Monitoring and Evaluating Social Protection Programs’ Efforts to Respond to Natural Disasters and Climate Change–related Shocks

This Guidance Note outlines how to monitor and evaluate social protection programs’ efforts to reduce the risks from disasters and climate change and to respond to disasters once they occur. It assumes general knowledge of how to design and implement monitoring and evaluation systems and processes.

Why Is It Important to Monitor and Evaluate Disaster- and Climate Shock–sensitive Components of Social Protection Programs?

Monitoring and Evaluation is essential to achieving successful development outcomes. It can facilitate the implementation and achievement of project goals.

Most development organizations require that monitoring and evaluation activities be incorporated into all operations in order to assess progress toward key objectives and outcomes, identify program errors, determine if the design and implementation approaches being utilized are appropriate, and ensure transparency and accountability. The Development Assistance Committee of the Organization for Economic Co-operation and Development recommends that projects be assessed for their relevance, effectiveness, efficiency, impact, and sustainability.

Tracking progress and outcomes in social protection that aim to reduce the risk of disaster, facilitate adaption to climate change, or respond to catastrophic events is often difficult, because the benefits of preventive actions, such as building an earthquake-proofed clinic or a seawall, may not be witnessed 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, missing opportunities to document the contribution of the program. Emergency and recovery loans often suffer from a lack of clarity and specificity in their project development objectives, making them difficult to accurately monitor (World Bank 2011).
Early integration of disaster risk management/climate change adaptation criteria into social protection programs’ monitoring and evaluation plans, systems, and budgets allows for more effective capture of necessary information, including proxy indicators to measure the reduction of risk exposure. Organizations such as the Active Learning Network for Accountability and Performance in Humanitarian Action (ALNAP) have documented international experience in developing monitoring and evaluation systems that measure disaster risk management and climate change adaptation. Monitoring and evaluation systems have also been used after disasters to provide rapid real-time feedback on the appropriateness and coverage of the response, so that adjustments can be made.

**Key Elements of a Monitoring and Evaluation System**

Disaster risk management/climate change adaptation activities are expected to contribute to two fundamental objectives of social protection. Before disaster hits, they aim to reduce and mitigate the risks associated with disaster- and climate-related hazards by reducing poverty, increasing resilience, and promoting opportunities and livelihoods both before and after disasters strike. These objectives are part of the prevention and promotion functions of social protection. After disaster hits, they aim to protect poor and vulnerable households and help them cope with their impacts, through relief activities and recovery and reconstruction interventions. These objectives are part of the protection function of social protection programs.

The following steps can make social protection monitoring and evaluation systems and processes disaster and climate sensitive (adapted from Kaitch).

**Step 1: Select Performance Outcomes, Outputs, Indicators, and Interim Targets**

The vulnerability and resilience of households and communities change over time. Social protection programs need to be able to capture these changes and adjust performance measurement systems as needed. Some indicators may have to be modified and new ones may emerge. It is therefore important to build some flexibility into the monitoring and evaluation plan.

All monitoring and evaluation plans should include both quantitative and qualitative methodologies. Participatory and ongoing community-based monitoring is essential for picking up important changes over time.
Risk Reduction and Mitigation (ex ante measures)

Outcomes, outputs, and indicators should measure the extent to which activities help beneficiaries reduce the risks from disasters and adapt to climate change, increase household and community resilience, and contribute to broader social protection or poverty reduction objectives. Examples include improving the diversity and sustainability of livelihood assets, improving infrastructure that builds resilience to shocks (such as irrigation schemes), increasing and improving institutional capacities, and ensuring social inclusiveness in the distribution of benefits. Box 1 illustrates how Bangladesh’s Chars Livelihoods Program has achieved these goals.¹

Box 1 Monitoring annual flooding in Bangladesh

The Chars Livelihoods Programme (CLP) aims to strengthen the resilience of extremely poor households living on alluvial flood plains (chars), which experience seasonal flooding. Protection from flood impacts is included in the program’s poverty graduation criteria, along with more traditional social protection measures such as sustained food consumption, a minimum asset base, nutritional status, and access to services. Key disaster and climate resilience activities include focusing public works on flood risk reduction by raising homesteads above past and projected high flood lines; creating safety net mechanisms that cushion beneficiaries from disaster impacts (by paying advances, for example); and providing postdisaster relief and recovery support to protect and restore the income and assets households build through the program.

The program integrates disaster- and climate shock–sensitive performance criteria in its MONITORING AND EVALUATION plan. It regularly reviews the impact of its emergency transfers on protecting livelihoods and the state of public works infrastructure after hazard events, and it conducted a study of the lifespan and occupancy status of raised homesteads.

A 2012 evaluation documented the value of the program’s disaster mitigation work:
- 95 percent of beneficiaries with raised homesteads were able to protect their assets during floods
- 18 percent of households with raised homesteads housed neighbors during the floods
- less than 5 percent of households with raised homesteads lost livestock
- the majority of latrines constructed through the program remained intact during the floods
- 84 percent of tube wells remained intact during the floods.

¹ The examples cited in this guidance note come from case studies compiled for the toolkit on Building Resilience to Disaster and Climate Change through Social Protection. The toolkit is available at www.worldbank.org/sp.
If direct measurement of change is not possible, proxy indicators can be used. One type of proxy is the quantity and quality of physical mitigation measures constructed (for example, “the number of people/hectares of land protected by strengthened and improved embankments”). Another is changes in awareness, attitudes, skills, and practices for risk reduction and climate adaptation, which may indicate the degree to which a community is prepared to respond to disaster.

**Risk Coping (ex post measures)**

In the wake of a disaster, social protection projects are well positioned to respond quickly to the needs of their regular beneficiaries and to take on additional beneficiaries.\(^2\) Outputs, outcomes, and indicators for disaster response need to be identified to measure the results. Possible indicators include the volume of distress sales of assets, new loans, and refinancing; food consumption; and the number of children who do not return to school. These indicators should be measured among both treatment and control groups to measure the effects of the intervention.

Ethiopia’s Productive Safety Net Program is a large national social safety net program that addresses chronic food insecurity among a highly climate-vulnerable population. It uses a variety of outcomes, outputs, and indicators to measure disaster risk management and resiliency to climate change (Table 1). The program includes a risk financing mechanism that responds to climate-related disasters as well as other transitory shocks.\(^3\)

**Table 1  Outcomes, Outputs, and Indicators for Risk Financing Mechanism in Ethiopia’s Productive Safety Net Program (PSNP)**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Objectively verifiable indicator</th>
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<tbody>
<tr>
<td>Goal</td>
<td>Livelihoods and lives protected from shocks in PSNP districts</td>
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<tr>
<td>Outcome</td>
<td>(Program’s own impact)</td>
</tr>
<tr>
<td>Transitory cash and food needs addressed effectively in PSNP districts, to the limit of risk financing resources</td>
<td>1. Consumption ensured and assets protected by existing PSNP beneficiaries, with rapid response team (RRT) 2. Consumption ensured and assets protected by non-PSNP beneficiaries receiving risk financing assistance, with RRT</td>
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</tbody>
</table>

\(^2\) See the guidance note on targeting in this toolkit for further discussion.  
\(^3\) Below-average rainfall triggers the mechanism, which provides temporary employment/income.
### Outputs

1. Accurate early warning of shocks achieved

2. Appropriate contingency plans ready when needed

3. Adequate contingent financing resources available where and when needed

4. Planned systems and processes for risk financing mechanism function effectively

5. Effective coordination with other financial and delivery instruments and actors achieved

<table>
<thead>
<tr>
<th>Outputs</th>
<th>1.1 Early warning issued within x weeks of first indication</th>
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<tbody>
<tr>
<td></td>
<td>1.2 Early warning messages balance triangulated data sources and resolve inconsistencies, with RRT</td>
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<td></td>
<td>1.3 Early warning message is accepted and agreed by State Minister for Disaster Reduction and Food Security</td>
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<td></td>
<td>1.4 Ex post evaluation of early warning shows acceptable accuracy</td>
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<td></td>
<td>2.1 Contingency plans for all PSNP districts submitted to Early Warning Response Department in July each year</td>
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<td></td>
<td>2.2 Contingency plans updated every 12 months, following feedback from regional and federal level</td>
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<td></td>
<td>2.3 Quality review process for contingency plans operates effectively</td>
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<td></td>
<td>3.1 Pooled fund is at intended level before shock</td>
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<tr>
<td></td>
<td>3.2 Agreements made with key donors on nature, timing, and scale of response to contingent appeal</td>
</tr>
<tr>
<td></td>
<td>3.3 Early warning system provides adequate early notice of scale, nature, location, and timing of resources needed</td>
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<td></td>
<td>3.4 National committee approves fund release as guided</td>
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<td></td>
<td>3.5 Performance standards for funds flows achieved at all levels</td>
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<td></td>
<td>3.6 Communication and coordination between key stakeholders on funding need, utilization, and problems is effective</td>
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<td></td>
<td>4.1 Early warning system functions according to performance standards</td>
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<td></td>
<td>4.2 Contingency plans meet quality standards</td>
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<td></td>
<td>4.3 Funding flows function according to performance standards</td>
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<td></td>
<td>4.4 Coordination meets performance standards</td>
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<td></td>
<td>4.5 Decision-making systems follow technical guidance</td>
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<td></td>
<td>4.6 Clear guidance for roles and responsibilities and response to transitory needs in PSNP districts followed by key actors</td>
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<td></td>
<td>4.7 Transitions between instruments and actors meet performance standards</td>
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<td></td>
<td>4.8 Staff capacity able to scale up as needed and meet performance standards</td>
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<td></td>
<td>4.9 Logistical capacity able to scale up as necessary and meet performance standards</td>
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<td></td>
<td>5.1 Shared policy and strategy framework agreed for transitory response in PSNP districts</td>
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<td></td>
<td>5.2 Guidelines for transitory response followed by key actors</td>
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<td></td>
<td>5.3 Joint planning for transitory response between actors</td>
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Step 2: Gather Baseline Data and Conduct a Post-disaster Needs Assessments

Measuring change requires baseline information that describes the state of affairs before the intervention. The objectives of the activity will inform the type of information required.

Risk Reduction and Mitigation

To measure the contribution of an intervention, it is first necessary to assess the current and projected risks in the project area, by assessing the frequency of occurrence of the hazard event and the severity of impacts, identifying the groups most vulnerable to their impacts, and evaluating the positive and negative coping mechanisms used to prevent or reduce these impacts. This analysis should be carried out as part of the overall poverty and risk assessment process (Box 2). It should form the baseline for the development of objectives, outcomes, outputs, and performance indicators within the overall monitoring and evaluation plan.

Box 2 Evolution of disaster risk management and climate change adaptation in a community-driven development program in the Philippines

Since 2002, the Philippines’ Comprehensive and Integrated Delivery of Social Services Program (KALAHI–CIDSS) has supported 5,645 subprojects, benefitting more than 1.26 million households. Many of the communities in which KALAHI–CIDSS works are vulnerable to natural disasters and climate-related impacts. Although some of these communities have identified and implemented disaster risk management subprojects, such as sea wall construction, no systematic approach was in place to analyze these risks across the program, raise awareness among communities and local government, or provide a range of programming options to build disaster and climate resilience.

In 2010, KALAHI–CIDSS engaged in a participatory consultation and planning process to integrate cost-effective disaster risk management/climate change adaptation initiatives into the program. Planning for the next phase of KALAHI–CIDSS built on the findings and recommendations of this process. The new design being developed will aim to ensure that men and women benefit equally from, and participate in, building community resilience to disaster- and climate-related impacts.

Risk Coping

Post-disaster assessments yield baseline information to inform social protection relief and recovery operations and allow their outcomes to be monitored. The government and humanitarian response agencies, including, if activated, the UN Cluster System, normally conduct preliminary disaster impact/relief needs assessments within days of a disaster. This assessment is sometimes followed by more robust assessments by the government or its donor partners.

Post-Disaster Needs Assessments (PDNAs) are government-led efforts, supported by bilateral and multilateral development partners. They are typically undertaken three to four weeks after a disaster. A PDNA uses two methodologies: the World Bank-led Damage and Loss Assessment (DaLA) methodology, which examines damage, losses, and needs for recovery and reconstruction of various sectors, and the United Nations-led Human Recovery Needs Assessment (HRNA) methodology, which assesses the impact of the disaster on human needs and development achievements.

A qualitative methodology called social impact analysis (SIA) has recently been introduced into the PDNA processes to provide insights into the social consequences of a disaster that are not easily observable but are important to the design of response and recovery projects (Box 3). This analysis assesses, among other things, community dynamics and social cohesion, exclusion of groups, and household-level challenges to livelihoods restoration (see bibliography for guidance notes on conducting an SIA). The information gathered from a PDNA and social impact analysis can form a baseline for identifying key social protection needs among the affected population and monitoring whether and how effectively these needs are met.

Box 3 Using social impact analysis to assess the effectiveness of social protection in Thailand

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4 The UN Inter-Agency Standing Committee cluster, or One Response system, is activated after major crises, including natural disasters, to help governments develop a coordinated and cohesive humanitarian response with UN agencies, international organizations, and local/international nongovernmental organizations (NGOs). The number of sectors and thematic areas covered depends on the context but can include health, education, water and sanitation, shelter, food security, and protection.

5 The DALA methodology and resources are available at https://www.gfdrr.org/Track-III-TA-Tools. The HRNA methodology is still under development.
During the 2011 floods in Thailand, a social impact analysis team was deployed with the Post-Disaster Needs Assessments team. For the first time, its findings were used to inform recommendations for post-disaster recovery actions by the social protection system. Integration of the social impact and social protection system analysis provided the basis for recommendations that responded to the difficulties many households were facing but which had escaped attention in the Damage and Loss Assessment (DaLA) process. Paring the two sets of recommendations, the team was able to identify existing mechanisms in the social protection system that could have been used to identify particularly vulnerable households (for example, pensioners and the poor) and channel resources to them. The recommendations suggested that pensions for the elderly and grants for poor households be doubled for three months in order to provide additional support until the floods abated; that livelihood interventions target women and not only men (as the first round of assistance had done); and that low-interest rate loans be made available to facilitate the repayment of high-interest, informal loans that had become a necessity for many low-income households.


**Step 3: Build the Monitoring and Evaluation System**

**Capacity Assessment and Preparedness**

Program staff and implementing partners need the skills, knowledge, and experience to design, deliver, and implement a monitoring and evaluation system that is sensitive to disaster risk management and climate change adaptation. Providing training, using specialist expertise on evaluations, and forming partnerships with disaster risk management/climate change adaptation organizations will help prepare teams to monitor the program and expand monitoring capacity to respond quickly to a disaster (Box 4). Necessary skills include the ability to conduct social analysis for post-disaster contexts, use participatory approaches, and understand both the social protection and the disaster and climate risk context.
Box 4 Training Indonesian officials in social research after the tsunami

To help them assess the ongoing impacts of the 2004 Asian tsunami in Aceh, Indonesia, the Aceh Community Assistance Research Project (ACARP) provided its evaluation team with a two-week training course on social research methodologies. The course covered basic concepts of quantitative and qualitative research and research techniques, practical skills in interviewing and research notation, rapid and participatory methods, and gender balance in research and reporting. Participants learned how to design and use questionnaires and conduct a range of research engagements, including focus group discussions, structured and semi-structured interviews, village histories, and data analysis.

*Source: ACARP 2007.*

It is important to have agreements in place with agencies or organizations with which the social protection program can partner (Box 5). Such partnerships allow a team to be deployed after a disaster that has a toolkit and relevant methodology in hand. Training staff and connecting with community development facilitators in advance can save time and increase the likelihood that all relevant questions are included and are sensitive to the needs of beneficiaries.

Box 5 Expanding community outreach in Pakistan after an earthquake

The Earthquake Relief, Rehabilitation and Reconstruction Program (E3RP) of Pakistan’s Poverty Alleviation Fund’s (PPAF) deployed 47 social mobilization teams in Azad Jammu Kashmir and 60 in North West Frontier Province. The teams played a critical role by carrying out damage assessments, inspiring social mobilization, providing training, and conducting quality control.

Each team was supposed to include an engineer and a male and female social organizer and be responsible for 800–1,000 households. In the event, some teams lacked adequate numbers of women, reducing the capacity of PPAF to work with vulnerable households, particularly households headed by women. Partner organizations did not appear to understand gender issues or housing design that met the needs of people with disabilities. The PPAF concluded that, in the future, it would be desirable to train and monitor partner organizations on vulnerability and gender issues.

Partnerships and Coordination

A variety of implementing partners, including different ministries, levels of government, and outside agencies, may be involved in monitoring and evaluation. Ensuring that all parties contribute to the ongoing needs of the monitoring and evaluation framework requires that responsibilities, lines of communication, and coordination be clear and agreed to by all parties. For instance, early warning systems are usually based in a government agency, such as the climate and meteorological service, which is typically responsible for weather and hazard monitoring. These services regularly produce information that is integral to the performance of disaster and climate-sensitive programs. They should be key stakeholders.

Coordination and information sharing are particularly important after disasters. Establishing shared protocols regarding who is responsible for what information is useful. In the United Nations’ cluster system, specific agencies are responsible for assessing and responding to needs in a particular sector. Existing data sources, such as pre-disaster baselines and social program monitoring information, should be shared with all post-disaster assessment teams.6

Methods and Instruments

A monitoring and evaluation plan guides ongoing assessment of progress. It should include both qualitative and quantitative methods, which can be used to manage project risks, control quality control, and measure overall performance. Existing social protection methodologies and tools can be used, with some modification to capture disaster risk management/climate change adaptation information. Such methodologies include participatory approaches, financial and technical audits, management information systems, social audits, and other beneficiary feedback methods, such as grievance and redress systems.

A Management Information System is an important tool for a range of issues, including targeting, beneficiary coverage, and fiduciary control. It can also be used to track disaster risk outcomes, identifying, for example, areas at high risk of

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6 For more information on coordination, see the guidance note on scalable and flexible programming in this toolkit.
disaster and climate exposure and their overlap with beneficiary coverage or poverty density.\(^7\)

The grievance and redress systems that are in place for normal operations should continue to be used in post-disaster contexts. However, they may need to be adjusted and streamlined to deal with the temporary surge in caseloads. Advance planning is needed to ensure that they can be scaled up quickly on demand.\(^8\) Grievance systems provide important information regarding program performance and are valuable for evaluations. Two-way communications with the public helps clarify program eligibility, objectives, and benefits. It is critical to the uptake and success of a program.\(^9\)

**Step 4: Evaluate Performance**

Performance assessment measures efficiency, effectiveness, and impact. To measure efficiency and effectiveness, it is important to cover the following dimensions:\(^{10}\)

- communications at multiple levels, including within the implementation team at the ground and higher up, with partnering organizations and with core and disaster-related beneficiary groups
- operations related to planned and unplanned responses, including readiness, the availability of resources for swift response, plans of action, and partnerships to maximize resources
- preparedness of the implementation team, program resources, and communities with which the program has been working (if preparedness activities had been taking place)
- targeting the most vulnerable households as well as providing an adequate level of benefits that meet the needs and priorities of beneficiaries (such as debt relief in addition to the meeting of immediate needs)
- monitoring and evaluation of the disaster event, including the accuracy of post-disaster assessments, to ensure that resources and assistance are appropriately distributed and to determine whether the monitoring and evaluation system contributed to corrective action.

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\(^7\) For more information, see the guidance note on targeting in this toolkit.

\(^8\) For more information, see the guidance note on flexibility in this toolkit.

\(^9\) For more information, see the guidance note on communications in the toolkit.

\(^{10}\) This section is adapted from World Bank (2009).
Evaluating the impact of disaster and climate resilience components of social protection programs can be difficult if there are few measurable or observable changes in the environment or a disaster does not occur within the project’s duration. As discussed above, proxy indicators may have to suffice as a means of evaluating the degree to which a program has built resilience to a hazard or climate shocks. Generally, however, the high cost of impact assessments means that they are conducted only when a program demonstrates particularly innovative or important results.

In disaster response, it is important to ensure that the impact of the mitigation measures be tracked for a period of time after the event has taken place, in order to assess the impact of the disaster and the response of beneficiaries. The social impact assessment methodology discussed above can be used for medium- to long-term monitoring of the social impacts of the disaster. Comparing these findings against finding for a control group provides an indication of the effects and impacts of mitigation and preparedness activities. Ensuring the availability of comparable baseline data for the two groups requires careful consideration in planning to ensure that both face similar hazard, exposure, and vulnerability levels. Using hazard maps and hazards assessments can help establish control groups that are most comparable.

**Tips for Practitioners: Principles to Follow in Conducting Monitoring and Evaluation**

The following tips can help practitioners monitor and evaluate social protection programs’ efforts to mitigate and respond to disaster and climate risks:

1. Ensure that the monitoring and evaluation system captures all areas of programming. If the project builds resilience to disaster or climate risks, these outcomes and indicators should be part of the monitoring and evaluation program. If the program responds to a disaster by scaling up temporarily, the additional case load and assistance should be monitored in addition to regular programming. All of these elements should be included in the monitoring and evaluation instruments, which may include results frameworks, logical frameworks (log frames), monitoring and evaluation plans, operational guides, needs assessments, and baseline data collection processes in places at risk of frequently recurring or high impact disasters. Ensure that there is sufficient human and financial resourcing for these activities.
2. Ensure that program staff have the skills to conduct monitoring and evaluation, including the ability to adjust programs based on post-disaster assessment findings.

3. Partner with other agencies where possible, particularly when monitoring slow-onset disasters or responding to disasters. Establish protocols that identify who has what information and will be responsible sharing it. Identify gaps and make plans to fill them.


5. Create contingency plans for financing and implementing post-disaster monitoring and evaluation.

6. Use existing systems, to the extent possible. Post-disaster environments are often complex, rushed, and confusing. Avoid complicating programs or adding new activities and formats when these needs can be met through existing mechanisms. That said, a surge in the volume of beneficiaries can challenge any system—plan ahead for these changes with capacity building, contingency planning, and coordination.

7. Ensure that social accountability mechanisms remain in place during and after disasters. Although post-disaster chaos can cause social accountability to be missed or deemed too difficult, it is important to ensure that transparency and accountability are maintained.

8. Continue to monitor. Monitoring is one of the easiest features of a program to drop when teams and resources are stretched. However, ensuring that the monitoring and evaluation framework is in place throughout the response will serve beneficiaries. Monitoring and evaluation provides valuable information and lessons on what worked well and on groups of newly impoverished people who may need to be incorporated into regular, ongoing social protection programs.
Additional Resources

ALNAP.org is a learning network that supports the humanitarian sector in its efforts to improve humanitarian performance through learning, peer-to-peer sharing, and research.

Learning to ADAPT: Monitoring and Evaluation Approaches in Climate Change Adaptation and Disaster Risk Reduction: Challenges, Gaps and Ways Forward
http://community.eldis.org/.5a093c0d

Making Livelihoods and Social Protection Gender Sensitive

Monitoring and Evaluation in Disaster Risk Management


http://siteresources.worldbank.org/INTEAPREGTOPSOCDEV/Resources/PostDisasterSocialAnalysisToolsVolumeII.pdf
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