Beyond Aid

Ensuring adaptation to climate change works for the poor

Climate-related shocks are affecting the lives of millions of poor people with increasing frequency and severity. Without urgent action, recent development progress will stall – then go into reverse.

The international community must make a new commitment to fund adaptation to climate change. Funds must be additional to the promise to deliver 0.7 per cent of rich country income as aid and raised and managed in new ways. A global adaptation finance mechanism is needed, able to deliver the scale of funding required and governed according to the principles of equity, subsidiarity, transparency, and accountability. This will insure against future development losses and help to resuscitate the international climate negotiations, laying the foundations for a fair and safe deal at Copenhagen at the end of this year.





Summary

In 2000, at the UN Millennium Summit, the international community agreed a historic set of goals aimed at freeing a significant proportion of the world's population from poverty, disease, hunger, and illiteracy. The Millennium Development Goals (MDGs) marked a turning point for international development and brought rich and poor countries together in a shared endeavour to end poverty and suffering.

Though the goals themselves are not on track to be fully achieved by 2015, much progress has been made towards them, bringing immeasurable benefits to millions of lives. Climate change now threatens to unravel this progress and drive a larger wedge between industrialised countries – which became rich through decades of fossil fuel consumption – and poor countries – which are being hit the hardest.

The impacts of climate change on people's lives are already clearly apparent. Ranging from the sudden and catastrophic to the creeping and insidious: storms, floods, droughts, sickness, shifting seasons. For people living on the margins, even a small increase in climate risk can have catastrophic consequences that can span generations.

And even if global emissions cease tomorrow, climate risk will continue to increase for some time – atmospheric concentrations of greenhouse gases mean that further warming of at least 0.6 degrees above current temperatures is inevitable.¹ Recent development progress is set to be reversed by the climate change *already built into the system*.

A new approach to financing adaptation is needed

For a tiny premium of 0.1 per cent of the GDP of industrialised countries, new and additional investment in adaptation today can insure against these future development losses and ensure a more stable, secure, and prosperous tomorrow. This is a small price to pay.

But emerging approaches to delivering adaptation finance are based upon an inappropriate aid infrastructure heavily reliant on bilateral channels and donor-controlled funds. Adaptation financing is consequently opaque, underfunded, overly complex, and poorly coordinated, with little weight attached to the voice of developing countries and the needs of vulnerable women and men living in them. The result is high transaction costs for developing countries, low transparency and donor accountability, no national ownership, and a woefully inadequate level of funding reaching projects on the ground.

Initial frustration among developing countries at the unwillingness of rich countries to address these problems has deepened into distrust, significantly undermining the chances of securing an adequate deal at the climate change talks in Copenhagen in December 2009.

Yet developing country governments must also do more. Precious few

have undertaken initiatives to estimate national adaptation costs and to map vulnerability. As a result they are unable to properly advocate for their funding needs and are ill-prepared for decisions about how to allocate adaptation funds.

This cannot continue. Copenhagen must deliver a new global adaptation framework that is fit for purpose, and developing country governments must give climate change adaptation the priority it requires. In a world locked in to at least 0.6 degrees of further warming, adaptation cannot remain the poor cousin of mitigation. It should instead be an equal partner, and alongside mitigation, integrated into holistic sustainable development policies.

Adequate, new, and additional funds

The new framework must mobilise and deliver new funding of at least \$50bn per year in the first instance. Ultimately, several times this amount could be required. This must be beyond aid – additional to existing Official Development Assistance (ODA) commitments. Cannibalising aid promises to pay for adaptation will condemn the MDGs to failure: meeting current adaptation costs from ODA could mean that, in 2010, 8.6 million fewer people have access to HIV and AIDS treatment, 75 million fewer children are in school, and 4.5 million more children die than would otherwise have been the case.

It is precisely now that aid needs to increase, not be diverted. Continued development progress is the best way to address preexisting levels of vulnerability to the risks that climate change is multiplying. But without new and additional funds for adaptation, developing country governments will be faced with an impossible trade-off between helping their populations adapt to climate change or providing them with basic services such as healthcare and education. India is already spending nearly three times as much on adapting to climate change as it does on health.

It cannot be a case of continuing development *or* adapting to climate change – without both, neither will happen.

It is time for rich country politicians and policy makers to stand up and be counted: they either support the principle of additionality or show that they are content to watch recent development gains – children attending school, mothers surviving childbirth, the sick receiving lifesaving drugs – reversed.

A new commitment

The forthcoming UN High Level Event on Climate Change in New York and the G20 meeting in Pittsburgh in September 2009 provide a historic opportunity for national leaders to make an unequivocal political commitment to fund adaptation: adequately, equitably, and additionally. This will help resuscitate the international climate negotiations and lay the foundations for a fair and safe deal at Copenhagen in December.

Components of an international framework

An international adaptation framework must learn from the failings of current approaches. And it has to draw on the successes of other international funding mechanisms, such as the Global Fund to fight AIDS, Tuberculosis and Malaria, itself the result of a united vision and decisive action among the international community. In particular an international adaptation framework must represent a break from the aid paradigm and a move away from bilateral channels and donorcontrolled funds. It must:

- mobilise adequate new and additional funds, of at least \$50bn per year in the first instance;
- raise funds predictably either through the sale of international emissions permits or through binding commitments based on responsibility and capability;
- be streamlined, and under the authority of the UNFCCC; governed according to the principles of equity, subsidiarity, transparency, and accountability.

1 Introduction

In 2000, at the UN Millennium Summit, the international community agreed a historic set of goals aimed at freeing a significant proportion of the world's population from poverty, disease, hunger, and illiteracy by 2015. The Millennium Development Goals (MDGs) marked a turning point for international development and brought the developed and developing worlds together in a shared endeavour to end poverty and suffering.

The Goals themselves are still a long way from being fully achieved. However, much development progress has been made in recent years:²

- Between 1999 and 2005, the proportion of people living in extreme poverty fell from about a third to a quarter.
- Prior to the food crisis of 2008, the proportion of people living in hunger in the developing world had fallen from 20 per cent at the start of the 1990s to 16 per cent.
- By 2007, nearly nine in ten children in the developing world were enrolled in primary school.
- Despite population growth, the number of deaths of children under five years old fell from 12.6 million in 1990 to 9 million in 2007.
- The number of deaths each year from AIDS peaked in 2005, in large part due to a tenfold increase in the availability of antiretrovirals in poor countries over the last five years.

This progress, which has brought immeasurable improvement to the lives of millions of men, women, and children, is now under threat. The global economic crisis, compounding the devastating impacts of 2008's food and fuel crises, is expected to result in up to 90 million more people in extreme poverty this year than would otherwise have been the case. Meanwhile, climate change is already increasing the exposure of poor people to livelihood shocks arising from droughts, floods, sickness, storms and slow-onset changes such as shifting seasons, desertification and sea-level rise. The cumulative impacts can send people into a downward spiral of increasing poverty and vulnerability with profound implications for the achievability of the MDGs.

Oxfam calls upon the international community to commit to an effective international framework to help poor people adapt to climate change and to allow development to continue. This must be at the centre of any climate deal agreed at Copenhagen. The forthcoming UN High Level Event on climate change in New York and subsequent meeting of the G20 in Pittsburgh provide a historic opportunity for leaders to make such a commitment.

2 The human cost of climate change

I spent 22 days on the roof of [a neighbour's] house. There were a lot of us, the owner of the house tried to fit on as many people as he could.

Mona Julien, market trader, Gonaïves, Haiti

Rain is so unpredictable these days. My crops are now dry. I used up all my seeds when planting. Now I have nothing. I have mixed different crops as I am not sure which will survive the weather. I have beans, maize, and cassava but still they dry up. The rain has deserted us.

Chrisellia Nzabonimpa, farmer and community leader, Nyagatare District, Rwanda

Even during the wave season, I still go to sea. I have to for the sake of my family. Jafar, fisherman, Jakarta. Mona, 40, is what they call in Haiti a *ti machann* – a market lady. She sold underwear, jeans, and phone cards, but lost everything to floodwaters and mud during a particularly vicious storm season in 2008, in which four tropical storms hit Haiti within a few weeks. 'I have nothing to do all day with my hands,' she explains. 'By keeping busy and working, we can relieve some stress. But the problem is that there are no employment opportunities here. If there was more employment, that would be a lot better for people emotionally.'

By 2015, the average number of people affected each year by climaterelated disasters may have grown by over 50 per cent to 375 million, Oxfam has projected. ³

Chrisellia Nzabonimpa, 60, is a farmer, labourer, community leader, and grandmother. She farms a tiny half-hectare plot that she shares with one of her sons in Nyagatare District, Rwanda. But times are hard for Chrisellia: failed harvest after failed harvest means that she relies on work tilling the soils of other people's land, from which she makes a dollar a day, in order to survive.

In the past, when they could predict the seasons, she would sow in March and harvest in June. Now she says it does not matter when she plants, as it is impossible to know when the rain will come. 'I am getting old. I can no longer dig to make money,' she says. 'The future is very frightening.'

By 2030, the number of people suffering hunger and illness due creeping climate change, such as shifting rainfall patterns, could reach 310 million, with nearly half a million deaths.⁴

Jafar, 42, is a fisherman on the Indonesian island of Jakarta. This year, the wave season – a period of storms and dangerously high seas – lasted three months. It used to last one month. Fishermen also describe how the waves are getting higher and higher each year. 'I was facing waves as tall as the mast of my boat,' Jafar recalls.

The lengthening wave season is devastating for an industry that must shut down until it has passed. There are no alternative sources of income; some families are getting into serious debt in order to make ends meet. Some, like Jafar, are returning to the sea, taking ever-greater risks with their lives. Others may be forced to migrate in search of secure livelihoods elsewhere.

By 2050, climate change may force 200 million men, women, and children to migrate.⁵

The current threat to development

For Chrisellia, Mona, Jafar, and millions of others like them, climate change is not a future threat – it is a living reality. Climate-related disasters have more than doubled since the 1980s.⁶ Reported floods alone have increased four-fold since the beginning of that decade.⁷ Meanwhile creeping, insidious changes in the seasons, such as longer, hotter dry periods, shorter growing seasons, and unpredictable rainfall patterns are bewildering poor farmers, making it harder and harder for them to decide when best to sow, cultivate, and harvest their crops.⁸

The warning signs for a setback in human development are increasingly visible. While future precise impacts can be debated, climate change is already slowing progress towards the 2015 targets of the MDGs.

The danger now is that the post-2015 period will be marked by a wholesale reversal in human development. Even if political leaders choose to set a course for mitigation at Copenhagen that will contain the effects of climate change and keep warming to within 2 degrees, that would still leave poor people with as much as 1.2 degrees of further warming to cope with.⁹

Governments around the world have failed to acknowledge the scale of the threat. Debates on climate change continue to focus on long-term environmental risks for the planet, with insufficient attention paid to the *long-term impacts* of *immediate climate risks* for vulnerable people. The threat of environmental catastrophe in the 21st century and beyond is real. But for people living on the margins, even a small increase in climate risk can have catastrophic consequences. Exposure to a long drought or sudden flood can threaten lives. And it can also trap people in lifelong cycles of poverty and disadvantage.

Box 1: Risks, shocks and vulnerability

Over our lives we all experience events, or shocks, that affect our wellbeing: sickness and crime for example, or as the economic crisis has shown, unemployment and stock market crashes.

Risk defines the extent to which we are exposed to shocks. People at greater risk of a particular shock can expect to experience it more frequently. Climate change means that the risks of climate-related shocks, such as those arising from droughts and floods, or slow-onset changes such as sea level rise or shifting seasons, are increasing.

Vulnerability is a measure of our capacity to deal with shocks. Greater vulnerability means *less* capacity to deal with shocks without suffering a long-term loss of wellbeing. It is inextricably linked with poverty.

The downward spiral

Climate change means climate-related shocks are coming harder and faster each year – it is a risk multiplier. For poor people without the incomes, savings, access to healthcare or social insurance enjoyed by people in industrialised countries, these shocks may force them into short-term coping strategies – going without food, selling off assets critical to their livelihoods, taking their children out of school to work.

Shocks, and the short-term strategies to cope with them, can have longterm consequences, potentially spanning generations. After each shock, it may take longer to recover. Without support, the cumulative effect is a downward spiral of deeper poverty and greater vulnerability, as assets are eroded and wellbeing diminished.

Recent research¹⁰ on the long-term impacts of rainfall shocks on poor people shows how:

- in Kenya, children aged five or younger are 50 per cent more likely to be malnourished if they were born during a drought year;
- in Niger, children aged below two were 72 per cent more likely to be stunted if the were born in a drought year;
- in Indonesia, women born during years of good rainfall are taller, stay in school longer, and live in wealthier households.

These examples capture just one set of transmission mechanisms from climate change to poverty. They highlight the acute vulnerability to changed rainfall patterns of millions of the world's poorest people. But the evidence also points to grave threats for the future, as such longterm impacts compound with increasing numbers of shocks as climate change gathers pace.

For an organisation like Oxfam, the danger is that future generations of workers in development programmes and partner organisations will be working not to promote development and build on recent advances, but instead fighting a rearguard action to prevent the wholesale unravelling of these gains.

'Adaptation' is a technical term, and tends to be discussed in relation to 'systems' and 'infrastructure'. But fundamentally, it is about what *people* continually do in order to reduce their vulnerability to climate shocks and avoid the downward spiral into poverty (see Box 2). But as climate change continues to gather pace, the scale of need demands new approaches and far greater resources.

Box 2: Stories of adaptation to climate change in India

Adapting to changing rainfall in Uttar Pradesh

In the village of Taj Pipra in Uttar Pradesh, the people plant their *Kharif* crop at the end of June, so that when the rains come about two weeks later, the seeds are ready to germinate. But now heavy and unpredictable rains are coming when the crops are ready for harvest – in September and October. Despite building a channel to drain the soil, 500 acres – the cropland of seven villages – became waterlogged last year, making the land unworkable and washing away soil nutrients.

The people of Taj Pipra decided to construct a new water passage 400 metres long to connect the existing channel with a waterway adjacent to the village. This time, they shared the plan with the irrigation department, which

provided the infrastructure, and engaged the help of other villages through which the new passage would need to run. As a result of this effort, 300 acres of land is now cultivable and more than 620 families were able to produce a good harvest this year.

Preparing for floods in West Bengal

The severe floods of 2000 came as a shock to riverside communities in West Bengal. 'There was a government announcement over a loud speaker, warning us that there would be a severe flood,' recalled Dipali Biswas in Nadia district. 'But we were still not aware just how severe it would be. When I saw the water rise above the roof of my house, I was stunned.'

Since 2000, the local NGO Sreema Mahila Samity (SMS) has supported communities to set up village taskforces; plan and practice their disaster response; learn to build quick-assembly boats and flood shelters; raise the foundations of their houses; and establish flood-proof communal grain banks. Dipali is a member of her village taskforce. 'These days, we can hear about floods in many ways,' she explains, 'from the village committee, from a telephone number that we can call to get the latest information, from the TV and radio, and of course from observing the river ourselves.'

Investing in the world's future

The moral case for financing adaptation is clear: it is precisely those least responsible for creating climate change who are suffering the most. Rich counties, which became wealthy by burning fossil fuels, have a responsibility to assist and the capability to do so.

Investing in adequate adaptation today will allow the international community to first protect and then build upon recent development gains, rather than let them unravel. Adaptation investments can pay double dividends: they reduce losses from climate-related shocks and make poverty-reducing growth possible.

The impact of Hurricane Mitch in Honduras (1998) provides a clear example of the macro-economic havoc that climate-related disasters can wreak without up-front investment. Research suggests that the impact of the hurricane reduced Honduran GDP by six to eight per cent by 2004, compared with projected levels.¹¹ Predicted GDP growth without the hurricane would have freed half a million people from poverty in the following two decades,¹² but the economic shock means that, instead, the numbers of people living in poverty in Honduras have grown.

This real world example is reflected in recent modelling which indicates that the economic benefits of investing in adaptation are immense. Under business as usual emissions over the next two centuries, in present value terms, every dollar spent on adaptation could save about 60 in avoided losses.¹³

It is impossible to envisage an adequate climate deal agreed at Copenhagen *without* an international adaptation framework at its heart. An adequate and equitable adaptation mechanism is fundamental to the demands of developing countries where the majority of future emissions savings need to happen. Adequate mitigation actions will

If a free society cannot help the many who are poor, it cannot protect the few who are rich. John F Kennedy only be agreed if there is adequate mitigation *and* adaptation finance on the table.

Finally, a world that invests in adaptation today will be a more stable, secure, and prosperous world tomorrow. As climate shocks continue to accumulate, countries and communities lacking adaptive capacity will come under huge strain. Impacts may include more natural disasters, conflict over scarce resources such as water and cultivable land, increased famine, and mass migration.¹⁴

In a globalised world, this level of suffering and dislocation will have implications for all of us. Economically, politically, socially, and militarily. For a tiny premium of 0.1 per cent of industrialised country GDP invested in adaptation today, we can insure against this future. This is a small price to pay.

3 Current approaches are failing

Emerging approaches to raising, governing, and delivering adaptation finance fall a long way short of what is required. The result is high costs for developing countries, low transparency, poor accountability of donor governments, no national ownership, and a woefully inadequate level of funding reaching projects on the ground.

Global leaders must acknowledge current shortcomings and demonstrate the solidarity and political will required to agree a new international adaptation framework commensurate with the challenge. In so doing, they must learn from the failings of current approaches, and draw from the successes of other initiatives.

Where are we going wrong?

Current approaches have been built ad-hoc upon an inappropriate aid infrastructure. The result is opaque, underfunded, overly complex, and poorly coordinated – with little weight attached to the voice of developing countries and the needs of the vulnerable women and men living in them.

A spaghetti-bowl of funding channels

Adaptation finance is currently delivered through a spaghetti-bowl of different bilateral and multilateral channels. Multilateral funds are administered by the Global Environment Facility (GEF) or the World Bank. The exception to this is the Adaptation Fund under the authority of the Conference of the Parties (COP) of the UNFCCC (see Table 1).

Funding stream	Institution	Pledged \$m	Received \$m	Disbursed \$m
Least Developed Countries Fund (LDCF)	GEF	176.5	135.0	31.4
Special Climate Change Fund (SCCF)	GEF	121.0	100.5	46.9
GEF Trust Fund's Strategic Priority for Adaptation	GEF	N/A	50.0	50.0
Kyoto Protocol Adaptation Fund	Adaptation Fund Board	Increasing to 300 pa*	18.5	N/A
Pilot Program for Climate Resilience (PPCR)	World Bank	546.0	95.8	N/A
Total		843.5	399.8	128.3

Table 1: Multilateral adaptation funding channels

Compiled by Oxfam

*The Adaptation Fund is financed by a levy on the Clean Development Mechanism (CDM) not by pledges. Estimates suggest that it could generate \$300m annually by 2012.

Cumbersome processes to access resources remain an important challenge for the international community...a new

financial mechanism under the aegis of the UNFCCC is needed.

Farrukh Iqbal Khan, Permanent Member of the Adaptation Fund Board I know the UNDP and the World Bank have funds – yes they are there, but they add their own conditionality on top of those of the funds. I don't know how well they understand climate change issues, but they don't seem to have the priority or the urgency. Hon. Jesca Eriyo, Minister of State

Hon. Jesca Eriyo, Minister of State for the Environment, Uganda. This complexity inevitably results in huge transaction costs for developing countries, which must jump through a different set of hoops for each channel in order to first access funds and then to monitor and report on how they are spent.

Not demand-driven

The heavy reliance on bilateral aid channels, and the lack of effective developing country representation within multilateral governance structures (the Adaptation Fund being the one exception) mean that adaptation is not demand-led, but instead is driven by donor priorities and preferences. The result is adaptation that is not nationally owned, and is fragmented and incoherent, making it extremely difficult to integrate into national development processes.

As well as supply-side reform, ensuring that adaptation is truly demand-driven requires that developing country governments clearly outline the scale and nature of the 'demand'. National governments are accountable to their citizens and they have a responsibility to ensure that the needs of the most vulnerable communities, groups and individuals are properly represented in any international framework. Ultimately, it is in these communities that the real demand resides.

Most developing country governments have yet to examine the economy-wide requirements of national adaptation efforts in any depth.¹⁵ Without clarity around their national adaptation funding requirements, developing countries are ill prepared to advocate for additional funds needed. This plays into the hands of the rich countries, such as Japan, that argue that poor countries must do more to define their adaptation needs before funding can be agreed. And without bottom-up cost estimates for adaptation, governments will be unable to argue for their fair share or to make informed resource allocations when funds eventually become available (see Box 3). Planning and finance ministries in all developing countries must begin this analysis immediately, and produce preliminary assessments – before the Copenhagen climate talks in December 2009.

Box 3: Malawi - a government that needs to do more

As a Least Developed Country (LDC), Malawi has developed its own National Adaptation Plan of Action (NAPA) in order to identify priority activities in response to its 'urgent and immediate' adaptation needs. The document was produced by Ministry of Mines, Natural Resources and the Environment in 2006, but not launched in-country until 2008. It identifies \$22.43m of funding requirements, which, due to the failure of rich countries to fulfil their pledges to the LDC Fund, has not been met. But even if the funds were forthcoming, they would be tiny in relation to Malawi's true adaptation needs – less than \$2 for each person in the country.

Civil Society Organisations in Malawi have criticised the NAPA and the government's level of engagement with the issue of climate change. In particular, they have highlighted an apparent lack of government awareness of climate change at all levels, a lack of commitment to the issue, and minimal engagement from relevant ministries, resulting in the

marginalisation of the issue within the Environment Ministry.

Clement Kalonga, formerly of ActionAid and now with Oxfam, explains: 'The government as a whole is not doing enough; it is waiting for the NAPA to be funded. The government should be more proactive, both in climate change programming and in looking for funds. If asked why they are not doing more, they say "but we have the NAPA and it hasn't been funded yet."'

Source: Oxfam International (2009) 'The Winds of Change: Climate change, poverty and the environment in Malawi'.

Underfunded funds and empty pledges

Probably the most glaring shortcoming of the current approach is the woefully inadequate level of funding actually reaching developing countries. As Table 1 shows, multilateral funding falls several orders of magnitude short of the required scale – which is tens of billions of dollars per year, rather than tens of millions. Even where limited funds are in theory available, in practice cumbersome procedures place access beyond the reach of many developing countries. Furthermore, there is minimal donor accountability: when pledges fail to materialise, it can be impossible to ascertain which donors are breaking their promises, due to a lack of transparency.¹⁶ In aggregate, Table 1 paints a shameful picture. As far as it is possible to tell, less than half of pledged amounts have been received, and only 15 per cent have been disbursed.

Perhaps the most notorious example of empty pledges is that of the NAPAs (see Box 3). These were produced by Least Developed Countries in order to access funding for their 'urgent and immediate' adaptation needs through the LDCF. They are still waiting for the money to appear.

The picture is just as stark when bilateral channels are included. At the start of 2009, rich countries had pledged \$18bn in one-off amounts, but less than \$1bn had been delivered.¹⁷ The USA plans to invest 15 times as much as that on flood defences in Louisiana and other low-lying coastal areas following Hurricane Katrina.¹⁸

Drawing from success – the Global Fund

The Global Fund to fight AIDS, Tuberculosis and Malaria is an example of what can be achieved in a short space of time when national leaders are prepared to acknowledge the scale of the challenge before them, and demonstrate the political will and leadership required.

From its inception, at the 2000 G8 meeting in Okinawa, it took about 18 months until it was disbursing funds.¹⁹ Since then, the Global Fund has approved funding of over \$15.6bn in more than 140 countries.

Though not without its faults, the achievements of the Fund cannot be denied: 2.3 million people receiving antiretroviral treatment; delivery of 88 million bed nets and 74 million malaria drug treatments; 5.4 million additional cases of TB detected and treated. Crucial to this success have been the shared principles of equity, subsidiarity, transparency, and accountability, which have helped bring donor and recipient countries

Current arrangements are like being given an ATM card but no PIN code.

Selwyn Hart, First Secretary, Permanent Mission of Barbados to the United Nations together in a joint endeavour. Also important has been its commitment to the participation of civil society.²⁰

Too little

The Global Fund is financed through voluntary contributions, which means it has often struggled to meet its funding requirement. In March 2009, the Chair of the Board announced that the Fund faced a shortfall of \$4bn to the end of 2010. A mechanism to mobilise adequate funds in a predictable manner would undoubtedly make the Global Fund more effective.

Too late

Although the international community mobilised very quickly to agree and establish the Global Fund, it came after several years of procrastination over an international response to the unfolding global health crisis. The cost of that delay can be counted in human lives.

The international community cannot delay any longer in its response to climate change, already estimated to be costing more than 300,000 lives every year.²¹ The Global Fund not only demonstrates the clear advantages of an equitably governed, streamlined, and transparent mechanism; it also shows that such a framework can be developed in a short space of time when the political will, leadership, and vision is there.

4 What is needed?

People are suffering today, and we must see how we can put in place a mechanism to prevent people suffering tomorrow.

Philip Gwage, Head of Climate Change Coordination Unit, Government of Uganda. 'We used to plan on needing to deliver food relief two years out of every five,' says Pamela Komujuni from the Department of Disaster Management, Relief and Refugees in Uganda. 'Now it's every year. We also need early warning so that we can advise farmers when and what to plant. This will have an effect on our budget.'

Like Uganda, many other developing countries are struggling to cope with the new costs that climate change is bringing. The Government of India's Economic Survey for 2008–09 estimates that national expenditure on climate adaptation already exceeds 2.6 per cent of GDP – nearly three times as much as is spent on healthcare.²² Neighbouring Bangladesh – one of the poorest countries in the world and one of the most vulnerable to climate change – has allocated \$40m from the national budget for a fund to cope with climate change impacts. But much more is required: since 2000, climate-related disasters in Bangladesh have caused damage amounting to more than \$5bn.²³ India, South-East Asia, Africa and the Middle East are estimated to account for over 90 per cent of the \$125bn of annual economic losses currently attributable to climate change – a figure that could more than double by 2030.²⁴

How much is needed?

Climate change is making development more difficult and more costly, and will continue to do so. There are a number of estimates of the additional costs climate change is imposing upon developing countries (see Table 2). However, developed countries remain tight-lipped about how much adaptation will cost, for fear of having to commit to funds. The EU stands alone in having endorsed one of the estimates below – that of the UNFCCC. But paralysed by internal budget wrangling, it is silent as to what its fair share of this total might be and whether or not it should be additional to its ODA commitments. Indeed, many member states, such as Germany, argue that any promise to fund adaptation should be withheld until the final hour of negotiations at Copenhagen, as a tactic to extract maximum concessions from poor countries.

Source	Estimated cost \$bn p.a.	Time-frame
World Bank (2009): World Development Report 2010 ²⁵	75	2030
ClimateWorks (2009):	9-14	2010-2020
Project Catalyst ²⁶	15-37	Rising to 2030
UNFCCC (2007): Investment and Financial Flows to Address Climate Change ²⁷	28–67	Rising to 2030
Africa Group (2009): Submission to the UNFCCC ²⁸	67	Rising to 2020
Stern (2009): The Global Deal ²⁹	50–100	In the next decade
UNDP (2007): Human Development Report ³⁰	86	Rising to 2015
Oxfam (2007): Adapting to Climate Change ³¹	More than 50	Immediately

Table 2: Adaptation cost estimates in developing countries

Estimates compiled by Oxfam.

There are two reasons to consider the estimates in Table 2 the absolute minimum level of financing needed. First, such estimates tend not to fully capture all costs. Typically, many sectors sensitive to climate impacts, such as energy, manufacturing or tourism are excluded, and 'residual' costs of the climate damage that adaptation cannot help avoid are ignored. More importantly, the estimates assume that previous low levels of development investment, which have resulted in an 'adaptation deficit' (see sub-section *the adaptation deficit* below), will be adequate in a future of greater climate variability. One recent expert review suggests that including the costs of addressing the deficit in overall adaptation needs would increase estimates by a factor of two to three, compared with the UNFCCC estimate (i.e. up to \$200bn per year) or even more.³² As noted earlier in this report,³³ comprehensive, bottom-up assessments of actual costs are urgently needed to support more accurate estimates of the overall scale of resources required.

A second reason that current cost estimates underestimate the scale of need relates to the speed and scale of emissions cuts that will be agreed in Copenhagen. Tragically, the prospects look dim for emissions cuts in industrialised countries greater than 15 per cent below 1990 levels by 2020. Cuts of more than 40 per cent in these countries are required to preserve a strong chance of avoiding an average temperature increase beyond two degrees Centigrade – the conditions most of the above cost estimates are predicated upon. Unless negotiations move quickly and industrialised countries adopt far more ambitious emissions reduction goals, far higher levels of adaptation investment – or reimbursement for damages – will be needed.

Raising the kinds of sums in Table 2 is perfectly possible. Since the financial crisis began, governments have mobilised an estimated \$18

trillion in finance to rescue failing banks.³⁴ Annual military spending is \$1.3 trillion.³⁵ Adaptation finance of \$50 billion per year would represent only 0.1 per cent of industrialised country GDP.³⁶

Adaptation funding is additional by definition

This money must be in addition to existing commitments from rich countries to reach 0.7 per cent of Gross National Income (GNI) in aid. When the 0.7 per cent target was first agreed as a UN resolution in 1970, it of course did not include any costs for climate change. To plunder aid budgets to pay for adaptation will necessarily mean less money available for the MDGs (see Box 4). To argue against the additionality of adaptation finance is to argue against development, yet this is precisely what many industrialised countries are doing.

So far, only Denmark, the UK and the Netherlands have made a clear commitment that adaptation finance must be additional to ODA. The next step for these leaders must be to identify an adequate scale of funding and to commit to provide their fair shares of this.

But a commitment to additionality sticks in the throats of other European countries such as Germany, Italy and Sweden, which favour funding adaptation from their aid budgets. The silence of other rich countries, such Australia and New Zealand on this fundamental issue is inexcusable.

Box 4: Cannibalising aid

Oxfam has previously estimated that current adaptation costs in developing countries are at least \$50bn per year. What can this money achieve as aid? And therefore what might be the opportunity cost of diverting this money from ODA in the fight against HIV and AIDS, illiteracy, and child mortality?

An extra:

- \$25bn per year could ensure treatment for 8.6 million people with HIV and AIDS in 2010;
- \$10.8bn per year could save the lives of 4.5 million children in 2010;
- \$13bn per year could ensure universal primary education an extra 75 million children in school in 2010.

So cannibalising \$50bn per year of aid commitments to pay for the new and additional costs of adaptation could mean something of the order of 8.6 million fewer people receiving treatment for HIV and AIDS, 4.5 million extra deaths among children, and 75 million fewer children in school in 2010 than could otherwise have been the case.³⁷

Policy makers and politicians in industrialised countries point out that adaptation is simply development in a hostile climate, and that therefore it cannot be considered as additional to ODA. This is a favourite argument of the European Commission, which argues that it makes no sense to talk of doing *either* adaptation *or* development – if you do one, you necessarily do the other. This is a facile argument. Of course, on the ground, development and adaptation are two sides of the same coin – projects to raise or diversify incomes, boost healthcare

Assistance for climate change should not be allowed to divert money from the pledges we have already made to the poorest.

Gordon Brown, UK Prime Minister and education opportunities, and reduce vulnerability to shocks will help people to develop and to adapt. Adaptation interventions cannot be considered as separate to development. But while it does follow that adaptation should be *delivered* through poverty reduction and development programmes, it does not follow that funding need not increase. An increasingly hostile climate makes development increasingly expensive. It necessitates new investments in agriculture, greater provision of social and private insurance, new buildings and infrastructure to name only a few. These additional costs are the costs of adaptation. Adaptation funding is by definition additional.

The adaptation deficit

In a hostile climate, every dollar of ODA achieves less. This is already happening. An increasing share of aid is being diverted away from development towards disaster relief – the average share of humanitarian assistance in bilateral aid has increased four-fold over the last two decades.³⁸ The World Bank estimates that it has provided grants and loans for disaster relief and recovery of more than \$38bn over the last two decades.³⁹ Oxfam has forecast that climate-related disasters may increase the cost of humanitarian response from \$16bn to \$25bn a year by 2015 if current levels of response are maintained.⁴⁰

And it is precisely now that ODA needs to increase, not be diverted. High levels of poverty in developing countries meant high levels of vulnerability to risks long before climate change became evident. These risks – of drought, flood, storm, disease – are not new as such, and nor is the vulnerability of poor people to them. But climate change is increasing them massively: risks are spreading to new regions, with greater frequency, less predictability and ever more devastating consequences.

These prior levels of vulnerability, the result of historical underinvestment in development, can be thought of as a pre-existing 'adaptation deficit' that must be addressed in order for poor people to reach a level of resilience to shocks from where they can escape poverty.⁴¹

The above estimates of adaptation costs reflect the new costs imposed upon developing countries by climate change multiplying these risks, not the costs of addressing this pre-existing deficit – these come in addition. As noted above, a recent expert review has estimated that including the costs of addressing the deficit in overall adaptation finance requirements would result in a total 2 to 3 times higher.

Recent development progress has narrowed the deficit by lifting people out of poverty, so reducing vulnerability. It is vital that existing aid promises are kept so that the deficit continues to narrow – the same review cited above suggests that the best way to address the deficit may be through industrialised countries meeting the commitment to 0.7 per cent.⁴² But this still leaves the additional costs of climate change. Without continued progress towards the 0.7 per cent ODA commitment *and* adequate, new, and additional funding for adaptation, the MDGs will slip out of reach as recent gains in human development are rolled back. It cannot be a case of continuing development *or* adapting to climate change – without both, neither will happen.

Micro-measurement

Estimating the incremental costs of adapting to climate change at the project level is a prerequisite for effective action in the long-term and must be an urgent priority for national governments. Such information is needed to make the right decisions on where, when, and how much to invest. But that does not mean that funding, and hence adaptation, should be withheld until such accounting endeavours have been discussed and agreed. It is standard practise in GEF projects, for example, that the incremental costs of climate change are estimated separately before funding is granted. All this achieves is more delays, more bureaucracy, and more administration costs – when the money is needed, at scale, today.

A first commitment

Existing estimates clearly indicate the necessary scale of additional adaptation funding: of the order of \$50–100bn per year. These are currently the best estimates, but they will inevitably improve as new information becomes available – for example, new and improved bottom-up costings; the inclusion of new sectors, progress made in mitigating climate change; new scientific evidence on climate risks and impacts; and better understanding of subsequent needs and effective adaptation practices. It will therefore make sense to revisit the financing requirement periodically, particularly given the likelihood of need estimates increasing as new information becomes available, as noted above. Current estimates could form the basis of a first commitment from donors – say \$50bn per year – with an agreement to revise the figure every five years.

But a lack of complete certainty should not prevent the funding of a first commitment. Although we cannot know the precise impacts of future climate change, there is much that can be done now that will be robust in the face of uncertainty, if adequate funding is made available. Access to reliable weather forecasts; reversing the degradation of soil, water and vegetation; Disaster Risk Reduction measures; and countless other interventions will help communities to deal with the impacts of climate change in any circumstances.

Predictability

While the total funding requirement must be subject to periodic review, it is critical that the funds themselves are raised reliably and predictably if developing countries are to be able to plan and invest properly. As seen in the previous section, voluntary rich country pledges to fund adaptation have not materialised – the same has been true of ODA.⁴³

Oxfam has shown how the sale of international emissions allowances in a post-2012 regime can automatically provide sufficient additional, predictable, and stable resources for adaptation in developing

Costing 'adaptation' on a case-by-case basis before funds are made available is not only impractical, but deeply unethical, as it places the burden of proof on developing countries, rather than on the countries responsible for climate change.

Steve Jennings, Head of Adaptation and Risk Reduction, Oxfam GB countries. Importantly, such a mechanism would also provide the necessary flexibility – allowing financing to be scaled-up over time to meet potentially increasing adaptation needs, for example, through adjustment of the auction quota (see Box 5).⁴⁴

Box 5: Achieving predictability and additionality through contributory approaches

The surest way to achieve predictability and additionality in adaptation funding is by auctioning, levying or selling international emissions permits. If the international community is unable to agree to this, it remains important to ensure that whatever contributory approach is developed can still raise funds that are predictable and additional and not hostage to the whims of national treasuries or political expediency. This requires:

- revision of the OECD-DAC ODA accounting rules so that adaptation finance cannot be counted as aid;
- binding annual commitments to provide adaptation funds, based on responsibility and capability;
- a compliance mechanism, in which default is penalised by withholding a corresponding number of emissions rights in the following year, which would instead be auctioned to make up the difference.

Equity and effectiveness

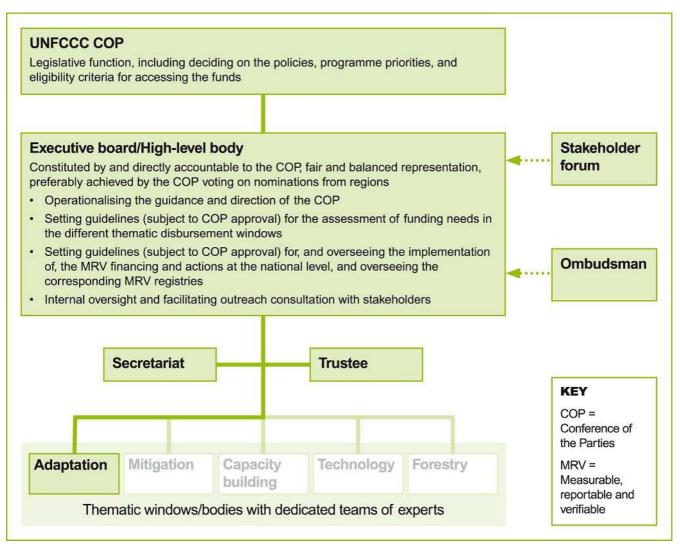
Equitable governance and effective delivery are fundamental to achieving an adequate global deal and to ensure that adaptation funds reach the most vulnerable people. The international community must learn from the failings of current adaptation financing arrangements and draw from the successes of other initiatives such as the Global Fund.

International architecture

The existing patchwork of initiatives and bilateral channels must be streamlined. A new purpose-built framework is required to raise, govern, and disburse climate finance, including adaptation funds. It must be representative – allowing developing countries a fair say in the governance of adaptation funds – and directly accountable to the UNFCCC. The nascent Adaptation Fund provides a good starting point. There will be several important advantages to channelling funds through a single, equitably governed entity:

- 1. **Reduced transaction costs** for recipient countries, which will only need to engage with one institution and one set of rules, so greatly reducing the time and resources spent negotiating and meeting funding and reporting requirements.
- 2. **Greater stability of finance,** due to wider pooling of international resources.
- 3. **De-politicisation of finance,** as funds will not be tied to the interests or priorities of donor countries.
- 4. **Improved learning** through the centralisation of knowledge and practice.

Figure 1: Schematic of an appropriate financing mechanism



Delivery

Adaptation should be fully integrated, alongside mitigation, in development planning. The potential for agriculture, for example, to benefit from a holistic approach to sustainable development, incorporating both adaptation and mitigation, is particularly profound.⁴⁵

So adaptation should not be the sole responsibility of the environment ministry. It should be delivered through existing national and subnational processes and institutions, including most importantly, development and poverty reduction plans. To achieve maximum integration with national development processes and to allow maximum country ownership of planning, adaptation finance should be provided, where possible, mainly as budget support.

Subsidiarity must apply at international and national levels. Developing countries should have ownership of adaptation actions within their borders and should not be subject to inappropriate conditionalities. But national governments must also do their part to ensure that the needs of the most vulnerable communities and individuals are met. As well as undertaking national costings of adaptation and initiatives to map vulnerability, this means developing national adaptation frameworks that are accessible and bottom-up. Institutions should be developed to ensure that the most vulnerable individuals, groups, and communities are empowered through:

- the provision of appropriate information;
- participatory structures through which they can voice and agree their adaptation needs; and
- rapid and simplified access to financial and capacity building resources.

Transparency must also apply at the international and national levels. Financial flows should be audited and reported, from industrialised country contributions to national disbursement through to project delivery. Without this, it will be impossible to hold either donor or recipient governments to account.

Accountability goes hand-in-hand with transparency. The executive board of the mechanisms should be directly accountable to the Conference of Parties (COP) of the UNFCCC, while at the national level, governments should be accountable to their citizens. Affected communities and civil society organisations should be included in the monitoring and verification of local, national, and international reporting, which should itself be based upon agreed performance indicators demonstrating increased resilience to climate impacts. National governments should establish an appeal and dispute settlement body with a clear mandate to ensure that the interests of all stakeholders are protected.

A litany of excuses

Without such a commitment from rich countries to finance adaptation adequately, equitably and additionally, there will be not be a deal at Copenhagen. Developing countries are being hit hardest by climate change, but are least responsible and have the least resources with which to adapt. They rightly see financing adaptation as an obligation of rich countries – those that created the problem and became rich doing so.

The reluctance of many rich country politicians and policy makers to make this commitment is undermining the negotiations. They remain mired in the aid mindset, and would rather repackage old aid promises as adaptation finance, and channel this through an out-dated aid framework that marginalises the voice of developing countries. In particular, rich countries favour bilateral channels and the World Bank, in seeking to preserve their influence over how funds are spent.

In the meantime, these countries provide a litany of excuses as to why what is required cannot be delivered.

No money, no deal. Alf Wills, South Africa climate change lead negotiator

Table 3: A litany of excuses

Why are there no firm commitments	for adaptation finance?
We don't have an idea of how much adaptation will cost.	There are various estimates available, which, though not perfect, provide an indication of the scale required: \$50bn to \$100bn a year. This can inform a first commitment.
We need a trajectory of adaptation costs in order to identify ways of raising the money.	There is no certain trajectory of adaptation costs – that will depend on various unknowns, not least our future success in mitigating climate change. But there is still much that we can do now that we can be sure will help poor people whatever the precise impacts of climate change.
	What is certain is that the magnitude of resources needed is already large, and delaying action will increase these costs even more.
We need the USA/others to commit first.	The level of the international community's response must be determined by national leaders and based upon need, not on the domestic politics of one country.
We are waiting until Copenhagen.	Adaptation finance should not be used as a bargaining chip.
	It would be morally bankrupt, and waste a huge opportunity to build trust between rich and poor countries and rescue the negotiations.
Adaptation can be paid for from ODA.	This would condemn the MDGs to failure. To argue that adaptation should not be additional to the 0.7 per cent ODA commitment is to argue against development (see p17– Adaptation funding is additional by definition).
We can't make commitments unless we have confidence in the	The level of need for adaptation is totally independent of governance structures. Commitment is not only possible, but necessary.
governance structures.	But the real point is that the <i>current</i> governance structures are failing – a new mechanism is vital. Rich countries need to acknowledge this and to engage with governance negotiations constructively.
We cannot commit to a figure until we know how the money will be spent.	That is precisely why the principles of transparency and accountability are so important. An equitable governance structure will allow rich countries to work as partners with developing country governments and to invest in transparent accountability systems at the national level.
Countries lack the capacity to absorb additional funds.	This has been used in the past as an excuse not to increase aid – the argument being that large inward financial flows could trigger inflation or the appreciation of the exchange rate. But the evidence base for this is particularly weak. ⁴⁶

5 Conclusion and recommendations

Climate change threatens to unravel recent development progress, with disastrous consequences for millions of poor men and women. For a tiny premium of 0.1 per cent of industrialised country GDP, new and additional investment in adaptation today can insure against these future development losses and ensure a more stable, secure, and prosperous tomorrow. This is a small price to pay.

But current commitments to finance adaptation are orders of magnitude short of what is required, and favoured donor aid channels are not fit for purpose. The result is high transaction costs for developing countries; low transparency and donor accountability; no national ownership; and a woefully inadequate level of funding reaching projects on the ground.

Initial frustration among developing countries at the unwillingness of rich countries to address these problems has deepened into distrust, significantly undermining the chances of securing an adequate deal at Copenhagen in December 2009.

Yet developing country governments must also do more. Precious few have undertaken initiatives to estimate national adaptation costs and to map vulnerability. As a result, they are unable to advocate properly for their funding needs and are ill-prepared for decisions about how to allocate adaptation funds.

Time is running out. With only two months to go before Copenhagen, the upcoming UN High Level Event on climate change in New York and the subsequent G20 meeting in Pittsburgh provide the international community with a crucial opportunity that they must grasp with both hands. Rich countries must move beyond aid, and make an unequivocal political commitment to a new streamlined international adaptation mechanism to be agreed at Copenhagen. This must include specific commitments on:

- adequate new and additional funds, of at least \$50bn per year initially (ultimately, several times this amount could be required);
- predictability of funding sources, to be raised through the sale of international emissions permits or binding commitments based upon responsibility and capability;
- accountability to the UNFCCC, and governance based on the principles of equity, subsidiarity, transparency, and accountability.

Such a commitment will help to ensure continued development in the face of increasing adversity. It will also resuscitate the international climate negotiations and lay the foundations for a fair and safe deal at Copenhagen. The opportunity is too great to miss.

Annex: how the international community lines up

EU	€23–54bn by 2 internal battle of Expert Group of adaptation fina	ndorsed the UNFCCC estimated range for adaptation finance, equivalent to 2030, but has said nothing about what its fair share of this would be – an on sharing financial commitments has prevented it from doing so. The EU's on Adaptation is still opposed to legally binding commitments for additional ance, and leans towards the reform of existing institutions. Many EU member we to continue to use bilateral means to deliver adaptation finance.
	European Commission	The EC's recent communication on climate finance explicitly stated that money from ODA commitments could and should be used to meet adaptation needs. ⁴⁷
	Sweden	Sweden will hold the presidency of the EU during the Copenhagen conference. Sweden supports existing institutions; supports reform of the GEF to better include LDC needs – but does not question using the GEF for delivery. A commission on climate change and development chaired by the Swedish Minister for International Development Cooperation called for immediate commitment by rich countries of \$1–2bn for pre-2012 adaptation needs; and agreed that adaptation finance should be additional to ODA commitments to reach 0.7%. Unfortunately, this does not represent the national position. Indeed, a leaked document prepared by the Swedish government and the European Commission argued against additionality to ODA, suggesting instead that meeting commitments to 0.7% would be sufficient.
	Denmark	As hosts of the conference, working to increase its ambition. Along with the Netherlands and UK, champions the 'additionality' of climate change finance over and above ODA.
	UK	The first to propose a definite figure for climate change finance (\$100bn a year by 2020 for adaptation and mitigation, though about half of this would come from private sources). Up to 10% of ODA could be included in this commitment. Would like developing countries to contribute towards climate finance, as a pre-condition to access. Agrees that existing institutional architecture is outdated and not fit for purpose – however, existing and reformed institutions form an integral part of the 'new' architecture proposed.
	Germany	Impending national elections are weakening Germany's high-level political input to the climate negotiations – and positions on adaptation finance in particular are far from progressive. Germany favours the use of existing institutions, especially bilateral aid channels; and adaptation finance to count as aid towards the existing ODA target of 0.7% of GNI by 2015. Early signs indicate that the government likely to be voted into power could be even less progressive.
	France	France would like to withhold putting a definite figure on adaptation finance as a 'negotiating tactic'. Proposes a 'framework for action on adaptation' to be finalised by late 2010. Adequate financial support for adaptation to be provided through existing multilateral and bilateral institutions.
	Italy	Generally obstructive on finance and obligations by developed countries. Additionality is hardly a relevant question in the context of declining ODA. Will likely try to obstruct moves to provide new and additional finance for adaptation.
	Poland	Concerned with EU internal burden-sharing, wants first clarity on what its share would be before agreeing to any overall EU commitment. But rumoured to be in favour of an early offer from the EU on adaptation finance.

	Netherlands	Supports full additionality of adaptation finance over and above ODA and has called for \$100bn of finance for mitigation and adaptation by 2020, though without clarifying the share for adaptation. Would like the money to be disbursed through existing mechanisms. Interested in compliance mechanisms to ensure that rich countries meet their financial obligations.
	Belgium	Supports putting a concrete figure for adaptation finance on the table. Development ministry not in favour of additionality to ODA.
	Spain	The Ministry of Environment supports tabling figures on climate financing needs in developing countries and the EU's fair share. It also agrees on the need to ensure that funds are additional to the 0.7% ODA commitment. Although this is not yet a formal governmental position (still under interministerial discussion), it's likely to be publicly announced in the context of the September 2009 UN Summit on Climate Change and G20 Summit. The Ministry of Environment also is evaluating different potential sources of funding and instruments (taxation, auctioning of AAUs, etc.) under criteria of viability and efficiency. It favours use of existing institutions, but believes that the Adaptation Fund must demonstrate it can effectively manage existing resources before it is designated as the primary adaptation financing institution.
Norway	Proposed auctioning 2% of rich countries' emission allowances to raise adaptation finance ('Norwegian Proposal'), to yield about \$15bn annually. Sees scaled-up ODA as playing an important role in delivering funds for adaptation. Supports work programme up to 2012 to support implementation of NAPAs and to strengthen observation systems, data, capacity building, and (long-term) planning. Would be a stepping stone for longer-term adaptation (review in 2012). UNFCCC to have only a facilitating role, providing 'coherence in international support for adaptation'.	
Russia	Russia has not yet developed a clear position on finance and adaptation. President Medvedev at the Major Economies Forum stated that Russia is ready to take active part in the contributory multilateral Green Fund (the Mexican proposal), if other leading economies do the same. Other policymakers are of the opinion that Russia should be exempt from funding over the next 8 years or so as it is not an Annex II party. Yet others are concerned that such a refusal to contribute would tarnish Russia's international image. Auctioning of emission rights is considered a fundraising option.	
G77 and China	Calling for a commitment for new and additional, adequate, and predictable financial resources by rich countries which is measurable, reportable, and verifiable. New funding for climate change can be set at 0.5% to 1% of rich countries' GNP. Share for adaptation and mitigation should be decided by the Board charged with managing the funds, and take into account the historical imbalances in, and the urgency of funding for adaptation. Submitted a detailed proposal on a new financial architecture directly under the authority of the UNFCCC. ⁴⁸	
India	Supports an adaptation framework that provides direct and simple access to climate change finance, funded by contributions of 0.5% of rich countries' GDP. For adaptation, finance should be grant-based and provide for enabling activities, pro-active adaptation, reduction of vulnerability, and building resilience, rehabilitation and compensation, insurance, and integration into development. Submitted a detailed proposal for a reformed architecture to govern climate finance.	
China	Calling for a UNFCCC Adaptation Fund under direct authority of the COP which prioritises the most vulnerable countries. Rich countries should provide 0.5–1% of their GDP towards climate change finance. Finance provided outside the UNFCCC architecture will not be counted towards commitments.	
LDCs	Calling for a higher level of ambition, aimed at keeping global average temperature rise within 1.5°C. Submitted a proposal to raise adaptation finance through an international aviation levy. Would like the 2% levy on CDM extended to other emissions trading mechanisms.	
AOSIS	Action on adaptation should include a response to impacts that are already occurring. New, additional and predictable financial resources separate and apart from ODA should be provided and disbursed through a Convention Adaptation Fund; the fund should include	

	insurance, rehabilitation/compensatory, and risk management components to deal with loss and damage from climate change impacts. The UNFCCC must play a key role. ⁴⁹
African Group	Calling for rich countries to commit at least 0.5% of their GDP towards climate finance (\$67bn a year by 2020), backed by a compliance mechanism. Would like an adaptation framework in place to provide access to funds, assist in implementation of urgent needs, and promote coherence with other processes. Calling for a focus on most vulnerable countries.
USA	A climate change bill is in process – if passed, it could yield approximately \$600m in 2015 and \$800m in 2020 for adaptation finance; at least 40% of the funds would be provided to a qualifying multilateral fund. Has yet to make a public statement in favour of additionality.
Australia	No move towards a firm commitment for adaptation finance. Foresees only a facilitating role for UNFCCC in supporting nationally driven adaptation.
Japan	Not interested in any substantial adaptation finance – argues that available funds are not being used, and NAPAs are not robust enough to merit funding. Japan wants to see higher- quality plans before agreeing new money. Would like vulnerable countries to come up with adaptation plans, which would then be examined by a global body to prioritise actions that require assistance for implementation.
Canada	Supports constructive country-driven adaptation, although there is no indication of the amount of funding it will be willing to commit. Canada is apparently open to various approaches on institutions, and is willing to examine every proposal on the table. Canada recognizes the need for a scale-up of financing for adaptation and emphasizes that these funds should fulfil the needs of the poorest and most vulnerable countries. Worryingly, has yet to make a public statement in favour of the principle of additionality.
New Zealand	Would like more countries to join the list of rich countries expected to provide finance on the basis of changes in GDP. New Zealand is opposed to legally binding financial commitments. UNFCCC to have a facilitating role 'providing access to a range of tools and information sources including on availability of adaptation finance and technology'.

Notes

- ¹ If greenhouse gases had stabilised at 2000 levels, a further 0.6°C temperature level rise above 1988-1999 temperatures would be expected. See IPCC (2007) 'Fourth Assessment Report', Geneva: Intergovernmental Panel on Climate Change.
- ² United Nations (2009) 'The Millennium Development Goals Report 2009', New York: United Nations Department of Economic and Social Affairs.
- ³ Oxfam International (2009) 'The Right to Survive: the humanitarian challenge for the twenty-first century', Oxford: Oxfam International, see www.oxfam.org.uk/right-tosurvive
- ⁴ Global Humanitarian Forum (2009) 'The Anatomy of a Silent Crisis', Climate Change Human Impact Report, Geneva: Global Humanitarian Forum.
- ⁵ 'Climate Change and Displacement', *Forced Migration Review*, Issue 31 October 2008, Oxford: Refugee Studies Centre, University of Oxford.
- ⁶ According to the Centre for Research on the Epidemiology of Disasters (CRED) database, the number of reported climate related disasters (droughts, heat waves, floods, landslides, storms, and wildfires) has more than doubled since the 1980s from a total of 1,409 for that decade to 3,432 for the period 1998–2007. For details, please see 'Forecasting the numbers of people affected annually by natural disasters up to 2015', internal Oxfam study, April 2009, see www.oxfam.org.uk/right-to-survive
- ⁷ Reported floods were steady at around fifty a year throughout the 1980s, but have since risen to around 200 a year. See *CRED CRUNCH*, Issue No. 11, Centre for Research on the Epidemiology of Disasters, Université Catholique de Louvain, Brussels, 2008.
- ⁸ S. Jennings and J. Magrath (2009) 'What Happened to the Seasons?', Oxfam GB paper presented at the Future Agricultures Consortium / Centre for Social Protection conference on seasonality, Institute of Development Studies, University of Sussex, Brighton, 8–10 July 2009.
- ⁹ In 2005, temperature levels had risen 0.74°C over the previous century, with continued warming at a rate of 0.2 °C per decade expected. See IPCC (2007) 'Fourth Assessment Report', Geneva: Intergovernmental Panel on Climate Change.
- ¹⁰ See UNDP (2008) 'Fighting climate change: Human solidarity in a divided world', Human Development Report 2007/2008, New York: UNDP, and Maccini, S. and D. Yang, 'Under the Weather: Health, Schooling, and Economic Consequences of Early-Life Rainfall', American Economic Review, 99(3): 1006-26.
- ¹¹ Hochrainer, Stephan (2009), "Assessing the Macroeconomic Impacts of Natural Disasters: Are there any?," World Bank Policy Research Working Paper 4968, June 2009, at 12.
- ¹² DFID (2004), "The impact of climate change on pro poor growth," Key sheet 02.
- ¹³ Hope, C. (2009), 'The costs and benefits of adaptation', contained in Parry *et al*, 'Assessing the costs of adaptation to climate change: a review of the UNFCCC and other recent estimates', International Institute for Environment and Development and the Grantham Institute for Climate Change, London: IIED.
- ¹⁴ See for example Oxfam International (2009), 'Suffering the Science: Climate change, people and poverty', Oxfam Briefing Paper 130, Oxford: Oxfam International.
- ¹⁵ Apart from project cost assessments for only the most urgent and immediate needs under the National Adaptation Programmes of Action (NAPAs), only a few developing country governments have even begun to consider the wider costs of climate impacts and adaptation, or how they will meet these costs. Many of those that have are involved in international studies initiated by donor countries, UN agencies and/or multi-lateral development banks. As examples, see: http://worldbank.org/environment/eacc; http://www.cepal.cl/erecc/homepresent.html; http://www.adb.org/Documents/Books/Economics-Climate-Change-SEA/Economics-Climate-Change.pdf.
- ¹⁶ For example, rich countries promised developing countries three new funds in 2001 during climate change negotiations in Bonn: a special climate change fund; a least-developed-country fund to support National Adaptation Programs of Action; and the Kyoto Protocol adaptation fund supported by a 2 percent levy on the Clean Development Mechanism. Contributions for the first two were meant to be voluntary but to assuage fears that this was another empty promise a "Political Declaration" was adopted by the EU, Canada, Iceland, Norway, New Zealand and Switzerland on funding for developing countries. This Declaration includes an undertaking to provide an *annual* contribution of US\$ 410 million by 2005. (This level was to be reviewed in

2008 – but the deadline has slipped by unnoticed.) Even by June 2009, the total funding received by the two funds does not indicate that the promise has been kept. A study aimed at reviewing whether the EU kept its promise through other channels concluded that whereas the average level of financial support provided through multilateral channels falls well short of the EU's share of US\$369 million, it is impossible even for an informed observer to tell whether it is met through bilateral channels. The information available is simply insufficient. See Pallemaerts, P., and J. Armstrong, (2009). 'Financial support to developing countries for climate Change mitigation and adaptation: is the EU meeting its Commitments?', Institute for European Environmental Policy.

- ¹⁷ Analysis based on data collected by the Overseas Development Institute and reported in the Guardian. See http://www.guardian.co.uk/environment/2009/feb/20/climatefunds-developing-nations
- ¹⁸ S. Goldenberg (2009) 'US urged to abandon ageing flood defences in favour of Dutch system', The *Guardian*, 5 June 2009. See http://www.guardian.co.uk/environment/2009/jun/05/flooding-us-defence
- ¹⁹ Following the G8, at the 2001 African leaders summit in Abuja, Kofi Annan called for a global mechanism to provide a new channel for additional resources to combat HIV/AIDS, tuberculosis, and malaria. In June that year, a special session of the UN General Assembly concluded with a commitment to create such a fund, and at Genoa a month later, the G8 agreed to help finance it. By January 2002, a permanent secretariat had been established in Geneva and the Global Fund approved its first round of grants three months later.
- ²⁰ Equitable governance is achieved through equal voting power between donor and implementer constituencies on the Board, with civil society representation ensuring the direct participation of those living with or affected by the diseases. Subsidiarity, or national ownership, has been central to the Fund's operation from the start. National-level coordination bodies are responsible for determining needs and priorities. These bodies include relevant stakeholders from national and local government, civil society, and most importantly, the people living with, or affected by, the diseases. The Fund is transparent. It makes available detailed information on its commitments and disbursements and on donor pledges and contributions. These are commented on by the NGO Aidspan, which produces a regular monitoring newsletter. Accountability is hardwired into the operations of the Fund and aided by its transparency. The secretariat works with recipient agencies to set performancebased goals relating to effectiveness, accountability, and transparency. See D. Sridhar and T. Tamashiro (forthcoming), 'Vertical Funds in the Health Sector: Lessons from the Global Fund and GAVI', 2010 UNESCO GMR Background Paper, Paris: UNESCO.
- ²¹ Global Humanitarian Forum (2009) op. cit. Of course, the attribution of deaths to climate change or any other social, economic or environmental factor is extremely difficult and imperfect, and this estimate should not be considered as definitive. However it does seem plausible when considering an earlier report from the World Health Organization concluded that 'the modest climate change that occurred between the mid 1970s and the year 2000 is estimated to have caused the annual loss of over 150,000 lives.' See D.Campbell-Lendrum, A.Pruss-Ustun, C.Corvalan(2003) 'How much disease could climate change cause?', in: A.J. McMichael, D. Campbell-Lendrum, C. Corvalan, K.L. Ebi, A.K. Githeko, J.S. Scheraga, et al (eds) Climate change and health: risks and responses. Geneva: WHO.
- ²² Government of India (2009) 'Economic Survey of India 2008–09'. Only about 1 per cent of GDP is spent on health. See http://economictimes.indiatimes.com/News/Economy/Finance/Raise-healthspending-to-3-of-GDP-by-2010-Par-panel-to-Govt/rssarticleshow/4149205.cms
- ²³ Global Humanitarian Forum (2009) op. cit.

- ²⁵ World Bank (2009), World Development Report 2010: Development and Climate Change, Washington, DC: International Bank for Reconstruction and Development / World Bank.
- ²⁶ ClimateWorks (2009), "Adaptation to climate change: Potential costs and choices for a global agreement," Project Catalyst Working Draft, 27 March 2009, see: http://www.project-

catalyst.info/Publications/Working%20Group%20papers/Adaptation%20Potential%2 0Costsand%20Choices%20for%20a%20Global%20Deal_27%20Mar%2009.pdf.

- ²⁷ For adaptation finance of between \$28bn and \$67bn, which will be required by 2030, of which a 'significant share' will be needed in NA1 countries. See UNFCCC (2009) 'Investment and Financial Flows to Address Climate Change', Bonn: UNFCCC.
- ²⁸ Algeria on behalf of the Africa Group (2009) 'Key elements of the LCA negotiation text' (8 April 2009). See

²⁴ Ibid.

http://unfccc.int/files/meetings/ad_hoc_working_groups/lca/application/pdf/african_group_submission_lca_april_2009.pdf

- ²⁹ N. Stern (2009) 'The Global Deal: Climate Change and the Creation of a New Era of Progress and Prosperity', New York: Public Affairs.
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- ³⁵ 2007 figures, from Stockholm International Peace Research Institute (2008), 'Armament, Disarmaments and International Security: Yearbook Summary', Stockholm: SIPRI.
- ³⁶ \$50 billion is 0.12 per cent of Annex I GDP in 2007: \$40,191.9 billion (calculated from World Bank (2009) World Development Indicators, measuring GDP in current US\$).
- ³⁷ This is of course only an estimate and a number of caveats apply. Not all estimates are directly comparable in price terms as they may have been made in different years for example HIV/AIDS figures are in 2008 prices, child mortality figures are in 2004 prices, education figures are in 2007 prices. This effect of this will be to understate the opportunity cost. Furthermore, the comparison assumes that there is no overlap and/or spill-over effect between these health and education interventions and alternative adaptation interventions. The effect of this will be to overstate the opportunity cost. However, the size of any such spillovers will be dwarfed by the scale of the pre-existing adaptation deficit estimated to be in the hundreds of billions of dollars per year see Parry *et al*, 'Assessing the costs of adaptation to climate change: a review of the UNFCCC and other recent estimates', International Institute for Environment and Development and the Grantham Institute for Climate Change, London: IIED.

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- ⁴⁰ This calculation assumes that the woefully inadequate current level of response \$50 per person is maintained. See Oxfam International, 'The Right to Survive', op. cit.
- ⁴¹ A recent study by a group of IPCC scientists estimates that the total cost of making good the deficit in low-income countries for housing and infrastructure alone could be as much as \$315bn a year over two decades. More generally, the authors estimate that including the cost of addressing this deficit results in a total adaptation financing requirement 2 to 3 times greater than the UNFCCC estimates included in table 2. See Parry *et al*, 'Assessing the costs of adaptation to climate change: a review of the UNFCCC and other recent estimates', International Institute for Environment and Development and the Grantham Institute for Climate Change, London: IIED.
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- ⁴⁴ Auctioning 7.5% of Assigned Amount Units at a \$45 per tonne carbon price could generate \$52bn per year by 2015. Additional revenues from emissions trading schemes for international aviation and shipping could raise a further \$12.4bn and \$16.6bn respectively. See Oxfam International (2008) 'Turning Carbon into Gold: How the international community can finance climate change adaptation without breaking the bank', Oxfam Briefing Paper 123, Oxford: Oxfam International. See also Oxfam International (2009) 'Hang Together or Separately? How global cooperation is key to a fair and adequate climate deal at Copenhagen', Oxford: Oxfam International.
- ⁴⁵ For example, increasing the organic content of soils through practices such as lowtillage agriculture, fertilisation with animal manure or compost, and using crop residues such as mulch, can increase farm productivity, increase resilience to drought and erosion, and increase soil carbon sequestration.
- ⁴⁶ A recent survey of seven countries by the Overseas Development Institute found little evidence that large scale-ups in aid had caused these problems. The IMF in a recent paper noted that "there have been no clear country case studies demonstrating aid-induced Dutch disease and concluded that "Given the scant empirical evidence, generally Fund-supported programs should not constrain aidbased spending on the grounds of risks to competitiveness." See IMF (2007) 'Aid inflows – the role of the Fund and operational issues for program design', Washington: IMF.
- ⁴⁷ http://ec.europa.eu/environment/climat/pdf/future_action/communication.pdf
- ⁴⁸ UNFCCC (undated) 'G-77 and China Proposal Financial Mechanism for Meeting Financial Commitments under the Convention' http://unfccc.int/files/kyoto_protocol/application/pdf/g77_china_financing_1.pdf
- ⁴⁹ UNFCCC (undated) 'AOSIS Input into the Assembly Paper on Adaptation', http://unfccc.int/files/kyoto_protocol/application/pdf/aosisadaptation061208.pdf

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