

The Right to Survive in a Changing Climate

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Summary

We are seeing the effects of climate change. Any year can be a freak, but the pattern looks pretty clear to be honest...this is here and now, this is with us already.

Sir John Holmes, UN under-secretary for humanitarian affairs, the *Guardian*, 5 October 2007

Driven by upward trends in the number of climate-related disasters and human vulnerability to them, by 2015 the average number of people affected each year by climate-related disasters could increase by over 50 per cent to 375 million. This figure will continue to rise as climate change gathers pace – increasing the frequency and/or severity of such events – and poverty and inequality force ever more people to live in high-risk places, such as flood plains, steep hillsides and urban slums, while depriving them of the means to cope with disaster.

Climate change is a human tragedy which threatens to completely overload the humanitarian system. The potential human costs are unimaginable, and will be borne overwhelmingly by those least responsible for causing the problem: the world's poor. The responsibility for climate change lies with industrialised countries, which must take urgent action to:

- **stop harming – by cutting greenhouse gas emissions by at least 40 per cent by 2020; and**
- **start helping – by accepting their obligations to pay for adaptation in the developing world – at least \$50bn a year – and bolstering the humanitarian system.**

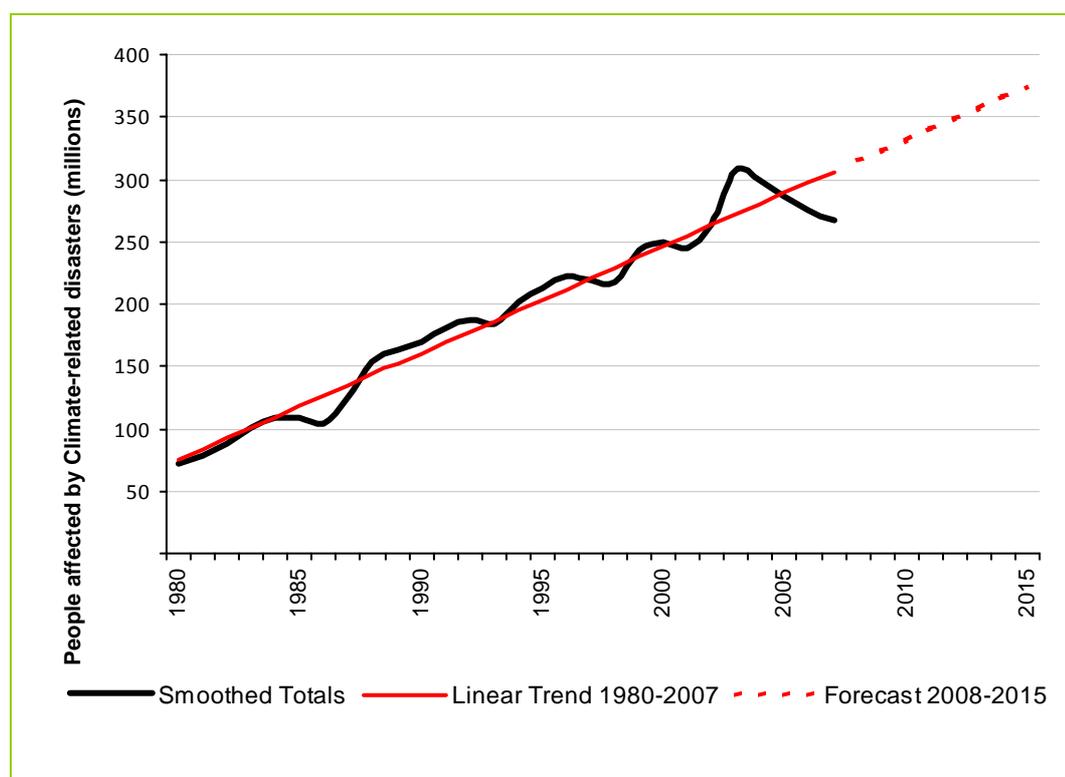
So far, industrialised-country action on all these fronts has been nowhere near what is required, with the result that hundreds of millions of lives and livelihoods from now and into the future are at risk.

Disasters are on the increase

Climate-related disasters are becoming more and more common, and have more than doubled since the 1980s.¹ Reported floods alone have increased four-fold since the beginning of that decade.² 2007 saw floods in 23 African and 11 Asian countries that were the worst in memory. Two hurricanes and heavy rains hit much of Central America; almost half the state of Tabasco in Mexico was flooded. In 2008, Cyclone Nargis devastated large swathes of Burma/Myanmar and a particularly vicious hurricane season wrought havoc across Cuba, the Dominican Republic, Haiti, and the USA. Such events steal lives and destroy livelihoods. Since the 1980s, the average number of people reported as affected by climate-related disasters has risen from 121 to 243 million a year – an increase of over 100 per cent.³

This trend is set to continue: new research for the Oxfam International report *The Right to Survive*, projects that by 2015, the average number of people affected each year by climate-related disasters may have grown by over 50 per cent to 375 million.⁴ This is expected to be driven by increasing numbers of small- and medium-scale disasters – precisely those that fail to make the headlines and that attract the least humanitarian assistance.

Figure 1: Forecast increase in numbers affected by climate-related disasters



Changing climate

It is extremely difficult to attribute a particular weather event to climate change. Rather, climate change makes certain types of events more likely. And as climate change gathers pace, the balance is likely to shift towards a greater frequency and/or severity of weather-related disasters. For example, the Intergovernmental Panel on Climate Change (IPCC) predicts:⁵

- with 'high confidence' that the area subject to extreme drought will grow significantly in the coming decades, and that as soon as 2020, between 75 and 250 million Africans may be exposed to increased water stress;
- a 'very likely' increase in the frequency of hot extremes, heat waves and heavy rainfall within the current century;
- a 'likely' increase in the intensity of tropical cyclones (typhoons and hurricanes) within the current century.

Such trends may already be apparent. A recent international conference of climate scientists organised to review the latest evidence produced since the IPCC made these forecasts concluded that the IPCC's worst-case scenarios are being realised or even exceeded, and global temperatures, sea level rise, and extreme climatic events are already moving beyond 'patterns of natural variability'.⁶

Increasing vulnerability

While climate change increases people's exposure to disasters, it is their *vulnerability* to them that determines whether they survive, and if they do, whether their livelihoods are destroyed. People's vulnerability is inextricably linked with poverty. In rich countries, an average of 23 people die in any given disaster, in least-developed countries, the average is 1,052.⁷ Poor people live in poorly constructed homes, often on land more exposed to hazards such as floods, droughts, or landslides, and in areas without effective health services or infrastructure. They have fewer assets to use or sell to cope in the aftermath of a disaster.

Vulnerability is increasing. Rapid urbanisation in developing countries means that slums are expanding onto precarious land. The global food crisis is estimated to have increased the number of hungry people in the world to just under 1 billion.⁸ Poor maintenance of infrastructure in developing countries is exacerbating the impacts of extreme weather.⁹ Now the global economic crisis is driving up unemployment and poverty, while undermining social safety nets.¹⁰

Undoubtedly developing countries need to do more to reduce the vulnerability of their populations to disasters, but climate change will make this increasingly difficult. First, creeping, insidious changes in weather such as a steady rise in temperatures, shortening growing seasons and unpredictable rainfall patterns will undermine rural

livelihoods. Second, the cumulative effect of more frequent climate-related disasters will send poor people tumbling into a downward spiral of increasing vulnerability as their assets are eroded, resulting in longer and longer recovery times. In 2007, Haiti bore the full force of Hurricane Dean (see Box 1). The following year, it was hit by four storms in less than a month – a succession of compounding disasters that left hundreds of thousands of people homeless and unable to meet their basic needs.

'I don't have a husband and I have four children to take care of. I am the only person in the family who provides for everyone. I will do my best to get my shop back, but at this moment I have no idea how I will do that. I have never witnessed a hurricane like this. I've noticed when it rains, it rains harder, and the hurricanes are stronger.'

Bernadette Henri, Haiti, after Hurricane Dean

Box 1: Destruction of livelihoods in Haiti

In August 2007, Hurricane Dean hit the coastal area of Bainet in Haiti, one of the poorest countries in the world. Some 1,050 homes were destroyed and countless livelihoods lost with the devastation of the fishing and agricultural sectors. Bernadette Henri, 41, lost her shop in the storm.

'I sell food and other bits and pieces in my grocery shop to make a living. I had the shop for four years and I was making an OK living. I was in Port au Prince when I heard that a hurricane was going to hit the area. I returned, but didn't have any time to gather my possessions or save the things in my shop. I came back to discover that my shop had been totally destroyed; this is all that's left of it.'



Bernadette Henri sits where her shop used to be in Bainet. It was destroyed by Hurricane Dean. Abbie Trayler-Smith/Oxfam

The greatest injustice of our time

Climate change is a human tragedy. It is set to overload the humanitarian system and destroy the lives and livelihoods of hundreds of millions of people, today and into the future. It is in developing countries that exposure to climate-related disasters is greatest. And it is the poor people in these countries who are the most vulnerable. The human costs of climate change will be borne overwhelmingly by the world's poor people – precisely those least responsible for causing it.

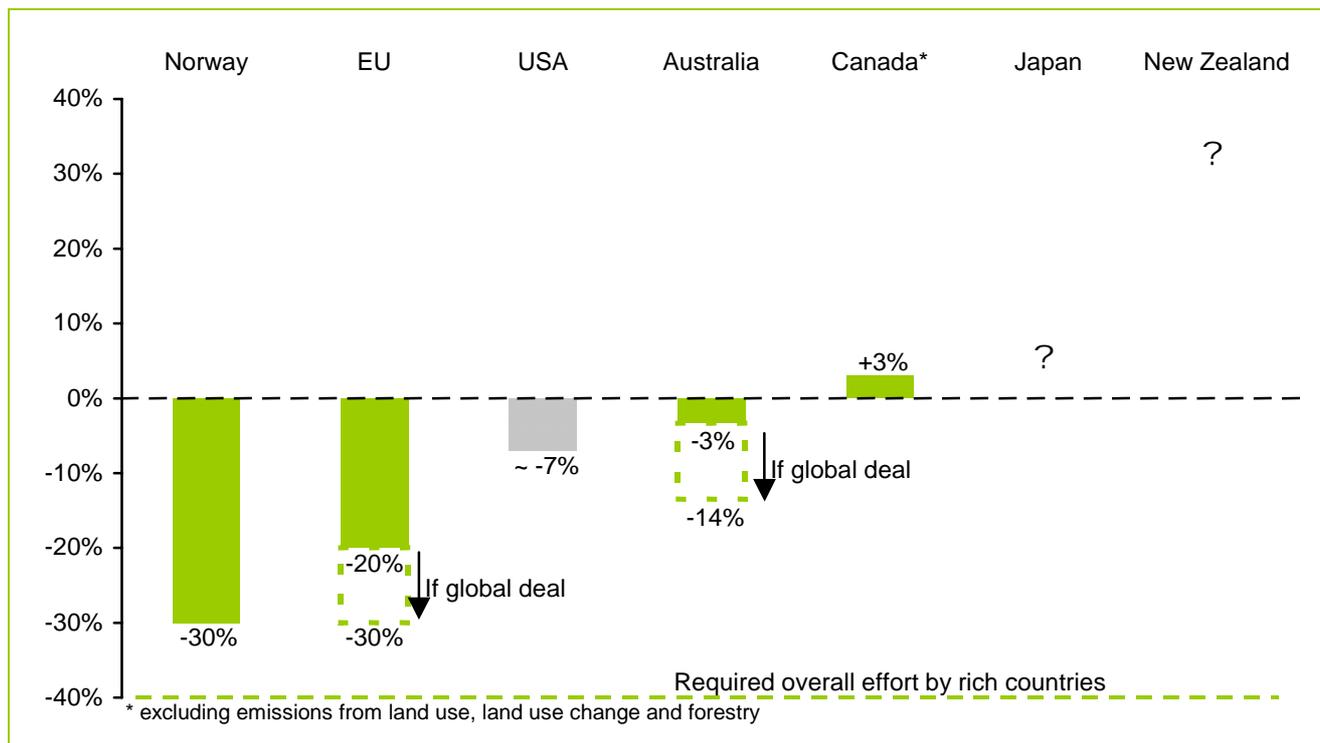
Responsibility for climate change lies with the industrialised countries that became rich burning fossil fuels. Despite accounting for only 20 per cent of the world's population, developed countries are responsible for over 60 per cent of industrial emissions since 1990.¹¹ As a result of their wealth, these countries are also capable of taking action to reduce the risk of catastrophic climate change and help poor and vulnerable people adapt to the changes that are already unavoidable.

Stop harming

To avoid catastrophic climate change, global warming must be kept as far below 2 degrees centigrade as possible. This can be achieved if industrialised countries take the lead and commit to reducing their emissions by at least 40 per cent below 1990 levels by 2020.¹² As a group, they must make this commitment at Copenhagen in December 2009, when the UN will meet to agree a post-Kyoto international emissions framework.

As Figure 2 shows, current commitments among rich countries fall far short of what is needed. The bars show existing targets to cut emissions relative to a 1990 baseline. The EU and Australia have both indicated that they will increase their commitments in the event of a global deal and of comparable efforts among other rich countries. Canada's objective to cut industrial emissions by 20 per cent relative to 2006 equates to a 3 per cent *increase* on 1990 industrial emissions, and this is without a commitment to manage emissions from other sources such as deforestation, which in Canada's case can be significant. In the USA, a recent legislative proposal made in Congress could reduce greenhouse gas emissions to around 7 per cent below 1990 levels by 2020, but this is far from becoming binding legislation. Furthermore, most of these cuts are unlikely to be achieved through verifiable reductions in domestic emissions: about two-thirds of the EU's target, for example, will be met by buying offsets from overseas; the US proposal allows for a similar amount of offsetting. Meanwhile, Japan and New Zealand have failed to make commitments for 2020: in Figure 2, the question marks indicate where their most recently reported 2006 emissions lie relative to 1990 levels.

Figure 2: Commitments made by selected rich countries to cut greenhouse gas emissions in 2020 expressed relative to a 1990 baseline¹³



Start helping

In the near-term, the increasing trends of vulnerability and incidence of extreme climate-related events are expected to continue, driving the forecast rise in the number of people who may be affected by disasters each year by 2015. This will place a huge strain on the international humanitarian system, and will require far more than the \$25 billion a year in humanitarian assistance that would be necessary to maintain the current, woefully inadequate, levels of response: about \$50 per person. A commitment to spending \$42 billion a year – which would be perfectly possible if all OECD governments acted like their ten most generous members – is a vital first step.

Into the medium-term, as climate change gathers pace, the upward pressure on these trends will become greater and greater. Developing countries need at least \$50 billion a year to help them adapt to unavoidable climate change.¹⁴ Finance for adaptation is an obligation – it must be separate and additional to aid commitments, in the form of grants not loans, and disbursed through equitable governance mechanisms. Indeed, if such money is not forthcoming, principles of customary international law indicate that there is a firm legal basis for affected countries to claim money from polluting countries as compensation.¹⁵

Adaptation finance is needed immediately, so that developing countries can begin investing in projects to reduce vulnerability. So far, rich countries have pledged just \$18bn in one-off amounts. In the meantime, the same countries have found trillions of dollars to bail out

their banking sectors. It is shocking that less than \$1bn of the pledges to finance adaptation have actually been delivered – equivalent to a tiny fraction of the estimated \$18.4bn in bonuses paid out by Wall Street firms last year against a backdrop of taxpayer-funded bailouts and deepening recession.¹⁶ Rich countries are holding off on making commitments as part of their negotiating strategies for Copenhagen – abhorrently, they are using adaptation finance as a bargaining chip. If real progress is not made in 2009, the true cost of this shortfall will not be measured in billions of dollars, but in millions of lives.

Notes

- 1 According to the Centre for Research on the Epidemiology of Disasters (CRED) database, the number of reported climate-related disasters (droughts, heat waves or 'extreme temperature events', floods, landslides or 'mass movements (wet)', storms, and wildfires) has more than doubled since the 1980s from total of 1,409 disasters for that decade to 3,432 for the period 1998–07. 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
- 2 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.
- 3 Based on CRED data for droughts, extreme temperature events, floods, mass movements (wet), storms, and wildfires, and comparing the average for 1980–9 and 1998–2007. For details of this projection, please see 'Forecasting the numbers of people affected annually by natural disasters up to 2015', *ibid.*
- 4 For details of this projection, please see 'Forecasting the numbers of people affected annually by natural disasters up to 2015', *ibid.* The Oxfam International report *The Right to Survive* is available at www.oxfam.org
- 5 IPCC (2007) 'Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)], Geneva: IPCC.

In the IPCC's terminology, 'high confidence' corresponds to a probability of about 8 out of 10 and the terms 'very likely' and 'likely' correspond to greater than 90 per cent and greater than 66 per cent respectively.
- 6 'Key Messages from the Congress' Conference on Climate Change: Global Risks, Challenges and Decisions', Copenhagen 10–12 March 2009, International Alliance of Research Universities.
- 7 IFRC (2007) 'Climate Change and the International Federation', background note distributed to IFRC national societies.
- 8 Oxfam International (2009), 'A Billion Hungry People: Governments and aid agencies must rise to the challenge', Oxfam Briefing Paper 127, Oxford: Oxfam International.
- 9 For example, the 2008 floods in Bihar, India, which inundated 100,000 hectares of cultivable land and affected nearly 4 million people, were the result not of particularly high rainfall, but of the collapse of riverbanks due to poor maintenance and corruption. See *The Right to Survive: the humanitarian challenge for the twenty-first century*, Oxford: Oxfam International, 2009, see www.oxfam.org
- 10 The World Bank estimates that lower growth rates as a result of the economic crisis will trap 46 million more people in poverty below \$1.25 a day in addition to the 130–155 million people pushed into poverty in 2008 due to soaring food and fuel prices. See 'Crisis Hitting Poor Hard in Developing World, World Bank says', Press Release No: 2009/220/EXC, Washington: World Bank, 2009. Available at <http://go.worldbank.org/PGNOX87VO0H>
- 11 Developed countries considered as those listed in Annex 1 to the United Nations Framework Convention on Climate Change. Based on data excluding emissions from land use, land-use change and forestry from the CAIT database of the World Resources Institute available at www.cait.wri.org.

1990 is often taken as an 'epistemological limit', since when no government could

reasonably plead ignorance of the climate change issue. It is the year in which the IPCC published its 'First Assessment Report' and the international negotiations which led to the UNFCCC began. Taking an earlier limit, such as 1890, shifts even greater responsibility onto the developed world.

- ¹² This alone will not be enough however – rich countries must continue to cut their emissions to at least 80 per cent below 1990 levels by 2050 and also agree to provide sufficient technology and finance to help developing countries move to low carbon paths of development.
- ¹³ Where applicable, these calculations are based upon total aggregate anthropogenic greenhouse gas emissions including emissions/removals from land use, land-use change, and forestry, as reported to the UNFCCC, available at <http://unfccc.int/resource/docs/2008/sbi/eng/12.pdf>. Canada's commitment is for industrial emissions only, and so emissions/removals from land use, land-use change, and forestry have been ignored in the calculation – including these would result in Canada's increase on 1990 levels being significantly higher. In the case of Australia, using UNFCCC data leads to a minor discrepancy with the government's own estimate that its target equates to a 4 per cent cut on 1990 levels.
- ¹⁴ Oxfam International (2007) 'Adapting to Climate Change: what's needed in poor countries, and who should pay', Oxfam Briefing Paper 104, Oxford: Oxfam International.
- ¹⁵ R. Verheyen and P. Roderick (2008) 'Beyond Adaptation: The legal duty to pay compensation for climate change damage', WWF-UK Climate Change Programme discussion paper.
- ¹⁶ Analysis based on data collected by the Overseas Development Institute and reported in the *Guardian* newspaper. See <http://www.guardian.co.uk/environment/2009/feb/20/climate-funds-developing-nations>
- The New York State Comptroller estimated that financial executives received \$18.4bn in bonuses for 2008, described by President Obama as 'the height of irresponsibility' and 'shameful'. See for example, <http://www.nytimes.com/2009/01/30/business/30obama.html?fta=y>

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