



# **BUILDING SOCIAL RESILIENCE**

Protecting and Empowering Those  
Most at Risk

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# Introduction

This paper was prepared as an input to the fourth *Global Assessment Report on Disaster Risk Reduction* (GAR). The GAR reports biannually on global progress, trends, and challenges in the field of disaster risk reduction (DRR). It also serves as an instrument to monitor and document progress made by signatory countries towards the implementation of the DRR priorities and actions agreed under the 2005 Hyogo Framework for Action (HFA). The preparation of the GAR is coordinated and supervised by the United Nations International Strategy for Disaster Reduction (UNISDR), in collaboration with a wide range of stakeholders, including UN agencies, governments, academic and research institutions, donors, technical organizations, civil society, and experts in various fields of specialization.<sup>1</sup>

The GAR will be published prior to the World Conference on Disaster Risk Reduction in 2015, in which governments will adopt a successor agreement to the HFA. Coming at the end of the HFA's 10 year cycle, GAR15 will: explore the landscape of global disaster risk at the end of the HFA; analyze how much the HFA has contributed to reducing disaster risk; and identify risk reduction challenges which have yet to be resolved. GAR15 will therefore provide an evidence base to support the design of the HFA's successor agreement.

This paper aims to contribute to these goals by exploring progress and documenting good practice related to the implementation of “policies and plans to reduce the vulnerability of populations most at risk.”<sup>2</sup> Therefore, the paper begins by unpacking the

idea of “vulnerability” and describing who is most at risk to natural hazards and how that risk may shift in the decades to come due to climate change. From there, the paper discusses approaches that improve the resilience of those most at risk, and describes examples of ongoing or completed projects that demonstrate what works. Based on these findings, the paper concludes with recommendations for principles and commitments to be included in the successor agreement to the HFA.

This paper does not present any new research, but rather synthesizes recent World Bank analyses of strategies to build resilience and of national policies and operational platforms meant to assist the poor in managing disaster and climate risk. The goal is to highlight practical ways of funnelling disaster and climate risk financing directly to those most in need and to empower poor communities to drive their own risk management efforts based on their development goals. Such financing options for the poor include social funds, social protection systems and safety nets, community-driven development projects, and similar mechanisms that target households and communities directly.





# Who is most at risk?

Disasters are not neutral. The severity of the effects of natural hazards and climate change on people, economies, and societies are not only a consequence of the exposure to a physical hazard, but are shaped by social, political and economic factors that drive vulnerability (Ribot, 2010; Arnold and Burton, 2011).

Poor and marginalized people are more severely affected by natural hazards and climate extremes for several reasons. First, they often face greater exposure to hazards by living in marginal or unsafe areas (for example, on flood plains, riverbanks, or steep slopes). Their vulnerability is greater as they are more likely to live in substandard housing and possess uncertain land ownership rights that provide no incentives for investments in risk reduction. Moreover, their livelihoods are more vulnerable to the effects of hazards and climate change, with the rural poor being heavily dependent on agriculture or natural resources for their living.

Second, poor and marginalized households are less able to absorb and recover from the impact of hazard events when they hit. With little savings and limited or no access to formal credit, the poor rely on a range of sub-optimal coping mechanisms following a disaster. For example, they may sell productive assets such as farm equipment or livestock, accumulate unserviceable debt, and pull children out of school to save on school fees, all of which may leave them locked into a cycle of poverty (Shepherd et al., 2013; Benson et al., 2013). For households living just above the poverty line, disasters can push them into a situation of poverty and greater vulnerability.

Finally, after being hit with a disaster, poor and marginalized communities can suffer the consequences of uneven relief and recovery efforts. The poor also face obstacles to accessing entitlements, such as government relief or recovery assistance. Many post-disaster relief and recovery initiatives do not ensure that particular vulnerable groups are appropriately identified and reached, despite considerable evidence of the harmful effects of failing to do so. Entitlement programs have traditionally favored men over women, tenants of record, bank account holders, and perceived heads of households. Decisions that lack the necessary understanding of the underlying structural issues of inequality, chronic poverty, or vulnerability can result in the poor and marginalized being left in a worse situation as a result of the recovery process (Arnold and Burton, 2011).

For all of these reasons, disasters and poverty have a symbiotic relationship. Poverty makes people more vulnerable to the adverse effects of disasters, and disasters breed more poverty. Indeed, natural disasters are a main reason people are poor in developing countries. A comparative study on mobility into and out of poverty that was carried out in 15 developing countries and comprised of 9,000 household interviews found that natural disasters were the second most important reason that people became poor (Narayan et al., 2009).

It is important to note that vulnerability to disaster and climate risk is heavily influenced by social, institutional, and political factors that govern entitlements (Shepherd et al., 2013). Among the





poor, certain groups are particularly vulnerable to disasters, such as children, the disabled, older people, indigenous groups, landless tenants, migrant workers, and women. The root causes of their vulnerability lie in a combination of their geographical context; their financial, socioeconomic, cultural, and gender; and in their lack of or restricted access to public services like health care and education, information, decision making, and justice.

In particular, women's overall lower access to assets, public services, and political voice often makes them more affected by disasters than men. More women than men usually die from natural disasters, often because of cultural and behavioral restrictions on women's mobility (for example dress codes that require clothing that is difficult to move in) and socially ascribed roles and responsibilities (for example caring for young, elderly, or sick household members). Women are often employed in the informal sector, where the loss of housing means the loss of workplace, tools, supplies, and markets. For example, when the 2010 earthquake hit Haiti, the informal sector accounted for 85 percent of the overall economy, and more than 75 percent of those participating in it were women (World Bank, 2010).

Women shoulder much of the burden of care for children, the elderly, and disabled, as well as such household tasks as provision of water and fuel wood. Disasters increase the intensity of this work, and informal networks among neighbors and extended family, an important coping mechanism for women in times of crisis, are often dissolved (IASC, 2006). In countries where women have no property rights, or rights to an inheritance, marriage arrangements, banking systems, and social patterns reinforce women's dependence on fathers, husbands, or sons, further limiting their access to recovery resources (Anderson, 1994).

Children are also highly vulnerable to disaster impacts. The high mortality and morbidity rates among children was particularly evident during and after the 2004 Indian Ocean Tsunami, where the largest numbers of fatalities were women and those under the age of 15 (Telford et al., 2006). When schooling is disrupted and families lose their sources of income, the risk of increased child labor, forced marriages, and human trafficking grows. If orphaned or separated from their families, children face the risk of exploitation, abuse, and abduction.

Approximately 15 percent of the world's population, or approximately 1 billion people, live with disabilities.<sup>3</sup> The barriers that people living with disabilities face take many forms, including physical, legislative, social, and economic. On average, they are more likely to live in poverty, are often poorly educated, and suffer from precarious health. They have fewer employment opportunities. In poor countries, services can be insufficient and inadequately funded. Experience shows that people living with disabilities are more likely to be left behind during evacuation in disasters, or may have limited access to emergency shelters and transportation systems. There is also a potential for discrimination on the basis of disability when resources are scarce.<sup>4</sup>

Refugees, internally displaced people, and migrant workers are particularly vulnerable to the effects of disaster. Whether they have crossed an international border or have been displaced within their own countries, these populations find themselves deprived of their livelihoods and the most basic services. Fearful of arrest or forced repatriation, they might be reluctant to seek assistance. They also might face difficulties replacing official documents to re-establish their legal identities. The countries and communities hosting them often have inadequate means to extend them assistance (UNHCR, 2009).



Indigenous peoples represent approximately 4.5 percent of the global population, but account for about 10 percent of the world's poor, with nearly 80 percent of them living in Asia. While they are all distinct communities and have different vulnerabilities, one commonality is that their livelihoods and cultures are highly dependent on natural systems and natural resources. Their ability to predict and interpret natural phenomena, including weather conditions, is vital for their survival and well-being and has also been instrumental in the development of their cultural practices, social structures, trust, and authority (Kronik and Verner, 2010). Their identities and culture are inextricably linked to the lands on which they live and the natural resources on which they depend. The risk of displacement by a disaster therefore represents a threat to both.

Although the elderly are a very diverse group, many are particularly vulnerable to disasters for a variety of reasons that range from particular physical, economic, and social conditions to the type and severity of the hazard event and capacity of the affected country to manage its effects. Cognitive, visual, or hearing impairments can limit understanding and appropriate response of the elderly. Similarly, limited mobility can make it more difficult for them to evacuate and protect themselves (Banks, 2012). Chronic health conditions can rapidly worsen after a disaster. Factors such as the lack of food and water, extreme heat or cold, and interruptions in medication regimens can also exacerbate underlying conditions and increase the risk of illness and death (Aldrich and Benson, 2008). Poverty and social isolation often make it impossible for the elderly to properly prepare for disasters and to evacuate, relocate, and recover after they hit (Banks, 2012).

# How is risk changing?

The World Bank's 2012 report *Turn Down the Heat: Why a 4° Warmer World Must Be Avoided* explored what a 2°C and 4°C rise of global temperature averages over pre-industrial levels within this century could do to development. It emphasizes that while no country will be spared the consequences, the effects of climate change will be unevenly distributed, with many of the poorest regions of the world the most acutely affected.

At greatest risk are the countries in tropical and subtropical areas. There, sea levels are expected to rise 15 to 20 percent higher than along coastlines at higher altitudes, and high temperature extremes pose a more serious threat to agriculture and ecosystems. In fact, higher temperatures in recent decades have already slowed the economic growth of poor countries. Their effects are wide ranging, reducing agricultural and industrial output and leading to growing political instability. Exposure to climate vulnerability combined with limited access to social safety nets, land, and work will put the poor and vulnerable segments of society at greater risk (World Bank, 2012a).

Focusing on Sub-Saharan Africa, South East Asia, and South Asia, a subsequent World Bank Report, titled *Turn Down the Heat: Climate Extremes, Regional Impacts and the Case for Resilience*, examines in greater detail the likely impact of warming on critical areas like agricultural production, water resources, coastal ecosystems, and cities (World Bank, 2013). It predicts that the 2°C increase in temperatures that is possible in the next 20 to 30 years will cause widespread food shortages,

unprecedented heat waves, and more powerful cyclones. The report noted that a significant impact on climate and development is already being felt and that the increasing and combined threats of global warming are expected to have further severe implications for the poorest (World Bank, 2013a).

The impact on physical, biological, and human systems is already evident. For example, rising temperatures have caused changes in the physical and chemical properties of the oceans, affecting coastal and marine ecosystems. More frequent extremes of high temperature have affected crop production, decreasing yields overall and sometimes increasing them at higher latitudes. Similar effects have been observed on fisheries, where the amount of fish caught has increased in some regions but decreased in others. Some indigenous communities have changed seasonal migration and hunting patterns to adapt to these changes (IPCC, 2014).

As indicated by the World Bank report *Building Resilience: Integrating Climate and Disaster Risk into Development*, the effects are expected to be both regressive and heterogeneous and, thus, contribute to higher rates of social and economic inequality. The report cites a study conducted in 2009 by the Pontifical Catholic University of Rio de Janeiro on the effects of climate change in different regions of Brazil. The study concludes that the impact will be higher in poor regions and, in particular, that poorer municipalities will suffer a decline in agriculture output by as much as 40 percent by 2040, while richer municipalities may actually benefit from the effects of climate change. The



World Bank report also presents the results of a study conducted by Ahmed et al. in 2009 on the effects of climate changes on urban and rural areas. The study concludes that while rural areas have the greatest number of poor people, the poor living in urban areas will suffer proportionally more under projected extreme dry events due to their vulnerability to food price increases. The study estimates a 16 percent increase in poverty in urban areas compared to a 12 percent increase amongst rural populations (World Bank, 2013b).

The 2013 Overseas Development Institute (ODI) report *The Geography of Poverty, Disasters and Climate Extremes in 2030* focuses specifically on where the most vulnerable people to disasters will be living in 2030 and also emphasizes the connections between disaster and poverty. According to the report, up to 325 million extremely poor people will be living in the 49 countries most prone to hazards in 2030, the majority of them in South Asia and Sub-Saharan Africa. Of these 49 countries, 11 (Bangladesh, Democratic Republic of the Congo, Ethiopia, Kenya, Madagascar, Nepal, Nigeria, Pakistan, South Sudan, Sudan, and Uganda) will have high numbers of people living in poverty. These poor people will face increasing threats from a number of hazards and will

have insufficient capacity to withstand the effects on their lives and livelihoods. Another 10 countries (Benin, Central African Republic, Chad, Gambia, Guinea Bissau, Haiti, the Democratic People's Republic of Korea, Liberia, Mali, and Zimbabwe) will have high proportions of poor people. They too face hazards in many forms and lack the capacity to respond to them (Shepherd et al., 2013).

The report states that the goal set by the international community of eliminating extreme poverty cannot be achieved without addressing the effects of disasters and climate change. It further recommends that disaster risk management efforts include “clear strategies to reduce the poverty and build assets of those affected by disasters, engaging people in long-term livelihood programs.”



# What needs to be done?

It is critical that national governments show leadership in prioritizing disaster risk reduction and much progress has been made during the HFA's 10-year period to that end. However, for national progress to reach the frontline, poor households and communities need to be empowered and supported to manage disaster and climate risk. Major studies show a persistent gap between national policy and local action related to disaster risk management and show that when a supportive government is open to partnering with communities and local organizations, risk reduction policies are more likely to have an impact at the local level.<sup>5</sup>

The UN's 2009 *Global Assessment Report on Disaster Risk Reduction* (GAR09) identifies the need to adopt an approach that is supportive of local disaster risk reduction initiatives. The report argues that the promotion of a culture of disaster risk reduction planning and implementation that builds on government and civil society partnerships can dramatically reduce the costs of risk reduction, ensure local acceptance, and build social capital. Similarly, the GAR11 maintains that where communities, civil society organizations, and governments enter into partnership, the scale of disaster risk management efforts can be increased considerably. Additional findings show that delivering resources at the local level to support community-based strategies can be an effective part

of long-term investment for strengthening disaster and climate resilience (Moser et. al., 2010).

What does it take to strengthen disaster and climate resilience? Work by the World Bank (Benson et al, 2012, Arnold et al, 2014) defines resilience as *the ability to withstand, recover from, and reorganize in response to crises so that all members of society may develop or maintain the ability to thrive*. The same work identifies several critical areas for action:

- Supporting community-driven approaches that **empower communities** to drive a climate risk reduction agenda in support of their development goals.
- Promoting **citizen engagement** as a form of regulatory feedback, for example by building capacity in participatory approaches to managing risk, or measures to increase social accountability in the use of public finance for disaster and climate risk management.
- Supporting communities to diversify livelihood and fall-back options, such as turning to livelihoods that are less sensitive to climate-related or other forms of risk.
- Understanding the gender dimensions of disasters and **empowering women** as resilience leaders.



The following sections explore practical mechanisms that can contribute to each of these objectives.

## Empowering communities and promoting citizen engagement

The need to engage communities in managing disaster and climate risk is widely recognized as important. However, it is important to be clear about the specific characteristics of community engagement that can contribute effectively to strengthening their resilience to shocks. The “engagement” of communities can take many forms, such as making sure that project beneficiaries are fully informed; organizing community consultations on project plans; or providing affected communities control over investment decisions and project implementation.

To ensure effective resilience building, development and disaster risk management interventions need to go beyond consulting with communities to build meaningful partnerships between communities and their governments. By drawing on the lived experience of poor communities, programs can build on local knowledge and address local priorities.

There are a number of initiatives that demonstrate the benefits of recognizing communities as equal partners with expertise and experience in building resilience rather than as simply project beneficiaries. In Guatemala and Honduras, Fundación de Guatemala and Comité de Redes de Honduras supported rural women’s groups to engage in effective collaborative partnerships with local and national authorities to initiate and scale up strategies to reduce vulnerabilities to disaster and climate change in their communities. The project also supported peer-to-peer learning so that the communities could share strategies across countries.

The project focus then shifted toward strengthening the partnership with local authorities and engaging regional and national authorities in effective partnership to scale up solutions for disaster risk reduction. This led to a formal acknowledgment of the public role of grassroots and rural women’s groups in resilience programs. Several members were certified as development managers in disaster risk reduction by the respective national disaster management agencies of the two countries (Rodríguez Baldizón, 2013). The women trained local authorities on how to partner effectively with community groups organizing to improve the safety and quality of life in high risk communities. As a result of this collaboration, the Honduran and Guatemalan women’s groups created a methodology that teaches mayors and local authorities how to implement the Hyogo Framework for Action in their local territories and also how to launch their municipality as a Resilient City in the UNISDR Resilient Cities Campaign with real engagement of women’s groups and other grassroots local organizations with strong incentives to cooperate to reduce risk and vulnerability. These two Central American examples demonstrate that by recognizing and formalizing the role of local communities with their local and national authorities, local practices and expertise can inform the development of higher-level government policy and programming.

Scaling up community-level efforts to strengthen disaster and climate resilience remains a challenge. However, a review of the World Bank’s portfolio of community-driven development projects reveals an approach that offers great promise in strengthening community resilience to disasters and climate change.<sup>6</sup> Community-driven development gives control over planning decisions and investment resources to community groups and local governments while at the same time helping to form connections between communities and governments. More than 105 countries have undertaken projects with a community-driven



approach. Over the past decade, such programs have become a key operational strategy for national governments as well as numerous international aid agencies for the delivery of services and as a way to promote bottom-up development approaches where existing systems are not working.

By tapping into the knowledge and skills of community actors, a community-driven development approach places less stress on government line agencies and at the same time is able to reach very large numbers of poor people. Using a community-driven development approach, government agencies or programs channel grants to communities for small-scale development projects. The projects typically finance a mixture of socioeconomic infrastructure (for example, building or rehabilitating schools, water supply systems, and roads), productive investments (for example, microfinance and income-generating projects), social services (for example, supporting nutrition campaigns, literacy programs, and youth training, and providing support to the elderly and disabled), or capacity-building programs (for example, training for civil and local governments) (World Bank, 2009).

While community-driven development projects often start out as small-scale operations that work outside formal government systems, the second and third generations of these programs often scale up to regional or national levels. Indonesia, for example, has the largest ongoing community-driven development program that operates in more than 60,000 villages across the country. A program in the Philippines has invested about US\$118 million in 5,326 community projects in the poorest provinces and municipalities; the program reaches about 10 million rural poor and is expanding to the national level. In Nigeria, the third phase of National Fadama Project covers all 37 states of the country, benefitting about 2.2 million households or about 16 million beneficiaries (Arnold et al., 2014).

### **Box 1** Recognizing women's leadership in India

In the drought-prone state of Maharashtra, India, Swayam Shikshan Prayog (SPP), a nongovernmental development organization that partners with 25 grassroots women's federations—helped to mobilize 3,000 women farmers in 100 villages across 3 districts in the state to form women's agricultural groups. SSP negotiated with the state government to have their members recognized as farmers. This status entitled them to government training and advice about sustainable agriculture. For example, a partnership with the Agriculture University of Akola trained women farmers on new practices and techniques in organic farming.

The women's groups also partnered with the National Bank for Agriculture and Rural Development and other cooperative banks and institutions, gaining access to agriculture loans, equipment, and other services. The women farmers then applied the ecologically friendly and sustainable farming techniques they learned during their training in small plots, which the women either negotiated with their husbands to set aside or leased from other landowners. These new practices increased farm productivity and contributed to improve incomes and food security in the face of recurring droughts. (Gupta, 2013).

### Box 2 Indonesia's experience of community driven reconstruction

When the 2004 Indian Ocean earthquake and tsunami struck Indonesia, the government scaled up and adapted two of its ongoing national community driven development programs, the Kecamatan Development Program and the Urban Poverty Program, to support reconstruction in the disaster-affected areas. “The key innovation in these programs was the allocation of resources directly to local communities and the socialization of the program through a network of independent community and technical facilitators” (World Bank, 2011d). The government’s Master Plan for Reconstruction designated the Kecamatan project as a critical vehicle for recovery. By providing block grants through the already established program, the government was able to tap into pre-existing networks of community facilitators, program architecture, and the hard-earned trust of communities (World Bank, 2012c).

The community-driven approach was effective in local level reconstruction for a number of reasons. “Firstly, engaging affected and traumatized populations contributes to the psychological recovery of communities. Secondly, the [community-driven development] model was able to mobilize local information that is not readily available to external actors, such as government and relief and reconstruction agencies. [...] And channeling government funds through community-driven reconstruction programs provides a clear demonstration of the government’s attention to the most localized needs in the aftermath of a disaster [...]” (World Bank, 2012c).

While not always a specified goal of project design, community-driven development programs have provided effective disaster response and recovery support, as well as significant contributions to reducing disaster risks (Parker, 2006). When community-driven development programs were already being implemented in places hit by a natural disaster, their on-the-ground presence allowed for a rapid and flexible response to local emergency needs. The use of community-driven development infrastructure—for example, established village committees and processes for resource flows and project implementation—are quite adaptable to delivering in emergencies. The World Bank review of community-driven development programs (Wong, 2012) noted that while five countries suffered setbacks in implementing their community-driven development programs when a disaster struck, several established programs were able to serve as community safety nets in response to the emergency. In Madagascar, the Community Development Fund Project supported community development plans, small public works projects, and capacity building of community associations and officials. When cyclones hit the country in 2004, the already-established local participatory platform of the larger project’s executing unit served as a vehicle for emergency response, including the distribution of nutritional supplements and other provisions for pregnant and lactating women and children under five (Arnold et al., 2014).

In hazard-prone countries, successful long-running community-driven development programs have sparked an evolution from a reactive to a more proactive risk management approach. In numerous cases, ongoing programs have become de facto emergency response and recovery mechanisms. In these programs, there were explicit efforts to integrate disaster risk reduction into the reconstruction efforts, and in some cases, there are initiatives to integrate a more proactive risk management approach to both natural hazards



and longer-term climate change as well. When Bangladesh was hit by Cyclone Sidr in 2007 and Cyclone Aila in 2009, the first phase of the Empowerment and Livelihood Project, which began in 2003, provided effective recovery support. In 2012, building on this experience, the second phase of the project considered vulnerability to natural hazards in the project design (Arnold et al., 2014).

Recent examples demonstrate the potential for using community-driven development approaches to channel climate adaptation financing to vulnerable communities. For example, the Phase II Pilot Program for Climate Resilience (PPCR) project in Zambia provides small grants to support participatory adaptation at the community, ward, and district levels. Rural communities in Zambia depend on rain-fed agriculture and natural resources for their livelihoods and are increasingly exposed to droughts and floods. The project engages

established nongovernmental organization (NGO) partners to work with vulnerable community or farmers groups to identify local adaptation priorities and develop climate-resilient plans. The NGOs work closely with traditional leaders as well as district-level technical staff to assess community exposure and vulnerability to both climate-related disasters and long-term climate trends. The planning process takes into account the different vulnerabilities experienced by people, broken down by income level, gender, age, and ethnic group. The project aims to establish “adaptive processes,” whereby community groups can periodically assess their vulnerability, assess learning, and adjust investments supported by the subgrants accordingly. There is also great potential for community-driven development programs to serve as an important laboratory for studying the indicators and effects of resilience-building efforts.

**Box 3** Scaling up community-led resilience in India

The National Rural Livelihoods Mission is scaling up a model that has proven successful in Andhra Pradesh, Rajasthan, and other drought-prone states. The approach begins with empowering poor women through their own self-help groups to progressively build experience with savings and microloans. Over time, federations of self-help groups are able to increase their bargaining power in gaining access to a wide variety of goods and support services on behalf of their members. The same institutional platform lends itself very well to building climate resilience by mediating access to specialized advice regarding drought adaptation measures for farms; creating linkages with other government programs such as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) that provides paid labor for eligible households in public works, including building watershed management structures; and facilitating opportunities for family members through labor migration. [Arnold et al., 2014].

Community-driven development projects provide a general platform for community empowerment and poverty reduction, and have also made significant investments over the past decade in helping communities deal with disaster and climate risk. They have demonstrated their ability to provide effective and agile responses to disaster emergencies in addition to having a positive impact on poverty reduction and service delivery. There are several characteristics of the community-driven development approach that lend themselves to supporting resilience building, including the ability to link communities with local and national authorities; flexible approaches that can be tailored to the local context and to changing needs; and the ability to address the underlying causes of vulnerability in addition to specific interventions for disaster and climate risk management. Perhaps most critically, community-driven development programs have the ability to reach large numbers of poor people directly, which allows governments to work at the scale required in the context of increasing disaster risk and climate change.



## Protecting livelihoods and improving fall-back options

Social protection provides another important vehicle for directly reaching millions of poor people facing increasing disaster risk. Social protection programs are public interventions aimed at supporting the poor and more vulnerable members of society, as well as helping individuals, families, and communities manage shocks. Social protection includes safety nets (non-contributory transfers such as cash transfers, school feeding programs, food assistance, and subsidies), and social insurance (such as old-age, survivorship, disability pensions, and unemployment insurance).

Many governments and development agencies invest in social protection programs to address poverty reduction goals. The average annual World Bank commitment for social safety nets during fiscal years 2007-2013 was \$1.72 billion, a three-fold increase from \$567 million per year during fiscal years 2002-2007. From 2007 to 2013, the World Bank approved a total of \$12 billion for 273 social safety net projects in 93 countries.

Social protection approaches are evolving from a relatively narrow approach in the 1980s and 1990s that focused on providing safety nets, sometimes very expensive ones, only in the aftermath of a diverse range of shocks, including disasters (Newsham et al., 2011), into a broader range of instruments aimed at reducing the vulnerability of poor, vulnerable and marginalized groups before such shocks occur. Today, the social protection approach involves:

- Protective measures to provide relief;
- Preventive measures to avoid damaging coping strategies;
- Promotive measures to enhance resilience; and,
- Transformative measures to combat discrimination, which underlies social and political vulnerability (Davies et al., 2008).

New efforts are beginning to emerge, focusing on the links between social protection, disaster risk management, and climate change adaptation. In addition, these efforts are advocating for the need for a greater focus on the social dimensions of climate change and related vulnerability (e.g.,

#### Box 4 Insuring resilience?

Insurance and other disaster risk-transfer products are increasingly identified as key tools for financing national disaster risk management, climate change adaptation, and social protection efforts. While traditional indemnity insurance is unaffordable for the poor, a number of programs have been testing the use of index insurance over recent years. With payouts based on an independent measure, such as a certain amount of excess or deficit rainfall (the trigger), index insurance eliminates the need to assess the losses of individual households. Administrative costs are therefore reduced, making the insurance more affordable, and payouts come faster, allowing those affected to recover more quickly.

Similar to safety nets, insurance payments allow households to avoid negative coping mechanisms such as reducing consumption or selling productive assets. Proponents of index insurance claim that it can help to enable productive investment and provide incentives for risk reduction efforts before disaster hits. Insurance products are also attractive because they improve the channelling of scarce public funds to poorer disaster-affected households while spreading related costs over time. Moreover, insurance products could potentially reduce the fiscal burden of disaster response on the state by spreading costs over time and leveraging private sector financing.

To date, over 40 index insurance programs have been initiated, but there has been very little evidence-based analysis to determine how these instruments are helping the poor manage risk. The World Bank undertook a study of four ongoing index insurance programs in developing countries: programs in Ethiopia, India, and Mexico that provide index-based rainfall insurance to farmers living in areas highly prone to drought and flood; and a program in Mongolia that insures herders' livestock losses during severe winters. The programs in India, Mexico, and Mongolia began in 199, 2003, and 2006, respectively. They are among the longest running and most visible applications of index-based approaches to formal agricultural and livestock risk transfer in a developing country.

Evidence from the case studies confirmed that index insurance is not reaching the poorest. Despite the use of subsidies, affordability remains an issue. Other factors include the lack of trust in insurance systems, financial literacy, and the relative complexity of individual products. The cases also demonstrated that

index insurance can achieve sustainability and regional or national scale, but it is a long-term and costly investment. Two of the largest programs, the ones in India and Mexico, have taken years to develop and they continue to evolve to reach their goals. Further, should government and donor subsidies ever decline significantly, it is likely these programs would collapse.

The case studies showed significant differences in welfare outcomes resulting from the insurance payouts. In Mexico, some households at a moderate poverty level were able to rise and remain above the poverty line. However, no differences were observed in food consumption in the Ethiopia and India cases, and there were only slight indications in the Mexico case that households do not reduce food consumption thanks to payouts. The study was unable to determine whether support for index insurance products offers a cost-effective use of public funds in comparison with other disaster risk management and social protection investments. The study concludes that while index insurance is not a "stand-alone" solution to help poor households manage risk, it could work in conjunction with other community risk sharing or national safety net programs, as in the cases of Ethiopia and Mexico.

*Source:* Arnold et al., 2013. *Insuring Resilience: What does the Evidence Tell Us?* World Bank.

Newsham et al., 2011; Kuriakose et al., 2012; Heltberg et al. 2009, 2010). Relevant social protection tools include social funds to aid community-based climate adaptation, social safety net programs to cope with disaster, livelihood programs, microfinance to manage risk and smooth consumption, and weather-based index-based insurance to cover the risks associated with experimenting in new kinds of agricultural practices that have the potential to make farmers more income (Heltberg et al., 2009; 2010).

Ethiopia's Productive Safety Net Program (PSNP) and Bangladesh's Chars Livelihoods Programme (CLP) provide good examples of integrating pre-disaster and climate risk management measures into safety net programs. The PSNP is a large national social safety net program that responds to both chronic food insecurity and shorter-term shocks (mainly droughts) among Ethiopia's poor. It offers a practical model of how safety nets can be designed to meet the social protection needs of the most vulnerable, while simultaneously reducing disaster and climate risks. Key features of the PSNP include: public works activities geared toward improving climate resilience; a risk financing facility to help poor households and communities, including households outside of the core program, better cope with transitory shocks; and targeting methods that help the most climate-vulnerable households benefit fully from existing safety net programs. The PSNP entitles poor households to a secure, regular, predictable government cash transfer program, protects them against the effects of natural disasters, and improves management of the natural environment that contributes to these risks. Evidence shows that livelihoods among core beneficiaries are stabilizing and food insecurity is decreasing among these households (World Bank, 2013c).

Bangladesh's Chars Livelihoods Program (CLP) is a large regional social protection and poverty reduction program that aims to secure and promote

livelihood opportunities while at the same time strengthening the resilience of its target population to natural hazards and climate variability. The CLP works with extremely poor households located on river sandbanks, or chars, in northwest Bangladesh that are particularly vulnerable to annual seasonal flooding as well as random extreme flooding events. The CLP uses a combination of public works focused on flood risk reduction, asset transfers (cash and in-kind), livelihoods-related training, market development, and social development activities to achieve its aims. The CLP provides post-disaster relief and recovery support to protect and restore the assets and income being built up by participants through the program. It also includes measurement of disaster and climate resilience outcomes into its monitoring and evaluation systems (World Bank, 2013f).

While there are some good experiences emerging,<sup>7</sup> many countries struggle to systematically use social protection programs to proactively manage risks before disaster strikes, and to respond more effectively to natural hazards. In many countries, existing social protection "systems" are composed of a number of small and fragmented safety net programs, mainly focused on short-term emergency relief and financed by ad-hoc external resources.

An additional challenge to building social protection systems that strengthen disaster and climate resilience is the need for interdisciplinary approaches and cooperation across sectors and ministries. Often, there is not sufficient cooperation between civil protection or disaster management agencies and those that manage social protection programs. Even when cooperation does occur, social protection programs can fail to take into account that the profile of people who are vulnerable to natural hazards can be quite different from the profile of the chronic poor targeted for assistance. As a result, when social assistance and cash transfer programs try to respond to natural disasters, many


of those affected are not captured by the existing programs and are therefore left to their own devices. Traditionally, national disaster response plans and mechanisms have not included social welfare actors. Moreover, efforts to address climate change are usually led by the country's environmental agencies and ministries, which further complicates coordination.

So, while the positive links between social protection systems and disaster risk management are well understood in principle, there is much work to be done to fully tap into the potential of using social protection programs to build community-level disaster and climate resilience. Social protection systems already in place before a shock hits are better able to respond when an event occurs (Kuriakose et al., 2013; Davies et al., 2013). And as the examples from Ethiopia and Bangladesh demonstrate, the integration of disaster and climate risk considerations into the planning and design of social protection programs “can help prevent poor and vulnerable households from falling deeper into poverty, reduce their overall exposure to risk, and contribute to long-term adaptation to climate change” (Kuriakose et al., 2012).

Increased emphasis on pre-disaster risk reduction, and a more efficient post-disaster strategy could improve the cost efficiency of both public and household spending. Risk reduction measures allow individual households, communities, and nations to build up their physical and human capital assets, thereby contributing to sustainable economic growth. Thus, as observed by Holzmann and Jorgensen (2000), public spending on social protection can be viewed not as a cost to society but as an investment in building human capital undertaken in order to make society as a whole more resilient (ibid; Kuriakose et al., 2012).







## Promoting women and marginalized groups as resilience champions

Gender refers to the socio-cultural expectations and norms associated with being a man or a woman. Often these expectations and norms can cause inequality in the distribution of power, in economic opportunities, and in the sense of agency. Gender equality matters not only in the intrinsic sense of the basic human right to equal opportunity, but it also matters in development. As the World Development Report 2012 shows, gender equality is smart economics in three ways. First, removing the barriers that prevent women from having the same access as men to education, economic opportunities, and productive inputs (land, capital, etc) can generate broad productivity gains. Second, improving women's status improves many other development outcomes, including those of their children. And third, leveling the playing field—where women and men have equal chances to become socially and politically active, make decisions, and shape policies—leads to more representative, inclusive institutions and policy choices (World Bank, 2011c).

The same concepts apply to disaster risk management. Due to their often unequal rights, voice, and access to opportunities, women and girls are disproportionately vulnerable than men to the effects of natural disasters and climate change. A 2007 study of 141 natural disasters between 1981 and 2002 found that when economic and social rights are distributed equally amongst the sexes, disaster-related death rates are not significantly different between men and women. Conversely, socioeconomic disparities have resulted in higher death rates for women when natural disasters occur (Neumayer and Plümpner, 2007). The experience of Bangladesh in 1991 with Cyclone Gorky

demonstrates the effects of gender disparity in the face of disaster. Of the 140,000 people who died from flood-related effects, women outnumbered men by 14:1. This striking disparity was due in large part to social norms that prevented women from leaving their homes or staying in cyclone shelters without a male relative; and called for traditional dress codes, in this case the wearing of sarees, which can easily become entangled in floods. Women were also hesitant to use cyclone shelters due to concerns around privacy and safety.

It is important to note that this gap in vulnerability is not inevitable. The number of people dying in Bangladesh from the effects of Cyclone Sidr in 2007 was much lower (3,000). In the intervening years, the country had shifted from a focus on disaster relief and recovery to hazard identification and community-based disaster preparedness, early warning, and evacuation systems. While still high, the gender gap in mortality shrunk to 5:1. Reasons included training women as community mobilizers, having women communicate early warning messages so that other women felt comfortable heeding the warning, and developing cyclone shelters with safe, women-only spaces.

Just as natural disasters affect women disproportionately, response and recovery efforts can also reinforce existing inequalities (Arnold and Burton, 2011). Lack of understanding of gender dimensions can impede equitable distribution of recovery assistance. Entitlement programs for recovery have traditionally favored men over women, since they are often the tenants of record, bank account holders, and perceived heads of households. Gender disparities can often be easily addressed in the recovery process. For example, deeding newly-constructed houses in both the woman's and man's names, including women in housing design as well as construction, promoting land rights for women, building nontraditional skills through income-generation projects, distributing

### Box 5 Elders leading recovery and resilience

After the city of Ofunato, Japan, was devastated by the 2011 earthquake and tsunami, older people wanted to do something useful to help the community recover. With the help of the NGO Ibasho, elders and other community leaders planned and built Ibasho Café, which now acts as a hub for efforts to restore the fabric of a community still badly damaged by the disaster.

While there is typically huge pressure to rebuild quickly after a major disaster, investing the time in a participatory, inclusive process was key for Ibasho Café. In fact, the design process itself was a vehicle for community development that engaged elders in an active role. The Ibasho team and the community of Ofunato invested a year and a half in co-designing and planning the type of gathering place they wanted in their community and how it would function. The physical construction of the café took about six months. Here, the community drove the process as well. The building is a reconstructed farmhouse that was donated by a community member to honor the eight family members she lost in the disaster. In renovating the space, community members wanted to respect local traditions as well as make it a modern and welcoming space for younger people. The building preserves a number of traditional features, including the timber roof that only carpenters over 75 knew how to rebuild, and modern, Scandinavian style décor that younger community members desired.

Now up and running, the Ibasho Café is an informal gathering place that brings the community together. All generations participate in the space, with children coming to read books in the English library, older people teaching young people how to make traditional foods, and younger people helping elders navigate computer software. With elders actively engaged in the operation of Ibasho Café, the space is building social capital and resilience, while at the same time changing people's mindsets about aging.

relief through women, and funding women's groups to monitor disaster recovery projects are practical steps that can be taken to empower women, and at the very least avoid the reinforcement of any existing gender inequities.

Similar disparities exist between the genders in the case of the effects of longer-term climate change (World Bank, 2011a). Empirical evidence from Bangladesh looks at gender-differentiated coping mechanisms for adapting to floods, river erosion, and drought (Ahmad, 2012). Detrimental coping mechanisms with stark contrasts along gender lines include reducing food intake, internal migration, and early marriage for girls.

While addressing the gender dimensions of disaster and climate risk management is critical, empowering women also provides a key opportunity for building resilience. Women are often the designers and builders of community resilience in poor communities. For example, the experiences of grassroots women leading disaster recovery efforts has grown to include their engagement with local, national, and regional authorities to inform the development of policies and programs that support pro-poor, community-driven resilience building (Arnold and Burton, 2011).

Research on World Bank community-driven development projects revealed that these programs are also an effective tool for empowering women at the local level, which in turn contributes to better disaster risk management. For example, in pastoral communities of Ethiopia and Kenya, livelihood diversification—made possible through capacity-building support to women's savings and loans groups—helped communities better manage the risks associated with the 2005–08 drought cycle by generating income, preserving assets, and improving food security. In this case, women played an important leadership role, inspired in part by exchange visits across the Kenyan–Ethiopia border.



In India, the National Rural Livelihoods Mission also has a strong focus on women's empowerment, working to strengthen women's self-help groups and progressively building experience with savings and microloans.

There are also a number of examples where empowering women to exercise leadership within their communities contributes to climate resilience for households and communities. In India and Nepal, for example, when more than a third of people who are participating in forest protection committees are women, there is more forest regeneration and less illegal extraction of forest products (Agarwal, 2010). A study of seven rural Bolivian communities found that whereas men focus on adapting to climate change by such measures as expanding agricultural production, women tend to focus more on practical and innovative improvements such as seeking alternative water

supplies or planting new crop varieties (Ashwill et al., 2011).

There are numerous examples of the benefits that women's leadership can have on building disaster and climate resilience. There are also equally essential opportunities to engage other marginalized groups as active agents of resilience building rather than passive recipients of support or vulnerable groups to be cared for. Box 4 provides an example from Japan of engaging elders in recovery and resilience building. A substantial body of literature and guidance also exists on the role that children and youth can play in the disaster risk management efforts of their communities (Mitchell et al., 2008; Benson and Bugge 2007; AIDMI, 2010; Walden et al., 2009).



# The way forward

Despite decades of investment in policies and programs to reduce disaster risk, the social and economic costs of disasters continue to rise, particularly among poor communities in developing countries. As the climate continues to change, millions of poor people will face greater challenges in terms of extreme events, health effects, food security, livelihood security, migration, water security, cultural identity, and other related risks. To address this, any future global, national, and regional initiatives will need to include a much stronger focus on poverty and on addressing the underlying causes of vulnerability. National governments will need to work at a scale greater than ever before, and will need to get support for building resilience to the ground level where the effects are being felt the most.

What needs to happen? The Fourth Session of the Global Platform for Disaster Risk Reduction convened in May 2013 included over 40 consultations on the post-2015 framework for disaster risk reduction. Discussions on what to emphasize in HFA2 touched a number of key concepts, including: the importance of community-level involvement; targeting and including the most vulnerable populations; women as leaders; children and youth; and, governance, accountability, transparency, and inclusiveness (UNISDR, 2013). Based on the approaches and experiences reviewed in this paper, a few specific elements can be recommended for not only the HFA2, but any other large-scale initiative or policy meant to address or improve disaster risk management and risk reduction measures in a way that is inclusive and thus effective.

## Community involvement versus community leadership

Community “involvement” can mean many things, from sharing project information with disaster-affected communities, to community consultations, to more participatory approaches that give the community control over resources and decision making. Communities must be recognized as valued partners in disaster and climate risk management initiatives and not as simply beneficiaries that are on the receiving end of information and projects. Poor communities bring years of experience dealing with localized, recurrent “everyday” disasters that are the result of persistent poverty, environmental degradation, social marginalization, and other factors unrelated to natural hazards or climate change. The strategies that communities use to manage risk are often poorly understood or ignored by governments and development partners. International and national efforts should promote community-led partnerships with governments so that disaster risk management efforts respond to local needs and priorities.



## Getting to scale

National governments and development partners already provide substantial support to community-driven development, social funds, safety nets, and related operational platforms that can serve as useful vehicles for promoting community-level resilience to disaster and climate risk. Community-driven development programs and social protection systems put resources directly in the hands of households, communities, and local governments. They have the potential to reach thousands of communities and millions of poor people directly with support for disaster and climate risk management. Large scale community-driven development and social protection programs currently being designed or implemented can provide a powerful vehicle for scaled up disaster risk reduction and response activities often require: (i) simple adjustments to operational procedures; and, (ii) additional resources that can top-up existing community grants.

## Rethinking and empowering “vulnerable” groups

There are a number of groups that are disproportionately affected by the impacts of natural hazards and climate change, including women, children, elders, people with disabilities, and indigenous people. These groups need to be considered in all disaster risk reduction and management policies and programs so that their specific vulnerabilities are addressed. More importantly, however, the opportunity to empower marginalized groups as leaders in resilience building should not be missed. Women are often marginalized in decision making and in accessing resources to manage disaster risk. But due to the strong leadership roles they play in the household and in the community, it is critical that they participate in building community-wide resilience. Committing to dedicate support to empowering women as so-called “resilience champions” provides governments the opportunity to manage risk more effectively and at the same time promote positive social transformation on gender equity. Similarly, indigenous peoples, elders, youth, and children all have unique and valuable perspectives on disaster risk management that can be mobilized to promote inclusive community resilience.

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# Endnotes

1 <http://www.unisdr.org/we/inform/gar>

2 The monitoring system for the HFA reports on 22 core indicators. This paper relates to "PFA4/C12, Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk."

3 UN Enable - Disability, Natural Disasters and Emergency Situations. Available at <http://www.un.org/disabilities/default.asp?id=1546>

4 UN Enable - Factsheet on Persons with Disabilities. Available at <http://www.un.org/disabilities/default.asp?id=1546>

5 See, for example, the World Bank/UN study *Natural Hazards, Unnatural Disasters, Views from the Frontline*, and GAR [2009 and 2011] for discussions on the need for local action.

6 This section is adapted from Arnold et al., 2014.

7 See *Building Resilience to Disaster and Climate Change through Social Protection*, World Bank 2013 for additional case studies.



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Despite decades of investment in policies and programs to reduce disaster risk, the social and economic costs of disasters continue to rise, particularly among poor communities in developing countries. As the climate continues to change, millions of poor people will face greater challenges in terms of extreme events, health effects, food security, livelihood security, migration, water security, cultural identity, and other risks. To address this, a much stronger focus is needed on poverty reduction and on addressing the underlying causes of vulnerability. National governments will need to work at a scale greater than ever before, and will need to get support for building resilience to the ground level where the effects are being felt the most.

This report highlights practical ways of funneling disaster and climate risk financing directly to those most in need and approaches to empowering poor communities to drive their own risk management efforts based on their development goals.

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