

# In the Face of Disaster

Children and climate change



Save the Children

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**The International Save the Children Alliance is the world's leading independent children's rights organisation, with members in 28 countries and operational programmes in more than 100. We fight for children's rights and deliver lasting improvements to children's lives worldwide.**

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Cover picture: Women and children walk past submerged homes in an area flooded by heavy rains in Soroti, Uganda. Reuters/James Akena

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## Abbreviations

CERF	Central Emergency Response Fund
DRR	Disaster risk reduction
GDP	Gross domestic product
GHD	Good Humanitarian Donorship
HEA	Household Economy Approach
IPCC	Intergovernmental Panel on Climate Change
NAPA	National Adaptation Plan of Action
NGO	Non-governmental organisation
PSHP	Productive Safety Net Programme
UNDP	United Nations Development Programme

### Definitions

**Disaster risk reduction (DRR)** involves working with communities on activities that help people prepare for and reduce the impact of natural disasters. This can include mapping the risks in a village, building evacuation routes or simply teaching children their addresses in case they are separated.

**Child-centred DRR** recognises that children can play an important role in helping their families, villages and communities to reduce the risks associated with natural disasters. Children should be involved in all aspect of DRR work in their communities, from assessment to implementation.

# Executive summary

The consensus on climate change is clear: it is already happening and is likely to lead to an increase in the frequency and intensity of natural disasters. It will be people in the poorest countries, especially children in those countries, who will bear the brunt of these disasters, despite having played no role in causing climate change.

The resulting impact on children is likely to be dramatic.

- Malaria, currently responsible for the death of around 800,000 children under five years old in Africa each year, is set to increase.
- The number of children dying each year due to the effects of malnutrition – currently 3.5 million – is likely to increase.
- As a result of slow-onset or recurrent natural disasters, parents may feel compelled to withdraw their children from school or send them out to work.

Climate change and its associated impacts also threaten to hinder the achievement of *all* the Millennium Development Goals (MDGs), particularly the commitments to eradicate extreme poverty and hunger, and reduce child mortality.

The international community will have to become more flexible and innovative in their programming and approaches. Climate change will demand better disaster response and better preparedness. The United Nations (UN) estimates that for every \$1 invested in risk management before the onset of a disaster, \$7 of losses can be prevented. This demonstrates the case for disaster risk reduction to be mainstreamed into development planning and programming.

For the millions of children who become displaced, lose a parent, become separated from their families, go hungry or become victims of exploitation because of a disaster, the status quo is not good enough. We know the international community can do much better.

The 28 Save the Children members that make up the International Save the Children Alliance have committed themselves to improving response times and the quality of humanitarian programming for children. With a strong emphasis on children's rights, we are collectively driving forward a five-year initiative to improve national-level responses and our own ability to respond to emergencies.

# I Introduction

Climate change is having, and will continue to have, a devastating impact on millions of children worldwide. While climate change will have major implications for the environment and the economies of developing countries, this paper focuses on the increasingly severe and less predictable natural disasters that are likely to occur. We cannot know exactly what disasters climate change will bring about in the future, but it will be the poorest countries, and the most vulnerable people in those countries, who will be most adversely affected. Therefore, those who work with these communities – national governments, donors, humanitarian and development organisations – must have a better analysis of disaster risks and vulnerabilities, and must be flexible and innovative in order to respond to them.

**As children<sup>1</sup> make up, on average, more than 50% of those affected<sup>2</sup> by today's crises, it is critically important to respond to the impact of increased disasters on children.**

Save the Children's 2007 report, *Legacy of Disaster*, showed that in the next decade up to 175 million children every year are likely to be affected by the kinds of natural disasters brought about by climate change.<sup>3</sup>

Children should not be seen only as victims of natural disasters and climate change – they can be communicators of good practice and active agents of change. This report explores the impact of increasing disasters on children, and examines some of the ways in which the international community can work effectively with children and their communities to reduce the impact of disasters and improve survival, resilience and the prospects of recovery.

## The consensus on climate change

Reports from the Intergovernmental Panel on Climate Change (IPCC) are the most authoritative assessments so far of climate change and global warming. The IPCC confirms that global warming is happening and is altering ecological systems. For example, the percentage of the earth's land surface that suffers from severe drought has trebled in ten years – from 1% to 3%. This trend is set to continue. Extreme drought conditions are expected to affect 8% of land areas by 2020, and no less than 30% by the end of the century.<sup>4</sup> Failure to cut greenhouse gas emissions could result in the worst-case scenarios predicted by climate change scientists – including global temperatures rising by up to three degrees by the end of the century,<sup>5</sup> sea levels rising by up to 59 centimetres<sup>6</sup> and millions of environmental migrants.

These changes are set to have a huge impact on children's health, food security and protection around the world, combining with other trends such as population growth and greater urbanisation. Climate change and its associated impacts threaten to hinder the achievement of *all* the Millennium Development Goals, particularly the commitments to eradicate extreme poverty and hunger, and to reduce child mortality.

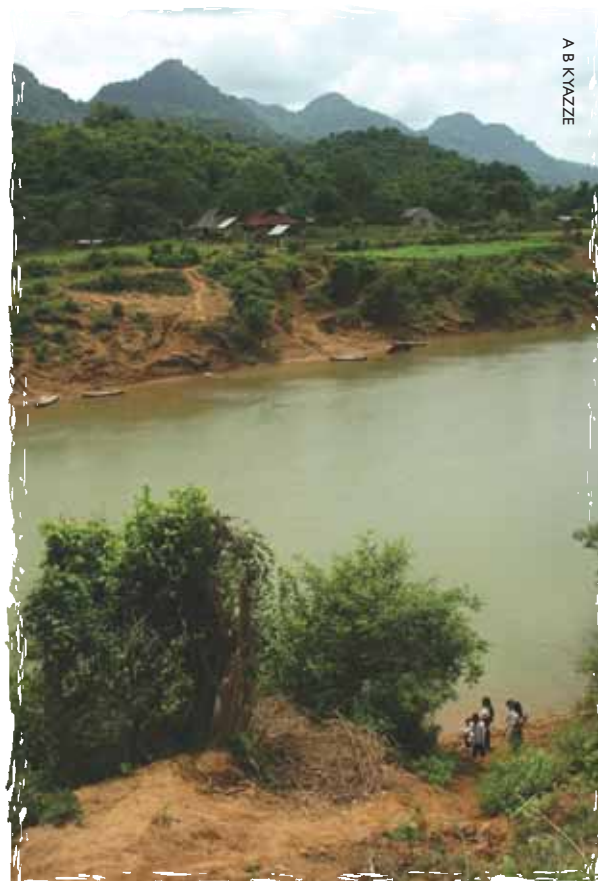
Climate change is also increasingly linked to heightened tensions and conflict, especially in fragile states. A report published in November 2007 highlighted 46 countries at high risk of conflict due to the consequences of climate change.<sup>7</sup> Decreasing rain and crop yield, reduced livelihood options and rising food prices all increase the possibility that competition for scarce resources could lead to increasing tensions and violent conflict. In April 2008, Sir John Holmes, the UN Under-Secretary General for Humanitarian Affairs, declared that climate change is the biggest challenge to humanitarian work. He also

predicted more frequent riots and instability because of food scarcity and rising food prices associated with climate change – an issue that has rapidly risen up the international agenda in the past year.<sup>8</sup>

Already 3.5 million children worldwide die each year from the effects of malnutrition. Estimates suggest that by 2080 there could be a further 600 million people facing acute malnutrition due to the effects of climate change.<sup>9</sup>

## Climate change and increasing natural disasters

Climate change is already leading to increasingly severe and unpredictable disasters globally.<sup>10</sup> The number of natural disasters is now four times higher than in the 1970s,<sup>11</sup> and 14 of the 15 flash appeals<sup>12</sup> launched by the UN in 2007 were linked to climate change.<sup>13</sup> The number of people affected by these events has increased from an average of 100 million in the 1970s to more than 250 million today.<sup>14</sup> While the number of people killed by natural disasters has sharply declined, the global trend towards increasing natural disasters presents a worrying picture for children's futures.



In Thanh Hoa province in Vietnam, floods destroyed an important bridge over the Pomelo river in 2007. These children now have to wait for a boat to get to school.



# 2 The impact of increasing natural disasters on children

Increasing numbers of natural disasters will multiply the threats against children. This will be the case particularly for poor households in countries most at risk from climate change and natural disasters. Poorer people often live in marginalised and unsafe settlements, such as floodplains and low-lying regions that are at particular risk from disasters.

While poor people often show exceptional resilience and adaptability in the face of adversity, climate change may render traditional methods of coping insufficient. This begs the question of how households and communities, especially those who are already chronically poor and vulnerable, will manage and adapt, and what this might mean for children today and in the future.

## The impact of climate change on children's health

Climate change, and the severe natural disasters associated with it, is already affecting the spread and intensity of disease, especially those diseases that affect children. The most common cause of death among children is neonatal death – pre-maturity, infection and birth asphyxia; the largest proportion of deaths occur in the first 24 hours of life.<sup>15</sup> Antenatal care, safe delivery and postnatal care are essential to ensure neonatal health. A serious fast-onset disaster can often cause acute disruption to health services, which has an immediate effect on maternal and neonatal health, exacerbated by the obvious effects of exposure.

Pneumonia is one of the most prevalent causes of mortality in children under five.<sup>16</sup> High mortality from pneumonia in acute emergencies is related to exposure and malnutrition associated with drought. Pneumonia is also related to overcrowding and exposure to smoke from cooking fires in overcrowded shelters – a common situation associated with poor living conditions caused by displacement following a natural disaster.

Malaria, currently responsible for the death of around 800,000 children under five years old in Africa each year, is set to increase, partly as a consequence of rising temperatures.<sup>17</sup> A 2°C rise in global temperatures could lead to changes in the distribution and numbers of mosquitoes, and is predicted to result in an additional 40–60 million people being exposed to malaria in Africa.<sup>18</sup>

Climate change is also predicted to cause additional water shortages, which could affect 75–250 million people across Africa by 2020.<sup>19</sup> In these circumstances, disease control is particularly challenging, especially following a natural disaster such as a flood, which can lead to contamination of water sources and destruction of water and sanitation facilities. Diarrhoea, despite being easily preventable, accounts for the death of nearly two million children under five years old each year.<sup>20</sup>

In addition to the increasing threat of disease, there is the issue of whether health systems are supported, designed and adequately staffed to manage natural disaster surges. Save the Children fully supports the

current World Health Organization 'Hospitals Safe from Disasters' campaign, which is part of the UN International Strategy for Disaster Reduction. Investment is needed to ensure that hospital and health facilities are built to improve resilience to environmental threats, that human resource preparedness plans are in place, and that health staff at all levels are trained in emergency preparedness and response.

There will be an increasing number of areas where natural disasters recur – for example, flood-affected areas in Bangladesh, India, Nepal and Pakistan and drought-affected areas in the Sahel. It is essential to monitor the long-term effects of recurrent natural disasters on children's health, to monitor chronic malnutrition, and to monitor migration and the health risks associated with it, particularly HIV and AIDS.

## The impact on children's hunger and nutrition

Climate change can lead to increased food insecurity. The failure of harvests, rising food prices and increasing poverty at household level may mean that families have to cut back on expenditure for food or reduce the quality and diversity of the foods they buy. Even in normal times, children from the poorest 20% of families in many developing countries are three times more likely to be chronically malnourished than those in the richest families.<sup>21</sup> Some 3.5 million children a year die from the effects of malnutrition; one-third of under-five mortality is due to malnutrition.<sup>22</sup> Repeated exposure to disasters – whether rapid-onset such as floods, or slow-onset such as drought or desertification – increases the likelihood of a child becoming chronically malnourished. Chronic malnutrition, or stunting, has a profound effect on children's mental and physical development and is irreversible after the first two years of a child's life.

There are also broader concerns about the effects of climate change on households' livelihoods opportunities. Estimates suggest that 75% of poor people in developing countries (around three billion people) rely on natural resources for their livelihood.<sup>23</sup> This includes agriculture, fisheries, forests and coastal areas. These sectors are particularly sensitive to changes and disasters. For example, since most crop production is rain fed and depends on predictable levels of precipitation, even slight swings in the amount

and timing of rains can result in lost harvests, reduced incomes and increased food insecurity. Landless or land-poor labourers can lose their livelihoods if their employers are affected by a disaster and these labourers have little to fall back on.

The increased frequency and intensity of shocks from climate change and natural disasters means poor households have less time to recover and bounce back, especially as recovery from natural disasters can be a slow process. In Kenya, for example, pastoralists report that following a severe drought it takes them as long as 15 years to build up their livestock to pre-drought levels.<sup>24</sup> This increased pressure can result in households adopting risky survival strategies, such as cutting down on meals or selling any assets they may have. This provides respite in the short term, but in the long term means they have fewer defences against future crises.

## Protection of children in this disaster-prone landscape

Because of their age and dependency on others, children make up the most vulnerable group in a natural disaster.<sup>25</sup> In the event of a sudden-onset natural disaster, children can become separated from their families. Their carers may be killed or seriously injured, and forced rapid displacement may result in children being left behind.

Emergencies usually result in children facing heightened risks, including family separation, psychological distress, physical harm and gender-based violence. Save the Children research in 2007 found that children face serious risks of exploitation during an emergency, as they and their families turn to ever-more desperate means of survival. The uncertainty created by natural disasters interplays with other factors such as unemployment, lack of protection, poverty and unequal distribution of power.<sup>26</sup>

The vulnerability of children, especially those who have been separated from their parents and carers, makes them a comparatively easy target for exploitation. This is particularly true where local support and protection structures at community level may have been impaired or broken down altogether following a natural disaster. Boys and girls are at greater risk of being recruited to work in hazardous conditions, such as agricultural labour, factory work

## Box I: Save the Children's Household Economy Approach

Humanitarian agencies have already become more innovative when it comes to responding to food crises. Save the Children pioneered the Household Economy Approach (HEA), which can show the impact of disasters on people's livelihoods. By examining people's ability to earn money or food through labour, bartering, outside support or subsistence farming, HEA analyses people's ability to access and secure food for their families.

At the end of 2007, Save the Children, in partnership with other agencies, completed a household economy assessment in four zones of Kenya's North East Province. The North East Province is the poorest in Kenya and suffered a severe drought between 1997 and 1998. The assessment highlighted the relationship between acute food insecurity, underlying structural poverty and increasing vulnerability to shocks (such as drought, periodic flooding and conflict). Furthermore, despite almost continuous emergency support to the region during the drought, poverty has increased and livestock ownership, one of the main livelihood options for most pastoral areas, has declined.

An important first step in the household economy assessment is to understand who is vulnerable to what hazards and why. The findings from the assessment provide updated information on the current food security and poverty situation and how the dynamics have changed in recent years. This information is then fed into early warning and emergency preparedness systems, as well as into short-term and long-term programme design and implementation for agencies operating in the region.

The HEA not only identifies the most vulnerable populations, but can calculate the size of their food deficit. This is particularly useful to humanitarian agencies and governments that are trying to estimate shortfalls and protect children from malnutrition when a main source of food or income has failed.

For more information see *The Household Economy Approach: A guide for programme planners and policy-makers*, Save the Children UK and FEG Consulting, 2008.

or prostitution. They also risk being trafficked or forced into early marriage. In countries affected by both natural disasters and armed conflict, children face the additional risk of being recruited into armed forces or militia groups.<sup>27</sup>

### Education as a way forward for children

Every child in the world has the right to education – as laid out in international standards such as the 1948 Universal Declaration of Human Rights and the 1989 UN Convention on the Rights of the Child.<sup>28</sup> But following a natural disaster, children's access to education may be compromised. They could be out

of school for weeks, months or even years. The school infrastructure may have been destroyed completely and textbooks buried deep under rubble. Even if the school structure has survived, teachers may have fled, or their salaries may have been cut off because of failing financial services.

In Sri Lanka, two years after the Indian Ocean tsunami, Save the Children conducted a consultation with nearly 2,500 children to gather their views and concerns on the tsunami reconstruction process. It was found that as many as 29% of these children were still displaced by the tsunami and living in temporary accommodation and their education had yet to return to pre-tsunami levels.<sup>29</sup>

## Box 2: Education and disaster risk reduction

Education provides a natural space for providing disaster risk reduction (DRR) activities. Following the Indian Ocean tsunami in 2004, part of Save the Children's response focused on children's participation in DRR. This programme had several components that included involving children in developing preparedness and evacuation plans and making DRR a part of primary and secondary school curricula. Integrating DRR into normal school-day activities promotes sustainability of the messages and reduces the burden on children. Schools can build a culture of prevention that helps children to understand their environment, fosters awareness and contributes to risk reduction. In Thailand, children produced DRR posters with a story book called *Albert Rabbit* and a puppet show. These methods focused on children in schools and were designed to support children in spreading DRR messages.



Students at Ban Talaynork School in Ranong province, Thailand, cross check a 'risk and resource' community map they developed showing areas that are at risk and those that are safe.

As households face increased hardships and poverty as a result of slow-onset or recurrent natural disasters, the only option available to parents may be to withdraw their children from school or send them out to work. Sometimes parents have to choose between children if they can only afford to send one child to school – often discriminating against girls.

Education is a key aspect of emergency response.<sup>30</sup> It can address basic needs and provide a vital part of a child's survival strategy. Education can provide health and hygiene information to prevent diseases, such as diarrhoea, that can kill children. In fast-onset disasters, education can promote children's protection – for example, through safe play areas and temporary learning centres, separated children can be reunited

with their families. Continued education after a disaster can also give children a sense of normality and provide them with support following the trauma they've experienced. In emergencies of all types, education is a consistent and persistent request from children and their families. Girls, boys and parents believe that schooling is important for the future development of children and communities.

Education is also important in promoting different economic survival strategies for children. As climate change increases and many traditional livelihoods become unviable in the long term, education and training are very important tools to help children adapt to, cope with and even avert climate change in the future.

# 3 Improving disaster risk reduction and humanitarian response

To advance the prospects for child survival and development, national governments, donors and humanitarian agencies must change their tactics when it comes to disasters. It is important that constructive action is taken to plan for hazards before they happen, and ultimately to reduce the risk of harm for vulnerable populations. This will require making innovative investments in reducing risk as well as ensuring greater coherence between relief, reconstruction and development activities.

At the same time, international humanitarian responses, which focus on providing life-saving relief when a country's own capacity is overstretched, will need to be scaled up to meet the needs of children now and in the future.

DRR, which consists of both the reduction of vulnerability to disasters and the preparedness for when disasters occur, has much potential and needs additional support.

## The Hyogo Framework for Action

The most important international agreement on DRR is the Hyogo Framework for Action, which was developed and adopted by 168 countries during an international meeting in Kobe, Japan in 2005. DRR needs to take place at local, national, regional and international levels, and the Hyogo framework sets out five priorities (see Box 3), through which governments, UN agencies, non-governmental organisations (NGOs) and local communities can work towards building disaster resilience.

### Box 3: Five priority areas of the Hyogo Framework

- 1) Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation.
- 2) Identify, assess and monitor disaster risks and enhance early warning.
- 3) Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- 4) Reduce the underlying risk factors.
- 5) Strengthen disaster preparedness for effective response at all levels.

# 4 Disaster risk reduction

## Building resilience in communities

While DRR occurs at multiple levels, as highlighted by the Hyogo Framework for Action, it is important to focus on building coping strategies and enhancing early warning through a community-based approach. Local people affected by a disaster are not passive recipients of external relief and support; they are already on the scene and responsible for providing the first wave of support and assistance to family, friends and strangers – long before international aid arrives. DRR activities explicitly recognise the importance of local action and aim to build on existing capacities. Furthermore, many of the warning signals of an impending disaster are recognised and responded to significantly earlier by local communities than by outsiders.<sup>31</sup>

## Children's participation in DRR

Children can play a very important role in ensuring that community level preparation is strengthened. They must be seen as part of the solution to the problems posed by disasters so that risk awareness grows into and throughout a community. This can ensure the long-term success of community interventions. For example, the Iranian government's investment in educating children about earthquakes has dramatically cut mortality (of all ages) in earthquakes over the past ten years. There are even examples of children saving their parents by instructing them in safe behaviour.<sup>32</sup>

Children can lead DRR activities themselves. Using a child-centred community-based framework, Save the Children ensures that children play an important role in their communities to minimise the negative impact of

disasters.<sup>33</sup> Children participate in all aspects of DRR activities, including planning and identifying hazards and vulnerabilities, as well as completing community emergency evacuation and preparedness plans. Children also share the information with their families and wider communities.

Aside from the practical actions that children can take in a disaster, children's participation in DRR activities can be empowering by giving them skills, confidence and support. This is especially relevant when DRR is incorporated into disaster-recovery planning.<sup>34</sup>

For more details on how Save the Children works with children on DRR, please refer to our practitioners' guide, *Child-Led Disaster Risk Reduction: A practical guide*.<sup>34</sup>



## Reduce underlying risk factors – social protection

While supporting communities in preparation for future disasters is a key aspect of DRR, the Hyogo Framework draws attention to the importance of reducing underlying risk factors such as poverty, hunger and lack of income-generating activities.

One way of reducing risk and vulnerability is through social protection measures, including insurance, cash

## Box 4: Save the Children in Vietnam

Child-focused DRR is part of Save the Children's programmes in Vietnam. Because of its extensive coastline and river deltas, Vietnam is one of the developing countries most vulnerable to climate change, particularly rising sea levels. Save the Children staff and partners carry out local level consultations to work with the community to identify key DRR projects that would help in disasters and also have longer-term benefits to the community. Children's views are actively sought – sometimes they come up with the winning proposal.

For example, in Go Cong Dong district, an area vulnerable to floods and storms, one community has decided to spend their DRR money on ensuring an evacuation road is enhanced to withstand typhoon season. This was an idea that came from the children, as they wanted to make sure they would not lose access to their school and playground in the case of floods.

There is a wide range of child-focused DRR practices for working with communities. Some other examples from the Vietnam programme are: child-sized life vests; equipping schools with boats for evacuation; boreholes for clean water for schools and other places on high



Hanh, 9, and his friends were part of a group of children who identified the refurbishment of this evacuation road as a high priority in Tien Giang province, Vietnam.

ground where large numbers of people evacuate; hands-on first aid classes; and community maps prominently displayed to show what areas are safe for evacuation. Involving children in this preparatory work, often through drama, art, dance and song, helps to prevent panic and enable children to feel more in control when the disasters strike.

transfers, pensions, child grants and social welfare. Cash is either directly disbursed to vulnerable households or delivered in exchange for work or fulfilment of certain conditions.<sup>35</sup>

Social protection has been shown to be effective in both emergency and development situations, having the potential to make an impact in the short term and in a more sustained way. Save the Children has experience of working on social protection programmes in both emergency and development contexts, and has used cash transfers in a number of its responses to natural disasters. For example, following the declaration of a national emergency in Swaziland due to a severe drought between 2006 and 2007, Save the Children ran a cash transfer programme spanning the critical period up until the following

harvest. A total of 45,000 children, women and men received a mixture of food aid and cash to support livelihoods during the crucial planting season.

### How social protection can benefit children

Evidence suggests that children benefit directly and indirectly from even very small cash transfers. Impact assessments consistently show that transfers help families to purchase food – as well as other household items such as soap and clothes – to pay school and medical fees, and to purchase school books for children. Families even find a way of investing their small transfers – for example, in buying chickens or

## Box 5: Save the Children in Ethiopia

Ethiopia's Productive Safety Net Programme (PSNP) is the largest social protection programme in Africa, reaching 8 million people. Its aim is to reduce the number of chronically food insecure households through the provision of cash and food transfers. For each of the past 20 years, Ethiopia has been the subject of a UN emergency appeal to meet the food needs of up to 14 million people. Even in non-drought years, millions of people in Ethiopia face food insecurity. The PSNP marks a move away from the emergency-appeal system towards more predictable financing to meet these recurrent needs. Save the Children is an implementing partner of the PSNP, delivering food-for-work and cash-for-work programmes to 310,000 people in nine districts.



STUART FRIEDMAN/NETWORK PHOTOGRAPHERS

A boy minds livestock in Meket, in Ethiopia's northern highlands. Save the Children's cash-for-relief programme targets the poorest families, giving parents cash in return for work on community projects.

goats to provide them with an additional source of income.

Social protection can work in the short and long term to guard people's assets by providing them with reliable and predictable support during difficult seasons or a disaster. Social protection can prevent families from selling off assets as a way of coping with the threat of impending natural disasters by providing them with the security and knowledge that reliable, regular cash transfers will arrive. Considering the risks to children's health, nutrition, protection and education if a family slides below the poverty line or is hit by a major disaster, innovative financing will be increasingly important in disaster-prone regions.

## The role of national governments in strengthening disaster preparedness

The spiralling number of natural disasters has huge implications for governments. National governments are responsible first and foremost for the care of their citizens and many undertake large-scale projects in coastal protection, flood prevention and early warning, for example. In the face of climate change, national governments will face large economic losses. Estimates suggest that a natural disaster costs a country, on average, 2–15% of its gross domestic product (GDP).<sup>36</sup> However, this figure can be significantly higher: Hurricane Mitch in 1998 caused Honduras losses equal to 41% of GDP.<sup>37</sup>



Bangladesh is an example of a country that faces recurrent natural disasters. It has taken steps to strengthen its national disaster preparedness plans through working with donors, international organisations and NGOs such as Save the Children. Bangladesh is regularly described as one of the most disaster-prone countries in the world, due to its low-lying geographical position and the fact that around 80% of the land area is floodplain. It is also the world's largest delta.<sup>38</sup> Dhaka, the capital city, is home to 12 million people – 3.4 million of whom live in slum conditions. Around a third of the country floods each year and Bangladesh recurrently experiences a mixture of natural disasters, including cyclones, storm surges, floods and droughts.

The government of Bangladesh developed a Cyclone Preparedness Programme working with agencies such as Save the Children and others. Following the warning that a devastating cyclone was on its way in November 2007, the programme mobilised 42,000 volunteers to evacuate the people living in the expected path of the cyclone. This rapid response was said to be responsible for saving tens of thousands of lives.<sup>39</sup> Cyclones in 1970 and 1991 were responsible for killing around 500,000 and 140,000 people respectively. The November 2007 cyclone, Sidr, which was of greater intensity, killed fewer than 4,000 people. While this is still a huge number of casualties, it does represent a significant reduction in loss of life when compared with previous cyclones.

The case of Bangladesh highlights the importance of national government investment in early warning, preparedness and disaster risk reduction. While a lack of DRR is unlikely to be the only factor causing destruction and huge loss of life, the experience of Bangladesh contrasts strongly with the experience in Myanmar (Burma) in May 2008, where there was very little DRR, and Cyclone Nargis was responsible for a much higher death toll.

Governments in countries particularly vulnerable to natural disasters and those predicted to be most affected by climate change need to make investments in national adaptation and preparedness planning and action. National Adaptation Programmes of Action (NAPAs), for example, offer one possibility. NAPAs enable less developed countries to identify climate change adaptation needs and response plans. To be effective for vulnerable groups, especially children, this analysis needs to build in an explicit focus on the needs

of children, as they have specific requirements and make up the largest group affected by climate change and natural disasters.

## Disaster risk reduction as an international priority

As the primary producers of greenhouse gases, donor countries have an ethical obligation to finance measures that combat the effects of climate change. While, to a certain extent, some amount of environmental damage is irreversible, there are steps that the international community can take now to urgently curtail greenhouse gas emissions to avoid the worst-case scenarios of climate change. There is a ten-year window of opportunity to act – after this, increasingly severe and unavoidable impacts of climate change will be faced. Industrialised countries must make investments now into mitigation – that is, reductions in greenhouse gas emissions that cause climate change. They need to enact binding commitments to reduce carbon emissions by 80% by 2050, and agree to limit global warming to no more than 2°C.

In tandem with efforts on mitigation, there is a need for investment in adaptation, especially for the communities that will bear the brunt of climate change. Poor people in developing countries already have to change the way they live, work and earn a living, and this will increase in the future. Efforts to support communities in adapting to climate change need to take account of the ways communities currently cope – and build on those practices.

National and international investment in adaptation, especially DRR, has proven to be effective in the face of increasing disasters and deserves more international commitment.

**The UN estimates that for every \$1 invested in risk management before the onset of a disaster, \$7 of losses can be prevented.<sup>40</sup>**

Donors have started to take more notice of DRR and their responsibility to promote it and mainstream it throughout their planning. A 2007 study of 19 donors found that DRR was a higher priority than in 2003.



Flood-affected villagers in Sirajgong, Bangladesh, August 2007

However, there were still considerable barriers to implementation. Even where good policies had been generated, they were not necessarily implemented, and ad hoc approaches prevail.<sup>41</sup>

One of the major issues for implementing effective DRR with vulnerable communities is that DRR falls between emergency and development activities. A focus on only short-term emergency response or longer-term development activities means that DRR can fall through the gap. This is also reflected in funding avenues for DRR, which are often short-term and small scale, so that implementing organisations are restricted in the scale of activities they can effectively deliver.

In the face of climate change, donors need to bridge this gap and allow national governments, humanitarian agencies and development partners to think and plan big with their DRR programmes. Save the Children is calling for donors to commit funding for DRR and preparedness activities equivalent to 10% of their total humanitarian aid budgets. Rather than diverting funding away from existing emergency and development budgets, these funds should be new money, mainstreamed into development planning.

## Good Humanitarian Donorship

Donors should also commit to transparent reporting of their annual spending on DRR. In July 2007, the group of donors participating in the Good Humanitarian Donorship (GHD) initiative produced a concept paper examining the role of the major humanitarian and development donors in providing more effective support for disaster risk reduction worldwide.<sup>41</sup> The paper called for:

- greater political commitment to disaster preparedness and risk reduction
- more explicit links between DRR and development effectiveness
- more attention to measures aimed at building local resilience through a rights-based, participatory approach
- more documentation of the potential savings from investment in DRR.

We very much welcome these recommendations. They should be documented and reported against in the Good Humanitarian Donorship meetings in 2008 and 2009.

# 5 Humanitarian response for children in disasters

## Increase funding to humanitarian response

While mainstreaming DRR funding into development planning is important, funding for disaster response will also need to be increased and better mobilised to meet the growing challenge of climate change-related emergencies. Humanitarian agencies should be ready to respond to the needs of growing numbers of children affected by disasters. Planning needs to be both flexible and innovative. Donors must increase funding for humanitarian response in these new and unpredictable conditions, ensuring that humanitarian assistance is proportionate to need and that emergency funding mechanisms can meet the challenge of providing funds quickly, and with accountability, wherever needs arise.

## Child-focused assessments

As this paper has shown, children face particular vulnerabilities in terms of their health, education, nutrition and need for protection. To ensure that children's specific requirements are recognised and acted on, donors need to systematise the inclusion of their needs in project proposals, appraisals and evaluations. Assessors should also recognise that children are not a homogenous group – it is important to consider age, gender, ethnicity and social status. For example, the needs of an adolescent will be different to those of a child under five. Children of one ethnic group may face more discrimination than others. There are also different threats and opportunities facing boys and girls. Failure to adequately address

### Box 5: Child rights programming

Based on the UN Convention on the Rights of the Child, child rights programming recognises children as rights holders, and helps to engage them as actors in their own development. Child rights programming also ensures that plans and activities are based on the four fundamental principles related to children's rights:

- survival and development
- non-discrimination
- child participation
- the best interests of the child.

Children's participation in disaster risk reduction significantly addresses these principles.<sup>43</sup>

## Box 6: Niger: the real cost of slow response

The slow dispersal of funds to respond to impending crises can cost lives on a dramatic scale.

Niger is one of the world's least developed, low-income food-insecure countries and ranks 174 out of 177 countries in the UNDP's Human Development Index (2007/08).<sup>47</sup> Niger faces annual food shortages due to adverse climatic conditions and widespread chronic poverty. In 2004, the combined effects of drought and a locust invasion affected agropastoral areas, causing severe losses in cereal production and subsequent food deficits.

In May 2005, the UN launched a flash appeal for Niger with requirements of just over \$16 million to meet the needs of 3.6 million people. This included 800,000 children under five who were suffering from hunger, and 150,000 children showing signs of severe malnutrition.

Save the Children set up operations in Niger in response to the crisis, with financial support from our Alliance members. Our operations focused on providing supplementary and therapeutic feeding to children under five. By the end of 2005, we had treated more than 15,000 children and delivered food aid to 23,000 families.



Save the Children staff check eight-month-old Adaou for signs of malnutrition at his village in Niger.

The donor response to the original flash appeal was woefully slow and the number of children suffering the effects of chronic malnutrition began to spiral. In August 2005, therefore, the UN launched a revised flash appeal, this time requesting funds of more than \$81 million. Because donors had failed to respond adequately and in time, the situation had rapidly deteriorated, resulting in unnecessary loss of life and increased financial needs.

these may result in some children's particular needs being marginalised, leaving them at greater risk of poor health, exploitation and malnutrition.

Save the Children incorporates a children's rights framework into all assessments, based on the recognition that children are the most vulnerable in emergencies across sectors – including health, water and sanitation, and food security. Children are at the centre of our response and have a right to participate in and identify solutions. This helps to ensure that solutions proposed will increase resilience and prevent exploitation of children.

## Financing children's needs

Despite the significant impact of disasters on children's health, nutrition, protection and education, these sectors have, to date, been consistently under-funded by donors when providing emergency assistance. For example, in the 2007 UN Consolidated Appeals, the education sector was funded at only 38% of needs and the protection sector received just 36% of requirements; these figures contrast with an average of 72% funding across all sectors.<sup>44</sup> In a more thorough review of UN Appeals for the years 2000–2007, education and protection requests were funded at an average of only 36% and 34% respectively.<sup>45</sup>

## Funding for rapid reaction: the CERF

In 2006, the UN created the Central Emergency Response Fund (CERF) in order to improve funding for fast-onset and forgotten emergencies. With a predicted budget of up to \$500 million, it is an important initiative. However, Save the Children has consistently raised the concern that the CERF is not adequately designed to fund rapid response in fast-onset emergencies.

Most observers agree that most humanitarian relief is delivered by international and local NGOs, yet these organisations are barred from direct access to the CERF. Only UN agencies can apply to the CERF, which slows the disbursement of rapid funds, creating another layer before reaching NGOs. Since 2006, Save the Children has proposed practical solutions to improve the CERF, including pre-agreements to allow direct

financing for operational NGOs with proven capability in rapid scale-up. If UN agencies are unable to improve their internal procedures to meet this goal, then donors will need to establish large-scale alternative funding streams that directly support operational NGOs to get aid to communities.<sup>46</sup> This becomes more urgent in the face of increasingly frequent and severe disasters.

## Funding early response

There needs to be donor commitment for humanitarian response based on information arising from early warning systems. Aid agencies should be funded to rapidly respond when the first warning signs of an impending crisis are identified. Rather than waiting for children to become chronically malnourished and start dying, as was the case in Niger in 2005, donors need to become more proactive in their support of early response to natural disasters.

# 6 Conclusion and recommendations

It is clear that, in the face of the dangerous and erratic effects of climate change in the future, national governments, humanitarian and development donors and agencies must adapt and become more innovative. In particular, we must acknowledge the dramatic impact that increasingly frequent and severe disasters are likely to have on children and their communities. We need to find solutions in order to save lives, restore dignity and build better prospects for the future.

Considering that children make up at least 50% of those affected by disasters, much greater attention should be paid to assessing and responding to their vulnerabilities to sickness, hunger, exploitation and deprivation from education.

Donors should dramatically increase funding support for adaptation and DRR, and should be held to account for their commitments to reduce vulnerability to disasters in developing countries. National government commitments to early warning and infrastructure improvement are key to DRR. DRR must be mainstreamed throughout all development planning in vulnerable countries.

Humanitarian agencies must also ensure that they are prepared for increasing medium- and large-scale disasters. More funding is needed for humanitarian responses to the emergencies that we know will continue to increase, both in number and in scale. This funding must be quickly available, accountable and allocated according to needs.

Successful DRR and humanitarian response must work with children and their communities. This will help restore a sense of empowerment, as well as build the skills to respond to multiple disasters.

The international community must become more nimble and responsive to the needs of children. Otherwise, millions of children will continue to become more vulnerable to disasters that – unlike the citizens of developed countries – they played little part in causing. The time to act is now.

## Recommendations

In the face of the predicted increase in and severity of natural disasters, Save the Children recommends that:

### Mitigation

- 1) In the next two years, industrialised countries should **enact binding commitments** to reduce carbon emissions by 80% by 2050 in order to limit global warming to no more than 2° Celsius.

### Preparedness

- 2) The 168 countries that adopted the Hyogo Framework for Action in January 2005 must deliver on their commitments to ensure that **disaster risk reduction is a national and local priority** with strong government commitment to implementation, particularly in the five priority areas of the framework. Building local capacity in governments and community organisations is key.
- 3) More funding is needed for DRR. Donors should **commit the equivalent of 10% of their humanitarian funding to disaster risk reduction and preparedness activities**. This funding should be additional to, and not

diverted from, existing development or emergency budgets. DRR activities should also be reflected in future UN Consolidated Appeals in order to better link response and preparedness for disaster-prone regions.

- 4) Members of the **Good Humanitarian Donorship (GHD) initiative** should report back on their commitments to DRR at the meetings in July 2008 and 2009. They should publish their spending on DRR to increase transparency and generate positive peer pressure for more donors to engage with the issue.

### Innovative responses in the face of the new challenges

- 5) **Donors must provide increased funding for humanitarian response in these new and unpredictable conditions**, ensuring that humanitarian assistance is in proportion to need.
- 6) Donors should ensure that the **traditionally under-funded sectors** particularly important to children – such as education in emergencies, protection for children and neonatal health – are better supported.
- 7) **Children should be involved in designing, carrying out and evaluating disaster risk reduction programming at local level.** Children can play a positive role in ensuring that communities are resilient in the face of disaster; incorporating DRR into education and after-school activities is an important way of increasing the skills base, confidence and capacity of local communities.
- 8) **National governments and the international community should increase investment in livelihoods and social protection programmes.** Social protection can have a dramatic impact on children's survival, as families are able to meet their immediate food and healthcare needs, as well as pay school fees, invest in livelihoods assets and pay off debts. Social protection can also, in the long term, reduce vulnerability and poverty, both of which make the poorest children most exposed to the impacts of natural disasters.
- 9) Governments and UN agencies must ensure that **appropriate financial instruments** are used in the early warning, preparedness, response and recovery phases. If the UN's Central Emergency Response Fund (CERF) is not able to improve, donors will need to establish large-scale alternative funding streams that directly support operational NGOs.

# Notes

<sup>1</sup> Save the Children defines a child as a person under 18 years of age, in accordance with the United Nations Convention on the Rights of the Child.

<sup>2</sup> People can be either directly or indirectly affected by natural disasters. EM-DAT ([www.emdat.be](http://www.emdat.be)) defines populations affected as 'people requiring immediate needs during a period of emergency; it can also include displaced or evacuated people'.

<sup>3</sup> Save the Children, *Legacy of Disasters*, 2007

<sup>4</sup> Met Office Hadley Centre, *Effects of Climate Change in Developing Countries*, November 2007

<sup>5</sup> N Stern et al, *The Economics of Climate Change*, 2007. Available at [http://www.hm-treasury.gov.uk/independent\\_reviews/stern\\_review\\_economics\\_climate\\_change/stern\\_review\\_report.cfm](http://www.hm-treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/stern_review_report.cfm)

<sup>6</sup> Intergovernmental Panel on Climate Change (IPCC), 2007. Available at <http://www.ipcc.ch/>

<sup>7</sup> International Alert, *A Climate of Conflict*, November 2007

<sup>8</sup> Sir John Holmes, Under-Secretary General for Humanitarian Affairs and Emergency Relief Coordinator, DIHAD 2008 Conference, 8 April 2008. Available at [ochaonline.un.org/OchaLinkClick.aspx?link=ocha&docId=1088217](http://ochaonline.un.org/OchaLinkClick.aspx?link=ocha&docId=1088217)

<sup>9</sup> United Nations Development Programme, *Human Development Report 2007–2008*, 2007

<sup>10</sup> EM-DAT records a disaster on their database when it fills at least one of the following criteria: ten or more people killed, 100 people reported affected, declaration of a state of emergency, or a call for international assistance.

<sup>11</sup> Oxfam, *Climate alarm: disasters increase as climate change bites*, 2007. Available at [http://www.oxfam.org.uk/resources/policy/climate\\_change/downloads/bp108\\_weather\\_alert.pdf](http://www.oxfam.org.uk/resources/policy/climate_change/downloads/bp108_weather_alert.pdf)

<sup>12</sup> A flash appeal is launched in response to a sudden onset emergency and is a tool for structuring a coordinated humanitarian response. It is designed to cover urgent life-saving needs and early recovery projects that can be implemented within the first three to six months of an emergency. For more information on flash appeals, see [www.reliefweb.int/fts](http://www.reliefweb.int/fts)

<sup>13</sup> <http://www.irinnews.org/Report.aspx?ReportId=77667>

<sup>14</sup> *ibid*

<sup>15</sup> C J Murray, T Laakso, K Shibuya, K Hill, A D Lopez, 'Can we achieve the Millennium Development Goal 4? New analysis of country trends and forecasts of under-5 mortality to 2015', *Lancet*, 370, 2007, pp 1040–54

<sup>16</sup> Save the Children UK, *Saving Children's Lives: Why equity matters*, 2008

<sup>17</sup> UNICEF, *Progress for Children – A world fit for children*, Statistical Review, 2007

<sup>18</sup> [http://www.hm-treasury.gov.uk/media/F/F/Chapter\\_3\\_How\\_climate\\_change\\_will\\_affect\\_people\\_around\\_the\\_world\\_.pdf](http://www.hm-treasury.gov.uk/media/F/F/Chapter_3_How_climate_change_will_affect_people_around_the_world_.pdf)

<sup>19</sup> United Nations Development Programme, *Human Development Report 2007–2008*, 2007

<sup>20</sup> UNICEF, *Progress for Children: A world fit for children*, Statistical Review, 2007

<sup>21</sup> D Gwatkin et al, *Socio-Economic Differences in Health, Nutrition and Population within Developing Countries: An overview*, World Bank, 2007

<sup>22</sup> Save the Children UK, *Saving Children's Lives: Why equity matters*, 2008

<sup>23</sup> Id21, *Natural Resource Management and Health: The forgotten link*, May 2004. Available at <http://www.id21.org/insights/insights-h05/index.html>

<sup>24</sup> <http://www.irinnews.org/report.aspx?reportid=58430>

<sup>25</sup> IFRC, *World Disasters Report: Focus on discrimination*, 2007

<sup>26</sup> UNICEF, *Child Trafficking*. Available at [http://www.unicef.org/eapro/activities\\_3603.html](http://www.unicef.org/eapro/activities_3603.html)

<sup>27</sup> International Save the Children Alliance, *Child Protection in Emergencies*, 2007

<sup>28</sup> International Save the Children Alliance, *Rewrite the Future: Education for children in conflict affected countries*, 2006

<sup>29</sup> Save the Children in Sri Lanka media release, *Two years after the tsunami response, still more to be done for children's education*, December 2006

<sup>30</sup> For example, education is now included within the humanitarian reform agenda's cluster approach as a key sector in humanitarian response and early recovery.

<sup>31</sup> N Bredholt and M Wingate, *Preparedness for Community-Driven Responses to Disasters in Kenya: Lessons from a mixed response to drought in 2006*, Humanitarian Practice Network, June 2007

<sup>32</sup> International Institute of Earthquake Engineering and Seismology (IIEES) School Earthquake Safety Initiative, presented at UNISDR Global Platform for Disaster Risk Reduction, June 2007

<sup>33</sup> International Save the Children Alliance, *Child-Led Disaster Risk Reduction: A practical guide*, 2007

<sup>34</sup> *ibid*



<sup>35</sup> Unconditional cash transfers include social pensions, disability pensions, child and family support grants, and other cash grants to vulnerable individuals and households. They are direct cash payments not conditional on fulfilment of certain requirements.

<sup>36</sup> World Bank, *Natural Disasters: Counting the Cost*, 2 March 2004. Available at [www.worldbank.org](http://www.worldbank.org)

<sup>37</sup> World Bank, *Natural Disasters: Counting the Cost*, 2 March 2004. Available at <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTPROGRAMS/EXTTRADERESEARHC/0,,contentMDK:20169861~menuPK:181053~pagePK:210083~piPK:152538~theSitePK:544849,00.html>

<sup>38</sup> A Hassan, *Progress of Flood Reconstruction Programmes*. Available at [info.worldbank.org/etools/library/latestversion.asp?238825](http://info.worldbank.org/etools/library/latestversion.asp?238825)

<sup>39</sup> International Save the Children Alliance, *Case Study: Bangladesh's response to tropical cyclone Sidr*. Available at [http://www.savethechildren.ca/canada/what\\_we\\_do/emergencies/bangladesh\\_preplanning.html](http://www.savethechildren.ca/canada/what_we_do/emergencies/bangladesh_preplanning.html)

<sup>40</sup> United Nations Development Programme, *Human Development Report, 2007–2008*

<sup>41</sup> Tearfund, *Institutional donor progress with mainstreaming disaster risk reduction: a Tearfund research project in collaboration with UN/ISDR*, 2007

<sup>42</sup> Ministry of Foreign Affairs, *Oslo Good Humanitarian Donorship and Disaster Risk Reduction – A concept paper*, July 2007

<sup>43</sup> International Save the Children Alliance, *Getting it Right for Children*, 2007

<sup>44</sup> [http://ocha.unog.ch/fts/reports/daily/ocha\\_R30\\_y2007\\_\\_\\_08032807.pdf](http://ocha.unog.ch/fts/reports/daily/ocha_R30_y2007___08032807.pdf)

<sup>45</sup> Development Initiatives, *Global Humanitarian Assistance 2007–2008*, 2008. Available at <http://www.globalhumanitarianassistance.org/>

<sup>46</sup> For more information about Save the Children's research on the CERF, please see [http://www.savethechildren.org.uk/en/54\\_3852.htm](http://www.savethechildren.org.uk/en/54_3852.htm)

<sup>47</sup> United Nations Development Programme, *Human Development Report 2007–2008*, 2007

# In the Face of Disaster

## Children and climate change

As Intergovernmental Panel on Climate Change (IPCC) reports confirm, climate change is leading to increasingly frequent, less predictable and more intense natural disasters. Estimates suggest that the number of natural disasters is now four times higher than in the 1970s. Save the Children's research shows that:

- children, on average, make up 50% of those affected by today's crises
- in the next decade, 175 million children every year are likely to be affected by the kinds of natural disasters brought about by climate change.

*In the Face of Disaster* explores the potential impact of climate change and natural disasters on children's health, nutrition, protection and education. The report also raises concerns about how vulnerable households will cope and adapt to these changes, and what this might mean for children's survival.

The international community, donors and national governments have important roles to play in cutting

emissions and following through on commitments to disaster risk reduction. And for disaster risk reduction and humanitarian responses to be successful, they must work with children and their communities to enable them to respond to multiple disasters.

Humanitarian agencies must also ensure that they are prepared for increasing numbers of medium- and large-scale disasters. More funding is needed for humanitarian responses to the emergencies we know will continue to increase, both in number and in scale. This funding must be rapid, accountable and allocated according to needs.

As *In the Face of Disaster* shows, children are not merely victims of natural disasters. Save the Children's experience of child-centred disaster risk reduction demonstrates that children can act as positive agents of change, protecting themselves as well as their families and communities in the face of disaster.