



Research Report



Children and Disaster Risk Reduction: **Taking stock and moving forward**

Emma Back, Catherine Cameron and Thomas Tanner

November 2009



Acknowledgements

The authors are grateful to the members of the Children in a Changing Climate coalition for their case studies, use of quotes and feedback.

Additional thanks go to Antony Spalton at UNICEF Geneva for his support and comments.

Any errors and omissions remain the authors' own.

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Edited by Dee Scholley and Fran Seballos

Designed by Sarah Rothwell

2009 Children in a Changing Climate, Brighton: IDS

- Front cover – A boy of 7, paints during an art therapy session at Beautiful Gate, near Cape Town
- Above – A young boy harvests food from the school garden, El Salvador
- Back cover – The aftermath of the tsunami in the Maldives, by a 9 year old boy

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Acronyms

CBDRM	Community Based Disaster Risk Management
CBO	Community Based Organisation
CCC	Children in a Changing Climate
CDMP	Comprehensive Disaster Management Programme
CFDRR	Child Focussed Disaster Risk Reduction
CFS	Child Friendly School
CLDRR	Child-Led Disaster Risk Reduction
CO	Children's Organisation
CRA	Community Risk Assessment
CRC	UN Convention on the Rights of the Child
DRR	Disaster Risk Reduction
DMA	Disaster Management Agency
ECHO	European Commission on Humanitarian Aid
HVCA	Hazard Vulnerability and Capacity Assessment
IDS	Institute of Development Studies
IEC	Information Education Communication
IFRC	International Federation of the Red Cross
INGC	Instituto Nacional de Gestão de Calamidades - National Institute for Disaster Management
LG	Local Government
MOD	Masters of Disaster
MoE	Ministry of Education
NAPA	National Adaptation Programme of Action
NGO	Non Government Organization
OCHA	Office for the Coordination of Humanitarian Affairs
ODPEM	Office of Disaster Preparedness and Emergency Management
POPI	People's Oriented Program Implementation
PRA	Participatory Rural Appraisal
SMA	Scouts Musulmans Algériens
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Reduction
VCA	Vulnerability and Capacity Assessment
WHO	World Health Organization

Background

This report reviews child-focused and child-led disaster risk reduction approaches and techniques. It documents a number of case studies across a range of interventions, dividing these into three main areas: Knowledge, Voice and Action. It makes some observations regarding current practice and recommendations that imply a shift in emphasis going forward.

The report coincides with and celebrates the twentieth anniversary of the UN Convention on the Rights of the Child (CRC), as well as the development of a new international agreement under the UN Framework Convention on Climate Change (UNFCCC). Where the articles in the CRC are particularly relevant they have been highlighted in the report.¹

It contributes to a series of outputs from the Children in a Changing Climate coalition. This Coalition brings together leading research and development organisations, each with a commitment to sharing knowledge, co-ordinating their actions and working with children as protagonists rather than just as passive victims. For more information please visit: www.childreninachangingclimate.org

- Scenes of the tsunami and its immediate aftermath by Pattama Muansuwan, 13 years old, Thailand

¹ The wording used is from the UNICEF State of the World's Children 2009 report celebrating the twentieth anniversary of the CRC



Executive Summary

We live in a world that is increasingly affected by disasters. Recent decades have seen significant growth in the number of reported disasters such as droughts, floods and cyclones. More people are being adversely affected by these events. The science tells us that this trend is likely to be exacerbated by climate change.

Today's children will bear a disproportionate share of the impact, both in the immediate and longer-term. Children are highly vulnerable to climate change and disaster impacts, while those of them living in marginal environments and situations of poverty are more vulnerable still.

The agencies forming the Children in a Changing Climate coalition (CCC) recognise that steps must be taken to reduce the risks to children from disasters. This report highlights some of the disaster risk reduction (DRR) activities focused on or led by children that CCC members and others have undertaken with children in different communities across the world.

We know that DRR efforts cannot properly account for children's needs unless specific attention is paid to this during the design and implementation of any intervention. Such DRR can be said to be 'child-centred' or 'child-focused'. We also know that engaging children directly in the design and delivery of DRR activities can have many benefits. This work is referred to as 'child-led' DRR and covers a broad spectrum of actions.

This report characterises DRR interventions involving children along a continuum from expanding Knowledge, to enhancing Voice, to taking Action. This is further delineated as Action to Protect, to Influence and finally to Transform. The report discusses case studies along this continuum. It finds that to date effort and success have focused more on the earlier part of this continuum, with much learning available from initiatives to expand and transfer Knowledge and enhance Voice and, to a degree taking Action to Protect. The report recommends that the balance of effort could now shift, to focus more on supporting children engaged in Action to Influence and to Transform.

The report also finds that although much work has been done with local communities, and some with local and regional governments, as one moves up to national and international levels there is less activity. In particular, although there has been growing engagement of youth in national and international arenas, under-18s – who have specific needs as children as well as a right to determine the world in which they will live as adults – have been less engaged. To achieve influential and transformative change, more work at this level is required. If more DRR is focused on Action, the report also suggests that greater engagement with international processes and private sector interests could yield benefits, as illustrated in the mining case study on page 32. This approach to DRR is more challenging – for adults and children alike – and therefore currently under-explored.

The report also suggests that as the cost-effectiveness of DRR activities is well understood, it could be helpful for CCC to emphasise the additional economic benefits from delivering DRR with children, where the costs may well be lower and the benefits stream higher (using a lifetime analysis and taking into account intergenerational benefits). Importantly for DRR practitioners, this will require a shift in the way such interventions are assessed. More evidence is needed on the outcomes of DRR projects – for example, confirming anticipated improvements in child survival, educational attainment, health and well-being.

Child-led and child-focused DRR cannot solve everything. However, given the considerable benefits that appear to derive from it, both social and economic, it deserves a greater share of effort and expenditure. The balance of that effort should now shift, emphasising influential and transformative action to secure the future of today's children.

Introduction

We live in a world that is increasingly affected by disaster events. Recent decades have seen significant growth in the number of reported disasters – such as floods, cyclones and drought. More and more people are being adversely affected by these events, with Asia particularly hard hit by rapid onset emergencies² and the negative impacts persist into the long-term, well beyond initial mortality and infrastructural damage to include negative impacts on health, education, nutrition and morbidity.³ The science tells us that this trend is likely to be exacerbated by climate change.

Today's children will bear a disproportionate share of the impact, both in the immediate and longer-term, as documented by a number of recent reports.⁴ Children all over the world are highly vulnerable to climate change and disaster impacts, while those of them living in marginal environments and situations of poverty are more vulnerable still. The high mortality and morbidity rates among children during and after extreme events was particularly evident following the 2004 Indian Ocean Tsunami, where the largest numbers of fatalities were women and those under the age of fifteen.⁵ Climate change impacts are projected to increase the numbers of children affected by disasters, from an estimated 66.5 million per year in the late 1990s, to as many as 175 million per year in the coming decade.⁶

The agencies forming the Children in a Changing Climate coalition⁷ (CCC) recognise that greater steps must be taken to reduce the risks to children from disasters. This report highlights some of the disaster risk reduction (DRR) activities that CCC members and others have undertaken with children in different communities across the world.

The CCC coalition has worked to encourage all agencies working in DRR to recognise and respond to children's specific vulnerabilities. More recently, several initiatives have worked to facilitate children's active participation and agency in efforts to prevent, prepare for, cope with, and adapt to climate change and extreme events. Such initiatives cover curriculum development in schools, teacher training, knowledge-transfer through a range of media and increasingly they enable child participation through rights-based approaches, children's engagement in related policy spaces, and child-centred risk communication. These approaches stress children's ability to participate in DRR activities in their homes, schools and communities, whilst learning about disasters and climate change. They also acknowledge children's role in communicating risks to their peers and relatives,

² EM-DAT: The International Disaster Database, CRED 2009 www.emdat.be/

³ These are reviewed in some detail in Back, E. And Cameron, C. (2008) *Our climate, our children, our responsibility*, UNICEF UK

⁴ See for example: Oxfam (July 2009) 'Suffering the science: climate change, people and poverty'; Research from Children in a Changing Climate www.childreninachangingclimate.org and research by IDS www.ids.ac.uk; Stone, L. and Loft, K. (2009) 'Climate Change, Child Rights and Intergenerational Justice', IDS In Focus Policy Briefing 13.2 Brighton: IDS

⁵ Telford J, Cosgrave J, Houghton R. (2006) *Joint Evaluation of the international response to the Indian Ocean tsunami: Synthesis Report*. Tsunami Evaluation Coalition: London; McMichael, A. Friel, S. Nyong, A. and Corvalan C. (2008) Global environmental change and health: impacts, inequalities and the health sector, *BMJ*, 336: 191–194.

⁶ Penrose A, Takaki M. (2006) Children's rights in emergencies and disasters. *The Lancet*. 367: 698–699; Save the Children UK (2007) *Legacy of Disasters: The impact of climate change on children*; Save the Children UK (2009) *Feeling the Heat: Child Survival in a Changing Climate*.

⁷ Action Aid, Footprint Friends, IDS, NCB, Plan International, Risk Frontiers, Save the Children UK, UNICEF UK, Interclimate Network, World Vision



- Children film impacts at a small-scale mining site Caga-ut, Philippines

as well as providing practical and creative ideas to help their families and communities recover from disasters.⁸

There is good evidence to show that DRR can be one of the more cost-effective development interventions. DRR saves lives and protects other valuable and scarce resources such as food, livestock and property. Crucially, it also promotes early and cost-effective responses to climate change risks and will be required on an accelerating scale from now on. We know that development assistance is increasingly being diverted into emergency and distress assistance.⁹ However, it is much more cost-effective to invest in more and better DRR. The US Geological Survey and the World Bank estimated that an investment in DRR of \$40billion would have prevented losses of \$280billion in the 1990s.¹⁰ In India, DRR programmes yielded a cost-benefit ratio of 13.38.¹¹ i.e. for every \$1 invested, benefits – or in the case of DRR averted costs – of \$13.38 arise. In Nepal, a study by the Red Cross found that DRR initiatives yielded a cost-benefit ratio of 15.¹²

However, as the Nepali Red Cross have observed, the weakness of typical cost-benefit analyses is that they do not take into consideration most of the social benefits and behavioural change that can deliver so much value. The Red Cross/Red

⁸ Tanner TM et al. (2009). *Children, Climate Change and Disasters: An Annotated Bibliography*. Children in a Changing Climate Brighton: IDS; Tanner, TM et al. (2009) 'Children's participation in community-based disaster risk reduction and adaptation to climate change'. *Participatory Learning and Action* 60 54-64; Peek L. (2008) Children and Disasters: Understanding Vulnerability, Developing Capacities and Promoting Resilience – An Introduction. *Children, Youth and Environments* 181, 1-29;

⁹ Up from 4.8 per cent 1990-94 to 7.8 per cent in 2003

¹⁰ ERM (2006) Natural disaster and DRR measures – a desk review of costs and benefits

¹¹ *Op.cit.*

¹² Krishna Kumar K.C. and Daniel Kull (June 2009) At the Global Platform for DRR, Nepal Red Cross 9

Crescent Society is trying to integrate a cost-benefit tool into their existing community-level vulnerability and capacity assessments (VCAs). Using this tool, communities can try to assess which interventions might be most cost-effective before a project starts.

We can extrapolate from standard DRR interventions to child-focused and child-led actions, and deduce that they are likely to be at least as cost-effective and possibly more so, given that the opportunity cost of children's time is likely to be lower, and close to zero where activities are integrated into the school curriculum. Further, where children learn and practice DRR from a young age the benefits stream is integrated into the rest of their adult lives, yielding a higher benefit than when adults acquire the same skills, and embedding the changed behaviour early enough for it to be passed on to subsequent generations. There is thus a very strong economic case for enhancing and expanding child-focused and child-led DRR.

We know that DRR efforts cannot properly account for children's needs unless specific attention is paid to this during the design and implementation of any intervention. Such DRR can be said to be 'child-centred' or 'child-focused'. Protecting children from harm is paramount, and considerable attention is paid to the specific ways that children are vulnerable to disaster events and their consequences.

We also know that engaging children directly in the design and delivery of DRR activities can have many (sometimes unplanned) benefits. This work is referred to as 'child-led' DRR and covers a broad spectrum of actions. For example, children might implement DRR projects in their community. At the other end of the spectrum, children can and do engage with the media or with local governance structures, to influence decisions which affect the local environment and level of risk borne by communities.

Child-led DRR is not yet widespread, mainstreamed within DRR policy and practice, or indeed fully understood. This report seeks to change that by documenting case studies in child-focused and child-led DRR from across the world, and drawing out trends and lessons to inform future policy and practice.

01

Expanding knowledge

“I’m not scared of any disasters anymore because I already know what to do.”

Child in the Philippines

Child-Led Disaster Risk Reduction: a Practical Guide, Save the Children

Children as prepared and empowered citizens

Helps to reduce immediate impacts of climate change and disasters on children.

This has particular relevance for Article 6 of the CRC.

CRC Article 6

Life, survival and development. Every child has the inherent right to life, and the State has an obligation to ensure the child’s survival and development.

This section starts at the most commonly understood level of child-focused DRR, looking at interventions or behaviours that enable children to situate their own lived experience within newly acquired knowledge about climate change and disasters. This often includes facilitating the use of tools to analyse, plan and implement risk reduction and adaptation measures. Examples include: training and awareness raising; knowledge based exchanges (e.g. through schools); the use of analytical tools such as vulnerability and capacity assessments (VCA); and basic disaster preparedness drills. These activities are valuable in their own right, and are also important foundations for more ambitious efforts. Here, we review five case studies and discuss the learning points from them.

The first step in any disaster-prone community is to secure the environments in which children live, play and learn. This is often an entry point to engaging children in discussions about disaster risk in the classroom, though this is most effective when specialist curriculum materials are developed and used. There is a wealth of case studies using children’s schools as the focal point for DRR efforts, addressing both the physical infrastructure and the curriculum, alongside extra-curricular or out-of-school activities. This is appropriate because, in many societies, the school building is the only place outside the home where children congregate.

The example of the public school shelter construction programme in Kansas, on the following page, illustrates the importance of good school design to broader DRR efforts. Elsewhere, for example in Bangladesh, schools have been flood-proofed by raising buildings above the seasonal flood level¹³ or even floating them.¹⁴ Without secure school buildings, children cannot be kept safe at school and their learning may be disrupted. Conversely, as schools are adapted, this presents an ideal opportunity to revise emergency procedures, update first aid and safety equipment, educate staff and students on how to cope in an emergency, and undertake disaster preparedness drills. Often, this leads naturally into DRR curriculum development and other DRR activities.

- Children in El Salvador take part in facilitated groups

¹³ Chars Livelihood Programme (DFID/Maxwell Stamp) ‘Providing Infrastructure’ http://www.clp-bangladesh.org/index.php?option=com_content&task=view&id=82&Itemid=79

¹⁴ ‘Floating Solar Powered Schools in Bangladesh’ <http://www.ivili.org/video/floating-solar-powered-schools>



CASE STUDY 01

Keeping school children safe in Kansas

The US state of Kansas suffers many tornadoes. In the course of one severe event in 1999, several schools – and their safe areas – were damaged. Fortunately, schools were closed at the time, but the incident served as a warning bell: schools had to do more to keep children safe.

Wichita Public School District took decisive action to protect children by instigating a school shelter initiative, which involved retrofitting or constructing specific tornado shelters using advanced engineering. This spurred a broader shelter construction programme involving private and public schools right across Kansas. Many schools now have secure rooms – which are used as libraries, gyms or other facilities when not needed as shelters, thus ensuring they are well maintained and familiar to the school community.

The Wichita initiative was successful because it focused on educating and engaging a range of responsible actors, including:

- The local legislature and school boards, on the benefits of funding school shelter projects;
- Local school and planning officials, on how to build, equip and operate successful shelters;
- The private sector, such as architects and engineers, on shelter design and construction;
- School staff, so shelters are maintained and emergency procedures established and practiced;
- Schoolchildren themselves – most importantly – so they understand the hazards posed by severe wind events and know where and how to seek shelter.

In addition, strict design and construction criteria were set by state and federal agencies. Strong interagency co-operation helped to plan local projects and ensure standards were enforced. As one Kansas State official said, “All the warning time in the world doesn’t do any good unless there is a refuge area for our children to go.”

Adapted from: ‘Protecting School Children from Tornadoes: State of Kansas School Shelter Initiative’ FEMA, US Department of Homeland Security, 2002

Once steps have been taken to secure children’s environment, it is important to put in place contingency measures that ensure continuity of vital services – such as health and education – that affect child well-being. In Bolivia, significant attention has been given to ensuring that schooling can continue during and immediately after disasters. The Ministry of Education and UNICEF have worked together to ensure access to formal educational services by children most affected by disasters, particularly girls and children from indigenous communities. This is discussed in the case study opposite.

CASE STUDY 02

Maintaining educational services during disasters in Bolivia

Bolivia has suffered three consecutive years of natural disasters due to landslides, hailstorms, frosts and flash floods. These disasters hit the already vulnerable indigenous populations especially heavily.

The Bolivian Ministry of Education (MoE) and UNICEF have worked together to ensure access to formal educational services by the children most affected by disasters. Now an emergency component has been mainstreamed into this ongoing programme.

The aim is to prevent major disruptions to children's education during disasters or their immediate aftermath – with specific attention paid to the needs of girls and other vulnerable children – and to equip children, families and schools with the knowledge and skills they need to cope when disasters strike.

The emergency component was implemented in 2008 in five Bolivian departments and included:

- Providing and promoting safe school transport during and after emergencies;
- Developing emergency preparedness and response plans at national, departmental and community levels, and undertaking school mapping;
- Training administrators, educators and families on disaster risk reduction and minimum standards of education in emergencies and strengthening teachers' networks and peer learning;
- Developing national Child Friendly School (CFS) architectural standards;
- Integrating disaster risk management into national and local curricula and extra-curricular activities, specifically strengthening human rights education and life skills;

The first three of these are relatively straightforward to implement, the latter two can take longer. UNICEF believes this intervention could be easily replicated in other parts of Bolivia, the broader region or the globe. Teaching and learning materials are being produced by the Bolivian MoE with UNICEF and could be used in other similar contexts.

Adapted from: 'Access to Quality Basic Education for All Children in Emergencies' UNICEF 2009

In the following case study from Zimbabwe, the school is again the focal point for knowledge transfer, but the emphasis is on encouraging behaviour change to ensure good hygiene practice. The initiative combines curriculum development with provision of basic hygiene kits and teacher training. It is therefore a good example of a DRR activity focused on giving children the knowledge and skills they need to minimise risks arising from disasters – in this case, the spread of waterborne diseases such as cholera due to flooding and poor sanitation.

Schools can further help to reduce hunger and malnutrition in disaster prone areas by educating children and their families on basic nutrition and by giving children healthy and nutritious meals at school. Finally, where equipped to do so, schools can help children cope with stress resulting from disaster-related trauma, which can benefit children's mental and emotional health and well-being. Safe and prepared schools, with a knowledgeable staff, are therefore fundamental to ensuring successful child-focused DRR – though it is important to note that schools cannot work alone in this area, and that non-formal education and community outreach need to be used to ensure DRR reaches the 75 million children who receive little or no schooling.¹⁵

CASE STUDY 03



- A girl carries containers filled with safe water after the worst cholera outbreak in the country's modern history. Dec 08.

Reducing the risks from cholera in Zimbabwe

Children in Zimbabwe experience a lot of illness and many struggle to attend school. More than 98,550 suspected cases of cholera were reported by 22 June 2009 (OCHA), with 4,282 resulting deaths. The current cholera outbreak is waning, but many causal factors will persist into the next rainy season. Preventative measures are needed.

Many Zimbabwean schools suffer a lack of safe water or sanitation. Municipal water supplies are intermittent, many toilets are broken and pit latrines collapsed. In response, a programme was instigated – by the relevant Zimbabwean ministries, UNICEF and two international NGOs – to encourage good hygiene practice in schools, to decrease transmission of cholera and other diseases. The aim is to increase knowledge of cholera among staff and children, to reduce stigma and ensure a rapid response to suspected cholera cases at school. In addition, it is hoped children will educate their communities, carrying vital hygiene messages back home.

The project began with a training workshop for teachers, which received very favourable feedback. Currently the project is awaiting permission for further roll-out. Meanwhile, other related initiatives continue, including:

- Production of a Disaster Management Guide, to supplement the School Health Manual. This sets out practical steps to reduce risk and prepare for emergencies;
- Delivery of hygiene kits (buckets, mops, detergents, soap, and IEC materials such as posters) to schools. Schools had reported an inability to buy even the most basic cleaning materials due to the current economic situation in Zimbabwe.

The initial teacher workshops demonstrated the value of focusing on children as the primary audience, with participants asking "How would I relate this to my class?" Many different techniques were then explored, so teachers could choose how to take the message back to their own schools.

The use of lecturers from local teacher training colleges was also beneficial, as this respected professional group can easily connect with both trainee and practicing teachers. In addition, hygiene awareness materials are being retained for future teacher training and some lecturers have spontaneously organised events on cholera at their own colleges.

Adapted from: 'Zimbabwe: Hygiene awareness and Cholera prevention training' UNICEF 2009

¹⁵ UNESCO (2007) Strong Foundations: Early Childhood Care and Education, EFA Global Monitoring Report. UNESCO, Paris.

With immediate concerns around school security and continuity of education addressed, teachers and education officials can turn their attention to developing strategies for longer-term learning about disasters. Strategies include the development of a school curriculum that incorporates learning about how to be prepared and how to cope if disaster strikes. In the case study below we see that, in the US, work in this area has been incorporated into the mainstream curriculum and is easily accessible, with some components available on the internet or CD ROM.

CASE STUDY 04

Towards a culture of prevention: DRR begins at school

American Red Cross, working with ISDR and UNESCO, developed a curriculum called "Masters of Disaster" (MOD) to help teachers integrate DRR education into core subjects. The MOD programme aims to reach children aged 5 to 14 and their families with disaster preparedness information, and to promote behaviour change by providing them with the knowledge, skills and tools to effectively prepare for disasters. The MOD programme has reached over 5.2 million children in six years and has now been formally incorporated into the national curriculum.

MOD has been successful because it is:

1. interactive: lessons have children engaged, learning by having fun, not out of fear;
2. standardized: much attention was paid to quality control and alignment with national education standards, to ensure consistency;
3. participatory: a broad spectrum of interest groups contributed to this initiative, adding their expertise and experience (the US Dept of Health and Human Services, US Geological Survey, National Oceanic and Atmospheric Administration, National Weather Service, Federal Emergency Management Agency and others were active participants in programme design);
4. adaptable: certain aspects of the curriculum can be altered to make them locally relevant (in Alaska, for example, more emphasis was placed on earthquake preparedness);
5. translated: given US population diversity, MOD has been translated into various languages;
6. easily accessible: MOD material can be easily downloaded from the Internet, and CD-ROMS are readily available from the American Red Cross; and low-cost (elements free on the internet): the revised curriculum CDROM can be purchased from the American Red Cross for \$25.

Adapted from: 'Towards a Culture of Prevention: Disaster Risk Reduction Begins at School' UNISDR (2007). Further information at <http://www.redcross.org/disaster/masters/>

In the Maldives, the DRR curriculum has been enhanced through the engagement of schools in big awareness raising events, such as the International Day for Disaster Risk Reduction (IDDR). 2009 saw the Maldives celebrate IDDR for the first time, but the day has already been integrated into the 2010 academic calendar to complement other aspects of the national curriculum. Two pilot schools were very directly engaged in IDDR 2009. Their debate teams visited islands affected by the 2004 Indian Ocean Tsunami and then interviewed local residents, DRR experts and government officials. On return, the teams engaged in a televised debate. Several other pilot schools held special assemblies on IDDR. Creative responses were also encouraged. An art competition was organised, and some students created and performed plays or songs. A documentary was made featuring the pilot school debate teams and their visit to affected islands, and this was screened on national television.¹⁶

IDDR and other events provide a focal point for DRR efforts and can be an excellent way to engage children in discussing the risks presented by disasters and how they can be mitigated. Such events offer opportunities for children to showcase their knowledge, including through creative responses. However, they cannot stand alone. Rather they should complement ongoing efforts to integrate learning about DRR into national and local curricula.

The case study below from Mozambique emphasises community-based learning. Building the knowledge base among children is often linked with activities designed to enhance community resilience and risk management capacity. Linking community projects with skills development and awareness-raising is particularly important for children and youth participants, in order to maximise empowerment and reduce the potential for feelings of helplessness and vulnerability. A similar Red Cross programme focused on climate change in Colombia found that community activities to manage risks should be linked to local institutions in order to be effective and sustainable.¹⁷

CASE STUDY 05

Coping with floods – children and DRR along the Zambezi River

Save the Children, with contributions from UNICEF and ECHO, worked with children in flood-affected communities (age range from 12 to 18, occasionally younger children) in Mozambique.

The project promoted the proactive role of children in their communities in relation to; flood response and disaster mitigation; disseminators of information and good practice; and gave them the skills to prepare for future disasters..

A school magazine, community brochures, radio programmes, theatre workshops and a 'River Game' provided information to children and adults on what they should do in the face of floods, drought, cyclones, and forest fires. The impact has been substantial, not just in terms of children and schools developing emergency response plans and changing behaviour, but in changing attitudes within communities towards the positive role that children can play.

¹⁶ See UNISDR materials on www.PreventionWeb.net for further information.

¹⁷ Further information: www.climatecentre.org/site/youth

Coping with floods – children and DRR along the Zambezi river (continued)

The Ministry of Education had allocated 20 per cent of the school curriculum for 'locally relevant subjects' but this was under-utilised because teachers had limited knowledge and support to develop this part of the lesson plan. By providing training activities and materials for teachers with a strong recreation component, the programme was consistent with national educational policy and delivered critical skills, so take-up was high. The River Game was a huge success with children because it taught key concepts around coping with floods in a way that was interactive and recreational. The brochures were printed in four local languages making them accessible. Field testing materials in advance helped ensure acceptance by communities and children. The use of local radio and theatre prompted community discussions on DRR, with children and adults engaged in debate around causes and possible means of prevention.

Local community leaders, teachers, and district education authorities have also been involved. The programme initially covered two districts, but several components have now been extended to five provinces. At national level there has been extensive collaboration with the National Institute for Disaster Management Mozambique, (INGC), the principal Government agency responsible for disaster response.

Adapted from: Coping with floods: Children and Disaster Risk Reduction along the Zambezi River, Save the Children (undated)

What do the 'Knowledge' case studies tell us?

It is clear from the case studies in this section that **increasing children's knowledge and preparedness** is an essential first step in promoting child-led DRR. This can be achieved through a range of means, including teacher training, curriculum development, use of online media, radio, theatre and arts. **It is also important to ensure a secure and protective environment.** This means ensuring that the spaces in which children live, learn and play are safe. In many countries, such as Japan, significant steps have been taken to adapt local architecture to withstand the impacts of disasters, such as earthquakes.

School building design is a particularly high priority. The tragic effects of the 2008 earthquake in Sichuan, China, in which many schools collapsed, demonstrated the disastrous consequences of poor school design and construction.¹⁸ It has traditionally been common for schools to serve as community shelters during emergencies, which makes it even more important they are constructed to withstand extreme weather events that subject the building to sustained pressure. The case study from Kansas cited above represents good practice. However the importance of delivering

¹⁸ 'School construction to be investigated' China Daily, 16 May 2008 http://www.chinadaily.com.cn/china/2008-05/16/content_6690570.htm; 'After fatal lesson, China builds stronger school in quake zone' China View, 28 April 2009 http://news.xinhuanet.com/english/2009-04/28/content_11272165.htm



- A Grade 10 class at Elementary School 1 Padang attend classes in tents in the coastal city of Padang, West Sumatra.

continuity of education during and after disasters, as highlighted in the Bolivia case study, cannot be over-emphasised. Ideally, schools should not be used as evacuation centres and if they must be, every effort should be made to resume education as quickly as possible, perhaps in temporary classrooms if necessary.

As several of the case studies illustrate, schools can assist greatly in enhancing children's knowledge and skills in relation to disaster risk reduction, by ensuring children know what to do when disaster strikes.

In some contexts, educational efforts may need to focus on specific threats to children's health and wellbeing. These may relate less to the direct hazards presented by extreme weather events and more to the longer-term consequences. For example, in the aftermath of heavy rains and floods, waterborne diseases can become a significant threat. Stagnant pools of water may also provide breeding grounds for mosquitoes. If communities are able to improve their local environmental health by clearing stagnant water and debris, and if good hygiene and sanitation are practiced, such risks are greatly reduced. The Zimbabwe case study demonstrates the role school hygiene initiatives can play, alongside community-based efforts.

Moving beyond the school environment, then, the case studies also indicate ways in which children and adults can engage together in learning about and discussing disaster-related risks. Community-based learning, through theatre, song, games and other community events (such as meetings or debates) can be an extremely effective way of enhancing awareness and mobilising communities to work together on DRR projects. Alternatively, broadcast media and the internet can reach large numbers of people across different communities with DRR messaging, as seen in the Maldives on IDDR, and in the US 'Masters of Disaster' and Mozambique case studies. DRR practitioners will be likely to have greatest impact by choosing a range of context-appropriate strategies for awareness-raising and skills development. But in all contexts, it seems likely that schools will continue to play a vital role in enhancing the knowledge of children, their families and broader communities.

"I remembered it because I'd been taught it in a geography lesson, and it was the exact same froth, like you get on a beer. It was sort of sizzling... I'm quite proud of myself that I knew what was happening."

Tilly Smith, British school girl on holiday in Phuket, Thailand during tsunami – warned others around her before the tsunami hit.

From: Lessons save lives: the story of Tilly Smith, September 2007, UNISDR

02

Promoting voice

“The Tsunami has made everyone equal. There are no rich and no poor. It has also brought children to the center of their community’s development. Today we also feel, just like adults, we have a voice and that our views are respected.”

Tsunami: Before and After, Plan (India), October 2009

Children as recognized stakeholders in community DRR, and as teachers and activists

DRR that helps to enhance attention to children’s needs and rights – and to reduce their longer-term vulnerability to climate change and disasters.

This aspect of child-focused DRR seeks to move beyond simply transferring knowledge. Promoting children’s ‘voice’ is about improving the visibility of children’s needs, increasing their analytical abilities, and stimulating recognition of their potential as agents of change. So, for example, in this section we will present case studies in which adult disaster committees prioritised children’s needs, or included child representatives, having recognised the value children could add (often through work children had already done in their communities). As children become more visible and respected in their communities, this can help reduce their longer-term vulnerability to climate change and disasters and indeed in other respects.

In the case study from the Solomon Islands on the following page, we see how young people have been trained to become peer educators. Engagement with children and young people via a climate change forum enabled outreach and skills transfer.

- Children in Nepal take time to voice their message



CASE STUDY 06

Youth action on climate change in the Solomon Islands

In the Solomon Islands, the Red Cross has used a variety of activities to engage young people in raising voice and communicating risks around disasters and climate change. In the nation's capital of Honiara, young people have been trained to become peer educators in schools and communities on issues related to climate change.

At the same time, the Red Cross has worked with the national disaster management office to design an FM radio quiz for schools, for the International Day for Disaster Risk Reduction (IDDR), on how to reduce disaster risk and impact. Integrating messages about climate change, it was broadcast in the afternoon, when students are home, in the capital Honiara as well as further afield.

The Solomon Islands Youth and Climate Change Forum in November 2008 involved over 70 youth participants. During field trips to Solomon Islands communities, participants interviewed local inhabitants to find out more about the changes in weather that they are noticing and the resulting challenges they face. It also provided the opportunity to put into practice the risk reduction skills they had been taught during the forum, such as the creation of seasonal calendars to track changes in seasons and weather patterns.

The programme highlighted:

- Children and youth as peer educators and communicators of risks and climate change responses.
- Using the asset of the enthusiasm and energy of young people, forming a young team to undertake programme activities and double as a youth group.
- Expanding the reach of climate change and DRR programmes through youth engagement, as young people are already active in the workplace, families, sport, churches and their schools.

Further information: <http://www.climatecentre.org/site/youth>

Whilst children's voice can be enhanced through the process of learning and sharing at community level, if participatory media are used the impact can spread further and last longer. For those children fortunate enough to have access to the internet, or to photographic or film-making equipment, this can enhance their voice significantly, both locally and nationally – and even internationally through the internet or broadcast media.

The example from the UK opposite shows how an internet-based project, which started in an academic institution, has now spread to China, Russia and other countries. It allows children anywhere in the world able to view each other's work on DRR online in a range of languages. The same project also provides resources aimed at teachers, including a DRR social networking site.

CASE STUDY 07

Using New Media for Disaster Education for and by Youth: The edu4hazards.org website project

The Disaster and Development Centre, University of Northumbria, UK developed the website www.edu4hazards.org. This uses interactive navigation in the form of labels on a suitcase that direct the visitor to different types of hazards children may experience. Children anywhere in the world can explore the site to discover how to protect themselves. The web-build was done working with a primary school in East London with 9 year olds and a secondary school in northeast London with 14 year olds. The UNISDR secretariat added a link to the site, which was followed by links to government-based educational websites in the USA and Australia.

Videos on the web site – and on the associated YouTube channel – show what to do in an emergency, in a variety of languages. Children have submitted videos in French, English Turkish, Urdu, Russian, Punjabi and Mandarin Chinese, as well as photos of their emergency ‘Go Bags’. Children can also access podcasts.¹⁹

The use of the internet and other modern media can engage children globally in DRR, providing they have internet access, with only a small initial investment in the design. The interactive website, together with the opportunity to make your own Go Bag and/or film, appeals to different learning styles and engages children actively in leading their own DRR. Videos in different languages have enabled children to learn from each other.

Adapted from ‘Towards a Culture of Prevention: Disaster Risk Reduction Begins at School: Good Practices and Lessons Learnt’ UNISDR (2007)

Giving children voice on international platforms can be a valuable exercise both for the children involved – who get the opportunity to put their message directly to policy makers – and for the adults hearing from children. It is vitally important, however, that such events are genuine opportunities for influence or exchange of views. There is a need to avoid the risk of tokenism or even of children being exploited by those seeking event publicity, where the impact of children telling their stories directly will be subject to diminishing returns. For events to go beyond simple reportage by children they need a shift of emphasis that focuses more on children’s recommendations for action and policy change. The case study on the following page documents recent attempts to give children voice in an international policy arena. It highlights the need to facilitate ongoing dialogue between adults and children – i.e. any specific event focused on children’s ‘voice’ is the beginning of a longer-term process, not an end in itself.

¹⁹ <http://phobos.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=260353245>

CASE STUDY 08



- 16 year old Rhee from the Philippines encourages UNISDR decision makers to agree that "Children...as strong agents for change...should be involved in the decision-making process"

Experiences of Children's Participation in International Climate and Disasters Policy

Plan International supported the participation of child advocates from developing countries at international policy events on DRR and climate change: the 2009 Global Platform meeting on Disaster Risk Reduction in Geneva, and the 2007 13th Conference of the Parties (COP13) meeting in Bali. This experience yielded several lessons:

Direct input in adult discussion arenas is an important way to secure and generate much needed dialogue between children and adults at the global level. Ultimately, children's views must be heard in the adult decision-making arena if they are to be integrated into policy. For this to work, children need both the support of receptive adult facilitators and child-friendly adult institutions.

Participation must be balanced with protection. Successful participation was based on the personal convictions, experiences and capacities of children. Yet they remained vulnerable to the overwhelming nature of the events and diminished self-confidence. Facilitators had to ensure that the children had access to relevant information, ongoing support, and the opportunity to give feedback on their experiences.

Ensuring transparency in children's interaction, and following international standards on children's rights to protection and participation, helps preclude accusations of 'tokenism' and 'manipulation' of children in policy-making.

Creating dialogues: International institutions, governments and civil society must establish and support lasting, child-friendly dialogues on disasters and climate change between children's groups and adult actors. To engage effectively, children must have access to relevant information in forms they can easily understand and absorb.

Adapted from: Walden, D. Hall, N. Hawrylyshwyn, K. (2009) 'Participation and Protection: Children's Involvement in Climate Change Debates. IDS In Focus Policy briefing 13.4, Brighton: IDS www.ids.ac.uk/go/infocus13

What do the 'Voice' case studies tell us?

Giving children greater voice has a number of practical and policy advantages, as well as promoting children's empowerment and ownership of DRR responses. It builds directly on Article 12 and 13 of the CRC. Article 12 of the Convention of the Rights of the Child sets out some fundamental principles for the expression of children's voices; however there may be a need to develop a clearer understanding of the purpose of giving children voice in national or international arenas.

Article 12

Respect of the child's views. The child has the right to express his or her opinion freely and to have that opinion taken into account in any matter or procedure affecting the child.

Article 13

Freedom of expression. The child has the right to express his or her views, obtain information and make ideas or information known, regardless of frontiers.

At a practical level, including children on committees and other institutional structures can add a new and valuable dimension to the work of those institutions. Using peer educators or having children undertake interviews of adults for risk assessments, for example, can reduce the adult workload and allow for the communication of messages in new and sometimes more powerful ways, as the Solomon Islands case study shows.

If children feel their voices are being heard, this increases the likelihood they will maintain their own DRR learning and actions and pass this to other generations. This becomes a win-win scenario, rather than a standalone event that must be repeated year after year for continued impact.

The use of modern media to communicate adds enormous power to the voice of children and – as the case of 'edu4hazards' shows – has inspired children around the world to undertake and share their own DRR efforts, leading to a virtuous circle of voice supporting voice.

There is significant potential to enhance the role of children's voice in international fora, and also in national or regional fora though this is a less developed strategy currently. There seems to be a gap between children's voice at local or at best sub-

²⁰ It is relevant here to note that in July 2009, the UN Committee on the Rights of the Child issued their General Comment No.12 - to promote the 'effective implementation of article 12'. The comment sets out the basic requirements for the practical implementation of children's right to be heard and explains the value and impact of this in different situations and settings. It provides strong justification - and useful guidance - for bringing children into climate change decision-making at the global level. A selection of its contents illustrates this:

- State parties must assure that in all matters affecting the child, the child must be heard if the matter under discussion affects the child. "This basic condition has to be respected and understood broadly." The impact of climate change on children is now more than ever one such key matter; and one that children themselves are saying matters a great deal to them. General Comment No. 12 (2009) "The right of the child to be heard" was presented by the Committee on the Rights of the Child at its Fifty-first session held in Geneva, on 25 May-12 June 2009.



- Children in Indonesia present their advocacy video to local officials

regional level and then a leap to international level, with only a few countries giving audience to children's voices at national level.²¹

Looking ahead, there is a need to develop more clearly an understanding of the purpose of giving children voice in national or international arenas. Article 12 of the Convention of the Rights of the Child sets out some fundamental principles for the expression of children's voices.

There are good examples of this right being realised through the efforts of a number of agencies. The message that children can have an impact in DRR has been heeded in international fora at least, and it is clear that the process of direct engagement at this level can be a powerful one for the child involved. This form of engagement needs to be balanced with environmental costs, and the use of video conferencing facilities and other media could be encouraged for both adults and children. It can also be a risky process, if expectations about influence and impact are not managed appropriately. It may be useful for practitioners to evaluate this kind of work in greater detail over the coming months.²²

The message that children can deliver above and beyond giving them voice – specifically on the need to take action, including changes at policy level – could be a very powerful one. However, children must be supported to appropriately develop this message and approach. It is interesting to note that full version of CRC Article 12 specifically refers to the right to be heard at judicial or administrative proceedings affecting the child i.e. from a legal or bureaucratic perspective, above and beyond a simple expression of views. We will explore the desirability of shifting the focus of effort towards action in the next section.

²¹ UNICEF UK, Plan UK and many other agencies facilitated a meeting between UK schoolchildren and the UK Minister for Energy and Climate change so that he can hear their views. Meanwhile, in Canada, children sent postcards about their solutions to climate change, to the Prime Minister, facilitated by WWF. See:<http://www.marketwire.com/press-release/WWf-Canada-1074342.html>

²² Plan believes that institutionalising children's involvement in climate change decision-making at a global level will lead the way for firmly establishing children's right to be heard more generally - in all areas affecting them. Ideally the progressive increase of children's participation at the global level will take place systematically, through formal consultations and the establishment of official provisions, formal mechanisms and processes for their participation. It is important to transfer children's unique perspectives and capacities to the global level where key agendas, targets, and standards are set which have a direct impact on their lives and their futures.

Children as agents of change

DRR that helps children instigate or lead efforts to protect their communities and inspire or deliver change in the broader policy environment – enhancing their responsibilities and rights related to climate change and disasters.

Increasingly, work with communities on DRR is helping to empower children so they can guide efforts that are likely to impact directly upon them, and they may undertake their own discrete initiatives. Underpinned by the principles of child participation enshrined in Article 12 of the Convention on the Rights of the Child, this can be termed 'child-led' DRR.

However, the level of child agency varies. We have characterized the case studies in this section into actions that seek to protect, influence or transform:

- Children **protecting** themselves and their communities, for example through child-led disaster drills at schools or small environmental and risk reduction projects;
- Children **influencing** the actions of others, for example through advocating for and leading behavioural change;
- Children **transforming** their environment, by informing or changing wider agendas, and addressing the root causes of vulnerability and risk management through institutions, policies and processes beyond their community boundaries.

ACTION: Protect

The use of children to take action and **protect themselves and their wider communities** can be highly effective. The example below shows how preparedness on the part of the Scouts in Ghardaia, Algeria, was beneficial to the wider community.

- Lisa, 9, repairs her father's fishing net after Cyclone Sidr in Bangladesh



CASE STUDY 09

Algerian Scouts mount disaster response

In October 2008, the department of Ghardaia, 600 km south of Algiers, was hit by heavy rains and dangerous floods. Mudslides invaded local villages as rivers burst. More than 90 people were killed and many others injured. Over 600 houses were destroyed.

Soon after the catastrophe, the Algerian government alerted emergency services and called upon all sectors to intervene immediately. In response, the General Commissioner of the Scouts Musulmans Algériens (SMA) established an emergency network, calling upon all departments of SMA at national level to engage in the rescue and clean up efforts.

Fortunately, the Scouts had developed a disaster preparedness plan and were well-equipped to respond. About 1,000 Scouts and volunteers left their families, schools, universities and workplaces to contribute to community efforts. First, they helped set up an operational headquarters outside Ghardaia to co-ordinate with governmental and non-governmental partners and to monitor the crisis. Six other centres were also set up to support the affected community.

The Scouts worked with others to: distribute supplies (foods and hygiene kits); remove debris and pump water from flooded houses; clear the streets of mud and rubbish; and support affected people emotionally. In the aftermath, the International Federation of Red Cross and Red Crescent Societies reported that 731 rescue operations had been mounted, which resulted in the rescue of 1,203 people.

The Scouts made an important contribution to the rescue and rehabilitation efforts in Ghardaia. Indeed, across the world, children and young people within the scouting and guiding movements train in disaster preparedness. This helps children keep themselves and their friends and families safe. It also ensures that when disaster strikes, as in Ghardaia, any older children can be swiftly and effectively mobilized to support their community.

Adapted from: 'Algerian Scouts excel at disaster preparedness' www.scout.org

“Adults may want to do it themselves. They may think we don't have the capacity – that we can't do it. But actually, if given a chance and some guiding directions we children can do anything.”

A child taking part in Save the Children's Child-led Disaster Risk Reduction program in Thailand.

In the example above from Algeria, boy scouts – who had acquired many skills relevant to emergency response – played a vital role in helping a flood-hit community. The guiding and scouting movements now offer disaster preparedness training and accreditation in many countries, and some troops maintain long-term environmental and community initiatives, as girl guides do in Sri Lanka²³ for example. Indeed, children's clubs of any type (run by children themselves or by adults for them) can provide space for learning, discussion of risks to the community and training to ensure preparedness. An example can be found in the kids' clubs formed in Tamil Nadu, India, following the 2004 Tsunami, which provided a space for children to consider the impacts of the tsunami and how they could reduce the risks to their community in future.²⁴

Further, as the case study of the Algerian scouts shows, community organisations and clubs also help to formalise local networks, enabling children to be better monitored and protected in a disaster, and also making it easier to mobilise children and their families to respond to disasters (taking quick action to protect themselves and others, assisting with rescue and recovery efforts, etc).

²³ Sri Lanka Girl Guides go Eco-Friendly' The Sunday Times, 3 May 2009 http://sundaytimes.lk/090503/FunDay/fundaytimes_2.html

²⁴ Two Years Later – Rebuilding Lives after the Tsunami: The Children's Road to Recovery' Save the Children, 2006 http://www.savethechildren.org/publications/emergencies/savechild_tsunami_report.pdf

Including children as part of a wider community structure can be an effective response, as the case studies from the Kyrgyz Republic and El Salvador below demonstrate. In Kyrgyz the formation of village disaster teams alongside school disaster teams, backed up by teams of younger children supported and reinforced each other, providing continuity and enhancing sustainability. In El Salvador, children were proactive protectors and initiators, working within their wider community to take pre-emptive action.

CASE STUDY 10

Kyrgyz 'school disaster teams' lead preparedness efforts

Over the course of 2006, Christian Aid and Shoola (a Kyrgyz NGO) worked together to enhance disaster mitigation and preparedness among villagers in the Eastern part of the Kyrgyz Republic.

'Rural disaster teams' and 'school disaster teams' were formed in five villages to support the development of community awareness and preparedness measures. The teams received training on disaster risk reduction and management. They were also equipped with appropriate tools including spades and shovels, first aid kits and stretchers, flashlights and tents.

Each 'school disaster team' comprised 23-25 school children, whereas 'rural disaster teams' each had 20 adult members. The teams drew disaster risk maps of the villages, planned escape routes and prepared contingency plans. They also facilitated structural mitigation work including strengthening riverbanks, reconstructing reservoirs and building dykes.

To ensure sustainability and continuity, each school disaster team formed one 'duplicate' disaster team consisting of younger children who had not been involved in the initial activities. The school disaster teams also conducted training on disaster risk reduction in the schools of neighbouring villages. Competitions and summer camps were organised, where young people could demonstrate their skills and knowledge. Village events and construction activities were broadcast by the local TV channel to reach the entire Issyk-Kul Province.

The project resulted in raised awareness, structural mitigation and enhanced disaster preparedness. Children led parts of the initiative and learnt about the importance of communities working together to mitigate disasters. Community participation was sustained – even in a society where this is not the norm – though the facilitation efforts of Shoola, the local NGO. A follow-up phase of the project seeks to improve community linkages with local government.

Adapted from: 'Rural, School "Disaster Teams" to Boost Preparedness: Mobilising Rural Communities for Disaster Preparedness in the Kyrgyz Republic' in Building Disaster Resilient Communities, ISDR 2007

CASE STUDY 11

Children's role in monitoring, preparedness and flood response in El Salvador

In July 2008, the communities of Melara, Palmera and Cerco de Piedra woke up in the middle of the night, to find the Huiza River bursting its banks, the bridge destroyed, and their houses and belongings quickly being covered by water and mud. Twelve people died. In November 2009, a similar emergency saw a drastically improved capacity to respond quickly and efficiently following training on DRR, as part of a project carried out by Plan El Salvador and financed by DFID and ECHO.

What had changed?

- Children and youth from local communities had become leaders within Civil Protection Committees, creating brigades to respond to different aspects of emergencies, including Monitoring and Early Warning, First Aid, Evacuation, and Shelter Management.
- As a result, the flood situation was actively monitored and upon danger levels, the Committee members donned ID vests and alerted community members to evacuate before arrival of the flood, during the night, with the aid of a megaphone equipped with an alarm.
- Children and senior citizens were evacuated to a church on higher terrain that had been previously identified as a safe shelter. Once in the shelters, the Committee (adults and children alike) attended immediate needs: food, hot beverages, blankets, mattresses and, specially, comfort to those who needed it the most, mainly children.
- In the aftermath, volunteers and members of the Community took account of the damage to the communities, started distributing any aid that was delivered, and began rescuing articles of clothing, food, and whatever was worth salvaging.

Children and youth were instrumental in ensuring that a repeat disaster was avoided. Involvement of children and youth in this disaster preparedness process involved both attention to specific vulnerabilities of children during and after disaster events, but also their capacity as actors in preparedness, response, relief and rehabilitation. This action was part of a community-wide initiative rather than a stand-alone child-centred effort.

Adapted from: 'Children on the Frontline: Children and young people in Disaster Risk Reduction' Plan International with World Vision International, (2009) <http://www.plan-uk.org/pdfs/childemonthefrontline.pdf>

Several of the case studies above confirm that engaging local government is key to the sustainability and impact of DRR and may even result in local financing for community initiatives. However, community based organizations and other NGOs are often the primary route for engagement of children and their families in DRR. These organizations can often work directly with a specific community to build participation and ownership and focus on their needs. Once children and families are engaged and empowered in this way, they can more easily and effectively reach out to local authorities and are better placed to influence policy responses and secure long-term financing.

ACTION: Influence

Earlier we reviewed the use of videos and other media to promote children's voice. The example from Nepal below goes one step further. Here, children were involved directly in the production of short films to advocate for specific actions, which in turn influenced government officials to change their behaviour and build a bridge for the children to ensure year round access to their school. At a national level, it also fed into the preparation of the National Adaptation Programme of Action (NAPA).

CASE STUDY 12

- A young Nepalese boy records his story for the participatory video

Child Voices: Children of Nepal influence the building of a bridge & the NAPA

Institute of Development Studies researchers with the Children in a Changing Climate's research programme worked with ActionAid Nepal, and its partner organisations, to help poor children to make short films about how climate change is being experienced by their communities.

Making these films allowed the children to explore how the changing climate is impacting them and their families, how they are coping and what they need in order to adapt to a changing climate.

They used the videos to highlight their concerns and to advocate for action. They presented their issues through screenings to government officials, who in turn agreed to help them in building a bridge to improve the year-round access to their school. Outside the community, the video was screened to those in government to advocate for child-sensitive approaches to analysis and implementation of adaptation plans. This targeted those responsible for preparing the Nepal National Adaptation Programmes of Action (NAPA), which highlights the country's urgent and immediate climate change adaptation needs.

From; Gautam, D. and Oswald, K. (2008) 'Child Voices: Children Speak Out on Climate change Adaptation' Children in a Changing Climate Research Report, IDS: Brighton www.childreninachangingclimate.org/docs/Child%20Voices_np.pdf Video at: <http://blip.tv/file/1492697/>

In the Philippines, children have managed to influence not just access to school, but the physical location of school buildings. In the following case studies from Southern Leyte, students gradually persuaded adults in the community to relocate their school to a safer area. This has similarities to the Northern Bangladesh example, where adults also initially resisted the actions advocated by children, but later acknowledged the validity of the children's proposals.

CASE STUDY 13



- Children in Santa Paz, Philippines attend classes in their temporary tent whilst work begins on their new school

Student-led school relocation

In Santa Paz Sur and Santa Paz Norte, in the Southern Leyte region of the Philippines, schoolchildren who had learnt about disasters through risk mapping and vulnerability assessment at school discovered from local scientists that their school was in a high risk landslide zone. They campaigned within the school and wrote letters, enlisted the support of the former state governor as well as the headmaster. This resulted in a community-wide referendum on school relocation that included the children.

A temporary tent school was erected over one weekend, with children and parents helping to put up the tents and children digging drainage channels (due to the temporary school's location close to a paddy field). The tents, water supply and toilets were provided by Plan Philippines, along with a scholarship programme helping poorer students purchase uniforms and school supplies. A new permanent school was then opened in a safer location, which includes earthquake mitigation measures such as steel ties on the roof.

This case study highlights the power of children as drivers of change and demonstrates the power of children's voices on disaster risk within a community. It also shows the importance of working with local networks and leaders, developing champions who can push agendas at different scales.

Adapted from: Mitchell, T., Tanner, T.M. and Haynes, K., (2009) Children as agents of change for Disaster Risk Reduction: Lessons from El Salvador and the Philippines. Children in a Changing Climate Working Paper 1, IDS, Brighton

"We can teach the community and government about the issues that children face during disasters – we must share our experiences with them."

Child in Indonesia,

Child-Led Disaster Risk Reduction: a Practical Guide, Save the Children

"With that campaign letter, it really empowered us children, students, because we were given the chance to speak out – and I realized that even if we were just students, our voice can also be heard by bigger or older persons."

Child Quote from: Children on the Frontline: Philippines. Plan International, Thomson Foundation and OnePlanet Pictures (March 2008)

Children engaged directly in DRR are not just able to influence adults to change their views, but may negotiate inclusion in local and national decision making processes. The example from Bangladesh below shows how action taken by children at community level led to them to being included in decision making at regional level, which is in turn influencing decision making at the national level. The children also encouraged adults to move away from a fatalistic 'nothing can be done' point of view to a 'yes we can' outlook. If this can be carried over from one generation to the next then this kind of work will begin to yield a virtuous circle of intergenerational benefits.

CASE STUDY 14



- Children helping with the construction of boats to ensure safer access to school during the monsoon season in Bangladesh

Children influencing their community to reduce disaster related risks: Moyna and Papri Children's Organization, Northern Bangladesh

Plan International, with assistance from ECHO, working with POPI, the local implementing partner set up a children's organisation of some 30 children who then mapped the hazards (drought, tornado, hailstorms) and risks that follow (e.g. diseases, house destruction) in their community. The children drew a map of what a safe community would look like, undertook a transect walk, prepared a risk and resource map, drew up a timeline and seasonal calendar. They interviewed the adults in the local community in order to do this. They then prepared a disaster matrix ranking diagram and prioritised the responses to the most likely disaster. They then undertook their own DRR plan.

Where resources were inadequate to implement a full plan the children voted for a micro project. Twenty-three interventions were realised based on the children's analysis including tree planting, boat building, bridge construction, ground raising for infrastructure.

The project found a range of benefits from child led DRR including:

- Children can help to challenge the social status quo and fatalistic doctrine present amongst adults.
- Forming children's organizations and allowing them to take a leading role ensures creativity, ownership and enthusiasm not seen in adults.
- Children were appreciated by the wider community and their recommendations helped communities to become involved in DRR and support children's participation in DRR.
- The adults' prior perception of children as vulnerable beneficiaries is slowly changing – with a greater appreciation at local and national levels of the value of including children in DRR decision-making. Four local disaster management committees have now voted to include children on their committees, recognizing their value added.

Adapted from: My Story: How children are leading their community to reduce disaster related risks: The story of Moyna and Papri Children's Organization , Plan Bangladesh 2008

At a similarly influential level – in the example from the Philippines on the following page – the use of video as an advocacy tool has targeted the behaviour of small-scale artisanal miners and decisions by the local and municipal government. This led to the banning of chromite mining near selected villages. It also highlighted the interrelationships between the immediate commercial drivers in the locality and longer term climate change impacts. There are few examples of child-led or child-focused DRR having an impact on commercial decisions, or where as a result of children's actions, the links between corporate behaviour and disasters are explicitly understood, articulated and lead to a change in behaviour. This is getting closer to the sorts of transformational impacts we will discuss in the next section.

CASE STUDY 15



- Campaigning and video making support child led DRR advocacy in the Philippines

Video-making process enables children to advocate on mining issues

In the village of Caga-ut, in Eastern Samar, Philippines, children's groups have used participatory video as an advocacy tool. Local children formed the Young Hearts media correspondents and made videos about the mining, they were supported by Plan Philippines, the Forces of Nature Foundation, researchers from the University of the Visayas Macquarie University, and IDS, and national video facilitators. The experience has shown that the process of researching, creating and presenting the video has been as important as the finished product.

Limited access to economic opportunities in the community has led to the widespread practice of small-scale chromite mining, reinforced by Provincial Government legislation permitting mining across 24 per cent of the Municipality and the presence of international mining companies supplying the global market. The children pinpointed chromite mining as their major concern. Their research revealed how small-scale mining excavations were polluting the local river, affecting bathing and washing of clothes, contaminating local drinking water, causing skin diseases and a decline of downstream fish catch. Land degradation due to tree felling and excavation of mining sites has increased flood risk, and children are increasingly employed in mining activities rather than attending school.

The children used the video project to present their findings to local officials, filming the process of debate within the village council around the pros and cons of mining. On top of an ongoing campaign against the mining led by children's groups, this has led to a local resolution to stop mining near to the village, a commitment to fill in mining pits, and the videos were used to lobby Municipal and Provincial officials at screenings.

Watch the video at: www.youtube.com/watch?v=GhYzkAfIMCs

As the children narrate in the video:

"To address the problem of impending disaster, the council banned chromite mining near the Barangay [village], especially near the river. That's why the river is clear now. They also have an agreement with the owners of mining sites, that after operations in a site, they will plant trees and top up mining pits."

"We started a campaign to inform the children about the danger of continuous rainfall due to climate change and the continuing mining operation... We formed groups to help our parents in filling mining pits. We also started our own tree-planting program. But these are temporary solutions... For the sake of our future, we want chromite mining to be stopped."

From: The Pock-Marked Face of Caga-Ut, Eastern Samar, The Philippines. Plan International (2009)

“We know where the problems are and what is needed to overcome the problems. But we have not pressured the government to reduce the risks from disasters. I think we should work in advance, before the monsoon comes.”

Ranju Dahal, age 15
Balaju, Kathmandu, Nepal.

ACTION: Transform

We are using this term in the sense of transformation in the broader context, e.g. at national or global levels, through lobbying for local/national policy change, or for example through UNFCCC and Global Platform advocacy. In the context of DRR, transformative actions will tend to focus more on the drivers of vulnerability to disasters – such as local environmental degradation or the impacts of climate change – than on the direct consequences of disasters.

In our assessment of the available DRR case studies, few demonstrated actions that had been genuinely transformative, although several – such as the case studies from the Philippines cited opposite – are moving in this direction. This is an important finding, though perhaps not altogether surprising. Although much has been achieved in making DRR increasingly child-led, much more could be done in order to achieve transformative change that will benefit children and their communities over the long term. We will discuss this further below.

‘Transformative’ action by children – or by adults and children working together – is a natural next step when children have already been engaged in community-based projects and related advocacy efforts. It is a bottom-up effort to change policy and practice. Children and young people can work very effectively with adults in this area if supported to do so and in some cases it may be appropriate and feasible for children to engage directly in policy change.

Conversely, the Jamaican example below shows how top-down policy development on DRR can fail. This happens even where intentions are good, because there is no local ownership of the policy or practice – by children, or by those representing or serving them (parents, teachers, social workers, nurses, etc).

CASE STUDY 16

Child-centred disaster risk reduction policy and its implementation

Around half of Jamaica’s population is under the age of 18. As a result, Jamaica’s disaster risk reduction programme, led by the Office of Disaster Preparedness and Emergency Management (ODPEM), seeks to address the special needs of children in disaster situations.

The ODPEM has endeavoured to ensure Jamaican children are protected during disasters. Their work involves ongoing public awareness campaigns and specific efforts to integrate children’s needs and rights into the country’s Comprehensive Disaster Management (CDM) framework, consistent with the Hyogo Framework for Action.

Child-centred disaster risk reduction policy and its implementation (continued)

But the ODPEM has been reviewing its efforts and looking for ways to strengthen them. For example, the agency developed Guidelines for Child-Friendly Disaster Management and Response, which have served as an *aide mémoire* in times of emergency. However, a review found that training programmes for planners and implementers do not yet incorporate the Guidelines.

Another ODPEM-led programme focused on strengthening the capacity of schools and their surrounding communities to respond to disasters. However, a lack of resources and technical support to schools has hampered this initiative. A review of participating schools found that none had designed an emergency preparedness and response plan or taken steps to ensure good communication with emergency services during a disaster. In addition, children were not as well informed as they needed to be about how to prepare for or respond to an emergency situation, and, although the specific needs of children with disabilities were understood, few schools were equipped to address them during a disaster.

The ODPEM concluded that they needed to expand their initial projects, keeping in mind that:

- Using a standardized tool for developing school emergency preparedness and response plans greatly increases the likelihood of comprehensive, high-quality plans being produced.
- Access to basic psychosocial support to children and caregivers following an emergency can substantially aid recovery processes and reduce the impact of post-traumatic stress.
- Increased emphasis must be placed on children and their protection before, during and after the onset of a disaster situation.

Another vital lesson is that prioritizing children's needs during policy development is not enough. Adequate resources must be dedicated to policy implementation, at national and local levels. The Jamaican experience also demonstrates the importance of reviewing policy implementation, in order to identify challenges and then take appropriate steps to address them to ensure children's needs are being met.

Adapted from: 'Disaster Risk Reduction and Vulnerable Populations in Jamaica: Protecting Children Within the Comprehensive Disaster Management (CDM) Framework' Michelle T. Edwards and Kerry-Ann N. Morris, 2008

The most beneficial outcomes are likely when good intentions at the political or policy level mesh with child-led DRR at the community level. We will discuss the challenges to achieving this below.

What do the 'Action' case studies tell us?

Working up through the arc of Protect – Influence – Transform:

It is important to recognize children's needs and to take account of these during policy development. Child-friendly policies then need to translate into practical guidelines to enable child-focused and child-led action to prevent and manage disasters. But resourcing must be sufficient to enable local authorities, civil society organizations, schools and communities to make full use of such guidelines – this means providing both financial and technical support. Otherwise any policy or guidance document is likely to sit on a shelf.

Additional mobilisation efforts at community level can help important actors stay engaged and ensure local groups, including children's groups, are adequately supported. The Kyrgyz example demonstrates this – constant support was needed in that context, to ensure that schools and community members stuck with the initiative and saw the benefits emerging from it.

This can generate a cycle of positive feedback where the local adults and wider community see the benefits of the children's analysis and work on influence, so adopt the behaviours themselves. This can then become institutionalised at the local level, and with appropriate support can be adopted at regional or even national level. The use of participatory and broadcast media can be particularly empowering, as it does more than give voice – it can open the space for action.

Over time, as momentum behind an initiative gathers, local children and adults can and often do take on greater leadership and responsibility for its continuation and impact. At this stage, policy engagement becomes more feasible and sustainable.

Making the leap to transformative action is the next frontier. It will require a shift in emphasis, recognising that much important work has been achieved in the transfer and expansion of knowledge and enhancement of voice and that action must build on this. Mainstreaming a transformative approach to child-focused and child-led DRR remains a challenge, requiring ongoing effort and increased resources, but the learning from past and ongoing initiatives will guide future endeavours

- Children in the Camotes islands, Philippines, highlight the importance of mangroves for secure livelihoods, as well as reducing wind and wave damage during typhoons



04 Conclusions and messages for practitioners

Disasters are often the catalyst for change. When children see how their community has been affected they want to engage in redeveloping and preparing it to survive in future.

Children can and should be engaged in planning and decision-making in all communities, whether or not they are disaster prone. However – to be truly child-led, disaster risk reduction efforts must fit with other aspects of children's lives, most obviously their education and any family responsibilities. Children should engage in DRR with enthusiasm and on their own terms. They may need support to secure the blessing of their parents, teachers and other community members.

Children can make a number of positive contributions to DRR including:²⁶

- As **analysers** of risk and risk reduction activities;
- As **designers and implementers** of DRR interventions at community level;
- As **communicators** of risks and risk management options (especially communications to parents, adults or those outside the community);
- As **mobilisers** of resources and action for community based resilience;
- As **constructors** of social networks and capital.

Lessons from DRR case studies

The case studies in this report demonstrate a range of approaches that contribute to successful child-focused and child-led DRR:

- **Creative and performing arts** can be very valuable ways to engage children and increase their understanding of disasters and of how to reduce related risks, and provide an opportunity for children to share their knowledge with their families and communities. Art competitions are relatively easy to organise as they do not require specialist teaching or much equipment. The arts can also play a role in children's advocacy and even fundraising, both locally and internationally.
- **Photography and videography** have been used by children and young people to good effect to highlight the disaster-related risks that they face.
- **Internet resources** and advocacy platforms are becoming increasingly important to child-led learning and campaign outreach – although this risks excluding the most marginalised without access to such resources and they should be used with care to avoid the potential for child exploitation.
- **Schools** are often the most critical setting for the transfer of knowledge about disaster risk reduction. Curriculum development that incorporates DRR is therefore key. Children's clubs – or more formal structures such as the scouting and guiding movements – can also offer space for discussion, learning and community-level action.
- **Peer support** can also be valuable. For example, local youth can educate or mentor children as they engage in disaster risk reduction efforts, or can undertake complementary work to campaign or engage in policy development.
- **Community-based organizations** and traditional governance structures play an important role in working with children within their own communities. CBOs and

²⁶ Tanner TM *et al.* (2009) Children's participation in community-based disaster risk reduction and adaptation to climate change. *Participatory Learning and Action* 60, 54-64 www.planotes.org

NGOs (local, national and international) are often the first to step in to protect and empower children, and they can sometimes (though not always) provide ongoing support. Researchers and journalists can also help, but may need guidance to work effectively with children. However, given their remit, which often includes planning, housing, education, water and sanitation local government agencies are also well-placed to establish mechanisms for engaging children.

Indeed, engagement with **local and national government** is critical to effect any necessary policy change. Efforts by children and their families to protect their communities against disasters can be easily undermined if causal factors are not addressed (which may require new legislation or regulation, for example). National Adaptation Plans of Action (NAPAs) offer an excellent entry point.

Trends in child-focused and child-led DRR

The case studies have provided us with significant evidence of progress in child-focused and child-led DRR, with the extent of child agency growing as they – and adults working with them – gain experience. A clear continuum in child-focused and child-led DRR is therefore emerging:

- **Knowledge:** there are numerous examples of good practice in protecting children, through child-focused disaster preparedness – adapting infrastructure (e.g. school buildings) and enhancing children’s knowledge.
- **Voice:** There is also some evidence that adults working in DRR are seeking out children’s views and giving them voice either within their local or regional communities or wider international platforms (interestingly, rarely at the national level) – in some cases this has led to policy that is more child-centred, reflecting children’s needs and concerns, and recognising child rights.
- **Action – Protect:** DRR is most empowering – and likely to be more beneficial for children when they lead it. Many initiatives seeking to instigate child-led DRR have focused on engaging children in efforts to protect their own homes or communities. Children often engage in mapping and assessing their local community as a first step, or may discuss the impact of a recent disaster on them and how they think that disaster might have been prevented. This diagnostic effort generally feeds into child-led projects.

- Indonesian children raise awareness of DRR



- **Action – Influence:** There are also a few, tantalising examples of where children’s DRR efforts have gone beyond protective measures, to include advocacy and influence at a local level. Here, children have worked together to influence community leaders to act in ways that not only protect children from disasters but most importantly, can protect whole communities. Children are able to encourage adults to do things the children cannot do alone.
- **Action – Transform:** Child-centred DRR policy does not necessarily yield child-centred practice, as the Jamaican case study shows. There is little evidence yet of children having transformational impacts through their engagement in DRR e.g. affecting the drivers of vulnerability locally (such as logging that contributes to landslides and flooding) or globally (such as climate change). **This is the next frontier in child-led DRR.**

How change happens

However, children and young people may face significant resistance to change. The response that some children had from some adults in their communities – ‘it is the hand of fate’ – has required implementation beyond transfer of knowledge. At present the predominant DRR model is to support behaviour change through building greater knowledge, supporting voice and acting to protect children. However, we know through the work of psychologists such as Robert Cialdini that behaviour change happens for a number of reasons including social proof (doing it because you see others doing it) and reciprocity (doing to return a favour). Any challenge to the status quo requires an understanding of this, in order to persuade all stakeholders of the need for change.

There are significant challenges to be overcome therefore, if children are to contribute to genuine transformation. Children are vulnerable to exploitation and often ignored, and in DRR they tend to work with adults and young people who are equally disempowered – adults from their own communities who are poor or marginalized, and (often small and under-resourced) civil society organizations. International agencies, NGOs, research organizations and donors can all help – but need to be aware that they are engaging with stakeholders who are starting from a point of weakness and so their political traction is also likely to be limited.

There are also risks, which must be properly assessed and mitigated. There may be powerful vested interests working to maintain the status quo, particularly where there are significant commercial interests at stake (e.g. mining or logging operations). Child-led DRR strategies will be locally determined but, with the right type and level of support, are likely to increase in intensity and impact over time as children take greater control and seek to influence broader processes of decision-making and policy development.

What next?

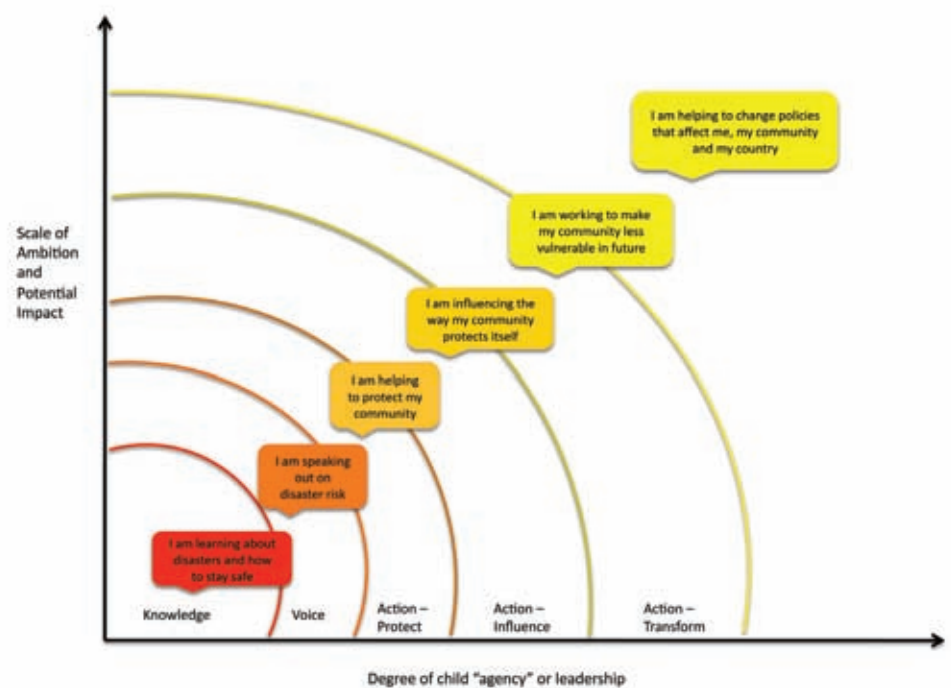
If we are to reduce the risks children and their communities face due to climate change and disasters, those in positions of power and influence must be willing and able to engage children in policy development and implementation. They must be aware of children’s needs and rights, and listen to children’s concerns.

With this in mind, those engaged in supporting DRR have tended to focus on either the community/NGO sector or the government – whether local, regional or national. There has been little direct engagement with the private sector in this area. This may be worth further investigation, though it presents considerable challenges and some risks, as highlighted above.

“If children are taught disaster preparedness, they will bring a revolutionary change in the society as they are the future keepers of the villages and schools. Besides, children of today will become parents of tomorrow, which will ensure that they pass this knowledge to their children, making disaster preparedness a societal practice, which will keep on passing from generation to generation.”

A child in Sri Lanka taking part in Save the Children’s Child-led Disaster Risk Reduction programme

The cost-benefit analysis of DRR is perhaps not as well understood and recognised as it could be, given the complexities involved in measurement. However, the available data strongly supports DRR activity on a cost benefit basis.²⁷ There has been less specific analysis of the benefits of child-led or child-focused DRR, where greatest attention has gone to enhancing children’s Knowledge and Voice, in line with explicit commitments in the CRC. Additional benefits are likely to accrue to child-led DRR, when intergenerational impacts are considered. The cost-benefit analysis of child-led DRR is another area worthy of further investigation, therefore, not least as it could help build the case for investment in this kind of DRR intervention. Importantly for DRR practitioners, this will require a shift in the way such interventions are assessed. More evidence is needed on the outcomes of DRR projects – for example, showing improvements in child survival, educational attainment, health and wellbeing. At present, much of the evidence base focuses on process, such as successful strategies for engaging children, expanding their knowledge, or giving them voice.



This report suggests that, if child-led DRR were to be scaled up, greater emphasis should be given to supporting action that delivers real influence over policy and practice, nationally and internationally. This shift from expanding knowledge, to enhancing voice, and then to taking action (where action can be to protect, to influence more broadly and finally to transform), is presented schematically below.

²⁷ Stern, N. et al (2007) *The Economics of Climate Change: The Stern Review*, CUP, ch 20, Adaptation in the developing world; and Provention Consortium: DRR & CBA see <http://www.proventionconsortium.org/?pageid=26>

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