

Children's participation in community-based disaster risk reduction and adaptation to climate change

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Introduction

I am worried for the future generation for they might only see mangroves in the books and that is what I fear will happen.

Youth group member, Camotes, Philippines

In the face of increasing disaster events and the ongoing and future impacts of global climate change, a growing body of work is emerging around community-based responses to preventing disasters and adapting to a changing climate (known as 'adaptation'). Initially, adaptation interventions were commonly considered through top-down assessments, with scientific models projecting future change so that planning decisions and policy could be made accordingly. Recognising that individuals and communities have been adapting to changing climates for many years, community-based approaches to adaptation and the related field of disaster risk reduction (DRR)

have emerged since 2005. These respond to the realities of climate-related impacts, which are adversely affecting people's livelihoods, particularly in poorer communities in developing countries.

As an emerging field, reflection and learning on adaptation and disaster risk reduction (DRR) are crucial. However, there is a danger that a focus on 'the community' fails to look within and understand the community itself. Children under 18 are often considered the vulnerable, passive victims of disaster events and in need of protection by parents and adults in the community, who in turn make decisions and take actions on their behalf. Yet children have unique perceptions of the world in which they live, and they have the capacity to act as agents of change.

In this article, we argue that widening community participation to include children is crucial for successfully tackling development issues in a changing climate.¹

¹ We use the term 'children' here because the research has focused primarily on participants under 18 years of age, including those as young as three. During the research process, the term 'youth' is also used for teenage participants.

Table 1: Child-led adaptation and DRR action research locations

Country	Region	Community
El Salvador	Chalatenango	El Coyolar, El Pepetón, La Montañona, Los Prados, Potrerillos
	La Libertad	Alvarez, El Matazano 1, San Isidro
	San Salvador	El Cipres II, Palo Grande
Philippines	Camotes	Lower Poblacion, Villa Hermosa, Teguis
	Eastern Samar	Cadian, Caga-ut, Barobo
	Southern Leyte	Catig, Guinsaugon, Pinut-an
	Rizal	Banaba

We show how child-friendly participatory methodologies and processes can enable children to take an active role in communicating their perspectives to other members of the community, tackling climate change impacts, and preventing disasters.

Aims, location, and participants

The participatory action research presented here seeks to understand how children in developing countries can take action within their communities to prevent disasters and adapt to climate change. We worked with child-led development projects being implemented by Plan International in El Salvador and the Philippines.² These countries are among the most disaster-prone in the world, with hazard burdens in many areas compounded by a high incidence of poverty and dependence on climate-sensitive natural resources. Plan's DRR programme was stimulated by both experiences of disaster impacts on children and communities, and the potential for child-led initiatives demonstrated by children's groups in these areas.

The research links with these ongoing development projects to investigate how children perceive risks and how they communicate these risks and take action. Children's groups are actively engaged with the research process, including reflecting on design, methods, results, and analysis. Research ethics are a central consideration, particularly regarding processes for informed consent and child protection.³ The continuing engagement of development agencies will ensure continuity, space for discussion, and support for initiatives once researchers have left the communities.

The central actors in the process, which is ongoing in 20 communities in El Salvador and Philippines (see Table 1), are children and children's groups, although the research process also works with adults in communities and in related institutions.

Research process and methods

The research aims to both foster and study the dynamics of children's participation in community development. In linking with ongoing Plan projects, the research process has been able provide an avenue for reflec-

² The ongoing work is being led by the Institute of Development Studies (IDS), UK, in partnership with the University of El Salvador, the Center for Disaster Preparedness (CDP), Plan El Salvador, and Plan Philippines. The research is funded by Plan International and the UK Economic and Social Research Council (ESRC) until October 2010.

³ Research ethics are carefully considered for this work, including processes of informed consent from children, parents/guardians and teachers, careful explanation of the voluntary nature of the work, the right to non-participation in any activity, strict checks and protocols on child protection, and guaranteed anonymity in data, analysis, and outputs.

tion and learning in both the communities and Plan offices alike. Researchers work alongside Plan staff members, who have a long-term engagement in the case study communities, providing both greater rapport with the children and longer-term sustainability of the action research process.⁴ To allow a comparative perspective, the research engaged children's groups at different stages of engagement in the Plan disaster risk reduction and adaptation projects, including those who had not yet participated.

In the field, children are first introduced to the researchers and the research aims using simple icebreaker techniques. Following consent from parents and teachers, the children are asked for their informed consent to participate in the process, and encouraged to leave if they are not enjoying it ('methods should be fun' was the motto). Research methods were piloted in an early phase of the research to develop a toolkit of approaches that are both culturally appropriate and enjoyable. These include established activities for vulnerability and capacity assessment such as hazard identification and ranking grids, mapping vulnerabilities and capacities in the community, stakeholder analysis and mapping, group timelines, guided walks, and poems. However, many of these were modified for use with children. The research also developed hybrid methods to capture risk perception, risk communication, and action. These included short video 'adverts' for adaptation and risk reduction projects, poems and songs, acting out hazards and risks *in situ*, drawings to represent motivations for participation, information and message flow diagrams, and local games used to differentiate group characteristics or opinions (see Molina, Molina, and Tanner in the Tips for Trainers section of this issue for descriptions of some of these methods, and how established methods were modified for use with children).

Semi-structured interviews were carried out with children in leadership positions and with small friendship groups, as well as with groups of adults from the community including local disaster management committees, officials and parents, governmental entities (local government, ministries of education and health), and NGOs in the area. In both adult- and child-oriented research, groups were separated by age and by gender where possible.

Research highlights to date: key messages

Although ongoing, the research is revealing important insights for the policy and practice of climate adaptation and disaster risk reduction (DRR) at community level. It shows that children and young people can participate in climate change and DRR activities in a number of different ways:

- as **analysers** of risk and risk reduction activities;
- as **designers** and **implementers** of projects;
- as **communicators** of risks and risk management options (especially communications to parents, other adults, or those outside the community);
- as **mobilisers** of resources and people; and
- as **constructors** of social networks and capital.

The conditions for such participation are varied, but the research is investigating how the nature and mode of participation is influenced by a combination of community and institutional dynamics, livelihoods strategies and living standards, and cultural factors, as well as the hazard burden facing the communities.

Children can conceptualise and analyse the risks affecting their lives

The research demonstrates first and foremost that children represent more than

⁴ The researchers are aware of the contradiction in using participatory research tools for processes that remain largely extractive. This is why they are working through the ongoing child-led community-based development programmes of Plan International.

Table 2: Risks identified by children during research in Palo Grande, El Salvador

Natural hazards	Hurricanes, earthquakes, windstorms, droughts, heavy rains, falling trees, rivers and gorges, rockfalls, landslides.
Human-induced risks	Electricity posts, retention walls, poorly maintained housing, houses near ravines, burning waste, contaminated waste, winding and steep roads, rainy season water ponding, houses located in landslide/rockfall zones.
Social risks	Speeding traffic on the main road through the community, gangs, drug and alcohol abuse, poverty, delinquency, unemployment.

simply a passive, vulnerable group in society who require protection through decisions made by adults. Rather, they hold a valuable understanding of the risks facing their lives, not only those related to natural hazards but also human-induced risks, and societal risks (Table 2). This suggests that interventions that focus on climate-related risks alone are unlikely to reflect community perceptions or priorities.

Risk perceptions are related to the lived experience of individuals as well as the socio-economic and geographic context

within which they are situated, and reflect combinations of age, gender, educational attainment, and occupation. Table 3 shows how perceptions of types of hazard and risk types in the Philippines were linked to gender and age differences.

Similarly, motivations for participation in group activities also showed marked gender differences. In El Salvador, for example, both genders (46% of females and 57% of males) stated learning as their main motivation. However, girls' motivations are more likely to concern others

Table 3: Gender and age differences in risk perceptions in the Philippines

Hazard/risk type	Identified predominantly by which age/gender group
'Natural disasters'	All (based on personal experience) although 'extreme weather' is dominant among children as it prevents access to school or play.
Food and financial crisis	Adults, as providers for the family (women, as household budget managers, stressed commodity prices).
Unemployment/livelihood opportunities	Adults.
Agricultural hazards such as pests and drought	Men, as farmers.
Social hazards (gambling, drugs, community conflict)	Women and children as witnesses of male perpetrators, and sometimes as victims of drunken behaviour (wives).
Health and disease	Women and children (community health workers and mothers, and those who are susceptible).
Environmentally unsound livelihood practices	Mainly children, due to school-based learning. Although women are often aware too, men focus on meeting immediate needs of the family e.g. food, school allowance.
Poor waste management	Mainly children, primarily due to school-based learning and Plan training.
Global environmental problems	Children, primarily due to school-based learning.

Box 1: School safety mini-projects in El Salvador

In the community of Potrerillos in Chalatenango Department, El Salvador, analysis and prioritisation by a children's group pinpointed risk to children from a ravine neighbouring the school. Enlisting the help of other community members, they led a process to create a supporting wall at the rear of the school and the construction of a concrete platform to stabilise the grounds and create a safe area which is now used for recreational activities.

Children mixing cement for school retaining wall, Potrerillos, El Salvador.



Photo: Thomas Tanner

Box 2: Child-led mangrove restoration projects in the Philippines



Child-led mangrove restoration project, Camotes Islands, Philippines.

Photo: Thomas Tanner

Children in community groups in Teguis, on the Camotes Islands of the Philippines, have worked together to restore degraded mangrove ecosystems by assembling teams to collect and replant saplings in sanctuaries behind protective barriers. The groups combined knowledge from a range of sources including school textbooks, training sessions, discussion with parents, and the media. In doing so they identified the multiple benefits of restoration, including livelihoods gains through the provision of spawning grounds, biodiversity gains, disaster protection from typhoon winds and surges, adaptation to climate change impacts, and the removal of atmospheric greenhouse gases causing climate change. Notably, in the mangrove planting it is usually the girls who participate as the boys often go fishing with the fathers.

rather than the 'self', including helping other people and teamwork. Boys were more likely to be motivated by activities which benefit them as individuals, such as having fun and making new friends. Other reasons for participating included the exchange of experiences, protecting the environment, and the support of the group.

Children can be the agents of change to tackle disasters and climate change. In many of the study communities, children were already taking community-based action to reduce disaster risks. In some cases this was explicitly linked to adapting to the changing climate. In some areas, Plan support had enabled the development of

Box 3: Mobilisation during emergencies in El Ciprés

During Hurricane Stan in 2005, the Youth Emergency Committee facilitated the process of evacuating seven families whose houses were at risk of collapsing. They established and managed an emergency camp in the community's school building, and grouped together to request support from the mayor's office and other institutions, constructing a support network for the affected families until they were donated safer and stronger houses several months later.

Their actions gained the Youth Group strong recognition within the community. They continue to work on community projects, supported by NGOs, and the Community Development Association, which legally represents the community to the mayor's office, has recognised their role and is looking to include them in the future.



Members of the Youth Emergency Committee in El Ciprés, El Salvador.

Photo: Jimena Lazcano

mini-projects conceived, managed, and implemented by the children's groups, based on risks prioritised during vulnerability and capacity assessments.

Community-based projects have demonstrated children's ability to work together to tackle problems (Boxes 1, 2 and 3). They have given the participants valuable experiences in group decision-making, teamwork, project management, financial accounting, and dissemination. They also create an awareness locally of children as agents of change, often stimulating support and cooperation from adults within the community.

In El Salvador, researchers found that younger children tend to work more on preventative measures, passing on information and understanding from training received from outside agencies to others. Older children have been able to further develop guidance from Plan training events

and have taken the initiative in developing actions to mitigate risks, such as building live barriers, improving waste disposal containers, and trimming trees.

Children can act as risk communicators to others in the community

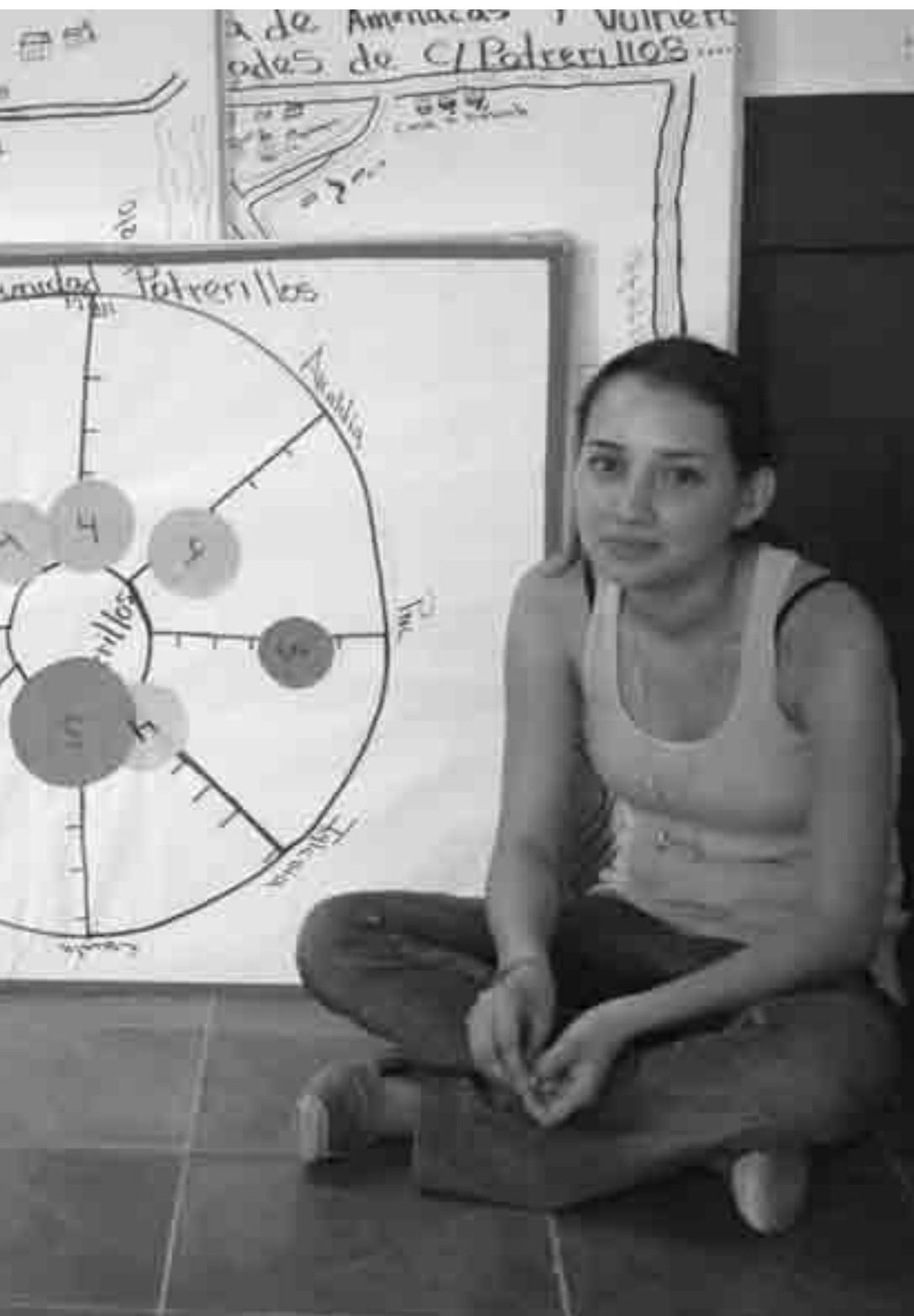
Children have voice – they are not just passive listeners, they can speak of the real situation. I can attest to that since during the death of my grandmother, I was able to share what I've learnt about disaster risk reduction and climate change adaptation to my cousins, grandparents, and other relatives.

Member, Young Environmental Guardians of Poro, Camotes Islands, Philippines

Our research suggests that children can play an important role in communicating about risk and climate change within and beyond

Presenting results of child-led vulnerability and capacity assessment, Potrerillos, El Salvador.





Box 4: Communicating risks and responses through child-led theatre in the Rizal, Philippines



Communicating risk through children's theatre in the Philippines.

Photo: Grace Molina

Buklod ng Kabataan (Children Bonded Together), a group of children and youth in Banaba, has become an effective advocate of DRR and adaptation through theatre performances. Using singing, dancing, and acting, they communicated their perceptions of local hazards such as flooding and river bank erosion, and the potentially destructive impacts of these hazards on people's livelihoods, properties, and lives. The group also became dynamic communicators of risk reduction activities such as tree planting and solid waste management which can achieve a cleaner environment, fresh air, stabilise river banks and reduce river pollution, and reduce health risks. Through their advocacy, different sectors of the community and stakeholders up to the national scale were encouraged to take action.

the community (Box 4). Children conceptualise and understand risks in their own terms, often relating hazards and factors driving vulnerability to their own experiences (such as localised landslides, polluted watercourses, or dangerous roads). They combine their own understanding with technical information gained from external information sources such as the media, school curricula, and training sessions. Children's understanding of the implications of wider-scale processes, such as global climate change, for local livelihoods is often more advanced than that of adults.

Children's groups can effectively mobilise people

In the Philippines, child-led mobilisation around environmental issues such as mining in Eastern Samar (see Box 5) and relocation of schools away from disaster zones in communities neighbouring Guinsaugon, Southern Leyte demonstrate the potential of children's groups to mobilise others. Drawing in other members of the community and developing social networks, they have mobilised constituencies behind key issues affecting their communities.

Box 5: Child-led anti-mining advocacy in Eastern Samar, Philippines

Participatory video shoot on chromite mining activity at Caga-ut, Eastern Samar, Philippines.

Children in the community of Caga-ut in Eastern Samar, the Philippines have been communicating a range of environmental, economic, and social risks posed by chromite mining to a wide audience. Children directly targeted miners, operators, and those licensing the mining, communicating their concerns through meetings and dialogue. Alongside this they have led dialogue with family, resident miners, and community members about the risks posed by the mining activities to present and future generations.

Photo: Grace Molina

Future challenges: bringing children to the fore in community-based adaptation and DRR

The research highlights the potential of putting children at the heart of community-based efforts to tackle climate change impacts. They form a central part of the community yet their potential as agents of change has been largely overlooked by community-based adaptation programmes. As the generation inheriting climate impacts, they have a right to be included in decision-making affecting their future. This research demonstrates that this moral imperative is reinforced by their demonstrated ability to conceptualise, analyse, communicate, and take action to improve their current and future wellbeing in a

changing climate.

Scaling up the participation of children in DRR and adaptation requires enhanced efforts to incorporate children's perspectives, knowledge, and potential for action into regular community-driven development programmes. Some of the participatory methods we share here and later in this issue will facilitate this. However, scaling up also requires advocacy outside of communities to raise awareness of children's contribution and to bring about policy changes that enable children to participate in community DRR and adaptation processes.

The research also contributes to a growing awareness of the need to differentiate DRR and adaptation activities and

processes by different groups within communities (Tanner and Mitchell, 2008). Within children's groups there are differences in perceptions of risks and prioritisation of adaptation and risk reduction actions, depending on age and gender. There may also be differences between, for example, children not participating in schools or in established groups and those who do participate. At the same time, a holistic vision for child-led adaptation and DRR is required that includes both adults and children to provide wider and more consensual support for actions at the community level.

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FURTHER INFORMATION

For further information about work on children, disaster risk reduction, and climate change adaptation please visit: www.childreninachangingclimate.org. Children in a Changing Climate is a global action-research, advocacy, and learning programme, bringing together leading research and development organisations with a commitment to share knowledge, coordinate activities, and work with children as protagonists with a voice needing to be heard.

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