has demonstrated, increasing use of biofuels in the North has the potential to threaten food security in the developing world through major increases in the world prices of basic foods.

23. This suggests a need for rural development to be based largely on the diversification of rural economies away from agriculture; and for agriculture itself to be oriented primarily towards local needs rather than exports. It is almost inevitable that such a diversification would entail a substantial increase in energy consumption in rural areas. In fact, it is arguable that the limited availability of energy in rural areas in many low-income countries has been an important constraint to their development and diversification.

24. While carbon constraints clearly should not be allowed to limit development, it is clearly important to minimise the carbon emissions which result. This suggests an emphasis on renewable energy sources. There is a potentially important synergy here between climate change mitigation and rural development. A major reason for the inadequacy of energy infrastructure in rural areas in many developing countries is that scarcity of population, together with limited public resources and purchasing power, makes conventional centralised electricity generation financially unviable. However, the potential for renewable electricity generation (solar, wind, hydroelectricity, and in some cases wave and tidal power) is often considerable. Renewable generation is also more conducive to decentralised generation systems, producing electricity on a relatively small scale at the community level. The widespread application of micro-renewable energy technologies in rural areas could have a transformative effect even greater than that of mobile telephony in the field of communications, stimulating the regeneration of rural economies, while limiting carbon emissions (and slowing deforestation by reducing reliance on fuelwood).

25. The two key obstacles at present are the relatively high cost of such technologies (again, given limited resources); and their lack of adaptation to the circumstances of rural areas of low-income countries, both technically and in terms of the limited availability of technical skills for installation and maintenance.

26. These constraints, in turn are a product of the market for such technologies, which is of limited scale, and dominated by demand in the North. By creating a large-scale market in the South, it would be possible simultaneously to incentivise technological development more suited to conditions in rural areas in the developing world, and to drive costs down considerably through economies of scale and learning effects. (Micro-renewable technologies remain at a very early stage in the product cycle, suggesting the potential for the major cost-reductions which have characterised the evolution of other technologies, from VCRs and DVDs to mobile telephones and computers.)

27. Such a market transformation could in principle be achieved through the establishment of a global fund, financed from aid (or other resources directed to climate change mitigation), to finance the universal application of appropriate micro-renewable technologies in rural areas in all low-income countries. (Appropriate phasing of such a programme would be important, however, in order to avoid bottle-necks in the production process increasing costs.)

28. As well as favouring low-carbon production processes, consideration should also be given to the carbon content of the increase in consumption resulting from (or required for) development. Industrialisation processes, both under the current model of development and in the “import-substituting industrialisation” model prevalent in Latin America in the 1960s and 1970s, have generally relied on growing consumption of goods with considerable energy content, either for the domestic market or for export. In the latter case, energy content is further increased by the need for transportation to distant (primarily Northern) markets. Reliance on long-distance tourism (which has been promoted particularly in many small island economies) similarly embodies a very high carbon content.

29. Global carbon constraints suggest that the growth of demand for such goods will need to be at best limited, and quite possibly negative, over the coming decades. (While carbon content may be reduced by increased use of renewable energy technologies, carbon sequestration, etc, there are considerable uncertainties regarding the viability such technologies and the net carbon savings available, while the recent food crisis demonstrates the potentially devastating side effects from a development perspective. Together with the phenomenal scale of the reduction required in global carbon emissions, this suggests that a marked reduction in total energy use will also be required to achieve emissions reduction targets without serious adverse effects on developing countries.)

30. This suggests, first that we should anticipate constraints on the overall growth (and level) of global consumption; and second, that such constraints will be eased to the extent that consumption growth is concentrated on goods with lower rather than higher energy content. If meeting basic needs is a primary objective of policy, we should also focus increases in consumption on those whose basic needs are not met as a result of inadequate incomes—that is, the poorest. (A similar case can also be made from the perspective of well-being: it is generally accepted—and indeed self-evident—that a given absolute increase in income gives rise to a greater increase in well-being at a lower rather than a higher initial income level.)

31. While there is a need for further empirical research, a strong *prima facie* case can be made that these objectives coincide—that is, that the energy content of the additional consumption of poor households (in global terms) as their income increases is lower than that of better-off households. Purchases by poor households, particularly in rural areas, are typically of goods which are (or can be) locally produced using relatively limited energy inputs (eg higher-value foods, clothing, basic household goods, livestock, etc). This suggests a strong case for focusing on measures aimed directly at increasing the incomes of poor households rather than on increasing economic growth and relying on the benefits “trickling down” to the poor.

32. Such consumption patterns also have the potential to create a virtuous circle of poverty reduction—although this is again a hypothesis which requires further investigation. Casual observation suggests that the poorest households spend additional income primarily on products produced by other poor households, further reducing poverty, while the better-off spend a much smaller proportion of their income increases on goods produced by the poorest.

33. If this is the case, then focusing on increasing the incomes of the poor (rather than on overall economic growth) can have indirect, as well as direct benefits in terms of poverty reduction. As household A’s income increases, it purchases goods and services from poor households B, C and D, increasing their incomes; and they similarly provide additional incomes to households E, F, G, etc. In effect, this is equivalent to a Keynesian-style multiplier operating within poor communities; but their generally very limited integration in the global economy makes the effect potentially much stronger than in better-off communities.

34. These synergies can be maximised by coordinating the increases in demand and supply associated with poverty reduction. This would entail focusing poverty reduction measures such as microcredit, vocational training, microenterprise support, agricultural extension, etc specifically on increasing the supply of goods whose demand will be increased as poverty is reduced (based on estimates of changes in consumption patterns based on household expenditure surveys).

35. Accelerating poverty reduction is also essential to increase adaptive capacity to climate change and other environmental and economic shocks. The lack of resources available to households is a key obstacle to the (often relatively small) investments required for adaptation. Particularly in rural areas, faster poverty reduction can also provide additional environmental benefits by reducing pressures for unsustainable production methods to maintain or increase short-term incomes for immediate consumption needs.

36. The impact of poverty on adaptive capacity is compounded by its effects in worsening health (eg through under-nutrition and unhealthy living and working environments) and limiting access to education, two other key determinants of adaptive capacity at the household level. Progress in these areas could be further accelerated by substantial increases in public resources for education (particularly, but not only, at the primary level, to match increases in demand), and for comprehensive primary health care.

IMPLICATIONS FOR THE GLOBAL ECONOMIC SYSTEM

37. While some progress could be made in the direction indicated above within the existing global economic framework, the effectiveness of such an approach would be critically dependent on substantial changes in international economic arrangements. These include an end to the active promotion of neoliberal approaches to development by international players such as the IMF, the World Bank and DFID; measures to increase the public resources available in developing countries, notably through measures to control tax competition and transfer price manipulation by transnational companies, possibly supplemented by international taxes (eg on carbon emissions and/or currency transactions); and increased flexibility within international trade agreements for the appropriate use of trade measures such as import tariffs in support of development.

38. Current discussions on international economic arrangements following the financial crisis provide a potentially valuable opportunity for such changes. However, this requires a much broader agenda than is currently envisaged, extending beyond the immediate needs of the financial system to encompass societal objectives such as poverty eradication, health and education for all, the control of climate change and other aspects of environmental sustainability. It also requires a much broader participation in discussions, including low-income and least-developed countries (which are wholly excluded from the G20), on a full and equal basis. Current economically weighted voting systems mean that this is also not possible through the IMF or World Bank.

39. Such a process is in any case long overdue. The current system of global economic governance was established in the fundamentally different context of the 1940s; and its inadequacies in dealing with the challenges of the contemporary world have become increasingly apparent through successive debt and financial crises, including but by no means limited to the current “credit crunch”; increases in poverty (at the “\$2-a-day”, though not the “\$1-a-day” level) especially outside China; the dramatic slowdown in the rate of improvement in health in developing countries since the early 1980s; and the spectacular failure to tackle climate change.

40. There is an urgent need for a genuinely global process, based on contemporary standards of democracy, transparency and accountability, to establish a global economic system capable of meeting the fundamental challenges of climate change, poverty and health on an equitable and sustainable basis.

IMPLICATIONS FOR DFID

41. It should be emphasised that the approach to development is not intended as a blueprint, and that it requires further consideration and research. Rather, the intention is to demonstrate:

- (a) that it is possible to envisage alternatives the mainstream model of economic development currently promoted by DFID and others;
- (b) that a prima facie case can be made that such alternatives may be more conducive than the mainstream model to the objective of poverty eradication in a carbon-constrained global economy subject to accelerating climatic change;
- (c) that there is therefore a strong case for active investigation of such alternatives; and
- (d) that it is inappropriate for DFID to continue promoting the current economic model in these circumstances.

42. In addition, there is an overwhelming case for DFID to press, within the UK government and in international fora, for an inclusive global process to re-engineer the global economic system to achieve global social and environmental goals in the fundamentally changed context of accelerating climate change and binding constraints on global carbon emissions.

Written evidence submitted by the World Development Movement (WDM)

1. INTRODUCTION

1. The World Development Movement (WDM) campaigns to tackle the root causes of poverty. With our partners around the world, we win positive change for the world’s poorest people. We believe that charity is not enough. We lobby governments and companies to change policies that keep people poor. WDM is a democratic membership organisation of 15,000 individuals and 70 local groups.

2. We welcome the International Development Committee’s (IDC) decision to hold an inquiry into sustainable development in a changing climate. The terms of reference for the inquiry raise many issues of importance. Given the constraints of time and space, we focus our consultation response on the following four points:

- The proposed Phulbari open-cast coal mine project in Bangladesh and the lack of UK government policy coherence.
- The centrality of the creation of a low carbon economy in the UK to enable sustainable development in the global south.
- The unsustainable use of carbon trading both for tackling climate change and promoting development in the global south.
- The need to halt the growth in aviation emissions from the UK, and the impact this would have on sustainable development in the global south.

3. THE PHULBARI OPEN-CAST COAL MINE IN BANGLADESH

4. The terms of reference for the IDC inquiry states it is looking for evidence on: “The effectiveness and coherence of the UK Government’s approach to sustainable development in developing countries.” The following example of the Phulbari open-cast coal mine in Bangladesh shows a lack of coherence in the UK Government’s approach to sustainable development.

5. UK company Global Coal Management Resources (GCM) is seeking to develop an open-cast coal mine in Phulbari, north-west Bangladesh. If built the mine would take away the land of more than 40,000 people.⁶⁴ GCM's resettlement plan says cash compensation would be given to the legal holders of land and houses, and other agricultural land users and sharecroppers would receive livelihood restoration grants for just two years.⁶⁵ It is not clear how resettling affected families on land of equivalent size and quality can be achieved without adversely impacting on other agricultural communities. GCM's resettlement plan states; "the project will not directly acquire replacement cultivation land for displaced households, because this will simply transfer the impacts associated with the loss of land to households in host communities".⁶⁶

6. Bangladesh is already one of the most densely populated countries in the world,⁶⁷ with huge pressures on land. Rising sea-levels and increased flooding from climate change are and will make good quality land even scarcer. Atiq Rahman from the Bangladesh Centre for Advanced Studies, a lead author from the IPCC, has said that 35 million people could be displaced from Bangladesh coastal areas by 2050.⁶⁸ In the face of climate change, it would be disastrous for local people to be displaced from the good quality land in Phulbari.

7. The Phulbari mine will be dewatered to its base. The Expert Committee report on the proposed mine, commissioned by the Bangladesh Government, estimates that the dewatering and relocation means the mine would affect a total of 220,000 people.⁶⁹ The Expert Committee report also raises the likelihood that the mine would lead to acid mine drainage affecting water supplies and agriculture for large surrounding areas, and there are fears that the mine could lead to arsenic and other toxins being released into water supplies.

8. In August 2006, tens of thousands of people protested in the area against the mine and Asia Energy. Three people were killed after Bangladesh government troops opened fire on the protest. The Expert Committee says there is a "high risk of social unrest and conflict" if the relocation of thousands of people is attempted, and: "The majority of the local community with whom the Committee exchanged views was against the Phulbari coal project."⁷⁰ Forty-two community leaders from the Phulbari area have said: "we believe that this project will increase the poverty of the local population as well as cause environmental disaster."⁷¹

9. The Phulbari example is a case where the exploitation of fossil fuels does not assist development, regardless of concerns about climate change. Since the start of 2008, the Asian Development Bank, Barclays and RBS have all withdrawn from investing in the project. However, in a parliamentary answer in April 2008, Gareth Thomas, UK Minister for International Development and Minister for Business stated:

10. "We have provided support to Global Coal Management Resources PLC, through the British high commission in Dhaka. They have lobbied to ensure that the Government of Bangladesh take the company's interests into consideration and do not prohibit opencast mining. The British high commission will continue to remain in touch with the company and will represent their interests as appropriate. The Bangladeshi Caretaker Government's new draft coal policy leaves the way open for opencast mining in Bangladesh in the future."⁷²

11. In a further parliamentary answer Gareth Thomas stated: "BERR officials have held regular discussions with officials from the Department for International Development on this subject, both in the UK and the British high commission in Dhaka."⁷³

12. However, in an email to WDM, Bo Sundstrom, Head of Corporate Business for DfID in Bangladesh said: "DfID has not looked into the proposed Phulbari coal mine issues in detail, since other development partners such as the ADB and the World Bank lead on energy issues in supporting the Government of Bangladesh."⁷⁴ It is worth noting that the Asian Development Bank cancelled its proposed project to fund GCM and the Phulbari mine in April 2008; the World Bank does not appear to have shown interest in funding the project.

⁶⁴ Asia Energy. (2006). Bangladesh: Phulbari Coal Project. Summary Environmental Impact Assessment prepared for the Asian Development Bank. August 2006.

⁶⁵ International NGOs. (2008). Letter to the ADB Board of Directors concerning the Phulbari project. 11/01/08.

⁶⁶ Asia Energy draft resettlement plan (2006). The draft resettlement plan was previously available on GCM's website. In late-2007 it was removed and the website notes that the revised resettlement plan would be disclosed in "early 2008". However, no updated resettlement plan has been made publicly available. The 2006 draft has been made publicly available on the website of the Bank Information Centre <http://www.bicusa.org/en/Project.Resources.59.aspx>

⁶⁷ The average population density is 1,042 people per square km, compared to 246 people per square km in the UK. Around Phulbari, an agricultural area, the population density is still 711 people per square km.

⁶⁸ Rahman, A. (2007). Promoting equity and adaptation for developing countries. 23/11/07.

⁶⁹ Expert Committee. (2006). Summary of the Report of the Expert Committee to Evaluate Feasibility Study Report and Scheme of Development of the Phulbari Coal Project.

⁷⁰ Expert Committee. (2006). Summary of the Report of the Expert Committee to Evaluate Feasibility Study Report and Scheme of Development of the Phulbari Coal Project.

⁷¹ Phulbari Community Leaders. (2007). Letter to Asian Development Bank. 15/12/07.

⁷² Thomas, G. (2008). Parliamentary answer to question from Lynne Jones MP. 28/04/08.

⁷³ Thomas, G. (2008). Parliamentary answer to question from Lynne Jones MP. 15/07/08.

⁷⁴ Sundstrom, B. (2008). Email to WDM. DfID. Dhaka. 29/07/08.

13. Furthermore, in response to a freedom of information request from the World Development Movement, DfID said that it: “does not hold any information about the discussions”⁷⁵ between BERR and DfID officials about the Phulbari mine, whether in the UK or Bangladesh. BERR have also told us that “No formal meetings have taken place between DfID and BERR on this subject.”⁷⁶

14. Since September 2008, WDM supporters have been emailing Gareth Thomas about the mine. Originally the emails were sent to the Minister’s Private Office in BERR. The BERR private office emailed WDM on 2 October saying it was an issue for Gareth Thomas at DfID, not BERR. Having switched the emails to being sent to DfID, Gareth Thomas’s private office at DfID emailed WDM on 22 October saying this was an issue for BERR not DfID.

15. The Phulbari case raises various issues:

- BERR did not adequately consult DfID before lobbying on behalf of a British company for a controversial project.
- Gareth Thomas’s role as Minister for Business and International Development appears confused and incoherent.
- The UK government is more concerned about the profits of British companies than sustainable development in countries such as Bangladesh.

16. The one argument for the Phulbari mine is that it would enhance Bangladesh’s energy resources. However, under current plans 80% of the coal extracted would be exported out of Bangladesh.⁷⁷

17. Beyond the negative impacts on the local population of an open-cast coal mine, there is no in principle reason why Bangladesh should not be able to use coal. Bangladesh currently emits around 0.3 tonnes of CO₂ per person, compared to 10 tonnes per person in the UK. Bangladesh effectively makes no contribution to climate change, although the people of Bangladesh will suffer some of the worst impacts of climate change, the more others such as the UK cause it to get worse.

18. Given the UK’s past and current contributions to climate change, we have a responsibility to drastically reduce our emissions, and pay for compensation to countries like Bangladesh to help them adapt to the impacts of climate change which are already being experienced. But given the necessity of cutting global emissions, we also have a responsibility to help developing countries move towards a low carbon future. Rather than lobbying for a destructive open-cast coal mine, the UK government should be offering support and finance, in addition to aid, to assist Bangladesh in developing low-carbon energy options.

19. Further information on Phulbari is in the attached document: *The impacts of an open-cast coal mine at Phulbari in Bangladesh*.

3. A LOW CARBON ECONOMY IN THE UK

20. As the IDC is aware, climate change threatens to have a disastrous impact on the lives and livelihoods of hundreds of millions of people around the world. And climate change is principally an issue of injustice; it has and is being caused primarily by the richest people and countries in the world.

21. The UK is responsible for more than 6% of CO₂ emissions from 1850–2003, despite having less than 1% of the world’s current population. Rich countries, with less than 20% of the world’s population, currently account for around 50% of CO₂ emissions. In contrast, developing countries, with more than 80% of the world’s population, are responsible for the other 50%. Rich countries currently emit on average 13.2 tonnes of CO₂ per person, compared to 2.5 tonnes per person in developing countries.⁷⁸

22. The UK government and EU have committed to keeping the increase in global temperature on pre-industrial levels to 2°C. The Intergovernmental Panel on Climate Change (IPCC) reported in 2007 that to keep the increase in global temperatures to between 2°C and 2.4°C requires global emissions to peak between now and 2015, at the latest, and then fall by between 50 and 85%, on 2000 levels, by 2050.⁷⁹ For the UK to play its part in reducing global emissions by 50–85% by 2050 requires UK emissions to fall by 80–95% by 2050 (see Table 1 below).

⁷⁵ Simpson, E. (2008). Letter to WDM in response to Freedom of Information request F2008-182. DfID. East Kilbride. 15/08/08.

⁷⁶ Modha, U. (2008). Letter to WDM in response to Freedom of Information request 08/0561. UK Trade and Investment. London. 23/09/08.

⁷⁷ Asia Energy. (2006). Bangladesh: Phulbari Coal Project. Summary Environmental Impact Assessment prepared for the Asian Development Bank. August 2006.

⁷⁸ Calculated from US EIA. (2008).

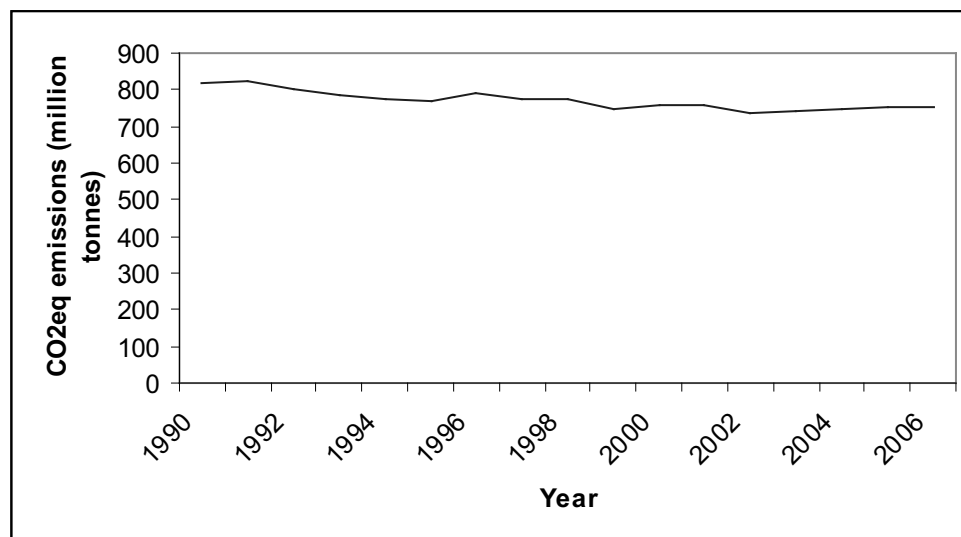
⁷⁹ IPCC. (2007). *Climate Change 2007: Mitigation*. Summary for Policymakers. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. 04/05/07.

Table 1**GLOBAL AND UK REQUIRED EMISSIONS REDUCTIONS BY 2050⁸⁰**

	<i>Global</i>	<i>UK</i>
2000 total emissions	23.8 billion tonnes	555 million tonnes
2000 per person emissions	3.9 tonnes	9.3 tonnes
2050 total emissions	3.6–11.9 billion tonnes	36–108 million tonnes
2050 per person emissions	0.6–1.8 tonnes	0.6–1.8 tonnes

23. For global emissions to peak by 2015 at the latest requires sizeable reductions in emissions in rich countries like the UK to begin straight-away. To reduce emissions by more than 80% by 2050 requires cuts of around 4% every year, beginning in 2009. This means UK emissions need to fall by 40% by 2020, on 1990 levels.

24. The UK is actually reducing emissions very slowly, if at all. In 2006, the UK's total contribution to climate change was 8% lower than in 1990 (see Graph 1 below). A step-change is needed in the UK's approach to tackling climate change. The passing of a climate bill with a target to reduce emissions by 80% by 2050 is a welcome first step. Policies are now needed to ensure that this happens, with large cuts in emissions beginning straight away.

Graph 1**UK CO₂EQUIVALENT EMISSIONS 1990–2006 (INCLUDING INTERNATIONAL AVIATION AND SHIPPING, AND NON-CO₂ IMPACTS OF AVIATION)⁸¹**

25. If we cause global temperatures to increase by significantly more than 2°C, then many of the impacts of climate change will become impossible to adapt to. The UK's Committee on Climate Change has said: "adverse human welfare consequences are likely to increase significantly if global temperature rises more than 2°C relative to pre-industrial temperatures, and that if a 4°C rise were reached, extreme consequences potentially beyond our ability to adapt would arise."⁸²

26. The Intergovernmental panel on climate change report in 2007 said: "Although many early impacts of climate change can be effectively addressed through adaptation, the options for successful adaptation diminish and the associated costs increase with increasing climate change. ... Adaptation alone is not expected to cope with all the projected effects of climate change, and especially not over the long term as most impacts increase in magnitude ... Unmitigated climate change would, in the long term, be likely to exceed the capacity of natural, managed and human systems to adapt."⁸³

⁸⁰ US EIA. (2007). World Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels, 1980–2005. US Energy Information Administration. June 2007.

⁸¹ Defra. (2008). UK greenhouse gas emissions 1990–2006: Headline results. Defra. London. <http://www.defra.gov.uk/news/2008/images/080130a/annex-a.pdf> And Defra. (2008). Estimated emissions of CO₂ by IPCC source category: 1970–2006. <http://www.defra.gov.uk/environment/statistics/globalatmos/download/xls/gatb04.xls>

⁸² Turner, A. (2008). Letter to Ed Miliband: Interim advice by the Committee on climate change. Committee on climate change. 07/10/08.

⁸³ IPCC. (2007). *Climate Change 2007: Climate change impacts, adaptation and vulnerability*. Summary for Policymakers. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. 06/04/07.

27. The creation of a low carbon economy in the UK is vital to protecting the lives and livelihoods for hundreds of millions of people across the world. Urgent and large cuts in UK emissions are needed to contribute to global reductions in emissions.

28. A low carbon economy in the UK is also needed to develop the technologies and ideas which can be used throughout the world to cut emissions. For developing country governments to take action on climate change, they need to see that rich countries, with far higher emissions per person and far more resources, are able to cut emissions whilst still meeting their energy needs.

29. One of the key decisions currently facing the UK government is whether to allow a new generation of coal power stations to be built, starting with Eon's application for an unabated coal power plant at Kingsnorth in Kent.⁸⁴ In 2006 public electricity and heat production accounted for 24% of the UK's contribution to climate change,⁸⁵ with coal used in electricity production accounting for around 17%. Whilst coal and electricity make up a large proportion of the UK's contribution to climate change, the electricity sector is often identified as one of the cheapest in which to cut emissions.

30. The UK's committee on climate change has said that there needs to be: "Decarbonisation of the power sector, starting now and continuing through the 2020s" to meet the UK's emission reduction targets.⁸⁶ This is clearly incompatible with allowing new unabated coal power stations, with a lifetime of more than 30 years, to be built. Allowing new unabated coal power stations to be built would also reduce the need to develop alternative technologies which could be used throughout the world to provide energy in a sustainable way.

31. DfID's third White Paper in 2006 listed one of its five key priorities to: "Make sure that our wider policies, as well as aid, support development; and work with the European Union, G8 and others, including large developing countries such as China, India and South Africa, to create an international environment that promotes development."⁸⁷ One of DfID's roles within government should be to champion policies on behalf of the world's poor. Creating a low carbon economy in the UK, and specifically preventing new unabated coal power stations, should be one such policy. Unfortunately, despite devoting one whole chapter to tackling climate change, the 2006 White Paper made no reference to cutting emissions in the UK, never mind DfID's role within government to ensure that this happens.⁸⁸

32. Similarly, in scrutinising DfID and championing policies on behalf of the world's poor, the IDC has a role in commenting on the need to create a low carbon economy in the UK, and policies to achieve this such as preventing new unabated coal power stations from being built. If we do not quickly move towards creating a low carbon economy in the UK, there is no chance that a cleaner development path will be possible for developing countries.

4. CARBON TRADING AND THE CLEAN DEVELOPMENT MECHANISM

33. The IDC lists one of the topics for this inquiry as: "Opportunities for developing countries presented by sustainable approaches, such as carbon trading, direct fiscal transfers and addressing the needs of increasingly environmentally sensitive consumers." We will focus on the issue of carbon trading.

34. Carbon trading currently works primarily through the EU's Emissions Trading Scheme. A cap is set for the total amount of CO₂ which can be emitted from large industries in Europe, such as power stations and factories. Permits equal to this cap are then distributed to companies. The cap, and thereby the number of permits, are reduced over time. Companies can buy-and-sell the permits between themselves, meaning companies can choose whether to cut their emissions or pay someone else to do so.

35. However, companies can also buy permits from companies operating in developing countries, through the Clean Development Mechanism (CDM), rather than purchasing permits to reduce emissions in Europe. The EU energy and climate package is currently being negotiated which will set the terms under which the ETS will operate from 2013 on. It looks likely that between 33 and 65% of emissions reductions under the ETS will be able to be achieved through buying Clean Development Mechanism credits, rather than reducing emissions in the EU. The UK government has been lobbying for 50% of the EU's targeted emissions reductions by 2020 to be achieved through buying CDM credits rather than cutting emissions within the EU.⁸⁹

36. Carbon trading as it currently operates is carbon offsetting. Buying carbon credits allows the EU and UK not to cut emissions domestically, but to pay for offsetting in developing countries instead. This prevents the creation of a low carbon economy in the EU and UK.

⁸⁴ Eon's application for a new coal power station at Kingsnorth in Kent makes no reference to any of the power station being carbon capture and storage.

⁸⁵ The UK emitted 183.7 million tonnes of CO₂ from electricity generation in 2006: Defra. (2008). Estimated emissions of CO₂ by IPCC source category: 1970–2006.

⁸⁶ Turner, A. (2008). Letter to Ed Miliband: Interim advice by the Committee on climate change. Committee on climate change. 07/10/08.

⁸⁷ DfID. (2006). Eliminating world poverty: Making governance work for the poor. DfID. London. July 2006.

⁸⁸ DfID. (2006). Eliminating world poverty: Making governance work for the poor. DfID. London. July 2006.

⁸⁹ UK Government. (2008). Access to project credits in the EU Climate and Energy package: Non paper. Available at http://www.wwf.org.uk/filelibrary/pdf/leaked_document.pdf

37. The UK government has argued that new coal power stations are consistent with its climate change targets because the electricity sector is in the ETS. New coal power stations will have to pay for carbon offsets. The House of Commons Environment Audit Committee responded to this saying:

38. “the Government is wrong to rely on the EU ETS cap to excuse the increase in emissions that would derive from the new unabated coal-fired power stations ... The EU ETS is a mechanism designed to reduce emissions; using it as a cover for choosing high emissions technology goes against the purpose of the scheme ... The Government should prioritise emission reductions within the UK as soon as possible.”⁹⁰

39. Carbon trading and use of the Clean Development Mechanism is not a sustainable approach to tackling climate change. As was highlighted in section 2, to prevent the worst impacts of climate change rich countries like the UK have to cut their own emissions, and in addition assist developing countries in curbing the growth in, and ultimately reducing emissions. Support to developing countries to cut emissions needs to be additional to action in the UK and EU, not instead of action in the UK and EU.

40. However, there are also further problems with how the Clean Development Mechanism works, which we address below:

4.1 *The Clean Development Mechanism does not necessarily reduce emissions in developing countries*

41. Under the CDM the largest number of carbon credits has been generated by projects claiming to reduce the potent greenhouse gas HFC-23,⁹¹ rather than CO₂. One study has found that the value of credits given to HFC-23 projects at current carbon prices is €4.7 billion. However, an estimate of the cost of technology needed to capture and destroy the same amount of HFC-23 is €100 million.⁹² Around €4.6 billion has been generated in profit by HFC-23 generating plants, which could then further expand their operations with the reinvestment of this profit.⁹³

42. For example, one Indian chemical company, SRF, made €87 million from the sale of carbon credits in 2006–07. Ashish Bharat Ram, managing director of SRF, claimed: “Strong income from carbon trading strengthened us financially, and now we are expanding into areas related to our core strength of chemical and technical textiles business.”⁹⁴

43. The Joint Committee of Parliament on the draft climate change bill reported that: “the economic incentives offered by the CDM [Clean Development Mechanism] appear actually to be encouraging the building of refrigerant plants in the developing world, simply in order that the HFC by-products from the plant can be incinerated, and the credits generated from this sold at a large profit.”⁹⁵

44. There are further questions over whether CDM projects produce actions that would not have happened anyway. For example, because of a perceived over-reliance on coal as an energy source, China has implemented a new policy of promoting hydro, wind and gas power stations. But even though it is Chinese government policy to promote hydro, wind and gas power, virtually all new hydro, wind and hydro power stations in China are applying for CDM credits.⁹⁶ Around 60% of Chinese CDM accredited projects in 2007 were wind, hydro or gas.⁹⁷ David Victor from the Californian University concludes from his research that: “It looks like between one and two thirds of all the total CDM offsets do not represent actual emission cuts.”⁹⁸

4.2 *Where CDM funds go*

45. The funds generated by CDM projects go to companies in those countries which are industrialising quickly and so therefore have large numbers of projects which are eligible. In 2007, projects in China and India were responsible for 75% of CDM projects.⁹⁹ Of course, as a mechanism to try and reduce emissions, CDM funds should be going to projects in countries where emissions are growing. But CDM funds should not be confused with being funds for development.

⁹⁰ EAC. (2008). Carbon capture and storage: Ninth report of session 2007–08. EAC. House of Commons. 22/07/08.

⁹¹ Hydrofluorocarbons (HFCs) are potent greenhouse gases. HFC-23 is a kind of HFC, one tonne of which is equivalent to 11,700 tonnes of CO₂ emissions in terms of their contribution to climate change. Overall, HFC emissions are low, so make up a small percentage of the world’s contribution to climate change.

⁹² Harvey, F Bryant, C and Aglionby, J. (2007). Producers, traders reap credits windfall. *Financial Times*. London. 26/04/07.

⁹³ Smith, K. (2007). *Pollute and profit: So when will Brussels admit that its emissions trading scheme is not only not working, but has proved a disaster?*

⁹⁴ Smith, K. (2007). *Pollute and profit: So when will Brussels admit that its emissions trading scheme is not only not working, but has proved a disaster?*

⁹⁵ Joint Committee of Parliament on the draft climate change bill. (2007). Final report: Volume I. August 2007.

⁹⁶ Wara, M. and Victor, D. (2008). A realistic policy on international carbon offsets. Stanford University Program on Sustainable Energy, Working Paper Number 74. April 2008.

⁹⁷ Calculated from <http://cdm.unfccc.int/Projects/projsearch.html>

⁹⁸ Vidal, J. (2008). Billions wasted on UN climate programme. *The Guardian*. London. 26/05/08.

⁹⁹ Calculated from <http://cdm.unfccc.int/Projects/projsearch.html>

46. Within countries, CDM funds go primarily to large companies. Furthermore, much of CDM funding is profit rather than productive activity. As outlined above, many CDM projects would have gone ahead anyway; the investment already existed. In such cases, funds gained from CDM are pure profit for local elites. In other cases, the cost of investment, such as technology to tackle HFC-23, is far cheaper than the funds gained from CDM. Again, in such cases the finance is mostly profit for local elites.

4.3 *The negative impacts of CDM funding*

47. Carbon credits are produced on the basis of having a positive climate change impact, so it is natural to assume that projects are also socially responsible. Yet carbon credits are sold by private companies which are normally unaccountable to the communities in which they seek to implement their projects. Unfortunately, there are already examples of carbon credit projects exacerbating social harm.

48. A project has been developed in Durban to extract methane from the Bisasar Road landfill site to use for electricity generation. This could reduce emissions of methane, a more potent greenhouse gas than the CO₂ released when methane is burnt. The generating of electricity from the methane gas rather than coal could also reduce emissions. The project has qualified to create carbon credits under the CDM.

49. However, local campaigners have been calling for the landfill site to be shut down as it exposes local people to cancer-causing pollution. Concentrations of cadmium, lead, hydrogen chloride, formaldehyde, benzene and trichloroethylene are all high in the area. Before getting CDM funding, there was a good chance the landfill site would be closed down. However, the project has provided finance to enable the landfill site to keep operating.¹⁰⁰

50. The Indian state of Gujarat is one of the most industrialised states in India. Between 2006 and February 2008, 19 projects in Gujarat qualified to receive carbon credits under the Clean Development Mechanism. Of these, 13 (68%) are to reduce HFC-23 emissions from factories (see above on HFC-23 projects). In total, the 19 projects are claimed to have reduced emissions by 12.5 million tonnes of CO₂eq.¹⁰¹

51. The Gujarati NGO Paryavaran Mitra says that some of the industries funded by CDM produce toxic or hazardous local pollution. The reinvested profit from CDM allows these industries to expand their operations, producing more local pollution, without any regulation of the impacts. Mahesh Pandya from Paryavaran Mitra says: "It is unjust that the rich are allowed to emit whilst paying for more pollution for the poor."¹⁰²

4.4 *Alternatives*

52. The current way carbon trading works does not match the level of action needed to cut emissions. An alternative would be for rich countries to take on much larger targets for cutting emissions, with a certain proportion of these targets having to be met through domestic cuts in emissions. For instance, under the Greenhouse Development Rights framework for allocating responsibility for cutting emissions, the EU is responsible for cutting emissions by 80% by 2020 and 140% by 2030.¹⁰³ Clearly this is impossible just domestically, but could be achieved by the EU adopting such targets and then meeting some of the target by buying carbon credits from developing countries. However, this would not address the other problems with the CDM.

53. The United Nations Framework Convention on Climate Change (UNFCCC) says: "The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology."¹⁰⁴ In other words, developing countries will implement actions to cut emissions if they receive funds and technology from rich countries to do so. These views have been reiterated in recent submissions by the G77 and China to the UNFCCC ahead of the international negotiations meeting in Poznan in December 2008.¹⁰⁵

54. Creating a fund to finance mitigation in developing countries could shift support for cutting emissions from project funding under the CDM, to funding for country-led programmes. One of the sources of revenue for such a fund could be the revenue from rich country policies such as the auctioning of permits under a true cap-and-trade scheme, or carbon taxes. In return, developing countries could take on emission curbing/reducing targets, and implement coherent policies for sustainable development.

55. For a successful outcome to the international negotiations, it seems apparent that rich countries like the UK need to move beyond offsetting to recognising the need for additional funds over and above domestic cuts in emissions.

¹⁰⁰ Lohmann, L. (2006). *Carbon trading: A critical conversation on climate change, privatisation and power*. Development Dialogue No. 38. Dag Hammarskjöld Centre. September 2006.

¹⁰¹ Calculated from UNFCCC. (2008). <https://cdm.unfccc.int> Viewed on 29/02/08.

¹⁰² Jones, T. (2007). Climate march blog. 17/07/07. <http://climatechangemarch.blogspot.com/2007/07/corrupt-emissions.html>

¹⁰³ Kartha, A., Athanasiou, T., Baer, P. and Kemp-Benedict, E. (2008). A call for leadership. A Greenhouse Development Rights analysis of the EU's proposed 2020 targets. EcoEquity. SEI.

¹⁰⁴ UNFCCC. (1992). United Nations Framework Convention on Climate Change. United Nations.

¹⁰⁵ Stilwell, M. (2008). G77-China Propose "Enhanced Financial Mechanism" For UNFCCC. 29/08/08.

56. The G77 and China have also stated that funds from mitigation and adaptation in developing countries should not go through the World Bank, as this is an institution dominated by rich countries. Instead the funds should be operated within the UNFCCC.¹⁰⁶

5. AVIATION AND THE IMPLICATIONS FOR SUSTAINABLE DEVELOPMENT IN THE GLOBAL SOUTH

57. UK aviation, including its non-CO₂ impacts, currently accounts for 13% of the UK's contribution to climate change.¹⁰⁷ The Department for Transport predicts that under current policies CO₂eq emissions from UK aviation will rise from 94.8 million tonnes in 2006 to 99 million tonnes in 2010, 146.5 million tonnes in 2020 and 159.5 million tonnes in 2050.¹⁰⁸ These estimates are conservative when compared with more independent estimates for the growth in aviation emissions (see Table 2 below).

Table 2

DIFFERENT PREDICTIONS FOR EMISSIONS FROM UK AVIATION (MILLION TONNES OF CO₂EQ)

<i>Year</i>	<i>Tyndall Centre</i>	<i>Owen and Lee¹⁰⁹</i>	<i>Department for Transport</i>
2010	111	79.8	99
2020	158.5	122	136.5
2030	195.3	168.8–204.5	162.3
2050	296	269.5–407	159.5

58. As set out above, for the UK to reduce emissions as needed to prevent disastrous impacts from climate change requires reduction in emissions of 40% by 2020, 60% by 2030 and more than 80% by 2050 (see Table 3 below).

Table 3

MAXIMUM UK EMISSIONS ALLOWED TO PREVENT GLOBAL TEMPERATURE INCREASING BY MORE THAN 2°C

<i>Year</i>	<i>Emissions reduction needed on 1990 levels</i>	<i>UK CO₂eq emissions</i>	<i>Department for Transport prediction for aviation emissions</i>
1990	0	818.8	42.4
2020	40%	491.3	136.5
2030	60%	327.5	162.3
2050	80%	163.8	159.5

59. Using the Department for Transport's somewhat conservative estimates for aviation emissions growth—and assuming the UK reduces emissions as needed to tackle climate change—by 2020 aviation will be responsible for 23% of UK emissions, 50% by 2030 and 100% by 2050 (see Table 3 above and Graph 2 below). The UK cannot make its fair share of cuts in emissions whilst allowing aviation emissions to grow as predicted by the Department for Transport.

¹⁰⁶ Khor, M. (2008). World Bank climate funds under fire from G77 and China. TWN. Bangkok. 03/04/08. And Stilwell, M. (2008). G77-China Propose "Enhanced Financial Mechanism" For UNFCCC. 29/08/08.

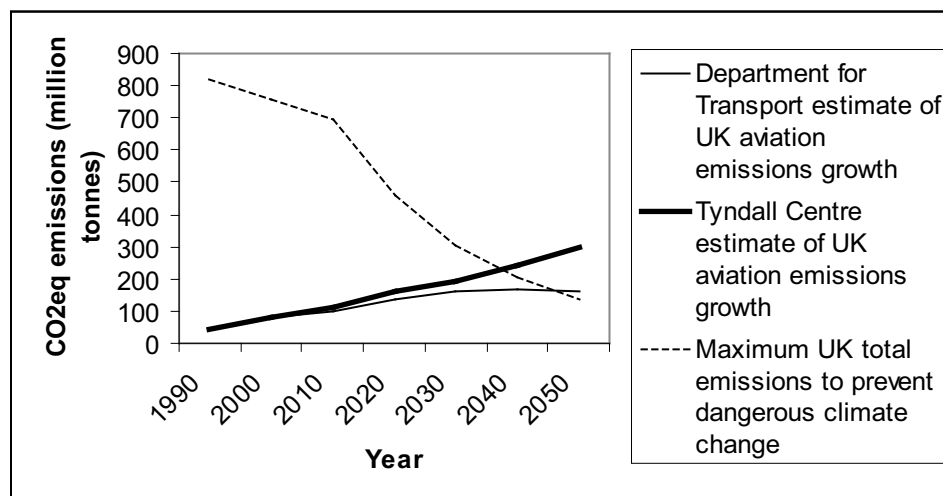
¹⁰⁷ See Merron, G. (2007). Answer to parliamentary question from Peter Ainsworth MP. 26/04/07. And Jones, T. (2008). Mind the gap: Why the UK government's climate change bill will not reduce UK greenhouse gas emissions. World Development Movement. London. March 2008.

¹⁰⁸ Cairns, S. and Newson, C. (2006). *Predict and decide: Aviation, climate change and UK policy*. Environmental Change Institute. University of Oxford.

¹⁰⁹ Is for scheduled traffic only.

Graph 2

THE INCOMPATIBILITY OF AVIATION GROWTH AND UK REDUCING EMISSIONS AS NEEDED TO PREVENT DANGEROUS CLIMATE CHANGE



60. To reduce emissions by 40% by 2020 is a challenge which will need action across every sector of the UK economy. It is unrealistic to expect other sectors to reduce by even more to allow aviation to expand. Even halting the growth in aviation emissions requires other sectors to reduce by more to compensate for aviation not making any cuts in emissions.

61. To reduce UK emissions by 80% by 2050 whilst allowing aviation to expand, every other sector would have to reduce emissions by 100% by 2050; ie. not use any fossil fuels. It is clearly unviable for aviation to be the only sector that can use any fossil fuels. The UK cannot tackle climate change and allow and enable aviation to expand; for instance through allowing more flights and runways at Heathrow and Stansted airports.

62. Aviation is a particular issue for the UK. The UK is the third largest producer of aviation emissions in the world, after the US and Japan; both of which have much larger population's and economies than the UK. Aviation makes up a greater share of the UK's contribution to climate change than of any other major economy (see Table 4).

Table 4

AVIATION EMISSIONS BY COUNTRY^{110,111}

Country	Aviation CO ₂ emissions in 2004 (million tonnes)	Aviation's share of country's CO ₂ emissions (per cent)	Aviation's share of country's contribution to climate change (per cent)
UK	35.5	6.1	12
France	24.1	5.9	11
Netherlands	12.5	4.7	9
US	261.8	4.4	8
Spain	15.5	4.3	8
Australia	15.1	3.9	7
Canada	20.7	3.5	7
Japan	36.3	2.9	5
Germany	24.5	2.8	5
Italy	12.1	2.5	5

¹¹⁰ Figures are only available for UNFCCC Annex-1 countries. China and India are also in the 10 largest economies in the world, but it is fair to say that China and India's aviation emissions as a share of their contribution to climate change are well below that of most rich countries.

¹¹¹ Calculated by WDM based on UNFCCC. (2005). *Compilation of data on emissions from international aviation*. Paper prepared for the 22nd session of the subsidiary body for scientific and technological advice of the UNFCCC. Bonn. 19–27 May 2005.

5.1 Aviation and tourism

63. The World Development Movement commissioned the New Economics Foundation to research what the impacts on tourism to developing countries would be of halting the growth in emissions from UK aviation. The results of this research are in the attached report; *Plane Truths*.

64. In summary the report finds:¹¹²

65. 1) The vast majority of aviation tourists from the UK go to Europe, and then to richer parts of the world such as North America and Japan. Only around 10% go to developing countries. Initially halting the growth in aviation can be done through tackling short haul flights, which needs the carrot of better rail services and the stick of higher taxes on short-haul aviation and an end to airport expansion. This would not impact developing countries.

66. 2) However, if the growth in UK tourism to developing countries is halted, this would have a small impact on the growth in the economies of countries which receive a proportionally large number of UK tourists. By 2020, the economies of Kenya, Thailand and the Dominican Republic would have had 0.1–0.4% less GDP growth than would happen if UK aviation grows as currently planned. There are some small countries who would suffer more (the Maldives is a loss of 3% growth by 2020) so measures will be needed to compensate such countries when the growth in long-haul flights are tackled.

67. 3) Of tourism that does go to developing countries, a large proportion of the revenue does not help the local economy but comes back to northern countries. Therefore, to increase the benefits of tourism, the most useful thing is to stop such leakages happening, rather than increasing the numbers of tourists which do not create much benefit to the local economy. The UK and EU are currently pushing measures in free trade agreements which prevent countries implementing such policies.¹¹³

68. 4) It is very dangerous for a country to become too dependent on tourism. Tourism is very variable and influenced by external shocks such as changes in the economic situation, tourists tastes, conflict, terrorism, public health scares, geological disasters and extreme weather events (which climate change will make worse) and fuel prices. Furthermore, the threat of peak oil means that fuel prices may continue to fluctuate widely and increase in the future. This will mean cuts in the numbers of tourists. Countries will be more vulnerable to future declines in tourists the more their dependence on tourism increases now. Expansion of tourism now is not a route to sustainable development.

69. Many of these arguments are potentially relevant to debates about air-freight as well. However, for most countries tourism is likely to be a far bigger issue than air freight. Air freighted goods from developing countries to rich countries such as the UK is primarily dependent on passenger flights. For instance, the vast majority of fresh fruit and vegetable products which are flown from sub-Saharan Africa to the UK are in the bellyhold of passenger planes, rather than dedicated freight services. For the UK as a whole, over 90% of aviation emissions are from passenger aircraft rather than air freight.¹¹⁴ Only 1.5% of UK imports of fresh fruit and vegetables from sub-Saharan Africa arrive by air.¹¹⁵

70. If the focus of tackling emissions from aviation is put on consumer choices, rather than government action, then there is a danger that particular groups could be hit by sudden falls in income, although overall consumer action will have a limited impact on emissions from aviation. This makes it imperative that the UK government leads a smooth transition on aviation policies, as opposed to promoting knee-jerk reactions from UK consumers. Arguments around the benefits of aviation for tourism and air freight trade with developing countries do not provide any reason to allow UK aviation to expand, such as through more flights and new runways at Stansted and Heathrow airports.

71. Globally, tackling aviation emissions offers possibilities for raising significant revenues needed for limiting the impacts of climate change. As has already been mentioned, significant funds are needed for developing countries to curb the growth in, and ultimately reduce, emissions. And the IDC will be aware of the significant funds needed by developing countries to adapt to the climate changes which are now inevitable.

72. Aviation is a heavily subsidised sector as it pays no tax on fuel and no VAT. An international tax on fuel would raise revenue whilst helping to mitigate emissions from aviation. Globally, rich countries are responsible for over 70% of flights, whilst holding around 20% of the world's population (see Table 5 below). If all funding from an international tax on fuel went to developing countries, this would more than offset any cost born by developing countries for such a tax.

¹¹² Johnson, V. and Cottingham, M. (2008). *Plane truths: Do the economic arguments for aviation growth really fly?* New Economics Foundation and World Development Movement. London. September 2008.

¹¹³ See Jones, T. (2008). *Raw deal: The EU's unfair trade agreements with Mexico and South Africa*. World Development Movement. London. April 2008.

¹¹⁴ MacGregor, J. and Vorley, B. (2006). *Fair Miles? The concept of "food miles" through a sustainable development lens*. Sustainable Development Opinion. International Institute for Environment and Development.

¹¹⁵ MacGregor, J. and Vorley, B. (2006). *Fair Miles? The concept of "food miles" through a sustainable development lens*. Sustainable Development Opinion. International Institute for Environment and Development.

Table 5

DISPARITY BETWEEN REGIONAL ACCESS TO AVIATION AND POPULATION

	<i>Percentage of world aviation¹¹⁶</i>	<i>Percentage of world population¹¹⁷</i>
Africa	2.0	13.2
Asia-Pacific	22.4	55.3
Europe	30.9	14.3
Latin America	3.6	8.6
Middle East	2.7	3.5
North America	38.4	5.1

73. Three broad areas for distributing funds from an international tax on aviation fuel could be:
- A fund to assist countries particularly dependent on tourism to diversify into other activities.
 - Funds for climate change mitigation in developing countries.
 - Funds for climate change adaptation in developing countries.

Written evidence submitted by the World Wildlife Fund (WWF)

SUMMARY

1. WWF welcomes the opportunity to submit evidence to the IDC select committee enquiry on Sustainable Development in a Changing Climate. WWF has extensive experience on climate change, management of natural resources and making the environment work for the poor. WWF works worldwide, and has offices in more than 50 countries. We work in partnership with local communities, civil society organisations, governments, multinational agencies and the private sector on the issues of fresh water, biodiversity, climate change, forests, marine, trade and energy. WWF was the first environmental organisation to hold a Partnership Programme Agreement (PPA) with DFID and has wide-ranging engagement on sustainable development, especially on climate change adaptation, low carbon development, fresh water, poverty and the natural environment. We actively engage with DFID policy through direct contact and consultations as well as with other NGOs through the Development and Environment Group (DEG), a working group of British Overseas NGOs for Development (BOND).

2. Climate change and ecosystem degradation, largely caused by unsustainable development patterns in the developed world, threaten to make the UN Millennium Development Goals (MDGs) for poverty reduction unachievable. These twin crises combined with continued economic and financial turmoil, are forcing a radical rethink of the “business as usual” development model that demands high growth and results in high environmental degradation. We need a complete overhaul of the current development model to move to a path of real sustainable development in the 21st century.

3. WWF believes the time is right for a fundamental change in assessing growth and development, putting sustainability at the heart of both policy and practice. While we recognise that growth is critical to achieve poverty reduction, achieving such growth within ecological limits will be critical. There are rapidly emerging opportunities in the global political system to enable development within this context and the UK government and DFID in particular, can take the lead in responding positively to this change.

4. WWF welcomes the fact that DFID has sought to take a leadership role on climate change and development. However, there are a range of crucial outstanding issues where DFID can and should do more, and, as a leader on the issue, has the responsibility to get it right. The implications of our assessment for DFID are threefold:

5. First, DFID needs urgently to rethink the current economic growth model, and turn it into a One Planet Economy model for sustainable development. Environmental sustainability should not only address carbon emissions, but also ecosystem services more widely, and be placed at the centre of all policy work on economic growth. New policy initiatives, such as the new International Growth Centre, should promote social and environmental sustainability, and include environmental accounting in its policy research and planning for economic growth and wellbeing.

6. Second, DFID needs to place the systemic links between climate change, the environment and development at the forefront of coherent UK policy making. Furthermore, our experience in the field shows us that when programmes are centred on poverty reduction within this context, this results in a positive

¹¹⁶ Calculated by WDM from Air Transport Action Group. (2005). The economic and social benefits of air transport. Air Transport Action Group, Geneva. September 2005.

¹¹⁷ UNDP. (2006). Human Development Report 2006. United Nations Development Programme, New York.

outcome for both the local and global environment. One example can be found in the financing for reduced forest carbon emissions. Here, DFID should actively advocate a range of financing options that allows local communities, poor people and the environment to benefit. DFID should actively promote and use appropriate evaluation tools to measure their impact. New tools, such as water footprinting, can enable an assessment of complex interlinkages between the places where products are produced and where they are consumed. DFID has the scope to do more on water resource management to mitigate the negative impacts of western consumption.

7. Finally, DFID needs to improve the ways in which it addresses climate change and climate change policy in its development approach. The long-awaited climate change strategy should be opened for consultation, and should include a clearly stated goal for maximum global temperature increase of 2°C above pre-industrial levels. There needs to be better integration of DFID's mitigation and adaptation policy work, actively seeking greater input from those people who will be most affected. DFID should also do much more to reinvigorate trust in the UNFCCC negotiations. In particular, this means taking the position that financing for climate change adaptation should be considered as "compensation", and cannot be counted towards commitments to give 0.7% of GNP as aid. To radically improve the climate sensitivity of development finance, DFID should promote the use of a shadow price for carbon in all its investments through multilateral partners, to shift the balance in favour of renewable technologies. DFID should also champion the environment in new methodologies developed under the Paris Agenda aid effectiveness umbrella.

1. BACKGROUND: UNSUSTAINABLE ECONOMIC MODELS HAVE REDUCED ECOLOGICAL SPACE FOR POOR COUNTRIES

1.1 Climate change and ecosystem degradation, largely caused by unsustainable development patterns in the developed world, threaten to make the UN Millennium Development Goals (MDGs) for poverty reduction unachievable. These twin crises, combined with continued economic and financial turmoil, are forcing a radical rethink of the "business as usual" high growth and high environmental degradation development model. We need a complete overhaul of the current development model, to move to a path of real sustainable development in the 21st century.

1.2 Discussion of climate change and development cannot start without repeating what is well known, but still too rarely recognised: that the poorest, while least responsible for the causes of climate change, are suffering, and will increasingly suffer the worst impacts of global warming¹¹⁸. Climate change will manifest itself largely through radical changes in the environment (see box¹¹⁹), on which the poor and vulnerable more than anyone else directly depend. More than 1.3 billion people depend on fisheries, forests and agriculture for employment—close to half of all jobs worldwide—and this is nowhere more the case than among the rural poor¹²⁰. But these natural resources are already changing because of climate change. Poor people are thus the first to feel the impacts of unsustainable lifestyles of developed countries, while they have done least to cause the problem, and are least equipped to deal with them.

In Africa, increased water stress is predicted to affect between 75 and 250 million people, and availability of agricultural land is expected to decrease, with some countries having agricultural yields reduced by as much as 50% by 2020.

In Asia, availability of fresh water, particularly in large river basins, is projected to decrease, with adverse impacts on more than a billion people by 2050.

In Latin America, temperature increases are projected to lead to gradual replacement of tropical forest by savannah in eastern Amazonia, and in drier areas salinisation and desertification of agricultural land may have adverse consequences for food security. Under these scenarios, poverty will dramatically increase in most places (*IPCC, WG2, 4th Report, 2007*).

1.3 Climate scientists agree that the increase in global average temperature above pre-industrial levels needs to stay well below two degrees to avoid the worst impacts of climate change. Atmospheric greenhouse gas concentrations must therefore be limited to at most 450 parts per million CO₂ equivalent and subsequently return to 350 parts per million to head off the most dangerous risks posed by climate change. This means that global greenhouse gas emissions (which are currently rising at around 3% per year) need to peak well before 2020 and be reduced by 80% by 2050 compared to 1990 levels to have any chance of achieving this goal. The challenge before us is enormous, but if we fail, any development and poverty reduction gains will be reversed by the scale of the climatic impacts. The world has an extremely limited global greenhouse gas budget to spend, and the developed countries have already taken up a disproportionate share both through historic emissions in the last century and through continuing high per

¹¹⁸ Raupach, M., G. Marland, P. Ciais, C. le Que, J. Canadell, G. Klepper and C. Field (2007) "Global and regional drivers of accelerating CO₂ emissions". Proceedings of the National Academy of Sciences 104(24): 10288–10293.

¹¹⁹ All figures from: IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 7–22. <http://www.ipcc.ch/ipccreports/ar4-wg2.htm>

¹²⁰ World Resources 2005: The Wealth of the Poor: Managing Ecosystems to Fight Poverty, World Resources Institute, 2005. <http://www.wri.org/publication/world-resources-2005-wealth-poor-managing-ecosystems-fight-poverty>

capita emissions in the current century. This means that the potential “carbon space”—the share of a restricted global carbon budget—for developing countries to grow into has shrunk substantially, and continues to shrink with every year of failed emission reductions in developed countries (see Annex 1).

1.4 Current economic growth models still require substantial increased carbon emissions to achieve satisfactory human development¹²¹, but the limited carbon space that industrialised countries have left for developing nations is too small. Decoupling carbon emissions from economic growth is essential, and a rapid global deployment of clean energy technologies (including on the demand side) can and must play a very large role. However, there are important questions over whether a purely technological approach can succeed, and particularly whether the poor stand to gain from this. If developing countries become “locked in” to a carbon intensive development model now, the future costs of change may be much higher.

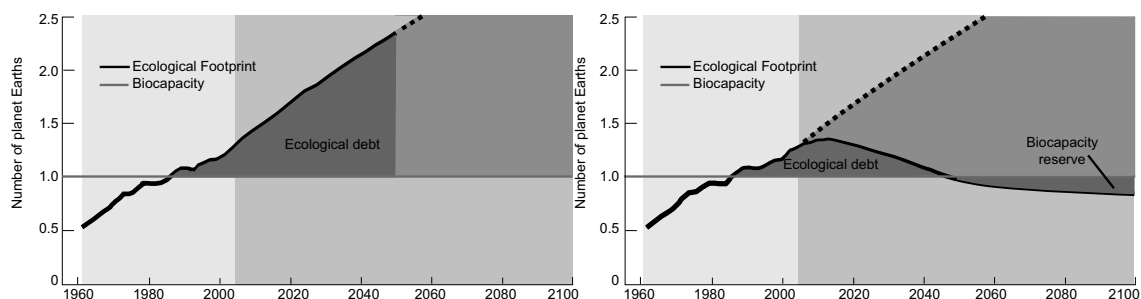
1.5 The limit on carbon emissions is only one of the environmental constraints which we face globally. Pressure is increasing on other ecosystem services essential for human survival. Changes in global population and income levels have led to an increase in demand for water-intensive products such as meat, sugar and cotton. Today, 41% of the world’s population lives in river basins that are experiencing water stress¹²², with climate change exacerbating this situation. The 2005 Millennium Ecosystem Assessment¹²³ found that 14 out of 24 global natural systems are being degraded or used unsustainably; these include fisheries, air purification and control of pest species. As a result, MDG7—the Millennium Development Goal for environmental sustainability—was the only MDG well off track in 2007, at the midway point to the agreed target date of 2015¹²⁴. All ecosystems, particularly forests, freshwater sources and fish stocks, are vulnerable to climate change. As the poor depend most on natural resources, and are most vulnerable to extreme weather events, the lack of progress on MDG7 puts all other development goals at risk, particularly beyond 2015.

“Global warming may dominate headlines today. Ecosystem degradation will do so tomorrow.”

Corporate Ecosystems Services Review, WRI et al. March 2008

1.6 As with carbon, developed countries continue to appropriate more than their fair share of the planet’s ecological budget. WWF’s Living Planet Report 2008 demonstrated that, globally, we are increasingly living in ecological debt, with demand exceeding supply by one third in 2005. However, almost three quarters of humanity’s total footprint is accounted for by the most developed countries; if everyone lived as we do in the UK, we would need nearly three planets to sustain us.

1.7 Current distribution of ecological footprint is profoundly unfair. While the ecological footprint of high-income countries increased by 76% between 1961 and 2005, the African continent has seen a reduction of its ecological footprint by 19% over the same period. This reduction is due primarily to a larger number of people sharing the same resource base, as well as a decrease in capacity of the ecological systems themselves. A rapid transition to a sustainable and fair global footprint would reduce the risk of ecosystem degradation and provide a basis for maintaining and improving human well-being (see figures¹²⁵).



1.8 To achieve the right of all people to reach an acceptable level of sustainable development, an entire rethink of the development paradigm is needed, based on a more equitably shared carbon space, placing equity and environmental sustainability at its heart. This requires a massive reduction of not only carbon emissions, but also the ecological footprint of developed countries, and at the same time a rapid transition to sustainable development models in developing countries to lift poor people out of poverty at much faster rates than is currently the case.

1.9 The implications of our assessment for DFID are threefold:

¹²¹ Growth and CO₂ emissions. How do different countries fare? Robert W. Bacan and Soma Bhattacharya, 2007 (World Bank). http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/12/05/000020953_20071205142250/Rendered/PDF/417600EDP01130Growth0and0CO201PUBLIC1.pdf

¹²² WWF International—http://www.wwfint.org/about_wwf/what_we_do/freshwater/about_freshwater/people_freshwater/index.cfm

¹²³ <http://www.millenniumassessment.org/en/index.aspx>

¹²⁴ “7 July 2007—Half way to the Millennium Development Goals. An assessment of the progress made on MDGs and the environment”, WWF, 2007. http://www.panda.org/news_facts/publications/index.cfm?uNewsID=108600

¹²⁵ Taken from Living Planet Report 2008, WWF International, http://assets.panda.org/downloads/living_planet_report_2008.pdf.

- first, DFID needs to urgently rethink the current economic growth model, and turn it into a One Planet Economy model for sustainable development;
- second, DFID needs to place the systemic links between climate change, the environment and development at the forefront of coherent UK policy making; and
- third, DFID needs to improve the ways in which it addresses climate change and climate change policy in its development approach. These implications are discussed in each of the following sections.

There is one final factor which will obviously be a major influence on Africa's future economic growth. It is the environment.

Commission for Africa, 2005

2. A ONE PLANET ECONOMY MODEL FOR DFID: RETHINKING GROWTH

2.1 Development is taking place in a new and rapidly changing context which now requires a holistic and “joined up” approach, with the links between development, climate change and the wider environment better integrated. The global context for development in the coming decades is likely to be characterised by one or several of the following features:

- Economic effects arising from the necessity of addressing climate change such as higher energy prices and sharply increasing cost of food, from growing resource scarcity and the mounting impacts of climate change, and also from the need to invest in low-carbon solutions.
- An increase in “carbon reduction” investments or programmes with strong adaptation links.
- Increased transportation costs as a result of higher energy prices, particularly affecting tourism and air-freighted produce.
- Potential slower consumption growth in developed countries, to meet carbon emission reduction targets and in response to higher energy prices, reducing demand for developed country exports.
- Accelerated climate change, potentially becoming irreversible, caused by natural feedback mechanisms, giving rise to increasingly frequent and severe extreme weather events.
- Pressure on aid budgets, as donor countries face increased domestic costs for adaptation and emergency response to local climate change and disruption.

2.2 As the global economy currently operates, the implications for development would be severe. Declining demand for exports would reduce both price and volume, thereby reducing revenues, while import costs for fuels and basic foods—which account for a large proportion of total imports in many developing countries—would rise sharply. If coupled with declining aid receipts, this would be a severe economic setback in developing countries. The additional impact of increased extreme weather events would be potentially disastrous.

2.3 These effects could be limited and minimised by appropriate global and national responses to climate change, particularly by developed countries. The 2008 food crisis is a clear demonstration of the consequences of failing to do so. However, if emission reduction targets are to be achieved globally, it is unlikely that the current approach to development remains viable. When coupled with increasing doubts about how effectively current economic growth achieves poverty reduction (in terms of the proportion of the proceeds of global economic growth accruing to the poor), and environmental sustainability (poverty reduction per tonne of carbon emitted)¹²⁶, this presents an overwhelming case for consideration of alternative economic models.

2.4 We need to move towards a One Planet Economy where ecological and carbon space is shared more equitably, and where success is measured not only in economic, but also in environmental and social terms. One important way to start shifting the existing model is to improve the indicators with which development is measured and on which basis policy is decided.

2.5 Current development models almost exclusively use economic indicators, particularly GDP growth, as a measure of development. Globally, this particular focus has allowed economic growth to continue without consideration of ecological limits. At the same time, economic growth has not effectively supported poverty reduction targets, and there has been a decrease in sustainability, and an increase in the gap between the poorest and richest nations¹²⁷. While economic growth is a necessary component for developing countries, alone it is not sufficient to underpin poverty reduction, sustainability and more harmonious societies.

2.6 There is increasing realisation that GDP has limited value in explaining the real income and well-being of families in any one country. In response to this, President Sarkozy has set up a Commission on the Measurement of Economic Performance and Social Progress¹²⁸, and the European Commission announced

¹²⁶ Growth isn't working: the unbalanced distribution of benefits and costs from economic growth. New Economics Foundation. <http://www.neweconomics.org/gen/uploads/hrfu5w55mzd3f55m2vqwty502022006112929.pdf>

¹²⁷ Ibid.

¹²⁸ For more info on the Commission on the Measurement of Economic Performance and Social Progress: <http://www.stiglitz-sen-fitoussi.fr/en/index.htm>

in late 2007 that it will develop an indicator to measure environmental progress and will use integrated accounting and other sub-indicators to improve policy-making. A preliminary version is due to be operational by 2009¹²⁹.

“... if climate change resulted in a drought that halved the income of the poorest 28 million Ethiopians, this would barely register on the global balance sheet: world GDP would fall by less than 0.003%.”

The Economics of Ecosystems and Biodiversity, 2008

2.7 Without broader social and environmental sustainability criteria, measuring economic growth alone gives a distorted view of the overall wealth and assets of a country, for example by only including the gains from intensive agriculture, but not the costs of damage to the water catchment¹³⁰. By excluding natural or social assets, positive economic growth figures can conceal growing inequality and the depletion of the natural resources on which growth was based in the first place. An example is Pakistan, which reported GDP growth of 6.9% in 2006. However, the World Bank Pakistan Strategic Environmental Assessment (SEA)¹³¹ found that the degradation of the resource base (on which growth is based) and burden of disease due to environmental problems is costing Pakistan at least 6% of GDP (US\$6 billion) annually, reducing the growth gains almost to zero.

“We are trying to navigate uncharted and turbulent waters today with an old and defective economic compass. And this is not just a national accounting problem—it is a problem of metrics [...], and affects our ability to forge a sustainable economy in harmony with nature.”

Pavan Sukhdev

The Economics of Ecosystems and Biodiversity, Interim Report 2008.

2.8 Former UK Secretary of State for International Development, Hilary Benn, said: “it’s a myth that developing countries can go for growth and worry about environmental sustainability later on.”¹³² Both the DFID White Paper and the Stern Report on the economic cost of climate change have encouraged new thinking within DFID about the nature and quality of growth. At the same time, there was a growing realisation that there have been fundamental problems with the one-size-fits-all “Washington Consensus” of the 1980s and 1990s. DFID responded in 2007 with a new policy report on growth: *Building jobs and prosperity in developing countries*¹³³. However, there has yet to be a new consensus on the relationships between economic growth and the environment either within DFID or the UK government more broadly.

2.9 First, there is no clear indication, in terms of policy proposals, documents or practice within DFID, that there is a shift towards linking economic growth and environment sustainability. The 2007 DFID policy report on growth, while recognising the failures of the single focus economics, refers to environmental sustainability just twice, and only in the narrow sense of the need to promote low-carbon energy. There has been no substantial discussion about how broader environmental sustainability will be achieved, and DFID has failed to link the two issues. DFID’s departmental report of 2008 celebrates sub-Saharan Africa’s growth rate of 6.8% in 2007, but fails to recognise that part of this growth is not sustainable, as it is based on poorly-managed natural resources, such as forests and fisheries. In the meantime, the cross-team policy group on low-carbon and economic growth, which was set up a year ago, has yet to produce any externally available advice or positions.

2.10 Second, the new International Growth Centre, which was announced in DFID’s growth policy paper¹³⁴, will undertake developing country growth diagnostics and support developing countries’ economic development. It provides a major opportunity for alternative thinking about development. The Growth Centre will support developing country growth diagnostics and prioritise actions that stimulate growth. However, this opportunity looks likely to be missed, as the Terms of Reference for the Centre state that 70% of the research will be on country-focused analysis, with the remaining 30% focusing on “emerging global or regional challenges related to fundamental components of growth such as agriculture, inclusion, infrastructure and low-carbon future”. It is surprising that an International Growth Centre, fit for the 21st century, does not have a more comprehensive remit, with sustainability central to all its work.

2.11 Third, DFID’s view of low-carbon growth remains focused on carbon alone, not on other equally pressing environmental limits faced by many countries. In the most recent Country Plan for Pakistan 2008–13, for example, DFID pledges that it “will make sure that growth benefits poor people and takes account of international commitments to address climate change”. But the Country Plan does not include a strategy for dealing with the relationship between growth and the urgent water crisis identified by the

¹²⁹ Beyond GDP conference, 19 November 2007. Press Release European Union: Measuring progress, wealth and the well-being of nations.

¹³⁰ A recent World Bank report—“Where is the Wealth of Nations?” (2006)—recognises that capital wealth is more than productivity alone, and includes produced, human, institutional and natural capital. The report estimates that natural capital constitutes more than a quarter of total wealth in low-income countries, compared to only 5% globally.

¹³¹ Pakistan Strategic Environmental Assessment: <http://go.worldbank.org/J1CF2JVWK0>

¹³² Hilary Benn, Secretary of State for International Development, First White Paper speech, New Economics Foundation 19 January 2006. <http://www.dfid.gov.uk/News/files/Speeches/wp2006-speeches/growth190106.asp>

¹³³ Growth: Building jobs and prosperity in developing countries, March 2008. <http://www.dfid.gov.uk/pubs/files/growth-policy-paper.pdf>

¹³⁴ The Centre was also announced by SoS Douglas Alexander, March 2008—<http://www.dfid.gov.uk/news/files/growth-centre-37m.asp>

World Bank/Pakistan SEA of 2006¹³⁵. DFID now acknowledges that carbon has a value, but fails to recognise that capital assets such as fish stocks, forests and water basins also have a critical value which is currently not being captured. Furthermore, DFID fails to understand how the resilience of ecosystems is a determinant in efforts to adapt to climate change. Natural capital assets need to be included in economic assessments to avoid making policy decisions based on short-term gains.

3. SYSTEMIC LINKS BETWEEN CLIMATE CHANGE, ENVIRONMENT AND DEVELOPMENT POLICY

3.1 In a changing climate, a more complex view of sustainability is required that considers the implications of environmental changes on development as well as vice versa, at national, international and global levels. Actions to tackle climate change have enormous potential to underpin development and poverty reduction goals, but inappropriate or poorly coordinated actions could set them many years back. Recent events, such as the food crisis, partly caused by a relatively small shift to the production of biofuels¹³⁶, have illustrated how climate change policies (in the North and the South) may be unsustainable because of their wider effects.

3.2 On the other hand, development actions that are not integrated with climate change actions cannot be considered sustainable. Coherent efforts to support the goal of poverty reduction in environmentally sustainable ways should be the cornerstone of any policy, whether it is in global climate negotiations (eg reducing forest emissions), in our consumption patterns (eg water footprint), or in our trading patterns.

Financing reduced forest carbon emissions

3.3 A clear example of links between climate change and development policy is the issue of reducing carbon emissions from forests. Climate policy in this domain is moving forward, with proposals to compensate developing countries for reducing emissions from deforestation and forest degradation (REDD) in the post-2012 UN climate treaty and inclusion of REDD in the Bali Action Plan. WWF strongly supports the inclusion of a mechanism for REDD in the post-2012 climate agreement and, therefore, the focus of the recent Office of Climate Change review (the Eliasch Review) on the issue of financing reduced forest carbon emissions is very welcome and brings together important evidence.

3.4 However, WWF believes that the report's recommendation to use carbon markets to finance forest emission credits should be balanced and strengthened with references to other financing mechanisms—such as the use of revenues from the auctioning of pollution permits under the EU emissions trading scheme. This would allow more flexibility and feasibility in finding appropriate mechanisms which deliver sufficient and sustainable funding, support the local community and ensure long term protection of the forest¹³⁷.

3.5 Raising funds to support REDD is only part of the picture. More than one billion of the world's poorest people rely on forests for their livelihoods, so any measures to reduce emissions from deforestation must ensure that local communities and indigenous peoples retain access to, and benefit from, forests resources. At the same time, governments of forested countries need to be involved in how the finance is allocated and conditions associated, with all decisions open and transparent and involving local communities and civil society. DFID should advocate financing options that benefit local communities and poor people and should support the development of REDD programmes in developing countries which ensure the participation of all stakeholders.

Water footprints

3.6 Increasingly, water footprints are being used as a further illustration of the complex interconnections between development, the environment and our patterns of production and consumption. A water footprint is the total amount of water required to produce goods and services that a particular individual, organisation or nation uses. WWF published the first example of a national water footprint in August 2008¹³⁸. This report shows that while an average household in the UK directly uses around 150 litres of water per day, the daily consumption of water to support the products consumed, such as food and clothes, means that, in effect, each of us soaks up a staggering 4,645 litres (or 58 bathtubs full) of the world's water every day. More important than the amount consumed is where this water comes from. Only 38% of this water is from rivers, lakes and aquifers here in the UK. The remainder, 62%, is water used abroad in agriculture and the

¹³⁵ Pakistan Strategic Country Environmental Assessment Report: Rising to the Challenges (May 2006), stated that "The urgency of addressing Pakistan's environmental problems has probably never been greater. Conservative estimates presented in this report suggest that environmental degradation costs the country at least 6% of GDP, or about Rs.365 billion per year, and these costs fall disproportionately upon the poor." (page 5).

¹³⁶ UK Government Review of the Indirect Effects of Biofuels (Gallagher Review), Renewable Fuels Agency, July 2008. <http://www.dft.gov.uk/rfa/reportsandpublications/reviewoftheindirecteffectsofbiofuels.cfm>

¹³⁷ Modelling for the review indicated that even if REDD is included within carbon markets there is likely to be the need for other sources of finance, particularly as the Eliasch Review predicted that to reach the target of halving deforestation by 2020, the carbon market is likely to leave a shortfall of between US\$11–19 billion.

¹³⁸ Chapagain, A. and Orr, S. (2008) *UK Water Footprint: the impact of the UK's food and fibre consumption on global water resources*, WWF-UK, Godalming, Surrey.

production of exports, which means our UK consumption has a global impact on water resources. This affects the communities that rely on these resources, and increases their vulnerability to climate change as water availability becomes less predictable.

3.7 In many situations the economic, poverty reduction and carbon reduction imperatives may well support the export of “thirsty” products such as tea, especially where those products have minimal impacts on water resources. However, when products consume significant volumes of water in poorly managed, water-scarce parts of developing countries (cotton from Pakistan is one example), we need to be aware of, and active in addressing, the impacts of our consumption. The logical starting place is to encourage better water management in the exporting country. The problem of increasing water stress can be reversed not only by reducing the overall water footprint of a product, but also by supporting and promoting good management of water in river basins, including more efficient farming practices, stronger water governance and improved allocation of water among different users. There is a clear role for DFID here.

3.8 DFID has realised the importance of water resource management, making it one of three priority themes in its new water policy. It is undertaking potentially influential work to assess the state of the international frameworks and institutions for this area of development. However, there is scope to do more:

- DFID should ask the Foreign and Commonwealth Office to lead a process for the UK to accede to the UN Watercourses Convention, which seeks to improve transboundary water management and so reduce the risk of conflict caused by tension over shared water resources.
- The implications of DFID policy and funding decisions on agriculture, energy and trade need to take account of risks from, and impacts on, increasingly unpredictable water resources.
- On the issue of water infrastructure, DFID should take note of the process being managed by the International Hydropower Association, with input from a wide range of stakeholders, to develop improved guidelines for sustainability in the dams industry.
- Building on the debate about water-related risk with organisations such as the World Economic Forum, and the World Business Council for Sustainable Development, DFID working with NGOs and UK-based companies should find constructive, transparent and mutually beneficial ways to support better water management in developing countries.

3.9 In this era of globalised economies and trade, there are also problems with the way in which countries continue to think in national terms about their impact on the environment without making global connections. This is easily illustrated by the rapidly increasing footprint of trade itself:

3.10 In 1961, the ecological footprint of all goods and services traded between nations was 8% of humanity’s total footprint, but by 2005 this was already more than 40% of the total footprint. In high-income nations this figure is 61%, indicating that rather than having solved environmental problems, the environmental impacts have merely been relocated¹³⁹.

3.11 Similarly, a recent WWF report¹⁴⁰ showed that in 2001, carbon emissions due to consumption within Europe were around 12% higher than emissions physically produced in Europe. If the ecological impact and carbon emissions associated with the production of goods imported are not included in a country’s performance assessment and environmental policy, then a large part of the environmental impact remains out of view and absent from policy initiatives.

3.12 A globalised trade system brings challenges as well as opportunities, so a crucial focus should be to increase the market share of ecologically and socially sustainable goods and services within the trade system, while decreasing the negative environmental impacts of globalised trade. DFID, and the UK government, can play a crucial role in promoting this.

4. CLIMATE POLICY IN A DEVELOPMENT CONTEXT

4.1 As climate change will have severe consequences for sustainable development, poverty reduction, adaptability and the achievement of the MDGs, development institutions need to make climate change a central concern in their work. DFID is one of the leading agencies to have started this, making climate change a priority area of work in the 2006 White Paper, and having launched a range of policy, research and funding initiatives to directly tackle this issue.

4.2 DFID has taken a strong position globally in efforts to integrate climate change into mainstream development. The Secretary of State, Douglas Alexander, has outlined five development tests that DFID will use to measure the effectiveness of the international response on climate change¹⁴¹.

¹³⁹ The Centre was also announced by SoS Douglas Alexander, March 2008—<http://www.dfid.gov.uk/news/files/growth-centre-37m.asp>

¹⁴⁰ Pakistan Strategic Country Environmental Assessment Report: Rising to the Challenges (May 2006), stated that “The urgency of addressing Pakistan’s environmental problems has probably never been greater. Conservative estimates presented in this report suggest that environmental degradation costs the country at least 6% of GDP, or about Rs.365 billion per year, and these costs fall disproportionately upon the poor.” (page 5).

¹⁴¹ The five development tests are: a credible, fair and ambitious global deal; helping countries to grow in a low-carbon way; a reformed carbon market; building climate resilient economies and societies; and reforming the international system. <http://www.dfid.gov.uk/news/Speeches/alexander-climate-nyc.asp>

4.3 The following are some of the recent initiatives DFID has undertaken in this respect¹⁴²:

- Joint funding of research into the cost of climate change adaptation, up to £3 million (with the Dutch government).
- £100 million to research climate change over next five years, plus a further £5 million for improving climate knowledge in Africa. £20 million to the UN special funds to help developing countries to adapt to climate change.
- £800 million to the Climate Investment Funds (World Bank).
- Policy work on what a fair global deal on mitigation and adaptation would include.

4.4 Despite the rapid ascent of climate change on the development agenda, there are a number of crucial outstanding issues where DFID can support positive change to the poorest countries and communities. DFID is a leader on climate change and development in the international community, so many countries are likely to follow its lead. As such, the UK government has a responsibility to get it right and not hide behind political expediency or convenience. Fortunately, the doors for change are wide open at the moment. The current global situation, including a new administration in the US, offer new possibilities for imaginative and bold reform.

4.5 WWF proposes that DFID addresses the following issues:

- 1) DFID's climate change strategy, more than a year in the making, has still to be made public. The strategy will outline DFID's overall approach to climate change and development, beyond the top line statements made in ministerial speeches, and will identify concrete actions. However, despite repeated calls from civil society for consultation and input, the strategy is still elusive. Without clearer positions and strategies from DFID, civil society engagement remains on an unsure footing, and potential for collaboration and further discussion is difficult to pin down. It is also not clear to what extent partner governments and southern civil society have been involved in the development of the strategy. WWF asks for a more participatory and transparent process leading to the early publication of the strategy.

4.6 2) DFID should set a goal for global reduction and stabilisation of green house gases, along with emissions reduction pathways and the likely associated climatic impacts. There is ample evidence that any increase in average global temperature beyond 2°C above pre-industrial levels will have a dramatic effect on very large numbers of the poorest people. Studies predict that beyond a 2–3°C rise, 1–4 billion people will experience increasing water shortages; at a 3–4°C rise, yields of predominant crops across Africa and western Asia may fall by 15–30%, and 250–550 million people may be at risk of hunger. At an increase of 4°C, 70–80 million more people will be exposed to malaria in Africa alone, and 1.5–2 billion people globally to dengue fever. Between 56 and 245 million people will be affected due to rising sea levels if temperature increases beyond 2°C¹⁴³.

4.7 A new WWF report, *Climate change: Faster, stronger, sooner*¹⁴⁴, gives evidence from new scientific studies that update earlier IPCC studies. It shows how current warming may already have triggered the first tipping point of the Earth's climate system—the complete disappearance of summer Arctic sea ice. The study confirms the clear message from the IPCC and more recent peer-reviewed science—strong and urgent global mitigation efforts are needed to stay below 2°C warming, and even warming of this magnitude may be too much to avoid catastrophic and irreversible impacts such as melting of Greenland ice-sheets and consequent extreme sea level rise.

4.8 With no clear target for stabilisation, DFID is not able, or not willing, to set out the implications of certain levels of climate change from a poverty reduction perspective. It therefore lacks a framework for effective action to balance mitigation and adaptation costs and investments. Without knowing how much developing countries should be adapting and need to mitigate, they risk being locked in the wrong policy and investment decisions for years to come. Without a clear climate compass, there is a real likelihood of getting it very wrong.

4.9 3) DFID has not assisted in achieving a global consensus in the international climate change negotiations as it has actively promoted institutions outside the UNFCCC to take up responsibilities for climate change mitigation and adaptation in the developing world. For instance DFID has allocated £800 million to set up new Climate Investment Funds in the World Bank while in comparison, is currently contributing £18.5 million per annum to the climate change related funds of the UN¹⁴⁵. With a reinvigorated international climate system and a new American administration that has pledged to enter into the UN climate negotiations, DFID should show increased support for the UNFCCC. One way of doing this could be to lead the way in ensuring that National Adaptation Plans (NAPAs) are fully funded.

¹⁴² From: <http://www.dfid.gov.uk/news/files/campaign-responses/practical-action-climate.asp>

¹⁴³ All data from: "Two degrees, One Chance—the urgent need to curb global warming" (May, 2007). Available at: http://www.tearfund.org/webdocs/website/Campaigning/Policy%20and%20research/Two_degrees_One_chance_final.pdf

¹⁴⁴ "Climate Change: Faster, stronger, sooner", WWF 2008. http://www.panda.org/about_wwf/what_we_do/climate_change/news/index.cfm?uNewsID=148141

¹⁴⁵ DFID committed £11.66 million p.a to climate change related work of the GEF (in Fourth Replenishment period, out of a total of £35 million per year), £0.5 million to the Adaptation Fund, £3.3 million p.a. to the Strategic Climate Change Fund (SCCF) (£10 million over three years) and £3 million to the Least Developed Countries Fund (LDCF) (£7 million has been contributed so far). Personal communication November 2008, DFID.

4.10 4) Policy around climate change action overseas is largely developed by DFID policy teams in the UK, and the main discussion partners are multilateral agencies (such as the World Bank) or developing country governments. Current mitigation and adaptation actions therefore have a tendency to be focused on macro-level issues, maintaining or increasing GDP growth by developing low-carbon energy, or safeguarding entire economic sectors through adaptive measures to extreme weather events. These policy developments are taking place largely without consultation with those people at the frontline and most dependent on climate sensitive resources such as local water and food supply—the poorest and most vulnerable.

4.11 However, research has found that vulnerability to climate change is largely increased by non-climate stresses, such as poverty, unequal access to resources, food insecurity, trends in economic globalisation, and diseases such as HIV/Aids. In fact, the number of people impacted under different development pathways differs not in relation to changes in the climate, but to differences in vulnerability¹⁴⁶. From a poverty perspective, therefore, DFID should be directly focusing on reducing vulnerability.

4.12 5) Policies on mitigation and adaptation are being developed in isolation of each other. The over-reliance on top-down modelling for mitigation on the one hand, while working on adaptation at international levels on the other, means that the institutional and practical relation between adaptation and mitigation is being missed. However, mitigation and adaptation are intrinsically linked. Costs of adaptation are estimated between USD 50¹⁴⁷–86¹⁴⁸ billion per year, but these costs will increase dramatically as mitigation is being delayed. There are barriers and limits to adaptation too, and these will increase with failed mitigation. An increasing number of studies document the inter-relationships between adaptation and mitigation, as well as the links with other environmental concerns such as water resources and biodiversity¹⁴⁹.

4.13 For example, mitigation actions to reduce carbon emissions from forests could have positive, neutral or negative impacts on biodiversity, which in turn have a direct impact on human well-being and coping (adaptive) options in particular. Avoiding forest degradation in most cases implies positive benefits for both biodiversity and emissions, but certain afforestation and reforestation interventions could harm biodiversity due for instance to the use of a fast-growing alien species, and REDD mechanisms must therefore ensure that conversion of natural forests to plantation is excluded. Such interlinkages have profound policy implications, both for global climate change negotiations, and for the overall development “portfolios” for climate actions for developing countries. DFID must better integrate both strands of work.

4.14 6) DFID needs to adopt a position on the nature of financing for climate change adaptation which is firmly rooted in the principle that the polluter pays. Initial trends indicate that some high-income countries are using already pledged Official Development Assistance finance for the purpose of climate change financing. The UK was one of the first countries to do this—even though it claims that the climate financing is additional. The financing was only additional to the ODA already budgeted in the Comprehensive Spending Review of 2008–11, but will still be counted towards the commitment to give 0.7% of GNP as ODA, in effect displacing mainstream development financing. Other countries see adaptation funding clearly as additional to their 0.7% ODA targets. The Dutch Development Minister Bert Koenders said at a joint event with DFID last year: “There is no time left. We have to be crystal clear. Adaptation costs should be additional on the basis of the principle the polluter pays.”¹⁵⁰

4.15 Civil society organisations, including WWF, are calling on high-income (Annex I) countries to pay their fair share towards the adaptation and mitigation needs of the developing world, in addition to development commitments. There is a moral as well as pragmatic reason for the NGOs’ calls. Rich countries are responsible for causing climate change impacts in the first place, therefore developing countries should be compensated for the damage that they will face, and are already facing¹⁵¹.

What does DFID propose to do with countries like the Maldives, where president Mohamed ‘Anni’ Nasheed is already looking for an alternative location for its 300,000 people once sea levels inundate the islands?

4.16 Furthermore, there is very little development space for developing countries as most of the global carbon budget is already being used by richer countries. This means the main responsibility for financing the transition of poor countries to low-carbon economies rests with the developed world.

¹⁴⁶ IPCC, 2007: Summary for Policymakers. In: *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Fourth Assessment Report of the IPCC, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 7-22. <http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-spm.pdf>

¹⁴⁷ *Adapting to Climate Change: What’s needed in poor countries, and who should pay*, Oxfam 2007. http://www.oxfam.org/en/policy/briefingpapers/bp104_climate_change_0705

¹⁴⁸ *Fighting climate change: Human solidarity in a divided world*, Human Development Report 2007–08, UNDP

¹⁴⁹ Klein, R.J.T., S. Huq, F. Denton, T.E. Downing, R.G. Richels, J.B. Robinson, F.L. Toth, 2007: Inter-relationships between adaptation and mitigation. *Climate Change 2007: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 745–777.

¹⁵⁰ Joint launch of a research study into climate change: <http://www.dfid.gov.uk/news/files/Pressreleases/uk-new-study-climate-change-bali.asp>

¹⁵¹ Bangladesh-UK framework agreement on Climate Change. Response Statement from UK and Bangladeshi civil society groups, September 2008.

4.17 There is also a pragmatic reason for not taking climate money out of the development financing pot. As stated earlier, among the most important constraints on adaptive capacity are shortfalls in human development, adequacy of financial and human resources to the public sector, and the effectiveness of local and national governance structures. Momentum is needed now to ensure that adaptive capacity is strengthened at all costs. Taking away from mainstream development financing, even if some climate-related programmes are beneficial for development purposes, is therefore not an effective solution. Finally, using already pledged aid money also seriously undermines trust and action within the UNFCCC process and the hope of getting a clear and firm deal in Copenhagen.

5. DEVELOPMENT POLICY IN A CLIMATE CONTEXT

5.1 Development aid and delivery mechanisms are changing, moving away from project approaches to development, to much wider sectoral and governmental programmes, with donors agreeing to cooperate much more in the future to goals and indicators agreed at a country level. DFID, which is one of the most vocal supporters of the Paris Agenda to deliver better-coordinated and effective aid, has much less direct project engagement, but increasingly contributes to development through direct budget support or multilateral development channels, such as the World Bank, or the European Commission. This section looks at DFID's development policies and ways in which they could be improved to address climate change issues, through two lenses: DFID's indirect development impacts, for example through the World Bank; and DFID's role in the Paris Agenda for aid effectiveness.

A. Multilateral investments

5.2 The World Bank—the most important development partner for DFID—has finally fully recognised the urgency of climate change, and the likely implications for developing countries and for the World Bank's investments, through its Strategic Framework on Climate Change and Development (SFCCD). This recognition is long overdue and it remains to be seen to what extent this will translate into a change in the choice of investments made. The SFCCD provides a real opportunity to put the entire World Bank portfolio on a sustainable footing, and DFID should play an important monitoring and accountability role in this.

5.3 If past energy sector investments are anything to go by, however, there are reasons to be sceptical. Despite the Bank's claims that it has dramatically increased financing for renewable energy, it has only now returned to the same level of investment as in some of the years of the previous decade. At the same time, its investment in oil and gas in 2007 (financial year) was proportionally higher than the average investment between FY90-FY07 (26% versus 22%). The combined investment in oil and gas in the last three years amounted to more than US\$3 billion, nearly double the amount the British Government has pledged to the Climate Investment Funds for the next three years. However, DFID refuses to take a stronger line on the energy portfolio of the Bank, stating that it does not want to create new conditionalities, and that NGOs contradict their own calls for a stop on conditionality when they raise this point¹⁵².

5.4 There is a clear difference, acknowledged by all major development agencies, between making strategic decisions about the prioritisation of public (or publicly backed) funds and imposing economic or other policy requirements as a condition of providing funds. With current knowledge about the probable impacts of climate change and the number of deaths that could result, this is equivalent to arguing in favour of World Bank investment in a country's arms industry just because a country makes this request. Moreover, massively increased investment in renewable technologies, and rapid reduction in support for fossil fuels, does not prohibit a country from searching for alternative financing, but reflects the changing priorities that the World Bank should promote.

5.5 A solution is to demand that the World Bank makes public the data about the carbon emissions of its portfolio of projects, and introduces a shadow price for carbon (SPC) in its project assessments before it makes an investment decision. An SPC captures the damage costs of climate change caused by each additional tonne of greenhouse gas emitted¹⁵³ and should be set at a sufficiently high level to reflect the emerging climate change science and also the significant costs attached to relatively low probability, but extremely high impact events. Introducing the shadow price of carbon would show the true cost of its investments, and would shift the balance in favour of renewable energy technologies. Going even further, an actual carbon debit could be charged to these investments, with governmental shareholders having to pay carbon debits (proportionally to their investment) in the same way that money is already being earned through the awarding of carbon credits¹⁵⁴.

¹⁵² Douglas Alexander, IDC hearing 12 November,

http://www.parliament.uk/parliamentary_committees/international_development/ind0708an69.cfm

¹⁵³ Expressed as Carbon Dioxide Equivalent (CO₂e), for ease of comparison. Information from <http://www.defra.gov.uk/Environment/climatechange/research/carboncost/index.htm>

¹⁵⁴ To be able to make a carbon debiting system work, it is important that carbon emissions are accurately calculated, and that the concept of "additionality" is applied to the debiting calculations in the same way as they are in the case of the Clean Development Mechanism (ie responsibility is allocated for carbon generated that would not have happened if no investment was made). Such a system should be on a non-voluntary basis.

5.6 The same logic should run across the other investment institutions—Regional Development Banks, the European Investment Bank and others—as well as any private investment channels in developing countries, such as the CDC Group Ltd¹⁵⁵ of which DFID is the sole shareholder. The CDC group reported “infrastructure” (18%) and “minerals, oil and gas” (16%) as the second and third largest sectors in its investment portfolio. To date, information on the carbon emissions of these investments is not available, and there is no evidence that climate change plays a role in investment decisions. The new CDC Best Practice Investment Policy (January 2008) does not require the CDC to be transparent about carbon-intensive investments, even though it states that CDC will only invest in businesses that take account of the environmental impact of their operations (through a formal Environmental Impact Assessment). Recently the government agreed, in an amendment to the Climate Change Bill, that another government institution—the Export Credits Guarantee Department—should report on the emissions of its high and medium impact projects, and there is no reason why the same should not be upheld for the CDC investments.

B. Paris Agenda on Aid Effectiveness

5.7 An important part of the Paris Agenda on Aid Effectiveness is to harmonise and coordinate donor actions in-country, while supporting country-led decision making and planning, which will allow for greater country-ownership and mutual accountability. WWF fully supports the principles of the Paris Agenda, and believes that they are essential to put the aid relationship on a more effective, just and environmentally sustainable footing. New donor coordination initiatives under the Paris Aid Effectiveness framework, or under the recent EU Code of Conduct on Complementarity and Division of Labour provide ample opportunity to bring approaches to environmental sustainability into the mainstream, and to build a more comprehensive platform to tackle urgent cross-cutting issues such as climate change and water scarcity.

5.8 At the same time, since developing country governments are increasingly in the driving seat, certain challenges emerge. Accountability between developing country governments and their own citizens is often weak or still in development. DFID has recognised some of these inherent difficulties with the shifting aid framework, and commissioned research into the implications of increased Direct Budget Support for the environment (ODI¹⁵⁶, 2008). A key recommendation is to strengthen the Thematic and Sector Working Groups (on environment or natural resources) to maximise the quality of policy dialogue, and consequently it is “essential to keep a balance between the representation of government, civil society and development partners [donors]”¹⁵⁷.

5.9 However, national civil society organisations working on environment, climate change and poverty links are often weak or non-existent, and government departments for the environment are often badly resourced and badly integrated into the rest of government (a product of years of project-focused development approaches). DFID should put much more effort towards encouraging democratic scrutiny through supporting and strengthening national parliaments and civil society, and convince other donors to do the same. WWF will be publishing research with more suggestions on this issue.

5.10 Furthermore, in the process of coordinating or “dividing up” labour between donor countries, political reality may mean that critical cross-cutting issues, such as gender or environmental sustainability, risk falling within the cracks. The EU Division of Labour initiative could be a particular case in point, as there still is no overarching strategy to monitor the process to ensure that there are no “orphan” sectors. It is not clear to what extent developing countries themselves would have a say in the coordination negotiation process. DFID should champion the cause of cross-cutting issues in the division of labour process, and ensure that a process is set in place to monitor the inclusion of all essential sectors in division of labour, not just those with greatest political appeal for donor countries.

6. CONCLUSION: WHAT DFID SHOULD BE DOING

6.1 WWF believes the time is right for a fundamental change in assessing growth and development, putting sustainability at the heart of both policy and practice. Environmental and social imperatives are leading to new policy initiatives, such as the International Growth Centre, the low-carbon policy group, and to new funding mechanisms, such as those to address climate change. There is rapid change in the global political sphere and the global economic system.

¹⁵⁵ Capital for Development Group Limited is an investment company whose sole shareholder is DFID, is a UK government-owned fund of funds, with net assets of US\$4bn. Its portfolio by sector is as follows: Financial institutions (21%), Infrastructure (18%), Minerals, oil and gas (16%), Manufacturing (14%), Other (11%), Power (8%), Agribusiness (7%), Telecommunications (5%).

¹⁵⁶ *Budget Support, Aid Instruments and the Environment—The country context*, ODI, 2008. <http://www.odi.org.uk/fecce/projects/budgetsupport-2.htm>

¹⁵⁷ The five key lessons of the research were: 1) Recognise the limitations of environmental mainstreaming through Poverty Reduction Strategies; 2) Focus on raising recurrent not project financing for the environment; 3) Control the use of taxes, fees and levies as a direct method of financing environmental agencies; 4) Structure Thematic and Sector Working Groups so as to maximise the quality of policy dialogue and minimise transaction costs; 5) Use all avenues of dialogue within General Budget Support arrangements and make prudent use of Performance Assessment Framework indicators.

6.2 The UK government and DFID, in particular, can take the lead in responding positively to this change. The following is a summary of WWF's requests to the government and to DFID to build more resilient and sustainable economies in developing countries that have poverty reduction, fairness and environmental sustainability at their centre.

A One Planet Economy model for DFID: Rethinking growth

6.3 DFID should urgently adopt a One Planet Economy model, by:

- ensuring that country economic development models are no longer looked at in isolation from each other and from the global economy;
- integrating global and national environmental values and constraints, by including environmental accounting in its development assessments; and
- supporting an approach to economic development which places sustainability, fairness and poverty reduction at the very centre.

6.4 DFID should ensure environmental sustainability addresses not only carbon emissions but also ecosystems services and natural resources management, and place these at the centre of all policy work, research and dialogue on economic growth. It should set key low-carbon and sustainability targets for the Growth and Investment Division of DFID, with a clear timetable for achieving this.

6.5 In particular, the new International Growth Centre should place social and environmental sustainability at the very heart of all research on economic growth. The centre could play a major role in including environmental accounting within policy options and scenario planning for economic growth, giving a more comprehensive and balanced picture.

Systemic links between climate change, environment and development policy

6.6 In the extraordinarily complex relationships between sectors, trends and events, DFID should always base its position on what is best for the poor, which more often than not turns out also to be positive for the local and global environment.

6.7 With regard to financing for reduced carbon emissions from forests, DFID should actively advocate a range of financing options beyond the carbon market and must promote the need for all funding mechanisms to benefit local communities, poor people and the environment.

6.8 DFID has the scope to do more on water resource management. In particular, DFID should support the process for the UK to accede to the UN Watercourses Convention and ask the Foreign and Commonwealth Office to act.

6.9 DFID policy and funding decisions on agriculture, energy and trade must explicitly take account of risks from, and impacts on, increasingly unpredictable water resources as climate change takes hold. Specifically on the issue of water infrastructure and energy, DFID should take note of the process being managed by the International Hydropower Association, with input from a wide range of stakeholders, to develop improved guidelines for sustainability in the dams industry.

6.10 In the current global trade system, DFID should work, with other parts of the UK government, to increase the market share of ecologically and socially sustainable goods and services within the trade system, and seek to decrease the negative environmental impacts of globalised trade, rather than focusing on increasing the volume of trade per se.

6.11 There is increasing scope for going beyond sustainable market mechanisms and involving the private sector constructively in the development and implementation of public policy for good natural resource management. DFID should take advantage of emerging conversations about water-related risk within the World Economic Forum, the World Business Council for Sustainable Development and other organisations by working with NGOs and UK-based companies to find transparent and mutually beneficial ways in which those companies can support better water management, and thus help poor communities in developing countries.

Climate change policy in a development context

6.12 DFID should open its climate strategy to consultation with wider civil society, and ensure that partner governments and southern civil society are fully involved in its development.

6.13 DFID's strategy should include a clear target for maximum acceptable temperature increase of 2°C above pre-industrial levels and greenhouse gas concentration, and also the associated timeframe for ensuring that global emissions peak and are then placed onto a downward path. Without such clear targets, it is impossible to set out a framework of action to balance mitigation and adaptation costs.

6.14 DFID should more openly support the UN system and the UNFCCC process. One way of doing this could be to ensure that National Adaptation Plans (NAPAs) are fully funded.

6.15 DFID should invest far more of its resources into policy and research on climate change impacts and low carbon development, with greater input from those people at the frontline of climate change and most dependent on climate-sensitive resources. An immediate way to increase adaptive capacity to climate change is to focus on reducing vulnerability.

6.16 DFID should do much more to integrate its policy work, research and activities on mitigation and adaptation, recognising the interlinkages, mutual benefits and potential trade-offs between them. These interlinkages have profound policy implications for both the climate negotiations and the overall climate action “portfolios” in developing countries.

6.17 DFID should urgently follow the example of the Dutch government, and take the clear position that financing for climate change adaptation should be based on the “polluter pays” principle. Financing paid under the UNFCCC should be considered as “compensation” under the UNFCCC principle of common but differentiated responsibility. Mainstream development financing should not be used for climate-related financing.

Development policy in a climate context

6.18 DFID should promote the use of a shadow price for carbon (SPC) in the project assessments of its multilateral partners, particularly the World Bank. This would reflect the true cost of its investments, and would shift the balance in favour of renewable energy technologies. Furthermore, an actual carbon debit should be charged to these investments, in the same way that money is already being earned through the awarding of carbon credits. The same logic should apply to DFID investments through the CDC.

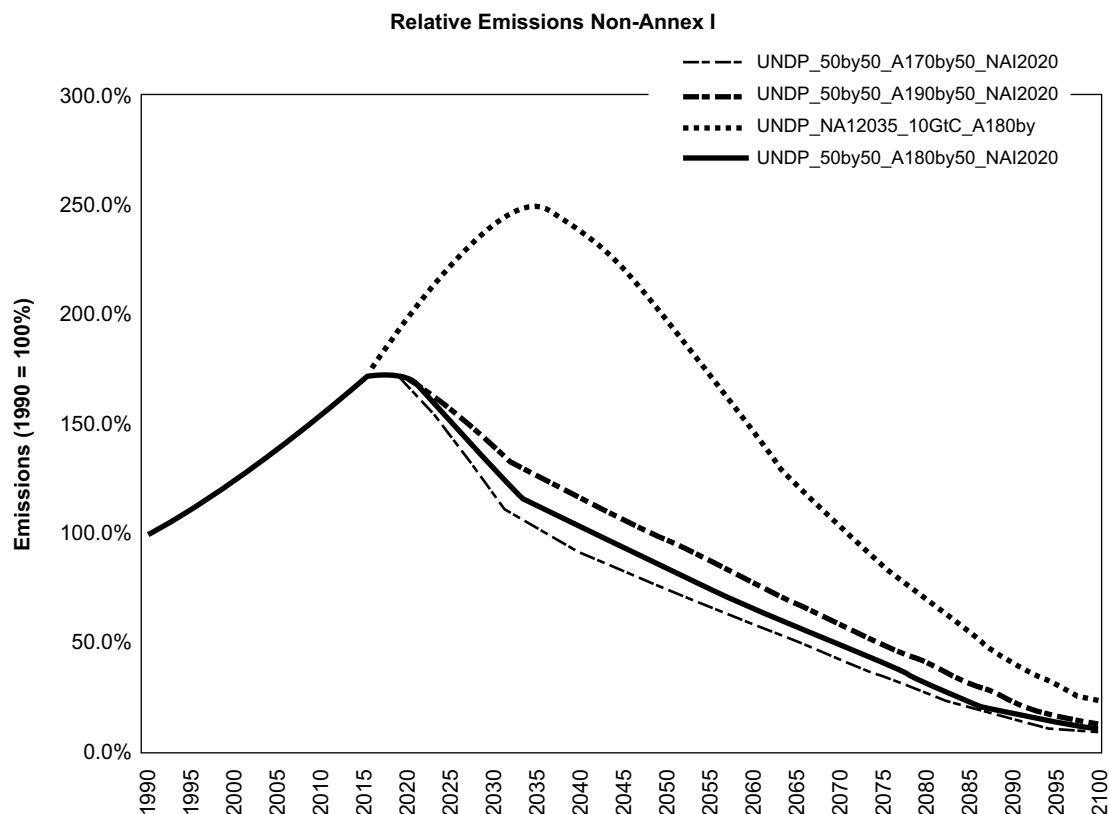
6.19 As part of its environmental strategy, DFID should put more effort into encouraging democratic scrutiny through supporting and strengthening national parliaments and civil society, and through encouraging similar practice across the donor community.

6.20 DFID should champion the cause of cross-cutting issues in the division of labour process, and ensure that a process is set in place to monitor the inclusion of all essential sectors in division of labour, not just those with greatest political appeal for donor countries.

WWF UK

November 2008

Annex 1



Source: Human Development Report 2007–08

Fighting Climate Change: Human solidarity in a divided world

Human Development Report Office, Occasional Paper: Stylised Emission Path

Malte Meinshausen

http://hdr.undp.org/en/reports/global/hdr2007-2008/papers/Meinshausen_Malte.pdf

Supplementary written evidence submitted by the Department for International Development

30 April 2009

At the recent IDC inquiry “Sustainable Development in a Changing Climate” where both Lord Hunt and I provided evidence, I promised to provide further information regarding low carbon development funds and whether DFID would join the United Nations World Tourism Organisation (UNWTO).

I attach a list of the different funding mechanisms for low carbon development (Annex A), and the DFID Sustainable Development Action Plan (SDAP) for your reference.¹⁵⁸ The issue of whether DFID will join the UNWTO will require further discussion within the department and I will let the committee know of the outcome at a later date.

With regard to the question of funding for climate change programmes from sources additional to ODA, as stated at the evidence session (Q264) I will write to the Committee to keep them informed of progress once we are able to discuss this issue publicly without undermining negotiations in the run-up to Copenhagen.

Yours sincerely

Michael Foster MP

Parliamentary Under-Secretary of State

Annex A

UK CONTRIBUTIONS TO EXISTING FUNDING MECHANISMS FOR LOW CARBON DEVELOPMENT

<i>Fund</i>	<i>Area</i>	<i>Disbursement (£m) from UK to project funds</i>		
		<i>2007–08</i>	<i>2008–09</i>	<i>Total to be disbursed by 2011–12</i>
Global Environment Facility (Replenishment 4) Strategic Climate Fund (From Environmental Transformation Fund—International Window)	Climate Change	11.66	46.66	
	Forest Carbon Partnership Facility		2.5	15
	Congo Basin Forest Fund		3	50
	Scaling up Renewable Energy Programme		5	25
Clean Technology Fund ¹⁵⁹			60	383
(From Environmental Transformation				

¹⁵⁸ Sustainable Development Action Plan (SDAP)—2007/08—2008/09, DFID, June 2007 (reviewed October 2008) - http://www.dfid.gov.uk/Documents/pdf_misc/updated-SDAP-07-08.pdf

¹⁵⁹ The most advanced of the Climate Investment Funds is the Clean Technology Fund. Three national investment plans (Mexico, Egypt and Turkey) have already been endorsed with another nine (including South Africa and Brazil) expected by the end of 2009. Once a national plan has been endorsed funding for individual projects can be requested. The CTF committee approved \$100m funding for the first renewable energy project in April

<i>Fund</i>	<i>Area</i>	<i>Disbursement (£m) from UK to project funds</i>		
		<i>2007–08</i>	<i>2008–09</i>	<i>Total to be disbursed by 2011–12</i>
Fund— International Window) Energy Sector Management Assistance Programme (ESMAP)	Low Carbon Growth studies	3.2	3.2	9.7
Global Village Energy Partnership		1	1	4

Notes:

1. Future funding needs for climate change and low carbon development are inherently difficult to estimate accurately, and estimates vary widely. One such estimate produced by the UNFCCC¹⁶⁰ is that by 2030 around \$200 bn extra finance and investment per year would be needed to make the world “low carbon”, of which around half would need to be spent in developing countries. Based on current spend they suggest over 80% would need to come from private sector.

2. The table above lists existing funding mechanisms that the UK contributes to, which support developing countries to pursue a low carbon development pathway. It does not include funding mechanisms for adaptation, research or mechanisms piloted by other donors or institutions to which the UK has not contributed.

¹⁶⁰ UNFCCC Secretariat August 2007

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