
Chapter 3: Sustaining our Common Future

The challenge

3.1 We stand at a crossroads. The world's response to climate change can either be a development disaster or a development success story.

3.2 One path is “business as usual” – dangerous climate change and a reversal in global human development, undermining the progress made in poverty reduction over the last century. If we do not change course the world is heading for a change in climate that is unequalled since the end of the last Ice Age. The scientific consensus predicts a temperature rise of as much as 6.4°C by 2100, which would have catastrophic consequences.⁴²

3.3 Climate change hits poor countries first and hardest. Seventy five per cent of the poor are dependent on natural resources for their livelihoods.⁴³ Africa is especially vulnerable, with agricultural yields projected to fall by up to 50% in some countries if climate change goes unchecked.⁴⁴

3.4 Poor women and children are particularly at risk. Increasing levels of water scarcity and deforestation mean that women and girls have to walk further to collect water and fuel, and work harder to maintain a family's food consumption. Infectious

diseases are expected to spread more quickly as temperatures rise. Ecosystems will degrade faster, increasing competition over natural resources such as water, grazing lands, fisheries and fuel.

3.5 The UK is also being affected. Nine of the hottest years on record have been in the last 15 years.⁴⁵ An increase in temperature will lead to impacts such as more flood risk and coastal erosion in the UK. The 2003 heat wave led to 35,000 extra deaths across Europe.⁴⁶ Although no individual weather event can be uniquely attributed to climate change, extreme weather events of this kind are predicted to increase. The UK and its EU partners will bear the costs of the wider impacts of climate change as it exacerbates conflict, population movement and poverty in other countries.

3.6 The other path is global collective action that limits greenhouse gas emissions, manages our environment sustainably, and builds a cleaner, safer and more prosperous world. Developed countries take urgent measures to reduce their emissions; economically advanced developing countries receive support to reduce emissions and adapt; and the low income countries are supported to adapt and reduce emissions over time. The world develops

an approach to governance reflecting the new and changing global order, and adopts development approaches that are both low carbon and sustainable.

3.7 Many countries have already begun to take action. China has set tough targets for its most polluting industries and is a world leader in solar thermal energy. Brazil has agreed far reaching targets for reducing deforestation. The fledgling global market in green technologies is already worth £3 trillion and continues to grow.⁴⁷ India emerged in the last decade as a global market leader in wind power and a major new producer of solar photovoltaic technology.⁴⁸

3.8 Developed countries are also changing course. The UK Climate Change Act is the first in the world to legislate for an 80% reduction of CO₂ emissions on 1990 levels by 2050, and set five-year targets by which performance will be measured. The EU's emissions trading scheme generated \$92 billion in 2008, and is an important foundation for the creation of a future global carbon market.⁴⁹ President Obama has signalled a step change in US action on climate change by also committing to an 80% reduction of CO₂ emissions by 2050 compared to 1990 levels.⁵⁰

3.9 But global action needs to accelerate. The most recent research tells us that to have a good chance of avoiding dangerous climate change global temperature rise must not exceed 2°C. To achieve this, global emissions of greenhouse gases must start to fall within the next decade and be at least 50% below 1990 levels by 2050. If the world does not take action now, then it will become ever more difficult and much more

costly to stabilise our global climate in the future, loading an increasingly impossible task onto future generations.

3.10 The global recession should not delay action. Lord Nicholas Stern, author of the definitive study of the economics of climate change, estimates that inaction would cost as much as 5-20% of global GDP every year, now and forever.⁵¹ The economic recovery programmes now being implemented are an opportunity to invest in the infrastructure and technology needed for resilient and sustainable growth.

3.11 The December 2009 United Nations Climate Change Conference will decide which of these paths we follow. World leaders will gather in Copenhagen to agree a new global deal on climate change. They must agree a new global target for emission cuts; allocate responsibilities for action between nations; set out ambitious new agreements on clean technology, finance, reform of carbon markets, forests and adaptation for the poorest countries; and ensure that the institutional architecture for implementing the deal is ready.

3.12 The UK is working with others to push for an ambitious global deal, and to influence the future direction of the international finance institutions and the UN. The UK is also working at country level with emerging economies and the poorest countries to help build the knowledge and capacity to develop climate resilient and low carbon economies.



Extremes in climate affect us all – wherever we live

Extreme weather events have doubled in the last 20 years.⁵² Climate change is expected to increase their number and intensity.

- Honduras 1998: Hurricane Mitch killed 6,500 people with 70-80% of the country's transportation system wiped out.⁵³
- Southern Africa 2002: 13 million people needed food relief because of drought.⁵⁴
- Europe 2003: 35,000 extra people died because of an extreme heat wave.
- US 2005: Hurricane Katrina killed 1,800 people in New Orleans.⁵⁵
- UK 2007: floods caused over £3 billion of damage.⁵⁶
- India 2008: 1 million people fled floods in Bihar.⁵⁷
- Australia 2009: forest fires killed 170 people and displaced 3,000 people.⁵⁸

3.13 We recognise that the development and poverty reduction agendas are central to the response to climate change. This chapter sets out how the UK government will:

- work more effectively with developing countries by forming partnerships to deliver the knowledge, tools and finance needed to tackle climate change.
- work hard for an ambitious and fair deal at Copenhagen that will reverse climate change and protect the poor.

The global deal

We will:

- seek an ambitious, comprehensive and equitable global deal on climate change at the December Copenhagen United Nations Climate Change Conference.
- provide new and additional public finance for climate change over and above existing development assistance commitments.

A global deal at Copenhagen

3.14 The UK's Road to Copenhagen, published on 26 June 2009 sets out the UK's international approach to climate change. The UK priority for Copenhagen is to reach an agreement on global emission reductions to limit global temperature rise to no more than 2°C. Such an agreement would require significant emission reductions from all developed countries. It would also require the economically advanced developing countries to make a significant reduction in emissions against "business as usual", facilitated by appropriate support from developed countries.

Feeling the impact

Some 47 low income countries contribute only around 8% of global carbon emissions (including those due to forestry and land use change), but bear the biggest burden of climate change impacts.⁵⁹ 250 million people are already affected by climate-related disasters in a typical year. A 54% increase in people exposed to climate disasters is expected by 2015.⁶⁰

3.15 Our development and climate aspirations for Copenhagen overlap significantly – a comprehensive, fair and equitable deal at Copenhagen that tackles climate change effectively also has the potential to be the most important development agreement of the decade. An agreement that puts the needs of developing countries and poor people at its centre is essential for sustainable growth and poverty reduction. From a development perspective, the UK has five key objectives for a Copenhagen deal:

- A long term goal with credible interim targets: Copenhagen must agree to a global emission reductions goal of at least 50% below 1990 levels by 2050 to stand a reasonable chance of stabilising temperature rise at 2°C. The UK is also seeking agreement on ambitious interim (2020) targets.
- Fair and equitable division of effort: developed countries must take the lead to reduce their emissions. Action by others should take into account their development status.

- Reform of the carbon market: to support increased participation by developing countries, and inclusion of important new sectors such as forestry.
- Agreement on development and diffusion of low carbon technology: to ensure that we collectively develop and share the technologies we need for a low carbon future and that all developing countries are able to play a fair role.
- A package of support on adaptation for the poorest countries: the UK is seeking a new agreement on adaptation which will ensure that the poorest and most vulnerable countries get access to sufficient finance to enable them to adapt to climate change.

Collective action is needed

3.16 Achieving this will require action by all countries:

- The developed economies must bear the larger share of responsibility for early action. They also have the finance and technology to demonstrate that a low carbon economy is viable.
- Economically advanced developing countries must also act quickly. They will need to make significant reductions in their emissions against “business as usual” if the world is to avoid dangerous climate change. Even if the developed economies reduced their carbon emissions to zero by 2050, it would not be enough to stabilise global temperatures at 2°C. Some of these actions will need appropriate financial and technological support from developed countries.
- Low income countries need to build their resilience and consider the opportunities

and threats opened up by a global low carbon future. They have done the least to contribute to the problem. They are also least equipped to respond to the challenge. Supported by finance, information and technology, they need to plan for climate change so that they can adapt to the now inevitable impacts and grow and benefit from a low carbon world.

Global greenhouse gas emissions must be reduced to at least 50% below 1990 levels by 2050 if we are to avoid a temperature rise of more than 2°C. By 2050, the global population is likely to stand at nine billion. Lord Stern tells us that this means the global average per capita emissions will need to be around two tonnes per capita by 2050.⁶¹ This means that emissions from all sectors, such as industry, transport, buildings and land use will need to be cut very sharply. That is why the UK will be pressing hard for both international aviation and shipping to be included in any new climate change deal agreed in Copenhagen.

Tackling climate change is affordable and a good investment

3.17 Securing adequate finance to tackle climate change now will save much greater costs in the future. Lord Stern estimates that the total bill for stabilising global temperatures at 2°C will be around 2% of global GDP (or \$1.3 trillion) per year by 2050.⁶² This includes costs for both developed and developing countries. The United Nations Framework Convention on Climate Change (UNFCCC) estimates that between \$120-\$164 billion will be needed per year for developing countries by 2030 to cover the costs of

adaptation to climate change, and to enable them to develop low carbon economies.⁶³

3.18 The UK is committed to play its part in ensuring finance is provided to support developing countries move to low carbon and climate resilient growth paths. The carbon market will play a key role in delivering a substantial proportion of this finance. The UK will work with international partners to reform carbon markets to enable these markets to finance around half of the financing gap.

3.19 Additional international public resources will also be required to respond to the global climate crisis while at the same time honouring our commitment to poverty reduction. As part of an ambitious global climate agreement the UK will provide new and additional public finance for climate change over and above existing development assistance commitments of 0.7% of gross national income dedicated to official development assistance (ODA). We would like to see all developed countries – both those that have 0.7% targets and those that do not – make the same commitment to provide additional finance on top of their existing long term ODA commitments.

3.20 In order to provide developing countries with the assurance required that committed finance will be delivered, in the context of a comprehensive deal in which all countries play their part, some form of automatic mechanism will be required. Norway has proposed an international market-based mechanism whereby a part of each country's carbon emission permits would be held back, auctioned internationally and the proceeds used to tackle climate change. Where countries are unable to participate in such a scheme, they could use comparable domestic legislation to provide adequate predictable finance.

3.21 The UK will also increase its poverty-related expenditure on climate change, recognising that part of the climate financing gap could legitimately come from official development assistance. But this will be limited to up to 10% of our total ODA spend. We will work towards this limit being agreed internationally so that sufficient development assistance continues to be made available for MDG achievement in the poorest countries.

In less than half a year, an average UK citizen will be responsible for equivalent emissions of the greenhouse gas, carbon dioxide, which someone in Uganda will generate in their whole lifetime.⁶⁴

A compact for a changed relationship

3.22 As volumes of climate finance increase, we will need to deliver it at scale and quickly. To do this, the UK believes that we need to agree a new approach to delivery and governance – one which is based on a partnership between developed and developing countries in line with the principles laid down in the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action.



A carbon market works by agreeing a cap on the greenhouse gas emissions of countries and/or companies, and allocating emission permits up to the level of the cap. Trading allows those who reduce emissions below the cap to sell their permits to those whose emissions are above the cap. This rewards investment and innovation in low carbon technologies, and allows emission cuts to be made where they are cheapest.

The Clean Development Mechanism (CDM) is currently the main tool for developing countries to participate in the carbon market. It works by allowing companies and governments in industrialised countries to purchase credits for projects that reduce emissions in developing countries. However, participation in the CDM has been dominated by a handful of developing countries, while many others have seen little benefit from the CDM and its flows of finance.

Reforms the UK is pushing for are:

- agreement to establish new sectoral crediting and trading mechanisms that work on a much larger scale than the CDM. This could mean advanced developing countries taking on targets for particular sectors of their economies e.g. power generation.
- for countries not yet ready to participate in sectoral mechanisms: reforms to the CDM to reduce transaction costs and improve its efficiency, effectiveness and environmental integrity.
- bringing emissions from land use, agriculture and avoided deforestation into the carbon market beyond 2012.

The international community will need to assist low income countries in identifying low cost mitigation options, and in building their capacity in a number of areas, including measurement, reporting and verification of emissions, so they can participate more fully in carbon markets.

3.23 In line with these principles, the UK believes that decisions about spending priorities are best made locally. We are therefore proposing a “compact approach” whereby countries outline their own priorities for adaptation and mitigation (including technology and forestry) with monitoring of outcomes. As discussed above, the international community would commit to provide adequate and predictable financial support for these plans. Where countries are addressing financial risks, such support could then be sent direct to developing countries’ treasuries, in line with the UK’s broader approach to delivery of development finance.

3.24 To make sure that the international architecture is as efficient as possible, we should aim to build on existing institutions, reformed as necessary, and only create new bodies where clear gaps in remits are identified. We have identified a need for a high level co-ordinating body that can make sure that finance is allocated to where it is needed most, for the most pressing priorities. Agreeing equitable and efficient governance arrangements will be key. We should learn from the operation of the new multi-donor Climate Investment Funds (CIFs). The CIFs boards have equal representation from donor and recipient countries, signalling a shift towards a partnership to deliver on a shared commitment to tackle climate change.

Supporting the voice of low income countries in the negotiations

3.25 The UK, working through the EU, is providing training and support to increase the voice and capacity of low income country negotiation teams in the international process. Acting together, the

poorest countries can have a bigger voice in calling for a high ambition outcome at Copenhagen and beyond.



India: a night school in the village of Cheeri, lit by solar lanterns. Most of the students are girls from lower caste/untouchable backgrounds who must work in the fields during the day. (Panos – Robert Wallace)

Supporting action on the ground

3.26 The UK is working with developing countries, directly and through others, to help them address the challenge of climate change – providing valuable lessons and knowledge in the lead up to Copenhagen and for the future. The Copenhagen deal will be critical to allow for scaled-up action on the ground in developing countries. Ambitious agreements on adaptation, reform of the carbon market, technology and forestry are essential if developing countries are to receive the support they need to tackle climate change.

3.27 Climate change is so critical to the prospects of development that it will take centre stage in the UK’s international development efforts: from this White Paper, to joint Department of Energy and Climate Change (DECC)/ DFID collaboration on meeting climate change targets and also in individual DFID country programme plans. DFID’s work is supported by a new Climate and Environment Group that works closely across government departments.



Bangladesh, the Chars: DFID has helped to raise 66,000 homes onto earth platforms to protect them from flooding. (DFID – Chars Livelihoods Programme)

Bangladesh – adapting to climate change

“We are courageous people. Nothing can stop us – we can eventually overcome any crisis”. Fisherman Salam Sarder, Katakhal, Bangladesh.

Climate change is a crucial development issue for Bangladesh. A rise in sea levels may permanently flood 6-8% of the low lying lands by 2050 and force several million people to relocate. Flood-prone areas will increase from 25% to 40% by 2050 affecting 70 million people a year. Extreme weather events are increasing. 3000 people were killed by Cyclone Sidr in 2007, most of them women.⁶⁵

In 2008, the UK and Bangladesh signed a joint agreement to tackle climate change. The UK committed funds over five years to help pay for enhanced early warning systems, raised plinths for villages to protect them from flooding, renovated embankments and roads, multi-purpose cyclone shelters and climate resilient crops.

The UK has also invested in the Chars Livelihoods Programme to help the extreme poor – especially women – build livelihoods that are more resilient to climate change. In the past four years, 66,000 homes on sand islands were raised onto earth platforms, protecting more than 400,000 people and their possessions from severe monsoon floods.

3.28 The UK's country aid programmes have stepped up their engagement with climate change. In Nepal, DFID is helping the government to develop a national climate change strategy. In Rwanda, Ethiopia and Afghanistan, the governments are being supported to assess the impact of climate

change on the economy so that they can develop effective adaptation and mitigation strategies. In Kenya and Tanzania, DFID is supporting research into how to integrate climate change into malaria epidemic predictions so that health officials can plan more effectively. In China, the UK is helping

local governments and communities identify and adapt to the impacts of climate change on agriculture, water resources, health and disaster management.

3.29 Working closely with DECC and FCO, DFID is leading a new approach on climate-smart development through its country programmes. DFID is investing in three priority areas:

- Building climate knowledge and capacity.
- Scaling up investments in low carbon development through energy and forest sectors.
- Supporting countries to adapt to climate change.

Building climate knowledge and capacity

We will:

- **invest in research into climate science for better predictions of local impacts on poorer countries.**
- **establish a Climate Change Knowledge Network to deliver policy advice and knowledge to over 60 developing countries.**
- **expand support for southern civil society organisations to campaign for action on climate change and deliver change on the ground.**

3.30 Developing countries need access to the best science and evidence on climate change to help them plan to meet the challenge. Although there is international consensus on the scientific evidence, there are still gaps in our knowledge, particularly the detailed impacts of climate change at local level. We will invest in research into global climate science to provide better prediction of the local impacts of weather patterns and climate change on poorer countries, and especially to help to predict rainfall in Africa through a new partnership between DFID and the Hadley Centre.

3.31 One-hundred million pounds will be invested by DFID in climate change research over the next five years. New approaches to managing soil fertility, improving water retention and diversifying crops are being tested across 34 African countries: in Kenya, new ways of communicating weather forecasts by radio to poor farmers are being trialled and in Morocco new community water agreements are being tested to help manage possible conflict over increasing water scarcity.

Climate Change Knowledge Network

The UK is establishing a Climate Change Knowledge Network of existing southern and northern research institutions to provide policy advice and knowledge to over 60 developing countries around the world. The Network will help them to decide how best to adapt and what measures are best suited to build resilience to climate change.

The expertise available within the network of organisations will provide demand-led, tailored and independent advice to developing country governments, civil society, universities and private sector clients.

The Network will use the latest science to provide information on likely climate change scenarios and support national diagnostics on potential impacts for a country and region. It will help to map out options for low carbon development, including choice of technology and financing sources. It will provide support on monitoring the impacts of climate change on the lives of the poorest and most vulnerable. And it will bring together northern and southern researchers to undertake new research to cover knowledge gaps on request from developing countries.

3.32 The UK will support more than 60 countries so they can access world class knowledge by establishing a Climate Change Knowledge Network. The network will bring together existing southern and northern research institutions to provide policy advice and knowledge to developing countries around the world.

3.33 The Network's expertise will be available to developing country governments, NGOs, private sector, research organisations, and UK development programmes so that they can take informed and early action. It will support developing countries to undertake national diagnostics on the potential impacts on their economies and develop evidence-based policy to respond.

3.34 Many citizens in developing countries do not have the resources to participate meaningfully in national and international debates on climate change either as individuals or interest groups. Internationally, the voices of vulnerable countries are not being heard enough in formal or informal discussions. Over the next four years the UK will support southern networks of civil society groups in their work as climate champions and to deliver change on the ground.

Scaling up investment in low carbon development

We will:

- **deliver on our commitments to invest in clean technology and renewable energy in developing countries through the Environmental Transformation Fund.**
- **seek stretching targets for the multilateral development banks to increase their proportion of energy sector lending to clean technology by 2012.**
- **pilot climate change innovation centres and seed funding for clean technology.**
- **explore the use of advance market commitments to stimulate demand for renewable energy and other low carbon technologies in developing countries.**
- **deliver on our commitments to invest in sustainable forestry management.**
- **seek new ways of raising finance to pay for forest management and reduce deforestation and forest degradation.**

3.35 To avoid dangerous climate change, the world needs to continue to grow but use less carbon and avoid environmental degradation. Developed countries and economically advanced developing countries need to act quickly, as they contribute most carbon to the atmosphere. Low income countries are under less pressure to act as

their emissions are small. But in the long term, they will need to grow and compete in an increasingly carbon constrained world.

What is low carbon development?

Low carbon development means using less carbon for growth:

- Using less energy, improving the efficiency with which energy is used and moving to low or zero carbon energy sources.
- Protecting and promoting natural resources that store carbon (such as forests and land).
- Designing, disseminating and deploying low or zero-carbon technologies and business models.
- Policies and incentives which discourage carbon intensive practices and behaviours.

3.36 The UK will engage with country partners in low and middle-income countries and international partners to:

- increase investments in clean and low carbon technology.
- drive innovation through new partnerships with the private sector and civil society.
- invest in forestry.

Scaling up the use of clean, low carbon technology

3.37 Some 1.6 billion people are without access to energy – a quarter of the world's population.⁶⁶ Energy demand is likely to treble in developing countries by 2030. A

revolution in clean and efficient technology is needed to help developing countries leapfrog over old, carbon intensive technologies. They will also be able to participate in a growing global market in green technologies providing jobs and creating new industries.

3.38 Over the next three years, the UK investment in the Clean Technology Fund will support 15-20 countries with rapidly rising emissions to transform their use of renewable energy, and make their transport and energy use more efficient. For example, in Egypt, the Fund will increase the capacity of tramlines, the biggest form of mass transport for poor people, by a factor of six (from 70,000 to 400,000 passengers a day) providing more adequate transport and reducing local pollution.⁶⁷



Mali: Fulani man cleaning solar panels with his headscarf. Solar power is a cheap energy source for Africa. (Panos – Giacomo Pirozzi)

3.39 In five to eight low income countries, the Scaling-up Renewable Energy Programme will focus on stimulating the spread of renewable energy linking it with productive industry (such as milling, manufacturing) and domestic consumers. By 2015 we expect that the programme will provide enough energy to support over 2.5 million households and reduce expenditure on imported diesel.

3.40 Multilateral development banks are helping to transform energy use and supply in developing countries. This will help promote low carbon growth. The World Bank Group has increased its investment in energy efficiency and renewable energy to \$2.7 billion in 2007-8, representing 35% of their energy lending for that year.⁶⁸ But they can do much more.

3.41 The UK, in consultation with development partners, will seek targets for clean energy investments of 80% for the European Bank for Reconstruction and Development, 60% for the World Bank Group and Asian Development Bank and 40% for the other regional development banks. These proportions will be a stretch, but also a challenge the banks must manage. The UK will seek to ensure the MDBs meet these targets by 2012. Achieving this target for the World Bank alone would result in additional investment in renewables and energy efficiency of around \$2 billion a year by 2012 based on current lending.

Incubating innovation

3.42 Clean technology requires innovation – to change business models, raise finance and develop new technologies. The UK will establish pilot centres in at least three countries to provide a national focal point for innovation in the green technology sector, leading to the creation of new jobs and businesses. Seed finance to get the centres up and running will aim to secure £10 of private sector investment for every £1 of public money they spend.

3.43 Helping developing countries to develop large scale, low carbon technologies such as wind and solar power can only be achieved if the right conditions are in place. One way to do this is to establish better

incentives for the private sector, for example, by setting a fixed price for each unit of clean energy produced. Such measures – sometimes called Advance Market Commitments (AMCs) – would help ensure stable, longer-term returns for companies and would help stimulate more investment in low carbon energy in developing countries. DFID will seek to use AMCs to develop low carbon technologies for energy, as well as for other sectors such as waste management and transport.

Protecting forests

3.44 Deforestation and changes in land use are responsible for 18% of global emissions – more than the entire global transport sector.⁶⁹ The UK is seeking an agreement at Copenhagen that helps to reduce tropical deforestation by at least 50% by 2020 and halt global forest cover loss by 2030 at the latest.

3.45 Standing forests are crucial to the livelihoods of 90% of the world's poorest people.⁷⁰ Protecting and managing forests will help reduce deforestation, maintain biodiversity, ecosystem services and secure livelihoods. Resources, such as forests, need to be allocated an economic value so that they are more valuable standing as a living, sustainably used resource, than they are when cut down.

3.46 The UK will use its experience on sustainable forest management to inform discussions on a global mechanism for the reduction of emissions from deforestation and degradation (REDD) under the UNFCCC. Forests can be managed to provide the products that people need while storing carbon at the same time. But this is difficult where governance is weak – where

institutions lack capacity, where rights of local people to use forests are not protected and laws are not enforced, and where global demand for cheaper food and fuel drives unsustainable agricultural expansion.

Sustaining forests and reducing poverty

Over the past twenty years, the Government of Nepal has handed responsibility for management and use of forests to local communities. Almost 33% of Nepal's population are members of a community forest user group, who harvest a range of products for their use and sale.⁷¹

The UK Livelihoods and Forestry Programme is helping 527,000 households – 11% of Nepal's population – to make a living from the forests. More than 90% of villagers report that their forests are in better condition now than they were twenty years ago, that wildlife is returning and that water sources are more reliable. These forests also store about 70,000 tonnes of carbon a year.

Livelihoods have improved. Average household income has increased by 60% over the last 5 years. Every £100 spent by the UK gave an increased income of £230 per person over this period.

3.47 The UK is working with others to help 37 countries to develop plans to combat deforestation and consequently reduce emissions. And we have committed to provide up to £100 million from the Environmental Transformation Fund to help selected countries to implement their REDD plans.



Cameroon: community forest enterprise worker takes a break. The Congo Basin Forest Fund supports forest-based livelihoods which follow sustainable harvesting practices. (DFID – Andrew Inglis)

Protecting the Congo rainforest

The Congo Basin is home to the second largest rainforest in the world. The forests provide food, shelter and livelihoods for over 60 million people and play a vital role in regulating the global atmosphere by absorbing and storing large quantities of carbon.⁷² But logging, agriculture, oil and mining activities are increasing deforestation, with potentially devastating consequences for poor people's livelihoods and the global climate.

In June 2008, the Congo Basin Forest Fund was launched with £100 million support from the UK and Norwegian governments. Managed by the African Development Bank, the Fund will help local communities from eight countries in the Congo Basin to make a living from the forest while at the same time protecting it. The Fund will help communities reforest degraded areas; promote community land tenure rights; and sustainably harvest and sell forest products. It will also help quantify carbon stocks and emissions, ensure community participation is at the heart of a Reduction of Emissions from Deforestation and Degradation mechanism for the region, and help build capacity to participate in this mechanism and future forest carbon markets.

3.48 The UK will work with development partners, including the private sector, to find new ways of raising finance to pay for forest management to reduce emissions from deforestation. We will press to include forests in the global carbon market so that

countries are paid to protect them. The UK will also explore the role of forest backed bonds to raise private capital.

Supporting developing countries to adapt to climate change

We will:

- **deliver on our commitment to help vulnerable countries plan for climate change through the Environmental Transformation Fund.**
- **continue to invest in agricultural research to help poor farmers respond to climate change.**
- **support new water resource management programmes in five developing countries; invest in two new cross-border water initiatives; and strengthen UN coordination on water.**
- **pilot approaches to affordable micro level insurance services for the poor.**

3.49 Climate change impacts are already being felt. The world is already seeing rising sea levels, changes in rainfall patterns, declining fisheries, land degradation and more frequent and severe climate related disasters. Development, as a means of reducing poverty, is the most effective way to build resilience to the consequences of climate change and to preserve our natural resource base.

Planning for climate change

3.50 The UK will help countries plan and implement new climate resilient development strategies through the Pilot Programme for Climate Resilience (PPCR).

Working with eleven of the most vulnerable countries, and drawing on the Climate Knowledge Network, the PPCR will help identify vulnerable sectors and people, and target investments needed to build resilience. Depending on the priorities and vulnerabilities identified by these countries, the programme will support the introduction of climate resilient crops; redesign existing and planned infrastructure for water storage, irrigation, flood protection and hydropower; protect ecosystems; improve weather monitoring and data collection programmes; and introduce guarantees and risk mitigation for the private sector. It will demonstrate how such action can be replicated and expanded.

3.51 Supporting over 250 million people in countries such as Nepal, Bolivia and Zambia, the PPCR will help ensure that sectors such as water, agriculture, energy and health maintain progress with poverty reduction even if climatic conditions are very different in decades to come.

3.52 The UK, through its bilateral aid programme, is helping countries plan for climate change. In Western Orissa in India, rural communities are being supported to develop better management and conservation of land and water resources, improve access to drought resistant crops and have better access to social protection measures. The programme has already directly assisted about 250,000 people, enabling almost 72,000 of them to move out of poverty. In Brazil, the UK is supporting a national economic study of climate change. This is showing that climate change will have major impacts on agriculture and Brazil's hydroelectric system (the mainstay of its power supply), and threatens to reverse progress on tackling inequality.

Investing in vulnerable sectors

3.53 Natural resources and ecosystems – soil, water, fisheries, forests – are essential for life. The 2005 Millennium Ecosystem Assessment shows that nearly two-thirds of the world's ecosystems are now under threat from current patterns of growth. Unchecked climate change will accelerate the collapse of ecosystems with disproportionate

consequences for the poor. Urgent action on adaptation in vulnerable natural resource sectors is needed.

3.54 Agriculture – the main source of livelihood for three out of four of the world's poor – is one of the sectors most vulnerable to climate change.⁷³ Significant investments will be required for its adaptation. The UK



Mozambique, Niassa Province:
women and girls collect water.
(Panos – Fred Hoogervorst)

The personal cost to women

Poor women and girls bear the physical burden of climate change impacts. Increasing water and fuel scarcity will require women and girls to walk further to collect wood and water. Women are responsible for 75% of household food production in Africa and will need to work harder to meet the family's food needs as agricultural productivity declines. Women are 14 times more likely to die than men during climate related disasters – mostly because they are not warned, are unable to swim, are not able to leave the house alone or because they are taking care of children and the elderly.⁷⁴

Learning more about the gendered impacts of climate change and involving women in decision-making on adaptation can reduce the impact on women. For example, community-based cyclone preparedness projects in Bangladesh now involve women, resulting in a reduction in women killed.

is increasing its support to the Consultative Group on International Agriculture Research (CGIAR) to help build responses such as developing climate resilient crop varieties, providing better information on the local impacts of climate change on agriculture, and maintaining agricultural biodiversity.

3.55 Fisheries are the main source of protein for over one billion people in the world. Yet fish stocks and the marine environment on which they depend are under threat from poor governance, over-fishing and climate change, with adverse impacts on livelihoods, food security, growth and trade. DFID and Defra are working together to support the sustainable management of fisheries and aquaculture. The recently launched fisheries partnership with the New Partnership for Africa's Development and the African Union will be a central focus of this work.

3.56 Ninety per cent of countries share some of their water with their neighbours.⁷⁵ Countries will need to find new ways of co-operating over shared resources. Melting Himalayan glaciers will affect three billion people dependent on food and power from the shared waters in South Asia.⁷⁶ In such situations, both natural and artificial systems for storing water could help manage flows.



South-eastern Nigeria: catch of the day – fish are the main source of protein for over one billion people in the world. (Barry Pound)

3.57 The UK will step up its investment in water resources management. We will support two new major cross-border initiatives, and support new watershed management programmes in five countries. We will also strengthen UN Water to improve global leadership and coordination on water.

3.58 By 2015, the number of poor people affected by climate related disasters is predicted to increase by 50%.⁷⁷ But in developing countries less than 3% of household and business losses from natural disasters are insured.⁷⁸ Insurance can often be the single factor that prevents a poor family slipping into destitution after a drought or flood. The UK will help to increase insurance coverage for poor people by working with the private sector and international financial institutions to pilot different insurance approaches in three countries and help develop climate insurance markets that offer affordable products.



Nile River: many of the 300 million people who live in the Nile Basin are dependant on the river for their livelihoods. (DFID – Clare Barrington)

The Nile Basin Initiative – investing in peace and prosperity

The River Nile is crucial for peace and economic development in Africa. Historically the waters of the Nile have been a source of tension between the ten countries sharing the river. Climate change threatens to exacerbate these tensions as water flows are affected and droughts and floods increase. In 1999, nine of the ten Nile basin countries established the Nile Basin Initiative (NBI) with an agreed vision for the sustainable development of the Basin.

The NBI represents a huge leap forward in one of the most complex and politically challenging river basins in the world, helping to secure peace and prosperity for 300 million people. The UK supported the NBI from the start. Projects being brokered include watershed management, flood preparedness, irrigation, water storage, and hydropower generation. The initiative is also breaking new ground in international water law by supporting the negotiation of a treaty between nine of the countries to share the benefits of water.

Transforming development practice

We will:

- **continue to integrate climate change into development policy and practice.**
- **conduct a strategic review of the UK's development programme to improve our efforts on climate change.**
- **make all of DFID's operational activities, both in the UK and overseas, carbon neutral by 2012.**

3.59 The UK is committed to integrating climate change into its development policy and practice. Staff expertise in DFID has been expanded and new tools and approaches developed for aid programmes, including a new climate risk assessment tool and making climate assessment part of mandatory environmental screening.

3.60 DFID will, in collaboration with country partners, conduct a strategic review of the UK's development programme to assess how it can improve our efforts on climate change. We will pilot the approach in eight flagship countries and roll it out to all our priority countries by 2013.

3.61 We will also make all of DFID's operational activities, both in the UK and overseas, environmentally efficient and fully carbon neutral by 2012. We will do this by implementing office environmental management plans to increase energy efficiency and by offsetting our remaining carbon emissions.

3.62 The UK will meet its own climate change obligations. Domestically, through our commitments in the Climate Change Act and as outlined in DECC's forthcoming climate change and energy White Paper. We will also continue to stretch ourselves and challenge multilateral and bilateral development partners to be more ambitious internationally.

3.63 But countries will not be able to grow, reduce poverty and pursue climate resilient and low carbon development without peace and stability. The next chapter outlines how we intend to work to build peaceful states and societies.