

Building Resilience to Disaster and Climate Change through Social Protection

SYNTHESIS NOTE

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Purpose of This Toolkit

Natural disasters and climate change are among the greatest threats to development.¹ Although natural disasters have always presented risks, climate change increases those risks and compounds them by adding a greater level of uncertainty. As a result of their increased frequency, the economic and social costs of disasters are mounting (World Bank 2010).

Natural disasters and climate change can push people into chronic and transient poverty and force them to adopt negative coping strategies. Social protection programs play an important role in protecting poor and vulnerable people from these impacts and helping them reduce their exposure and vulnerability to them.

This toolkit provides guidance on how to prepare social protection programs to respond to disasters and climate change. The snapshots of good practice experiences and practical tips for implementation are intended to guide decision makers in countries facing these risks in adapting their social protection programs to reduce negative impacts and accelerate recovery. The toolkit consists of a synthesis document and a set of online materials, comprising five Guidance Notes, five case studies, two technical notes, and a video.

The Guidance Notes cover the following topics:

- Building Flexible and Scalable Social Protection Programs to Respond to Larger-Scale Disasters;
- Adapting Beneficiary Targeting Mechanisms to Disaster Response and Climate Change;
- Communicating in a Post-disaster Context;
- Integrating Disaster- and Climate-Sensitive Monitoring and Evaluation into Social Protection Programming; and,
- Adapting Benefit Transfer Mechanisms to Strengthen Disaster and Climate Resilience.

The case studies include the following:

- Bangladesh's Char Livelihoods Programme
- Ethiopia's HARITA (Horn of Africa Risk Transfer for Adaptation) Risk Insurance Program
- Ethiopia's Productive Safety Nets Program
- Mexico's Temporary Employment Program
- Pakistan's Citizen Damage Compensation Program.

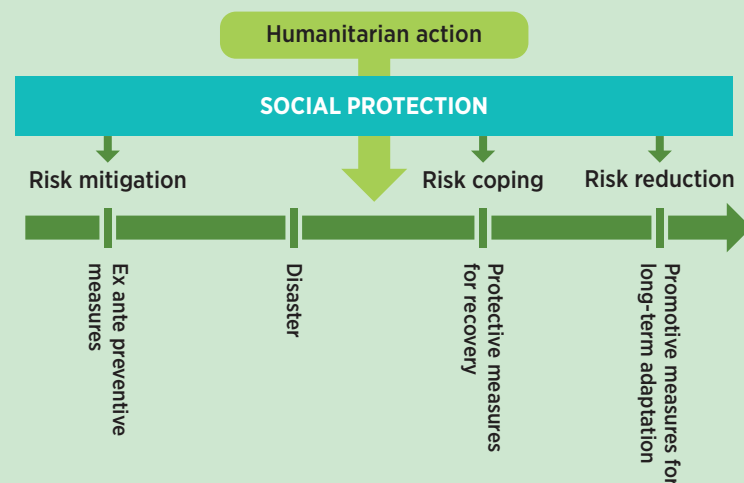
¹ Although this toolkit is focused on natural disasters, many of the principles and guidance provided could be useful in other extreme events.

All of the case examples cited in the Synthesis Note come from these case studies. The Guidance Notes and case studies are available at www.worldbank.org/sp.

The toolkit offers guidance on both ex ante and ex post social protection measures to mitigate and reduce the impact of disasters and climate change and to accelerate recovery (figure 1).² It is not intended to guide relief efforts immediately after a disaster. Instead, it seeks to help prepare programs to respond before a disaster occurs and to contribute to a more agile transition from relief to recovery after a disaster. Especially in the relief phase, some functions are covered by the humanitarian sector as well as by the national civil protection systems.

The focus of this toolkit is aligned with the role and expertise of the World Bank, which has traditionally supported early and long-term recovery and helped rebuild livelihoods and infrastructure.³ This toolkit provides examples of good practice experiences and practical guidance for the practitioner in that direction.

FIGURE 1: RELIEF TO DEVELOPMENT CONTINUUM



Source: Authors illustration

² The toolkit draws primarily on successful examples of preparing social safety nets to reduce risk and respond to disasters and climate change-related events. It does not examine other types of social protection programming, such as social insurance and employment programs. The toolkit focuses on cash-based safety nets as opposed to in-kind programs.

³ The use of some of these mechanisms for humanitarian action has been covered in other literature (see the Other Tools and Resources section at the end of this document).



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Abbreviations

CDCP	Citizen Damage Compensation Programme
CLP	Chars Livelihoods Programme
HARITA	Horn of Africa Risk Transfer for Adaptation
IFRC	International Federation of Red Cross and Red Crescent Societies
IMO	implementing organization
M&E	monitoring and evaluation
NADRA	National Database and Registration Authority
PET	Programa de Empleo Temporal (Temporary Employment Program)
PETi	Programa de Empleo Temporal Inmediato (Immediate Temporary Employment Program)
PSNP	Productive Safety Net Programme
SEDESOL	Secretaria de Desarrollo Social (Ministry of Social Welfare)
WCFC	Watan Card Facilitation Centre



Why Should Social Protection Address Disaster Preparedness and Long-Term Climate Resilience?

The negative impacts of disasters and climate change have the potential to reverse recent gains in reducing poverty and vulnerability, pushing people into transitory and chronic poverty. Because the poor and near-poor usually have less capacity to respond and adapt, they are at increased risk of losing life, assets, and livelihoods in natural disasters. Weather shocks increase transitory poverty and make it hard for both poor and near-poor households to recover between increasingly frequent disasters. In the Philippines, for example, the cost of direct damages of natural disasters averaged \$459 million a year between 1970 and 2006, an annual loss equivalent to 0.5–1.0 percent of GDP. Cyclones Ketsana and Parma increased the incidence of poverty in the worst-affected regions by as much as 3 percentage points; nationwide the incidence of poverty rose 0.5 percentage points (ESCAP and UNISDR 2010).

Poor households often have to rely on harmful coping strategies—with potentially ominous long-term implications for human development. When hit by a disaster, poor households often cope by reducing essential food consumption, health care, and education investments and by selling and depleting productive assets. Although evidence of long-term effects of disasters on human capital is scant, some studies have found that school attendance drops, reenrolment is low, and visits to health clinics decline after a disaster (World Bank 2010).

Social protection systems can contribute significantly to helping reduce the risk exposure of poor households and

build their long-term resilience (Kanbur 2009; Kuriakose and others 2012; Stern 2009; UNDP 2007; World Bank 2010). Countries that have social protection systems in place before a shock hits are better able to respond, as Ethiopia's experience shows. Independent evaluations of the Productive Safety Nets Program (PSNP) show that its sustained interventions have helped reverse the trend of deteriorating livelihoods and that its timely and predictable



assistance has enabled households to manage risk more effectively; avoid adopting negative coping strategies, such as selling livelihood assets; and protect against food insecurity (Gilligan, Haddinot, and Taffesse 2008; Berhane, Sabates-Wheeler, and Tefera 2011)

Most efforts to reduce and mitigate the risks to vulnerable groups affected by economic and idiosyncratic shocks caused by natural disasters and climate change have been ad hoc. Establishing automatic mechanisms to trigger programs with the onset of a crisis

and stop them at the end of it, so that response measures are timely, targeted, and temporary, has proven difficult (Marzo and Mori 2012). Creating such programs is critical, however, because well-designed and scalable social protection programs whose activities are well coordinated with those of other sectors can respond more effectively. Setting up and maintaining such programs requires practitioners who understand the linkages between disaster response, climate change, and social protection and have the skills needed to integrate disaster and climate risk management into safety net programs.



How Can Social Protection Programs Address the Challenges of Natural Disasters and Climate Change?

Social protection and labor systems, policies, and programs help individuals and societies manage risk and volatility and protect them from poverty and destitution through instruments that improve resilience, equity, and opportunity (Kuriakose and others 2012). Social

help reduce vulnerability by increasing the availability of coping strategies in the face of disasters (Kuriakose and others, 2012). Traditional social protection interventions can reduce risk exposure by focusing on disaster risk reduction and climate change adaptation. Examples include public

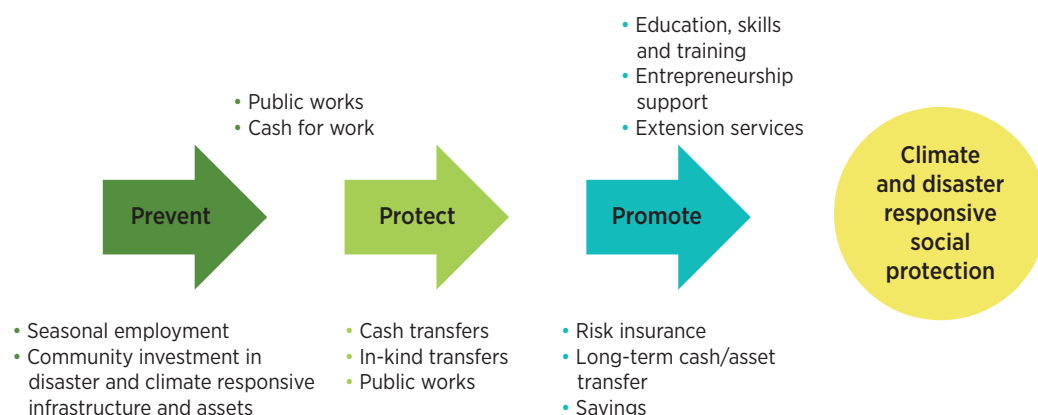
“Safety net programs not only have the ability to efficiently and effectively buffer regular social assistance beneficiary households and communities from the impacts of disasters. They also temporarily expand coverage to a wider group of vulnerable people, helping to prevent significant increases in the number of people needing such assistance over the medium to longterm (ISDR 2011).”

protection programs can help increase the resilience of the vulnerable by preventing or reducing the impacts of shocks (*prevention role*). Social protection interventions such as social insurance, weather-based insurance, cash and in-kind transfers, asset diversification, and other instruments may

works programs that conserve soil and water and develop hazard-resistant roads and other infrastructure.

Social protection programs can also contribute to equity by protecting against destitution in the face of shocks (*protection role*). Protection measures such as cash

FIGURE 2: PREVENTION, PROTECTION, AND PROMOTION: DISASTER- AND CLIMATE CHANGE-RESPONSIVE SOCIAL PROTECTION MODEL



Source: Adapted from Conroy, Goodman, and Kenward 2010.

transfers, social pensions, and public works programs for post-disaster recovery and reconstruction can help prevent poor and vulnerable households from sinking deeper into poverty after disasters while protecting the near-poor from falling into poverty. These measures also guard against the erosion of regular social assistance benefits.

Social protection programs can increase opportunity by promoting human capital development, access to sustainable livelihoods, and employment (*promotion role*). They can increase long-term resilience and promote opportunities in the face of shocks by diversifying household income and assets, encouraging risk diversification, and building skills, helping to address underlying vulnerabilities and build capacity for response (Kuriakose and others 2012).

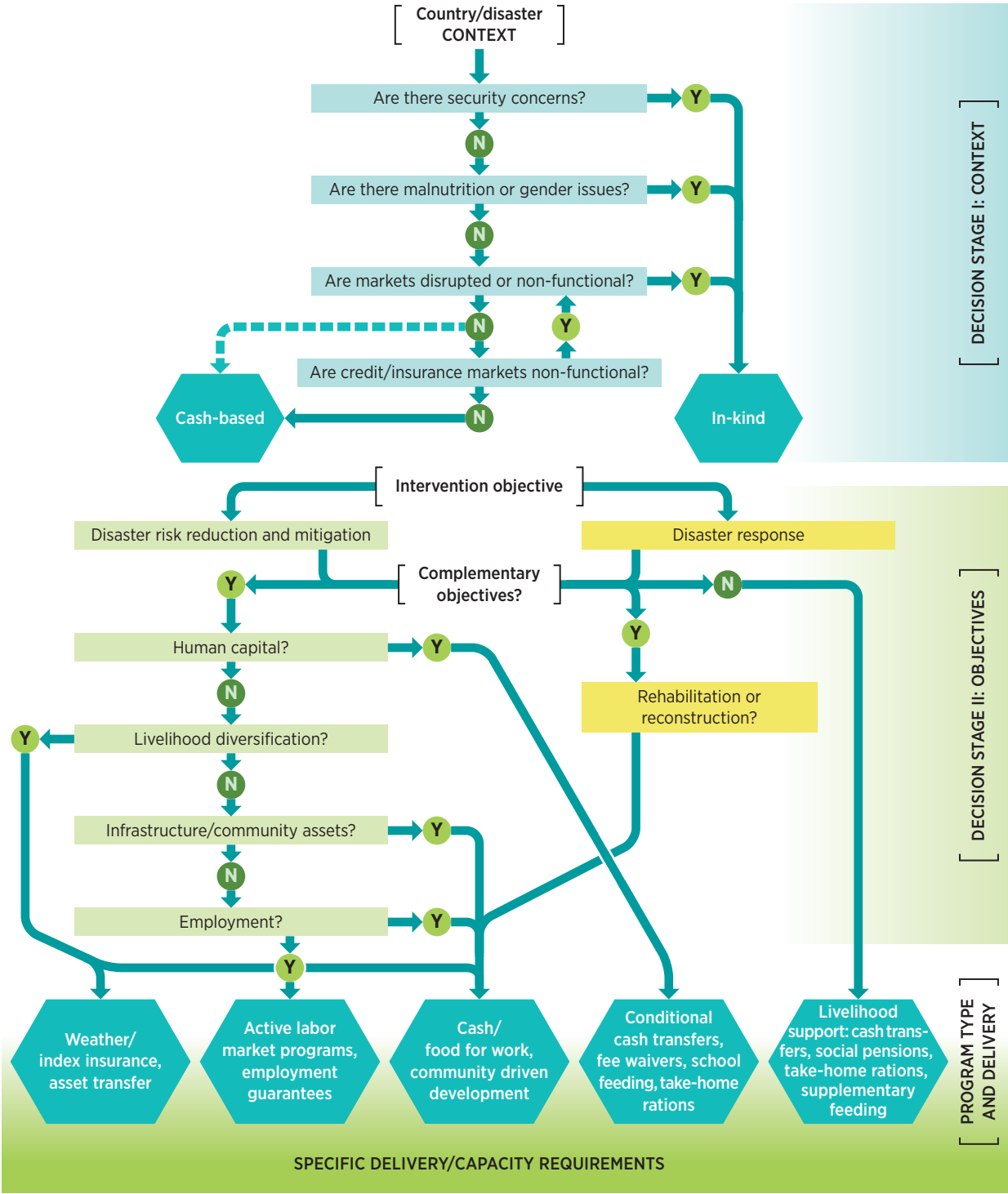
Although this toolkit draws primarily from the experiences of successful safety net programs, in principle, a range of social protection interventions can be adapted

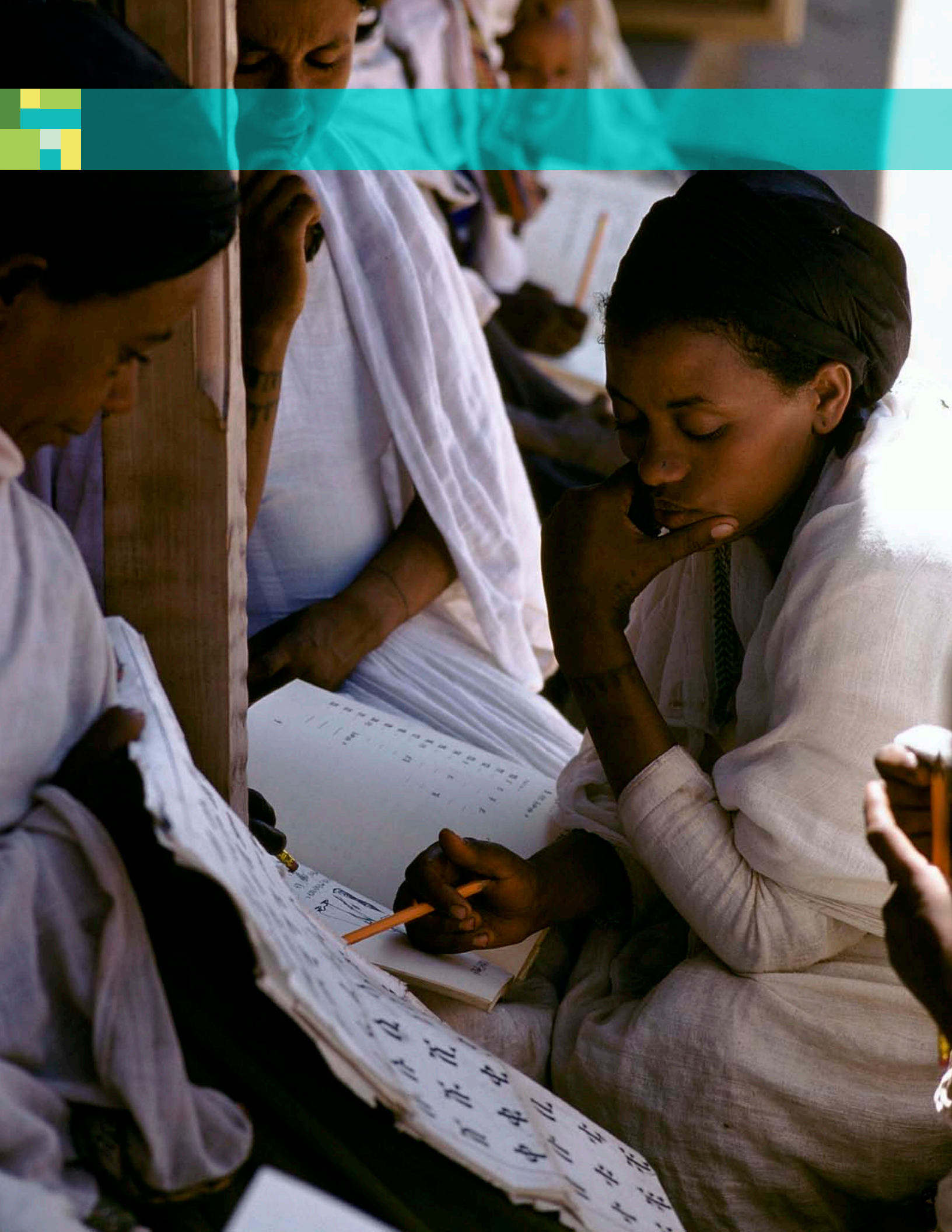
to be disaster and climate responsive. Before choosing a social protection intervention, the practitioner needs to consider a number of factors:

- whether the intervention aims to address post-disaster recovery, ex ante risk reduction, or both
- whether the intervention seeks to achieve complementary objectives, such as rehabilitating infrastructure, developing human capital, creating temporary employment, and addressing the needs of specific groups
- particular circumstances in the country, such as security, delivery capacity, the existence of credit and insurance markets, and functioning markets.

Figure 3 provides a decision-making map to help practitioners choose a social protection program based on particular country circumstances.

FIGURE 3: DECISION-MAKING TREE FOR REDUCING RISK EX ANTE AND RESPONDING TO DISASTERS EX POST





A Framework for Climate- and Disaster-Responsive Social Protection

Three principles can help policy makers and practitioners identify entry points and design features that increase the climate responsiveness of social protection:¹

- *Principle 1: Engage in disaster- and climate-aware planning.* Social protection professionals must acknowledge and hedge against uncertainty and plan for more frequent and more severe disasters. Direct impacts of disasters include human and economic losses. Indirect effects include food price volatility, food insecurity, migration, and potential conflict over land and natural resources. Disaster- and climate-aware planning requires taking these impacts into account in designing new social protection interventions and building contingency mechanisms for existing programs, creating feedback loops with early warning systems, and coordinating with meteorology and climate change agencies. Planning may also involve risk mapping to determine how climate change is likely to affect a country or a geographic area; which physical, natural, and institutional assets need to be strengthened; and how consultations and other processes can help empower the most vulnerable.
- *Principle 2: Focus interventions on livelihoods and assets.* Policy makers need to understand how different risks affect livelihood resources and adopt a user-oriented approach. Understanding the economic decisions households and communities make to sustain their livelihoods in the face of external pressures can help policy makers plan appropriate interventions.
- *Principle 3: Build the capacity to adapt and respond at the system level.* Traditional informal safety nets are inadequate to handle the massive increases in covariate risk brought about by natural disasters and climate change. This type of risk requires social protection systems that are responsive and adaptive, systems that can provide adequate financing, human resources, and administrative systems following a catastrophic event.

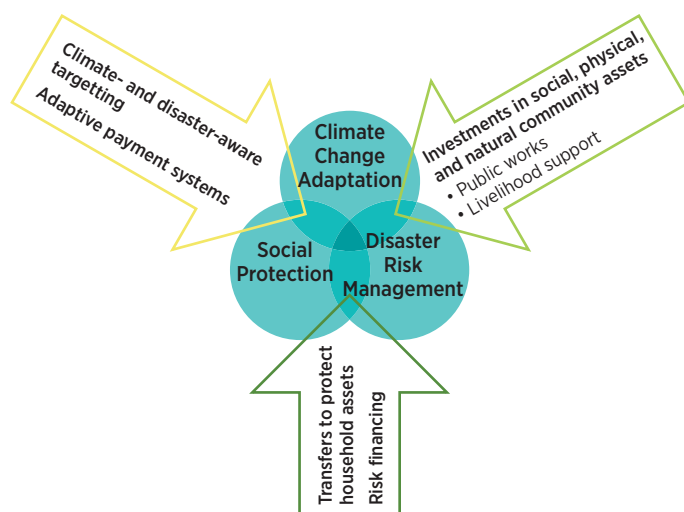
Five key design features can help practitioners devise and adapt social protection programs to respond to climate shocks and natural disasters:²

- *Design feature 1: Coordinating institutional capacity.* The policy platform needs to facilitate coordination by relevant disaster risk management, climate change adaptation, and social protection agencies and actors, tapping the expertise and institutional capacity of each (figure 4).
- *Design feature 2: Ensuring scalability and flexibility.* Programs must be flexible enough to be rapidly scaled up during a disaster and scaled back once the crisis is over. They need to be capable of increasing support to existing beneficiaries in the event of major shocks. Achieving scalability requires targeting, registry, and payment systems that can identify, enroll, and make transfers to additional eligible participants. It also requires funding arrangements that can mobilize adequate resources on short notice.
- *Design feature 3: Targeting households that are most vulnerable to natural disasters and climate change-related risks.* Disaster- and climate-aware targeting uses area- and household-level data on climate exposure to inform targeting and distinguish the temporarily from the chronically poor. Such targeting requires incorporating disaster- and climate-related vulnerabilities into beneficiary selection criteria.
- *Design feature 4: Ensuring good governance and accountability.* The increase in disaster risk and the likelihood and severity of climate change-related events puts pressures on social protection systems, widening the potential for leakage, fraud, and malpractice. More attention must be paid to governance and accountability mechanisms, including through extensive communication with, outreach to, and training of beneficiaries and implementers.

¹ These principles are adapted from Kuriakose and others (2012).

² These features are adapted from Kuriakose and others (2012).

FIGURE 4: LINKING SOCIAL PROTECTION, CLIMATE CHANGE ADAPTATION, AND DISASTER RISK MANAGEMENT



- *Design feature 5: Increasing adaptive capacity at the household and community level.* Communities' social, physical, and natural assets need to be strengthened in ways that increase resilience to shocks and support viable livelihoods to ensure long-term sustainability.

A key feature of successful response mechanisms is the ability to scale up to provide assistance beyond the core target group (usually the chronically poor) to include the transitional poor and other groups vulnerable to disaster

losses. Programs can be scaled up using an existing beneficiary registry or poverty database and payment mechanism or by complementing existing mechanisms with mobile facilities and staff (box 1).

Design Feature 1: Coordinating Institutional Capacity

In many countries, disaster risk management and social protection agencies work in isolation and have objectives that do not always intersect in an optimal manner. Social protection agencies often lack the skills, knowledge, and experience to integrate concerns about disaster risk management/climate change adaptation into programs and systems. International experience suggests that where there is a well-defined coordination mechanism among a network of ministries and agencies, disaster response can be mounted rapidly and efficiently. The key is to lay the groundwork so that existing institutional capacity can be fully exploited in response to a disaster.

Three features are critical to building a sound institutional platform:

- effective formal communication channels and linkages among social protection, disaster management, and relevant sectoral ministries/agencies, including those responsible for early warning systems
- clearly defined roles and responsibilities of all ministries/agencies and other implementing partners, including international, nongovernmental, civil society, and private sector organizations

BOX 1: RAPIDLY RESPONDING TO DISASTERS IN BRAZIL, COLOMBIA, AND MEXICO

Bolsa Familia, a conditional cash transfer program, provided in-kind and cash benefits to 162,000 families in 279 municipalities within 10 days of the floods that ravaged Brazil in January 2011. It used its registry (*cadastro unico*) and identification cards to identify affected families, disbursing payments through the program's banking arrangements with branches of the Caixa Economica Federal. Utilization of a program that was already in place sped the delivery of assistance.

Conditional cash transfer programs in Colombia (Familias en Acción) and Mexico (Oportunidades) used their registries and extensive networks of social workers to identify and verify people in need and deliver in-kind and cash assistance to people affected by floods in Colombia in 2010 and droughts in Mexico in 2011. Both programs maintained their regular operations in the affected areas. In Colombia, Familias en Acción also

introduced temporary measures to meet the needs of affected populations. It temporarily suspended program conditionalities in certain areas to accommodate the shortfalls in service provision as a result of damaged infrastructure, adjusted benefit levels, and allowed people affected by flooding to claim their benefits at different locations. Evaluations of both Familias en Acción and Oportunidades highlight the importance of ensuring that emergency-related program adjustments are clearly articulated in operational manuals, clearly defining the roles of such programs in disasters within the framework of a disaster response plan or legislation, and linking them to the network of institutions involved in disaster response and contingency financing.

Sources: Yaschine and Hernandez 2012; Villalobos, Cheston, and Castano Mesa 2012.

BOX 2: COORDINATING DISASTER RESPONSE IN MEXICO

Mexico's Programa de Empleo Temporal (PET) is an interagency safety net program overseen by the Ministry of Social Welfare (SEDESOL) and implemented by several sectoral ministries (transportation, environment, labor). The Ministry of the Interior (SEGOB) is tasked with overseeing a coordinated institutional response to natural disasters and managing a major national disaster response contingency fund (the Fund for Natural Disasters [FONDEN]).

A parliamentary act stipulates the responsibilities of each party and mandates the coordination mechanism;

it requires the ministries involved to share a common beneficiary database (registry) and information system. All implementing ministries receive data from the early warning system, which allow them to prepare an emergency response or scale up in affected localities through PET or other response channels. Each collaborating ministry is responsible for carrying out its portion of the public works program—from targeting to payments to supervision and monitoring—within its own resource envelope.

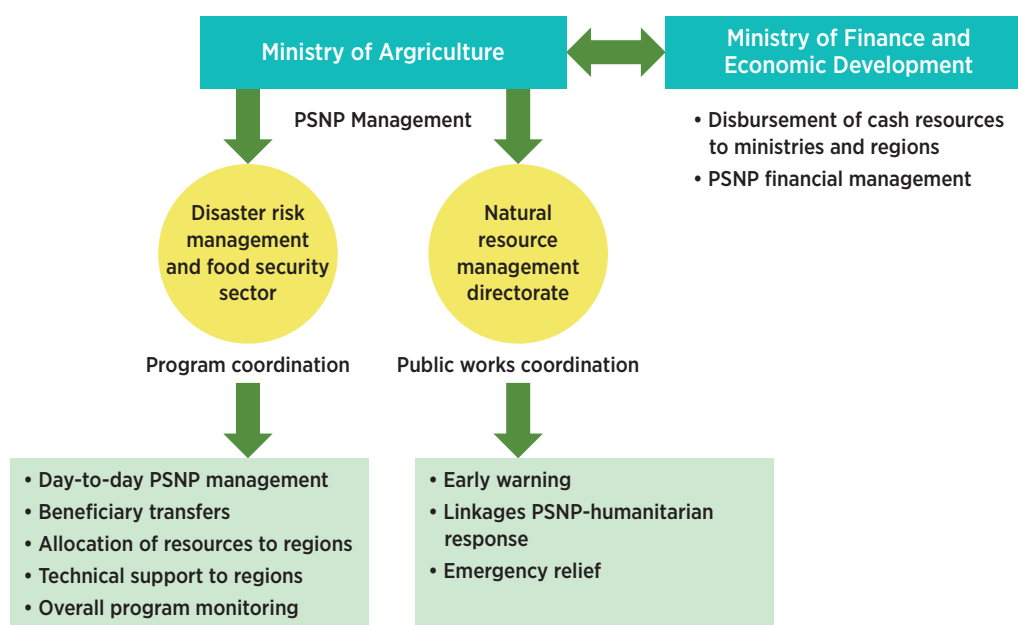
- linkages and information-sharing arrangements with the broader humanitarian response system, such as the United Nations-led emergency cluster system.

Experience from post-disaster recovery efforts highlights the importance of two features. The first is oversight and coordination of the disaster response effort by a single parent institution, as the case studies of Mexico's Temporary Employment Program (box 2) and Ethiopia's Productive Safety Net Program (figure 5) and the examples of Turkey Emergency Earthquake Reconstruction Program and Pakistan Poverty Alleviation Fund illustrate.

The second feature is the establishment of partnerships between public, private, and civil society sectors (box 3).

Partnership agreements must be created between the agencies and service providers best positioned to perform outreach and delivery of benefits and services, including services required in case of a scale-up. Successful program scale-ups involve partnerships and coordination among a variety of parties—including public and private service providers, agencies and ministries, and development partners—and effective use of their relative competencies and capacities. Governments that have proactively tapped private sector service providers (such as banks and cell phone companies) or found innovative ways to deliver benefits that reflect local conditions have had success in responding to disasters.

FIGURE 5: ROLES OF FEDERAL INSTITUTIONS IN ETHIOPIA'S PRODUCTIVE SAFETY NET PROGRAMME (PSNP)



BOX 3: WORKING WITH PARTNERS TO DELIVER RELIEF IN MEXICO AND PAKISTAN

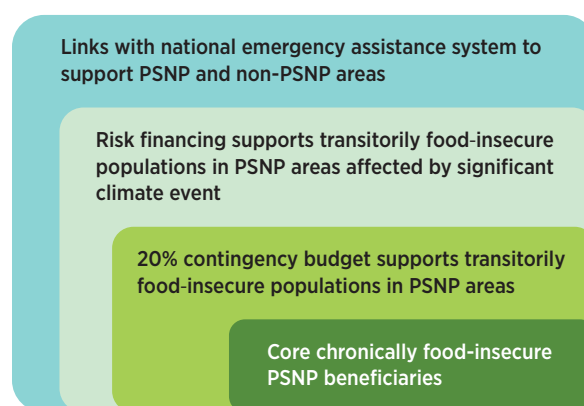
Mexico's Programa de Empleo Temporal (PET) program uses public, private, or community-based modalities to make payments to beneficiaries, depending on the volume of transactions and the connectivity of the locality to intermediary institutions. In some rural and isolated localities, payments are made through community committees, which receive cash from the central agency. In other localities, cash is distributed to beneficiaries through the telecommunications agency's network of cash distribution facilities.

Pakistan's Citizen Damage Compensation Programme relies heavily on partnerships with the private sector (administered through Memorandums of Understanding that are put in place as part of disaster preparedness plans). It delivers cash payments through commercial banks, using biometric identification and automatic teller machine (ATM) cards. An international organization runs the program's communications campaign.

Design Feature 2: Ensuring Scalability and Flexibility

Experience has shown that the faster support reaches people affected by a disaster, the less likely they are to resort to negative coping strategies (World Bank 2009). Governments therefore need to be able to step in swiftly following natural disasters. Administrative mechanisms used to mobilize and deploy contingency financing and human resources, transfer benefits, manage fiduciary risks, and identify and register affected people should be scalable and flexible, as demonstrated by the Ethiopia's Productive Safety Net Programme (box 4). A policy framework is needed that identifies the sources of contingency financing and assigns financing to programs. A contingency budget and procedures for administering financing must be in place that allow institutions and implementing agencies to gain

FIGURE 6: SCALABILITY OF ETHIOPIA'S PRODUCTIVE SAFETY NET PROGRAMME (PSNP)



Source: Kuriakose and others 2012.

BOX 4: RAPIDLY DISBURSING FUNDS FOLLOWING EMERGENCIES IN ETHIOPIA

The annual budget of Ethiopia's Productive Safety Nets Program (PSNP) includes a contingency equivalent to 20 percent of the base program and a risk financing facility designed to respond to transitory needs in chronically food-insecure districts (*woredas*) when large shocks occur. Fifteen percent of the contingency budget is held at the regional level and 5 percent at the *woreda* level. Both mechanisms are used to address the unexpected needs of chronically food-insecure households and transitory food insecurity among PSNP and non-PSNP households in PSNP-supported *woredas*. Funds that are not used during the fiscal year are rolled over.

If a shock is too large to be handled by the contingency fund, the risk financing facility responds. This facility is based on four principles: contingent

emergency grant financing from an external partner; use of the government's early warning system, which triggers a response; contingency planning in *woredas*; and adequate institutional capacity at all levels.

In 2011, in response to the drought, the PSNP extended the duration of its regular support for 6.5 million beneficiaries, providing an extra three months of assistance to an additional 3.1 million people living in PSNP areas. The time between the triggering of the risk financing facility and the disbursement of payments averaged less than two months. In contrast, it took several months for the authorities in charge of humanitarian assistance to assess the crisis, mobilize funding, and respond to needs. The average humanitarian response to slow-onset droughts in Ethiopia takes eight months.

BOX 5: ENSURING FUNDING FOR VICTIMS OF DISASTERS IN MEXICO

Mexico's Programa de Empleo Temporal Inmediato (PETi) is an emergency response mechanism that was added to PET in 2003 to ensure the timely and efficient response to populations affected by systemic crises. The mechanism operates within the broader PET framework but has modified systems and procedures for a post-disaster context. All PET implementing ministries are required to allocate a percentage of PET funding to a contingency fund (up to 20 percent for the Ministry of Communication and Transport (SCT) and the Ministry of Environment and Natural Resources

(SEMARNAT) and at least 20 percent for the Ministry of Social Welfare (SEDESOL)). This share is deemed sufficient to respond to higher-frequency events (such as hurricanes or flooding) of low to medium impact. If necessary and justified by the magnitude of the disaster, all remaining funds in SEDESOL's annual budget for PET can be channelled through PETi to address the needs of people affected. If this funding is not adequate to support participation in the cash-for-work scheme for all people in need, Mexico's Fund for Natural Disasters (FONDEN) can provide supplementary resources to PET.

access to funding immediately when an emergency is declared.

Part of managing contingency financing is having in place a programmatic disaster preparedness plan. Such a plan not only provides operational guidelines on the role, objectives, adaptation of design parameters, and triggering on and off specific social protection interventions, in particular for post-disaster recovery, but also defines the roles and responsibilities of different agencies; and allocates funding for the execution of post-disaster activities.

“ Creating early warning systems, establishing contingency financing and contingency plans, and building institutional capacity ahead of crises can significantly reduce the time it takes to respond to a crisis. ”

Creating early warning systems, establishing contingency financing and contingency plans, and building institutional capacity ahead of crises can significantly reduce the time it takes to respond to a crisis. Despite weaknesses, the National Disaster Management Strategy in Bangladesh made it possible to respond quickly

to Cyclone Sidr in 2007, evacuating and reaccommodating 4.5 million people within five days (Pelham, Clay, and Braunholz 2011). The governments of Ethiopia, Mexico (box 5), and Pakistan have also developed disaster response plans and created response mechanisms.

BOX 6: TIPS FOR THE PRACTITIONER: ESTABLISHING A RELIABLE BENEFIT TRANSFER MECHANISM

The following tips can help ensure the transparency, predictability, and timeliness of transfers following a natural disaster or climate change-related incident:

- Understand the political, institutional, and legal context and available service provision options.
- Use existing payment mechanisms, temporarily expanding staff and equipment where outreach already exists in affected areas.
- Establish temporary registration and payment or point-of-sale offices in affected areas.
- For the disbursement of payments, contract institutional partners that have the ability to reach the

largest numbers of affected people and effect benefit transfers rapidly.

- Optimize the use of modern technology in view of the size, location, and needs of the affected populations.
- As part of preparedness plans, establish guidelines for the payment cycle, and orient/train staff and partners in their use.
- Manage information flows to keep track of payments.
- Provide the affected population with basic information about benefit amounts, payment locations, payment dates, and requirements to collect payments.
- Ensure access by people with mobility constraints.

**BOX 7: TIPS FOR THE PRACTITIONER:
SETTING BENEFIT LEVELS**

- Use criteria that reflect how households earn their livings.
- Weigh transaction costs and access to markets and essential goods in choosing between in-kind and cash benefits.
- Develop options based on the availability of funding and the number of potential beneficiaries to be served.
- Establish benefits that complement or supplement existing social assistance benefits.
- Set triggers for phasing benefits in and out.
- As part of disaster preparedness plans, develop guidelines that drive the allocation of resources.

Source: Del Ninno, Subbarao, and Quintana forthcoming.

The ability to scale up social protection programming depends on the capacity on the ground to deliver assistance rapidly. Response teams and related mechanisms must be in place to conduct rapid damage assessments and to establish temporary registration/information centers to enroll beneficiaries for benefits or temporary employment opportunities. Mexico's PETi and Pakistan's Citizen Damage Compensation Programme rely on mobile local information centers to enroll beneficiaries, make payments, and hear grievances (see case studies).

Adapting benefits and benefit transfer mechanisms to disaster response is key to meeting needs. As with regular social protection programming, benefit transfer systems for disaster response need to distribute benefits to the targeted population in a predictable and transparent manner, using a reliable payment mechanism (box 6). The types and levels of benefits provided need to be sufficient to meet basic needs and prevent households from resorting to negative coping strategies while they reestablish their livelihoods (Harvey and Bailey 2011) (box 7).

The initial phase of a disaster response program often requires some experimentation, monitoring, and adjustment, even where parameters for benefits already exist. For example, to avoid disrupting the incomes of household

participating in its public works window, Bangladesh's Chars Livelihood Programme put in place a temporary cash advance against future wages in flood-affected areas in which the start of works projects was delayed. The initiative proved to be very effective in smoothing consumption and became an intervention option of the program's disaster response mechanism.

Good design practice points to setting benefits at a level that ensures subsistence but does not discourage work or contribute to post-disaster inflation (box 8). Large sums—such as payments triggered by the loss of a house or property—should be made as lump-sum payments, keeping in mind security considerations, particularly for households headed by women, elderly people, or people with disabilities. Successful examples also highlight the importance of flexibility: benefits under existing social assistance schemes should be adjustable as part of disaster response.

High- and low-technology options for providing benefits have been used with success. The key is to use the most cost-effective option given a country's institutional capacity and the target populations' access to technology.

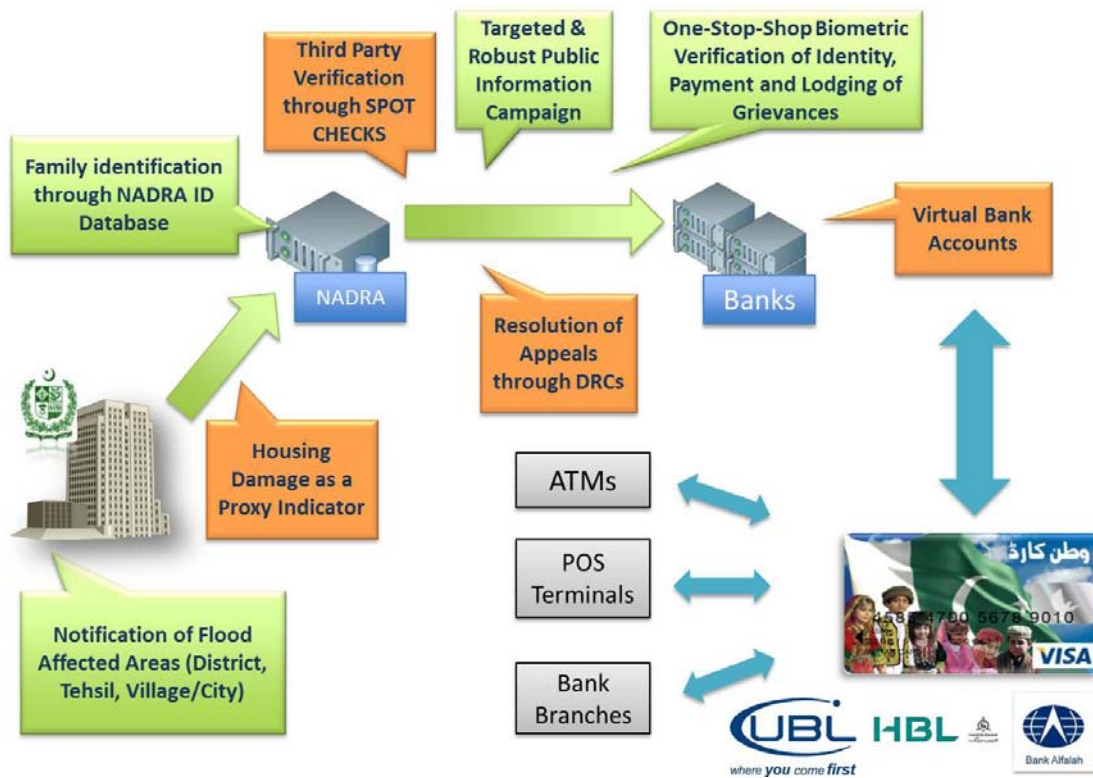
In Pakistan's Citizen's Damage Compensation Program, three commercial banks were selected based on their experience with disasters and internally displaced people, the coverage of their branch networks,

“ High- and low-technology for providing benefits have been used with success. The key is to use the most cost-effective option given a country's institutional capacity and the target populations' access to technology. ”

**BOX 8: BENEFIT LEVELS UNDER
MEXICO'S EMERGENCY WINDOW**

Mexico's Programa de Empleo Temporal (PET) sets benefit levels slightly below market wages for unskilled labor (at 99 percent of the wage level), at a rate of 60 pesos (\$4.50) a day. It also limits the number of days an individual can work per year. When responding to a disaster, however, implementing ministries have the flexibility to adjust the number of days each beneficiary is entitled to work, the length of the work day, and hence the total benefit per household. Beneficiaries can work as long as the state of emergency is in place (up to three or four months in some instances).

FIGURE 7: DISBURSEMENT OF FUNDS IN PAKISTAN'S CITIZEN DAMAGE COMPENSATION PROGRAMME



and their ability to facilitate payments through points of sale in various provinces (figure 7). Where branches were not conveniently located, banks set up 101 payment desks—called Watan Card Facilitation Centres (WCFCs)—within program registration and payment centers. More than 2 million households received payments through payment centers, points of sale, and the commercial branch network. Very low levels of fraud have been associated with the program. These payment mechanisms evolved over time and were adjusted based on beneficiary satisfaction, ease of access, and fraud-prevention considerations.

In its initial phase, Bangladesh's Chars Livelihood Programme made payments to its beneficiaries through a network of NGO partners called implementing organizations (IMOs). Payments were made through points of sale at particular locations on specific days.

A lower-technology option that has worked well is the use of direct payments (in-kind or cash) to beneficiaries through local government structures or implementing agency structures based on a computerized payroll and attendance sheet system. This system is relevant for cash-for-work and noncash transfer programs. In Ethiopia, for example, the Productive Safety Net Program makes monthly cash payments to beneficiaries. Funds are transferred from the Ministry of Finance directly to *woreda* (district) bank accounts. Payments are made at several key locations to

all community members at the same time. Beneficiaries are paid against confirmed attendance by checking the master attendance sheet and payroll sheets. Payment predictability still seems to be a challenge, however, although improvements have occurred (Berhane, Sabates-Wheeler, and Tefera 2011). Food transfers follow established food management system and emergency response processes of the government, the World Food Programme, and NGO systems.

Mexico's PET program uses an array of payment mechanisms to respond to the needs and circumstances of its clients. On average, emergency payments are disbursed to beneficiaries within five working days after a disaster has been declared in an area. The disbursements are made in cash through Telecomm, the telecommunications agency, under the Ministry of Communications and Transportation, which has a network of cash disbursement facilities around the country. Where fixed facilities do not exist or conditions make it difficult for beneficiaries to reach a cash disbursement center, it sometimes uses mobile facilities. Small amounts of cash are generally disbursed directly from central offices to communities, with payments made through community committees. In areas with better connectivity and where a larger number of beneficiaries are involved, cash disbursements are made through commercial banks or Telecomm.

Design Feature 3: Targeting Households That Are Most Vulnerable to Natural Disasters and Climate Change-Related Risks

In regular social protection programming, beneficiaries are often selected based on some predefined criteria. Categorical targeting may be used to reach one group and income poverty to target another. When a disaster or climate shock occurs, it is likely that a different or larger set of people will be affected. Flexible systems must be built that can respond to this increased and differentiated demand.

Simply targeting the poor does not ensure that people who are most vulnerable to disaster and climate shocks are covered. Incorporating other specific criteria can significantly increase the effectiveness of programs in protecting and augmenting the income and assets of poor households.

A combination of targeting strategies should be used.³ The key is to develop criteria that are verifiable and measurable and that complement and reinforce other criteria. Some options include the following:

- Geographic targeting of high-exposure areas (ex ante) or areas that have been affected by disaster/climate impacts (ex post)
- Categorical targeting (for example, targeting of particular categories at risk, such as children, elderly people, people with disabilities, or people vulnerable to disaster/climate)
- Poverty-based targeting, whereby measures of changes to welfare as a result of disaster- or climate-related shocks complement easily identifiable welfare measures such as housing location and quality and assets
- Self-targeting, where individuals or households decide whether to participate (for example, setting wages at or below market rates in an emergency/rehabilitation public works program)
- Community-based targeting, where community selects the beneficiaries based on its own disaster and climate vulnerability criteria.

Application of these methods will vary according to the context (box 9). The method used will depend on

whether the social protection program provides a shorter-term response to a major disaster (in which trade-offs have to be made between the speed, accuracy, and cost of using different targeting mechanisms in order to reach the most vulnerable among the affected population in a timely way) or longer-term activities to reduce or mitigate vulnerabilities.

In disaster response, geographic targeting is an option in areas where damage is extensive and most households are affected. In areas where the affected population is dispersed, and in places where pockets of poverty or vulnerability co-exist with relatively well-off populations, geographic targeting needs to be combined with other methods, such as categorical or poverty targeting. Self-targeting of beneficiaries, usually done in public works programs, may need to be combined with categorical targeting measures to ensure that certain vulnerable groups are not left out. As the response progresses, and the availability and quality of information improves, beneficiary targeting can be further refined.

In long-term risk reduction interventions, selection criteria can be identified by analyzing the vulnerability to natural disasters and climate change risks. The analysis should be carried out as a component of poverty and risk assessments, including the community-level analysis of disaster and climate

vulnerability. Assessments should include the underlying structural issues that contribute to inequality, poverty, and vulnerability. Risk analysis also needs to be regularly updated, because disaster and climate change vulnerability or resilience will change over time, possibly requiring adjustments in targeting over the life of a program. Area- and household-level data on exposure to natural hazards are needed to distinguish transitory from chronic poverty in places where crises are likely to occur.

The development of targeting selection criteria and indicators needs to take into consideration not only longer-term measures of household poverty but also household losses or potential losses as a result of a shock. Methods such as proxy means testing—which use a set of easily identifiable indicators such as a household’s location, housing quality, and asset holdings to develop a score—need to be supplemented with measures of rapid changes in welfare as a result of disaster or climate shocks. These measures of household vulnerability can be incorporated into a proxy means test to measure transitory need.

“ A combination of targeting strategies should be used. The key is to develop criteria that are verifiable and measurable. ”

³ This section is adapted from Grosh and others (2008).

BOX 9: EXAMPLES OF DISASTER- AND CLIMATE-SENSITIVE CRITERIA FOR TARGETING BENEFICIARIES

- Bangladesh's Char Livelihoods Project (CLP): Only poor communities living on fluvial islands (chars), which are highly vulnerable to flooding and climate change impacts, are eligible for CLP support.
- Ethiopia's Productive Safety Net Program (PSNP): The PSNP covers geographic regions and districts that are chronically food insecure because they are highly climate vulnerable, usually as a result of droughts. Chronic food insecurity is defined as a food gap of three months or more and receipt of food aid for three consecutive years. The PSNP also includes a household-level criterion that looks at severe asset loss over time. This criterion is sensitive to the cumulative effect of both disaster and economic shocks.
- Mexico's Temporary Employment Program (PET): Municipalities with high average rainfall and rugged

topography are prioritized for hazard-resistant road construction; municipal drought-related climate indexes are used as targeting criteria for fire mitigation and watershed protection activities under a specific disaster risk management component. When a disaster occurs, geographical targeting is the first level of beneficiary selection. Participation is limited mainly to households residing in municipalities declared to be in a state of emergency. Since 2009, housing damage surveys have been used as a proxy for loss of livelihood (that is, as a basis for determining temporary income support needs and indirectly contributing toward home reconstruction costs). Houses identified as damaged are targeted for follow-on engineering assessments by the relevant agency.



Community participation is an essential element of effective beneficiary targeting systems. Even in rapid-onset disasters, which are initially characterized by chaos, it should be possible to conduct qualitative consultations with a cross-section of affected stakeholders.



The first (relief) phase of the Pakistan Citizen Damage Compensation Programme (September 2010–June 2011) relied on a mix of geographical targeting and assessments of community-level housing damage and/or crop loss (used as proxies for livelihoods losses) to determine eligibility for a one-time cash transfer payment. The exact method used varied by province. This approach allowed for the quick mobilization of the program, but it inevitably missed some households and did not allow for vulnerability targeting.

For the second (recovery) phase (June 2011–June 2013), housing damage was combined with refinements to the beneficiary targeting mechanism to screen out the better-off and to include the most vulnerable flood-affected families. The vulnerability characteristics of flood-affected families were profiled by analyzing a random sample from the flood registration database and linking it with information on gender, disability, and educational levels in the national civil registration database. This process was facilitated by the use of Pakistan's National Database Registration Authority (NADRA) to administer both databases and NADRA's efforts to include potential beneficiaries on the civil registry who were not already on it. The inclusion strategy resulted in increased coverage of households headed by women and

people with disabilities, which represented more than 14 percent of household enrolled in Phase I.

Existing beneficiary registration and management information systems for social protection programs can facilitate vulnerability targeting for large-scale disaster responses. In locations subject to high-frequency extreme climactic events, such as recurrent floods and droughts, the development and regular updating of computerized beneficiary lists through existing social protection programs (including those created for previous disaster responses) can quickly provide information to target relief support in the immediate aftermath of a disaster. Such lists may also help in the development of targeting strategies for low-frequency disasters, such as major earthquakes and volcanic eruptions. Vulnerability targeting can be expedited or facilitated if the disaster response registration databases are linked to existing national civil registries, poverty databases, or social protection databases.

Community participation is an essential element of effective beneficiary targeting systems. Even in rapid-onset disasters, which are initially characterized by chaos, it should be possible to conduct qualitative consultations with a cross-section of affected stakeholders. The use of

BOX 10: MONITORING BENEFICIARY SELECTION IN BANGLADESH'S CHARS LIVELIHOODS PROGRAM

The beneficiary selection process for the Chars Livelihoods Programme (CLP) in Bangladesh is carried out by the staff of up to 21 local nongovernmental organizations (NGOs) and implementing organizations (IMOs). The CLP's Management Secretariat, which is run by an international firm engaged by the program's bilateral donors, verifies beneficiaries. Teams of staff revisit and reinterview 3–5 percent of households to confirm their eligibility. If the inclusion or exclusion error rate exceeds 5 percent, the IMOs repeat the selection process.

Extensive exclusion errors were identified through this process after the first round of beneficiary selection during the project's first phase (2004–10). Although the IMOs followed the CLP's selection criteria, the households identified tended to be younger and healthier than average, with most headed by working men. The IMOs may have believed that these households had the greatest potential to make use of the productive assets provided

through the program, to become future customers in IMO microcredit programs, or to repay existing loans.

The verification process required about 450 days of Secretariat input over four CLP-1 selection rounds. However, it demonstrated to the IMOs that CLP management was serious. The fact that redoing the selection process entailed substantial costs for IMOs discouraged attempts to overestimate participant numbers and significantly reduced targeting errors. No IMO had to repeat the selection process more than once, and the selection standards remained consistently high after the lengthy revisions that took place during the early stages of project's first phase. The exclusion error rate in the first intake of the second phase was only 0.4 percent, and a 2011 CLP poverty assessment found less than 1 percent of eligible households were missed as a result of exclusion error.

trained community facilitation teams has been found to be one of the most cost-effective investments an agency can make, saving time and money that is often otherwise spent resolving confusion and tension (BBC Media Action 2012).

Independent third-party verification of beneficiaries helps to discourage selection biases and to detect gaps in coverage. Such verification is important to reduce inclusion and exclusion errors. Another good practice followed by a number of programs to reduce errors is the periodic monitoring and reassessment of beneficiary targeting processes and outcomes, as well as the evaluation of the performance of targeting mechanisms (box 10).

Finally, a robust targeting grievance mechanism has to be put in place or adapted to cope with the likely high volume of complaints needing to be resolved over a compressed time period in a post-disaster context.

Design Feature 4: Ensuring Good Governance and Accountability

Adequate accountability and governance mechanisms are crucial to inspiring trust in and establishing the credibility of any social protection initiative. Such mechanisms are particularly important in a post-disaster context, where

the risk of fraud, malpractice, and corruption is heightened.

Several steps can promote accountability and good governance in disaster- and climate change-responsive social protection programming:

- *Ensure effective participation in decision making by communities and vulnerable groups.* Program planners

need to understand the limitations and constraints that prevent vulnerable groups from participating in or accessing the program and devise measures to overcome them, using communication approaches, methods, and tools that work

most effectively in particular settings (for example, rural versus urban). Often, additional resources will need to be mobilized at the community level to ensure adequate outreach. A beneficiary survey of the Ethiopia Productive Safety Nets Programme (PSNP) found that levels of satisfaction with the program were highest (90 percent) among households that felt they had received enough information to understand how the program worked; satisfaction among people who reported not having received enough information was lower (75 percent). The PSNP gradually introduced communication measures at local levels, posting lists of beneficiaries, appeals, and appeal resolutions, along with its social safety net and public works plans for public review.

“ Adequate accountability and governance mechanisms are crucial to inspiring trust in and establishing the credibility of any social protection initiative. ”

- *Establish good two-way communications and feedback mechanisms.* The development of two-way communication systems between disaster response programs and beneficiaries is a proven way of reducing conflicts over the distribution of benefits, diminishing frustration, combating corruption and abuse of aid, and identifying people who may have been missed in beneficiary selection processes (IFRC 2012). The establishment of feedback mechanisms, for both program beneficiaries and the broader affected population, is essential. Such mechanisms can include radio talkback segments, phone hotlines, mobile information services on market days, SMS/Twitter/online feeds, beneficiary satisfaction surveys, and many other channels. NADRA, the main technical agency executing Pakistan's Citizen Damage Compensation Programme (CDCP), publishes eligibility criteria and beneficiary lists on its Website and posts basic hard copy notices in villages. It also uses an extensive SMS enquiry and response system (box 11). Program implementing agencies have engaged community-based organizations and other local institutions, such as councils of elders, in the grievance redress and communication/outreach processes.

For its emergency operation in Aceh Province following the 2004 tsunami, Indonesia's Kecamatan Development Program (now the National Program for Community Empowerment) recruited 28 subdistrict information facilitators to supplement its network of village technical and empowerment facilitators. The responsibilities of the information facilitators covered most aspects of gender-disaggregated data collection, information sharing, and communication with stakeholders and external partners (NGOs, donors, and others). The facilitators were also responsible for disseminating information about the program to local stakeholders, documenting program activities, and interacting with the media. They contributed to the high level of participation of villagers at all stages of the relief and recovery process, an important factor in its success (World Bank 2009).

- *Manage fiduciary risks.* Disaster preparedness plans should include emergency guidelines that simplify or modify existing financial management and procurement procedures and emphasize internal and external communication on program guidelines. Each implementing agency should regularly report its activities and expenditures to an administrative unit. Independent auditors should be used and spot checks conducted to verify adherence to program guidelines. It is also important to create mobile capacity or personnel, in the form of roving teams that can be deployed quickly to verify accounts and facilitate disbursements.

In Pakistan, financial management and audit procedures aim to maximize the transparency of the Citizen Damage Compensation Programme. An operational manual, approved by a high-level oversight body, defines program and financial management and audit guidelines, including arrangements and procedures on controlling the flow of funds. The program is audited internally by the government and externally by independent auditors. Help desks and telephone hotlines are used to gather beneficiary feedback on fraud and corruption. A rapid evaluation of the first phase of the program found low levels of fraud.

- *Measure outcomes and impact, and use the findings to inform operations.* Progress and outcomes are often difficult to track, because the results of preventive actions, such as building an earthquake-proofed clinic or a seawall, may not be witnessed during the lifetime of the project if a hazard event does not occur. The time and capacity pressures posed by a major emergency response may lead practitioners to place a low priority on monitoring and evaluation (M&E), missing opportunities to document the contribution of the program.

Early integration of disaster and climate change-sensitive criteria into social protection M&E plans, programs, and budgets allows for the more effective capture of information, such as the use of proxy indicators to measure the reduction of risk exposure. In post-disaster contexts, M&E systems have also been

BOX 11: RECOGNIZING GENDER DIFFERENCES IN ACCESS TO COMMUNICATIONS

A recovery needs assessment conducted by the International Federation of Red Cross and Red Crescent Societies (IFRC) following the 2010 floods in Pakistan found that cell phone use was fairly widespread throughout the affected communities. However, it found distinct gender differences. In some provinces, men were more likely to possess a cell phone. In some rural

areas, socio-cultural differences also affected who used cell phones. The IFRC decided that direct face-to-face methods of communication would need to be used to reach women in some locations, in addition to SMS services for sending messages to beneficiaries about its assistance.

Source: IFRC 2010.

BOX 12: TIPS FOR THE PRACTITIONER: BUILDING AN M&E SYSTEM

1. Agree on performance outcomes, indicators, and realistic interim targets to monitor resilience and post-disaster response activities.
2. Gather baseline data on ex ante risks and ex post impacts, the people most vulnerable to them, and the coping/adaptation mechanisms of both beneficiary and nonbeneficiary groups.
3. Assess the capacity of the program to deliver on its objectives, including objectives related to disaster risk management/climate change adaptation (for example, building emergency response capacity).
4. Build and adequately resource a monitoring system that can be adjusted and expanded for post-disaster contexts as required (as part of a disaster preparedness or contingency plan, for example).
5. Report and disaggregate findings by age and gender.
6. Use findings to inform decision makers of any necessary adjustments to the design and implementation of activities.
7. Use findings to inform future social protection programming and share lessons learned.
8. Sustain the M&E system within the organization, including its capacity for post-disaster expansion.

Source: Adapted from Katich n.d.

used to provide rapid real-time feedback on the appropriateness and coverage of the response—identifying gaps, for example (box 12).

Design Feature 5: Increasing Adaptive Capacity at the Household and Community Level

Social protection programs should build the capacity of communities and households to cope with and adapt to future shocks. They can do so by strengthening communities' physical assets and supporting livelihoods in a manner that serves a long-term adaptive social protection function.

ENHANCING COMMUNITIES' PHYSICAL ASSETS

Enhancing communities' physical assets is key to reducing the risk of disaster and adapting to climate change. Programs can do in the following ways:

- helping build or rehabilitate hazard-proof infrastructure (strengthening embankments, roads, bridges, or gullies; hazard-proofing health clinics or classrooms)
- putting in place other structural mitigation measures (planting mangroves to protect coastal areas)
- encouraging environmental conservation and rehabilitation measures (conserving the soil through tree planting, bunds, area catchments, and fenced enclosures).

“Enhancing communities' physical assets is key to reducing the risk of disaster and adapting to climate change.”

Several public works programs have helped communities limit the impact of natural hazards and environmental degradation. In Ethiopia, programs have carried out soil and water conservation projects (box 13). In southern Malawi, they have built local irrigation (World Bank 2009).

Physical measures must be accompanied by non-structural risk reduction measures, such as conducting risk analysis of infrastructure plans and building projects; identifying the need to retrofit existing critical structures (for example, hospitals and schools) or protect key public assets (for example, land tenure records); and securing funding so that the institutions responsible are able to act (Pusch 2004).

As forms of support, public works programs are most useful during disasters, provided that the interventions have been planned and screened in advance for their social, environmental, and engineering feasibility (Kuriakose and others 2012) as well as their capacity to withstand

shocks and contribute to building resilience to them. Risk assessment and contingency planning are key, and local knowledge is crucial. People living in disaster-prone areas are usually aware of climate risks and often develop their own disaster survival techniques

and coping mechanisms. Indigenous knowledge and practices should be taken into account when designing these interventions (box 14).

BOX 13: INCREASING ADAPTIVE CAPACITY IN ETHIOPIA

The public works component of the Productive Safety Nets Program (PSNP) in Ethiopia contributes to social protection and builds climate resilience. It employs beneficiaries on labor-intensive projects for six months of the year to fill the food gap experienced during the lean period. This program helps farmers avoid distress sales and maintain a buffer against natural shocks. It also invests in community assets that help reverse the severe degradation of watersheds and provide more reliable water supply under different climatic conditions. Some 60 percent of the PSNP's public works subprojects are in soil and water conservation, strengthening both livelihoods and resistance to the impacts of variable rainfall.

An independent impact assessment conducted in 2008 (M.A Consulting Group 2009) reached the following conclusions:

- Soil and water conservation projects led to significant and visible increases in wood and herbaceous

vegetation cover and a broader diversity of plant species, increasing the supply of livestock feed, bee forage, and medicinal plants.

- Small-scale irrigation from water sources developed by the PSNP helped 4–12 percent of households expand livestock holdings and increase incomes by 4–25 percent, with even very small irrigated plots (190 square meters) estimated to be capable of generating gross margins of Br 4,200–6,000 (\$413–\$491) per year if double cropped.
- The construction of water conservation structures reduced surface run-off, increased infiltration, and raised groundwater levels, thereby enhancing spring yields and increasing stream base-flows. As a result, in several communities, springs now last longer into the dry season.

SUPPORTING VIABLE LIVELIHOODS AT THE HOUSEHOLD LEVEL

Diversifying livelihoods and income sources increases households' ability to withstand and cope with disasters and climate shocks. Households with diversified sources of income may be better able to cope with the effects of a drought if they have alternatives to agricultural incomes, for example. Households that lose their means of earning

a living during a disaster find their recovery from adverse effects more difficult and their vulnerability to future disasters increase. They are less likely to invest in structural disaster mitigation measures, which have a low priority in comparison to survival (Yodmani 2001). These households are also less willing to take risks, thus remaining locked in strategies that keep them impoverished. In the Philippines, for example, marginal farmers often continue cultivating lower-yielding rice varieties, which are more hazard tolerant, reducing the risk of total crop failure but also limiting potential earnings (ESCAP and UNISDR 2010).

Social protection programs can help reduce the vulnerability of the poor to disasters both by helping them cope better with shocks in the short run and by increasing their resilience in the long run by allowing them to increase their incomes, diversify their assets and livelihoods, and take more productive risks. Cash transfers and public works can help poor households build an asset base and enhance their human capital.

Several other instruments also hold potential to help households build sustainable livelihoods. Crop and livestock insurance allow farmers to take greater risks and experiment with new climate resilient agricultural varieties that would not be possible with traditional crop insurance schemes (box 15). Asset restocking—such as raising poultry in flood-prone areas or camels in drought-prone areas—can increase incomes and climate resilience. Training and business development support for off-farm activities and

BOX 14: DRAWING ON COMMUNITIES TO INCREASE RESILIENCE IN MALAWI

The Nkhokwe Forestation subproject of the Malawi Social Action Fund (MASAF III) established a community-level forest management committee and raised local people's awareness of the need to develop the forest as an alternative income source and a way to recharge the groundwater. The planted forest becomes the community's common asset, and the income from the forest is used to develop a community credit system with the help of the community savings and investment component of the project. The forestation project also helps local communities produce fertilizer through compost, reducing dependence on commercial fertilizer (World Bank 2009).

Source: World Bank 2009.

BOX 15: BUILDING CLIMATE RESILIENCE IN ETHIOPIA THROUGH INSURANCE-FOR-WORK

Ethiopia's Horn of Africa Risk Transfer for Adaptation (HARITA) program (recently renamed the R4 Rural Resilience Initiative) is an innovative model that integrates demand-based disaster microinsurance for the poor into a social safety net program, enhancing both its climate-related and social protection benefits. The initiative began in 2007, as an agricultural risk management program to enable poor smallholders in the drought-prone region of Tigray to strengthen their food and income security through a combination of improved resource management, affordable disaster insurance, and microcredit. Oxfam America and the Relief Society of Tigray (REST) worked closely with the government of Ethiopia to build an insurance-for-work scheme into the Tigray operations of the Productive Safety Net Programme (PSNP). The scheme gives poor farmers the option of working to pay for insurance cover through the PSNP on small-scale community-identified projects that build climate resilience and agricultural productivity, such as improved irrigation or soil management.

Automatic insurance payouts to farmers are triggered if rainfall drops below a predetermined threshold.

The payments enable farmers to afford the seeds and inputs necessary to plant the following season and protect them from having to sell off productive assets to survive. The model also facilitates farmers' access to credit for the purchase of productive assets through the program's partnership with a microfinance institution, using the insurance as collateral.

In 2010 in the village of Awet Bikalsi, yields on teff (an annual grass) were 57 percent higher among farmers who bought insurance. In all villages, farmers who purchased insurance planted more seeds and seemed to be switching to high-yielding variety seeds at higher rates than did farmers who did not buy insurance. They were also using more compost. In addition, farmers who bought insurance tended to invest less family labor in agriculture and to diversify their sources of income more than farmers who did not purchase insurance. They also experienced smaller losses of livestock. More farmers who bought insurance for the second time reported that they expect to plant different crops, use more fertilizer, and obtain loans (Oxfam America 2011).

diversification into rural enterprises have the potential to diversify livelihoods and create viable business alternatives. A key challenge is identifying the right level and mix of instruments to encourage healthy risk-taking behavior and

diversification of livelihoods. Social protection that explicitly supports livelihoods needs to be carefully designed to ensure that it serves a long term, adaptive function.

Conclusions

Policy makers and practitioners in client countries are increasingly realizing that climate change and the growing frequency and unpredictability of disasters will translate into mounting challenges for poverty reduction. International experience suggests that long-term sustained solutions require collaboration across the disaster risk management, climate change, and social protection disciplines. From a social protection standpoint, effective response to disasters and climate change will be possible if the programs that are best positioned to play a role are prepared to respond, and the challenges of design,

scalability, coordination, and flexibility are addressed.

This toolkit offers a snapshot of good practice experiences and practical tips to practitioners. In-depth Guidance Notes on particular aspects of adapting social protection programs to disasters and climate change are available at www.worldbank.org/sp; each providing a list of additional resources. Through these tools, and through iterative collaborative processes based on specific contexts, social protection programs can prepare and respond to the challenges raised by natural disasters and climate change.



Appendix A: Country Case Study Briefs

The country case studies were prepared in 2012 and 2013 in collaboration with the implementing and funding agencies. They represent successful examples of adaptation of social protection programs in preparation for or response to disasters and severe climate events. The full cases studies are available at www.worldbank.org/sp.

Bangladesh's Char Livelihoods Programme

The Chars Livelihoods Programme (CLP) is a large regional social protection and poverty reduction program that aims to secure and promote livelihood opportunities while strengthening the resilience of the target population to natural shocks and climate variability. The program works with extremely poor households located on fluvial islands (*chars*) in northwest Bangladesh, who are particularly vulnerable to annual seasonal flooding as well as random extreme flooding events. The program benefited more than 900,000 people during its first phase (2004–10). A second phase (2010–16) is targeting assistance to more than 1 million people.

The CLP uses a combination of public works, asset transfers (cash and in-kind), livelihoods-related training, market development, and social development activities to achieve its aims. Its key disaster/climate resilience features include public works that reduce the risk of flooding, innovative social safety net mechanisms that cushion the program's beneficiaries against disaster impacts, post-disaster relief and recovery support to protect and restore the assets and income built up through the program, and direct measurement of climate resilience outcomes in its monitoring and evaluation systems. These initiatives have been closely integrated into the program's broader livelihoods and social protection focus, creating strong synergies and mutually reinforcing benefits between these areas. (For more information on the program, see <http://www.clp-bangladesh.org/>).

Ethiopia's Horn of Africa Risk Transfer for Adaptation Program

The Horn of Africa Risk Transfer for Adaptation Program (HARITA)/Rural Resilience Initiative (R4) contributes to the food security objectives of the Productive Safety Net

Program (PSNP) by supporting public works that increase resilience to climate-related shocks and protecting its beneficiaries' assets and income from low-frequency but severe recurrent disaster impacts (mainly droughts). The insurance scheme made its first pay-outs to clients following a major drought in 2011. Based on promising results, it is being scaled up in Ethiopia and expanded into Senegal, under the direction of Oxfam America and the World Food Programme. (For more information on the program, see <http://www.oxfamamerica.org/issues/insurance>.)

Ethiopia's Productive Safety Nets Programme

The Productive Safety Nets Programme (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 targets a highly climate-vulnerable population, offering a practical model of how social safety nets can be designed to meet the social protection needs of the most vulnerable while simultaneously reducing the risks from disaster- and climate-related impacts.

The PSNP incorporates a number of interesting features, including public works activities geared toward improving climate resiliency; 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 obtain the full benefits of consumption smoothing and asset protection. The program works through and strengthens existing government institutional systems at all levels rather than creating separate systems.

The PSNP entitles poor households to a secure, regular, predictable government transfer; protects them against the impacts of natural disasters; and significantly improves the management of the natural environment that contributes to these risks. It has enabled core beneficiaries to meet consumption needs, mitigate risks, and avoid selling productive assets during crises. There is evidence that livelihoods are stabilizing and food insecurity is being reduced among these households. (For more information on the program, see <http://www.worldbank.org/en/country/ethiopia/projects>.)

Mexico's Programa de Empleo Temporal

Mexico's Temporary Employment Program (Programa de Empleo Temporal [PET]) is a social safety net program in a middle-income country that has integrated disaster risk management and climate change adaptation into its operations. It provides temporary employment opportunities on public works projects to people in marginalized communities with high unemployment levels and people whose livelihoods have been affected by natural disasters or other systemic crises.

The program has developed a highly collaborative and formalized institutional relationship between social protection, disaster management, and sectoral agencies. It has created a quick and efficient disaster response mechanism and contingency fund, incorporated disaster and climate sensitive targeting criteria into sectoral public works programs, and established a payment system that recognizes the mobility constraints of some beneficiaries. (For more information on the program, see http://www.sedesol.gob.mx/es/SEDESOL/Empleo_Temporal_PET.)

Pakistan's Citizen Damage Compensation Programme

Following severe floods in 2010, the government of Pakistan put in place a temporary nationwide social safety net program that reached an estimated 8 million people affected by floods. The program led to the development of a social safety net disaster preparedness action plan by the government.

The program's approach allowed for its rapid establishment and expansion over a wide geographic area. Its efficient beneficiary registration and payment distribution system was created in partnership with commercial banks and linked to the national civil registry. Coordination among 19 partners at the national, provincial, and local levels was largely achieved. (For more information on the program, see <http://cdcp.nadra.gov.pk/>.)

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Additional Resources

Adaptive Social Protection Group, Institute for Development Studies

<http://www.ids.ac.uk/project/adaptive-social-protection>

Explores and highlights the benefits of an interlinked approach to risk reduction and resilience building in rural areas of developing countries. Uses evidence from social protection, climate change adaptation, and disaster risk reduction to help governments, practitioners, and development agencies reduce poor people's vulnerability to the impacts of climate change and other shocks.

Cash Learning Partnership

<http://www.cashlearning.org/>

Formed by a consortium of five international nongovernmental organizations. Supports capacity building, research, and information-sharing on cash transfer programming as a tool for delivering aid in times of crisis.

Global Facility for Disaster Risk Reduction

<https://www.gfdr.org/>

Partnership of 41 countries and 8 international organizations committed to helping developing countries reduce their vulnerability to natural hazards and adapt to climate change by mainstreaming disaster risk reduction and climate change adaptation in country development strategies. Coordinates damage, loss, and needs assessment (<https://www.gfdr.org/track-iii-ta-tools>).

Prevention Web

<http://www.preventionweb.net>

Serves the information needs of professionals working on disaster risk reduction by developing information exchange tools that facilitate collaboration. Provides information on the design and development of the project, as well as background documentation and descriptions of some services that have been put in place

Social Resilience and Climate Change Group, World Bank

<http://worldbank.org/socialresilience>

Focuses on the equity dimensions of climate change, including the distributional, poverty, and social consequences of climate variability and change and of policies and approaches to addressing the effects of climate change.

United Nations Office for Disaster Risk Reduction

<http://www.unisdr.org/>

Serves as the UN system's focal point for coordinating disaster reduction and creating synergies among disaster reduction activities.

USAID Resilience Group

<http://www.usaid.gov/resilience>

Supports building resilience to recurrent crises in support of country-led plans and in partnership with the international community.

World Bank Climate Change

<http://climatechange.worldbank.org/>

Brings together resources from several areas of the World Bank that focus on climate change mitigation and adaptation.

World Bank East Asia and Pacific Disaster Risk Management

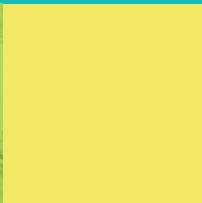
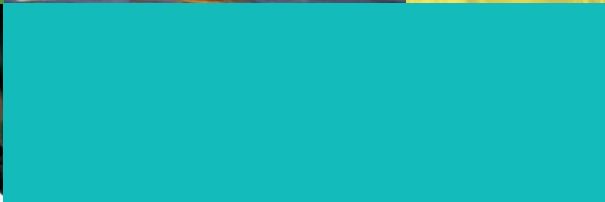
www.worldbank.org/eapdisasters

Building on the success of the first 17 notes, prepared in 2008 in response to a request from the Chinese government, the disaster risk management team continues to publish new notes that consider different sectors and topics (<http://go.worldbank.org/IQ7BMLMO50>).

World Bank, Making Women's Voices Count: Integrating Gender Issues in Disaster Risk Management in East Asia and Pacific

<http://go.worldbank.org/HA7P1NF0Q0>

Series of five Guidance Notes on integrating gender issues in disaster risk management, designed to help Task Teams design and implement gender dimensions in disaster risk management work in the East Asia and Pacific Region.



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