

Building Resilient Communities



Risk Management and Response
to Natural Disasters through
Social Funds and Community-Driven
Development Operations



THE WORLD BANK

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Abstract

The Toolkit “Building Resilient Communities: Risk Management and Response to Natural Disasters through Social Funds and Community-Driven Development Operations” is designed to help Task Teams on World Bank social funds and community-driven development (CDD) operations to identify disaster risk management issues in their programs and projects and to design and implement appropriate responses. It introduces the concepts and components of Community Based Disaster Risk Management (CBDRM) and their key relationship to the achievement of the development and poverty reduction objectives of the World Bank. The contents draw upon the experience of social funds and CDD operations, as well as international good practice, to identify operational areas where social fund/CDD operations have a comparative advantage for achieving successful results in reducing natural disaster risks and impacts on poor and vulnerable communities. The Toolkit also provides guidance from past and current social fund/CDD operations about the most effective ways to manage operational challenges when implementing CBDRM activities, such as the rapid mobilization and scaling up of emergency response operations.

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Acronyms and Abbreviations

ADB	Asian Development Bank
ALNAP	Active Learning Network for Accountability and Performance in Humanitarian Action
AusAID	Australian Agency for International Development
BP	Bank Procedure
CAS	Country Assistance Strategy
CBDM	community-based disaster management
CBDRM	community-based disaster risk management
CBEWS	community-based early warning system
CBO	community-based organization
CDD	community-driven development
CFW	cash for work
CGAP	Consultative Group to Assist the Poor
CGI	corrugated galvanized iron
CVA	community vulnerability analysis
CWS	Christian World Service
DFID	Department for International Development (U.K.)
DRM	disaster risk management
DRR	disaster risk reduction
FHIS	Honduran Social Investment Fund
GDP	gross domestic product
GFDRR	Global Fund for Disaster Risk Reduction
GHD	Good Humanitarian Donorship
GPS	Geographic Positioning System
HFA	Hyogo Framework for Action
HVCA	hazards, vulnerability, and capacity analysis
IBRD	International Bank for Reconstruction and Development (World Bank)
ICRC	International Committee of the Red Cross
IDA	International Development Association
IDP	internally displaced person
IEG	Independent Evaluation Group
IFIs	International Financial Institutions
IFRC	International Federation of Red Cross and Red Crescent Societies
ILO	International Labour Organization

IPCC	Intergovernmental Panel on Climate Change
JDLNA	Joint Damage, Loss, and Needs Assessment Mission
JSDF	Japan Social Development Fund
KALAHI-CIDSS	Linking Arms Against Poverty-Comprehensive and Integrated Delivery of Social Services
KDP	Kecamatan Development Program
LGSP	Local Governance Support Project
MASAF	Malawi Social Action Fund
MDG	Millennium Development Goal
M&E	monitoring and evaluation
MFI	microfinance institution
NGO	nongovernmental organization
OP	Operational Policy
PID	Project Identification Document
PM&E	Participatory Monitoring and Evaluation
PPAF	Pakistan Poverty Alleviation Program
PRSP	Poverty Reduction Strategy Paper
RRC	Rapid Response Committee
SIRC	Solomon Islands Red Cross
SRM	Social Risk Management
SRRF	Standby Recovery Financing Facility
TEC	Tsunami Evaluation Coalition
TFESSD	Trust Fund for Environmentally and Socially Sustainable Development
TRIAMS	Tsunami Recovery Impact Assessment and Monitoring System
VCA	vulnerability and capacity analysis
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
UN-IASC	United Nations Inter Agency Standing Committee
UN-ISDR	United Nations International Strategy for Disaster Reduction
UN-OCHA	United Nations Office for Coordination of Humanitarian Assistance
USAID	United States Agency for International Development

Foreword

Disasters are increasingly recognized as a threat to sustainable development, poverty reduction, and achievement of the Millennium Development Goals. Poor households are particularly vulnerable to negative shocks arising from disaster events for a number of reasons: the poor own fewer productive assets; are more likely to reside in hazardous locations and in substandard housing; and are primarily dependent on their own labor to meet their livelihood needs. Such risk profiles give them fewer options to cope with and recover from the loss of assets, or the death or disability of household members in the event of a disaster. In such situations, poor households may use sub-optimal or even harmful coping strategies such as reducing consumption expenditures on food, health, and education or trying to increase incomes by sending children to work. This can have long-term implications in the form of negative human development impacts and lower future income streams, and thus poverty traps.

Informal arrangements constitute the main form of risk management for the majority of the world's poor. When a disaster occurs, communities are typically the first line of defense for poor households. Social Funds have been at the forefront of helping build community resilience to shocks through a wide range of social protection interventions. These include provision of productive infrastructure (e.g., small-scale irrigation, feeder roads), livelihood support, and provision of microfinance services, for risk reduction and mitigation. Social Funds have enabled risk coping for poor households through innovative community-managed safety net programs (e.g., cash for work programs, conditional cash transfers). Social Funds' key contribution to social risk management, however, is in the form of their investments in local institution-building over the long term, investments that spring into action when disasters strike and communities need to target assistance, rebuild damaged infrastructure, and link to other forms of government support, in a transparent and efficient manner.

The design characteristics and the institutional set-up of Social Funds, including organizational presence at both local and national levels, offer significant advantages for responding to both rapid and slow-onset disasters. A landmark evaluation of the Bank's experience in disaster management entitled *Hazards of Nature, Risks to Development* (2006), found that Social Funds have been among the most flexible and inno-

vative of instruments available for both responding to natural disasters and reducing disaster risk through the use of community-based approaches.

This Toolkit presents best practice in designing and implementing disaster risk reduction, response and recovery programs in a Social Funds context, and offers examples of community-driven development operations responding to disasters globally. The Social Protection Unit and the Global Facility for Disaster Reduction and Recovery (GFDRR) anticipate that the Toolkit will become a key reference for Bank task teams, clients, and other partners seeking to support community-based approaches to disaster risk reduction. We invite your feedback and comments as part of an ongoing dialogue on this topic.



Robert Holzmann
Sector Director
Social Protection and Labor, HDN



Saroj Kumar Jha
Program Manager
Global Facility for Disaster Reduction
and Recovery

How To Use The Toolkit

The Toolkit “Building Resilient Communities: Risk Management and Response to Natural Disasters through Social Funds and Community-Driven Development Operations” is designed primarily to help Task Teams on World Bank social funds and community-driven development (CDD) operations identify disaster risk management issues in their programs and projects and to design and implement appropriate responses.

The Toolkit introduces the concepts and components of Community Based Disaster Risk Management (CBDRM) and their key relationship to the achievement of the development and poverty reduction objectives of the World Bank, including those of social funds and CDD operations within this context. The contents draw upon the experience of social funds and CDD operations, as well as international good practice, to identify operational areas where social fund/CDD operations have a comparative advantage for achieving successful results in reducing natural disaster risks and impacts on poor and vulnerable communities. The Toolkit also provides guidance and examples from past and current social fund/CDD operations about the most effective ways to manage operational challenges in undertaking CBDRM activities, particularly in relation to the rapid mobilization and scaling up of emergency response operations.

The nine modules of the Toolkit correspond to key thematic areas of CBDRM. Each module can be used separately or in combination with other modules. In addition to providing information on CBDRM programming issues and options for social fund/CDD operations, the modules contain references and Web links to guidelines, checklists, and other tools that the World Bank or other organizations have found effective.

Module 1, The Role of Social Funds and CDD Operations in Disaster Risk Management, introduces the main concepts and components of CBDRM and provides an overview of current trends in disasters, with a specific focus on climate change. It includes information on hydro-meteorological and geological natural hazards, but not on biological disasters, as this topic is covered in other areas of the World Bank. Key policies and initiatives to support the enhancement of the disaster risk management capabilities of the Bank and its partners are outlined. The areas of comparative advantage of social fund/CDD operations in CBDRM are described, such as vulnerability reduction and faster and more-efficient disaster response.

Module 2, Integrating CBDRM into the Project Cycle, offers guidance on incorporating disaster risk management, using community-based approaches, into the World Bank's country programs and social fund/CDD projects in countries at high risk of natural disasters. The Bank's broad policy directions in this area are outlined, along with some of the key areas of information and analysis required for effective mainstreaming of CBDRM into social funds and CDD operations. Guidance is provided on community-level risk assessment, specifically tools and methods for conducting multi-hazard risk analysis and hazard, vulnerability, and capacity assessments to inform the development of country programs and social fund/CDD projects and sub-projects.

Module 3, Disaster Risk Reduction (Prevention, Preparedness and Mitigation), gives an overview of the main principles of CBDRM, with a particular focus on disaster risk reduction (DRR). Potential DRR areas for social fund/CDD operations are outlined, including capacity-building of government and communities to plan and implement CBDRM activities; structural and non-structural measures to mitigate disaster risks, especially hazard-resistant construction; diversification of livelihoods; risk financing and transfer methods; and adaptation to climate change. Solutions to some specific operational challenges faced by social fund/CDD operations are explored, such as building government and community support for CBDRM, fostering public-private partnerships, and undertaking information, education, and communication activities to increase disaster risk awareness and to change risk behavior.

Module 4, Disaster Response (Rescue and Relief) and Early Recovery, focuses on immediate post-disaster response and early recovery. It summarizes key issues and actions that may be taken by social fund/CDD operations to help government manage and coordinate disaster response with the full and active participation of affected communities, such as emergency needs assessments, vulnerability/gender targeting, and beneficiary communications. The strengths and limitations of various cash and commodity-based options for the delivery of relief and early recovery assistance are considered, as are methods to increase the speed and efficiency of emergency response (e.g., procurement systems, human resources, logistics, and fiduciary safeguards).

Module 5, Longer-Term Disaster Recovery (Rehabilitation and Reconstruction), discusses key issues in longer-term post-disaster recovery (rehabilitation and reconstruction). The range of forms and methods for social fund/CDD operations to deliver recovery assistance are described, specifically the restoration of communal assets, livelihoods, shelter/housing, and natural resources. Actions to incorporate DRR and climate change adaptation activities into recovery programming are outlined within this context. The module also provides guidance on the integration of recovery programming into regular social fund/CDD operations (that is, exit strategies for emergency operations).

Module 6, Monitoring and Evaluation, outlines some of the key challenges in measuring the performance of CBDRM programming. Information and examples are provided on the development of results-based performance frameworks at the project and sub-project levels (including objectives, expected results, and performance indicators). The application of monitoring and evaluation (M&E) methods and tools to disaster contexts is discussed, including M&E plans, participatory M&E, social accountability mechanisms, measurement of institutional performance, impact assessments, technical and financial audits, management information systems, and data collection instruments.

Module 7, Gender in CBDRM; Module 8, Focus on Disability; and Module 9, Focus on Older People, Children and Minorities, provide an overview of the particular needs and capacities of women, the disabled, older people, children, ethnic minorities, and migrants when designing CBDRM strategies and projects. The risks and consequences of excluding these groups are explored in these modules and actions are identified for increasing inclusiveness in CBDRM processes.



MODULE 1

The Role of Social Funds and Community Driven Development Operations in Disaster Risk Management

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Module Summary

This module introduces the main concepts and components of disaster management and provides an overview of current trends in disasters, including a specific focus on climate change. The module covers hydro-meteorological and geological natural disasters. It does not include biological disasters.

The critical links between natural disasters, poverty, and development are described, as are the key World Bank policies and initiatives in support of enhanced disaster management capabilities. The important roles played by social funds and community-driven development operations in disaster management are outlined, as well as future directions for implementing community-based disaster risk management programming, increasing the speed and efficiency of disaster response and recovery operations, and reducing vulnerability.

What is Disaster Risk Management?

A disaster is defined as a serious disruption of the functioning of a community or a society causing widespread human, material, economic, or environmental losses that exceed the ability of the affected community or society to cope using its own resources. A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability, and insufficient capacity or measures to reduce the potential negative consequences of risk (UN/International Strategy for Disaster Reduction, 2004). Therefore, disasters are not unpredictable and unavoidable events but rather unsolved problems of development.

Disaster risk management (DRM) refers to the systematic process of using administrative decisions, organization, operational skills, and capacities to implement policies, strategies, and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This includes all forms of activities, including structural and nonstructural measures to avoid (prevention) or to limit (mitigation, preparedness, and response) the adverse effects of hazards (adapted from UN/ISDR, 2004). DRM is usually divided into three main areas of activity:

1. Disaster risk reduction (prevention, mitigation, and preparedness),
2. Disaster response (rescue and relief), and
3. Disaster recovery (rehabilitation and reconstruction).

While these areas of activity are often referred to as separate “phases” or components of disaster management for administrative funding and programming purposes, in reality they overlap and affect each other.

Table 1.1 Key Definitions

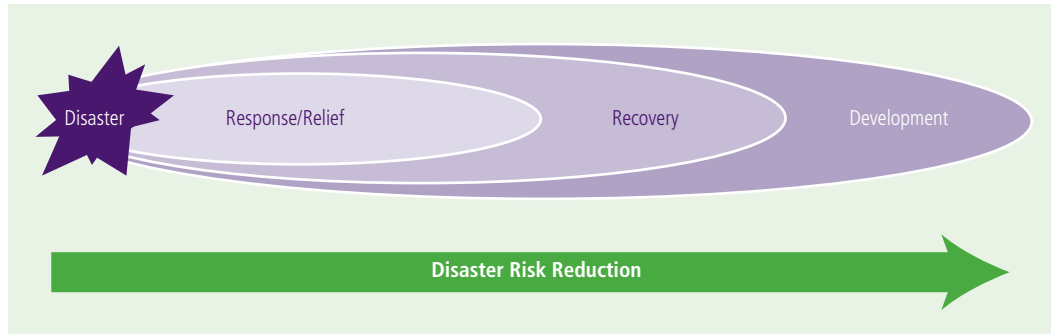
Disaster risk reduction	Disaster risk reduction (DRR) is a conceptual framework of elements considered with the purpose of minimizing vulnerabilities and disaster risks throughout a society in order to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards and to facilitate sustainable development. DRR is a cross-cutting and development issue. The process of DRR is a complex one consisting of political, technical, participatory, and resource mobilization components. Therefore, DRR requires collective wisdom and efforts from national policy and decision makers from various government sectors and from representatives from civil society, including academic institutions, the private sector, and the media (UN/ISDR, 2004).
Disaster response	Disaster response refers to the provision of assistance or intervention during or immediately after a disaster to meet the needs of those affected. It is generally immediate and short-term (UN/ISDR Web site). The primary objective of this humanitarian assistance is to save lives, alleviate suffering, and maintain human dignity. It includes immediate post-disaster rescue and relief activities, such as the provision of food, water and sanitation, shelter, health services, and other assistance to the affected population. It also includes the protection of vulnerable people—for example, those involuntarily displaced from their homes by a hazard event or whose access to relief assistance may be affected by factors such as a disability (The Sphere Project, 2004).
Disaster recovery	Disaster recovery (rehabilitation and reconstruction) refers to the decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery affords an opportunity to develop and apply disaster risk reduction measures (UN/ISDR, 2004).

Risk Reduction

Disaster risk reduction is founded on the principle that the adverse impacts of hazards can be managed, reduced, and sometimes even prevented by taking appropriate actions to decrease people’s exposure to hazards and their susceptibility to hazard impacts. Conversely, understanding and increasing people’s capacity to anticipate, cope with, resist, and recover from hazard impacts is an essential component of reducing vulnerability. DRR aims to enable societies to be more resilient to natural hazards and to ensure that development does not inadvertently increase vulnerability to those hazards.

Therefore, recovery activities should do more than merely return disaster-affected people and institutions back to the situation that existed before a disaster. In particular, the recovery phase of a disaster response also offers opportunities to strengthen the capacity of communities and their governments to cope with the impact of disasters and to reduce their vulnerability to future hazards and shocks—for instance, through restoring destroyed mangroves as protection against storm surge, increasing fishing

Figure 1.1: The Relief to Development Contiguuum



opportunities, or developing the disaster management skills of local government authorities. Likewise, DRR should be incorporated into regular development planning and programming to reduce or avoid the negative impacts of future hazard events. DRR is implemented using DRM approaches.

Response

Disaster-affected populations initially will require critical life-saving support. At the same time, their communities, institutions, and livelihoods will have been physically destroyed or weakened by the impact of the crisis. Many households and communities will begin a process of self-recovery as soon as possible after a disaster, out of practical necessity. The vulnerabilities that turned a hazard into a disaster in the first place often get recreated in the process. For example, homes may be reconstructed using the same building techniques that caused them to collapse. Poor households may resort to selling off their scarce productive assets in the immediate aftermath of a disaster in order to meet their basic needs and become even more vulnerable to future shocks.

International experience also has demonstrated the close links between relief and recovery. The choices made regarding the kinds of relief assistance to be provided, and how it is provided, can facilitate or hinder the recovery of affected communities (Christoplos, 2006a). For instance, following the 2005 Pakistan earthquake, instead of distributing expensive winterized tents with a limited lifespan, the Pakistan Poverty Alleviation Fund (PPAF) provided affected communities with corrugated galvanized iron sheets and tools. The tools and materials were used by communities to build themselves temporary shelters using wood and other materials salvaged from the rubble. They could be used later in permanent home reconstruction.

The choices made regarding the provision of relief also can have positive or negative impacts on reducing disaster risks—for example, undertaking a rapid environmental impact assessment to identify whether toxic substances have been released into the environment following an earthquake (e.g., the chemical leaks from factories damaged by the May 2008 earthquake in China¹) and then mounting a campaign to reduce the threat to nearby communities.

For these reasons, relief needs to be carried out with a view to supporting and reinforcing the early recovery and risk reduction of disaster-affected populations.

Recovery

When a natural disaster strikes in a poor community, not only does it cause serious loss of life and property, it often takes away or threatens the livelihoods and futures of those who survived. This is especially the case where productive household members have been lost or permanently disabled. For many households, not only will their short-term economic and social vulnerability be increased, but their ability to cope with future shocks may also be eroded. These pressures can contribute to increased poverty and marginalization in a society. They can aggravate tensions or conflicts that may have already existed within or between communities prior to the disaster.

In the case of slow-onset or regularly recurring hazard events or shocks, many poor communities live in a constant state of recovery, where temporary relief has become a permanent coping strategy. For example, in Malawi drought occurs with such frequency that people have little time to recover before another drought hits. This has resulted in deepening poverty, chronic food insecurity, and aid dependency.

Thus, in order to be effective and sustainable, recovery initiatives must be linked to the national and local development context and processes, as well as an understanding of the economic, social, and political conditions that existed prior to the disaster. Some of these are likely to have been contributing factors to the risk and vulnerability that turned the hazard event into a disaster; others—for instance, underlying structural issues—may have an impact on the strategies adopted for recovery. Lack of understanding of these processes can lead to poorly targeted and inappropriate assistance. This is equally the case for infrastructure rehabilitation and reconstruction. There are many examples of schools and health centers rebuilt after natural disasters that could not afford ongoing maintenance costs or the staff to run them.

¹ SBS Australia television news coverage, 23 May 2006.

■ The Role of Social Funds/CDD Operations

Social funds, together with community-driven development (CDD) operations, are the main instruments by which the World Bank engages with, and delivers assistance to, communities in developing countries. Social fund/CDD operations represent a large portfolio for the World Bank, accounting for \$14 billion in funding over 2000–2007 (De Silva and Sum, 2008). They exist in nearly all low-income, IDA-supported countries.

Social funds are government agencies or programs that channel grants to communities for small-scale development projects. They are typically used to finance a mixture of socio-economic infrastructure (e.g., building or rehabilitating schools, water supply systems, roads), productive investments (e.g., micro-finance and income-generating projects), social services (e.g., supporting nutrition campaigns, literacy programs, youth training, support to the elderly and disabled), and capacity-building programs (e.g., training for community-based organizations, nongovernmental organizations (NGOs), and local governments). Social fund sub-projects use community-driven development approaches (see below) to ensure the active participation of local actors. Support is usually focused on the poorest and most vulnerable communities (De Silva and Sum, 2008).

Community-driven development is a development approach that transfers control over resources and decision-making from central agencies to communities. The approach focuses on improving people's livelihoods through improved delivery of public goods and services and more sustainable community assets. It also emphasizes transparency and accountability in local decision-making to create more-responsive

Box 1.1 Some key factors in disaster response and recovery

The World Bank's evaluation, *Hazards of Nature, Risks to Development*, found that:

- An immediate disaster response that ignores local power structures, social groups, and differences in vulnerability can make recovery more difficult.
- Participation by local leaders and communities can help ensure an effective recovery.
- In housing, the goal should be to help those made homeless by the disaster, focus on the poorest, and encourage mitigation measures that will help reduce the impact of future disasters.
- When relocation is required, care is needed to ensure that those relocated have jobs and an environment that offers the potential to rebuild social cohesion.
- Disaster impacts and recovery vary, depending on social vulnerability and level of risk.
- Cash support can be vital to the recovery of the poor.
- Women's particular vulnerability can be addressed through improved data gathering, targeting, and equitable treatment.

government (particularly local government), as well as empowering the citizenry—as lack of empowerment is another form of poverty. Through CDD operations, poor communities receive funds, decide on their use, plan and execute the chosen local projects, and monitor the provision of services that result from the projects (IDA, 2007).

A landmark evaluation of the Bank's experience in disaster management, *Hazards of Nature, Risks to Development*, found that social funds have been among the most flexible and innovative instruments for responding to natural disasters, as well as making significant contributions to reducing disaster risks (World Bank/IEG, 2006a).

The evaluation further noted that communities are usually “in the first line of fire” in natural disasters and their active participation in project planning and implementation has been a key factor in the success of many Bank disaster management projects. The importance of the full, active participation of communities in DRR, emergency response, and recovery also has been demonstrated in numerous other evaluations and studies (e.g., DFID, 2005; IFRC, 2001; ProVention/ALNAP *lessons learnt in relief and recovery* briefing papers, 2005–08; UN/ISDR, 2004; Christoplos, 2006b).

International experience has shown that:

- The effects of a disaster are first felt at the level of the community, and the community is the first to respond to a disaster.
- Disaster risk reduction measures are most successful when they involve the direct participation of the people most likely to be exposed to hazards.
- Investments in community-based preparedness and early warning systems have proved to save lives, protect property, and reduce economic losses.
- Failure to understand the risk behavior and culture of communities can lead to badly designed early warning systems and risk awareness-raising campaigns.
- The involvement of local people promotes self-reliance and ensures that emergency management plans meet local needs and circumstances.
- Local communities are essential sources of indigenous knowledge regarding hazards and mitigation.
- Disaster relief and recovery responses that do not directly involve the affected communities in deciding their own needs and priorities frequently provide inappropriate and unsustainable forms of assistance.
- Organized communities are better able to demand downward accountability.
- A community-level focus facilitates the identification of vulnerable groups.

Social funds and CDD operations possess a number of characteristics that lend themselves well to both reducing the risks posed by natural hazards and responding effectively to natural disasters (de Silva, 2008):

- They are already established and working in countries at both the local and national levels, including having a presence in poor and often difficult-to-reach communities across a country.
- Because social fund/CDD projects operate at national and local levels, unlike most other Bank-funded projects, they are well positioned to facilitate coordination and cohesiveness in DRR and response.
- They also are able to coordinate with several partners, including government agencies, donors, NGOs, and the private sector.
- Their emphasis on poverty and vulnerability targeting, as well as social inclusiveness, means that social fund/CDD projects may already include the communities and groups most at risk of being affected by a natural disaster.
- Social fund/CDD operations are primarily engaged in community-level construction and civil works programs that can be used for emergency rehabilitation and reconstruction of basic infrastructure and facilities following a disaster.
- They also have flexible procedures for procurement and disbursement that can be useful to more quickly mobilize resources after a disaster.
- Social fund/CDD operations have proven efficient management practices.
- Social fund/CDD operations generally have effective public awareness campaigns already in place that also can be used for disaster risk management.
- They have sound and participatory monitoring and evaluation systems, based on solid baseline data and cost-benefit analyses, that can be used for planning and assessing post-disaster recovery solutions.
- Social fund/CDD operations have a good track record for incorporating lessons learned into longer-term development strategies.

The demonstrated capacities of social fund/CDD operations in disaster risk reduction, response, and recovery are needed to deal with the rapidly rising risk of natural disasters, particularly in poor and vulnerable communities.

Box 1.2 A social fund responds rapidly to the Pakistan earthquake

In the aftermath of the 2005 Pakistan earthquake, the Second Pakistan Poverty Alleviation Fund (PPAF II) was quick to respond to the regional tragedy. A Disaster Relief Centre was set up and started functioning within three days of the crisis. To finance this work, the World Bank agreed to reallocate \$5 million of existing PPAF II project funds to relief activities, and by the first week of operations the Centre was transporting large quantities of relief goods to affected areas through its Partner Organizations (POs). In this initial period, PPAF also was instrumental in facilitating linkages between POs, other agencies, and those wanting to contribute to the relief effort.

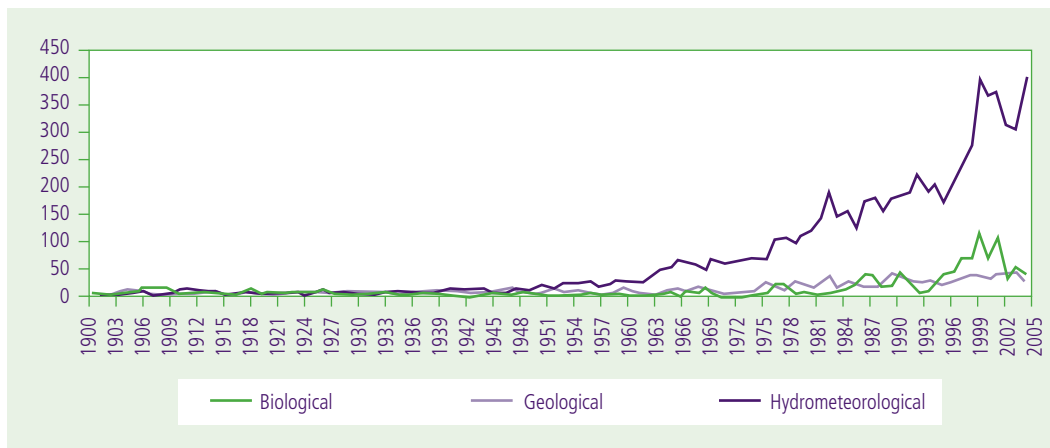
Source: Vakis, 2006, p. 12.

Key Global Natural Disaster Issues

The Growing Scale and Impact of Disasters

Since the 1990s, disasters have killed nearly 60,000 people a year, on average, and affected the lives and livelihoods of millions more (EM-CRED data).² More than 200 million people a year have been directly affected through damages to homes, property, crops, livestock, and local infrastructure (UN/ISDR, 2007). The number of indirectly affected people is incalculable.

Figure 1.2: Annual Number of Natural Disasters, 1900–2005



Source: EM-DAT OFDA/CRED International Data Base

In recent decades, there has been a large rise in both the number and impact of natural disasters. In the period 1997–2006, the number of reported disasters grew by 60 percent over the previous decade—from 4,241 to 6,806. The number of reported deaths doubled—from more than 600,000 to over 1.2 million (IFRC, 2007g).³

The economic costs of disaster have also risen dramatically. The 2006 Independent Evaluation Group report noted that, in constant dollars, disaster costs between 1990 and 1999 were more than 15 times higher (\$652 billion in material losses) than they

² The EM-DAT (*Emergency Events Database*) is maintained by the Centre for Research on the Epidemiology of Disasters, an NGO based at the Catholic University of Louvain in Belgium. EM-DAT undertakes quality global assessment of disaster occurrence and loss that is publicly available. It is funded by the U.S. Office of Foreign Disaster Assistance.

³ While better reporting of smaller disasters partly explains the increase, a rise in numbers of more severe disasters is a key contributing factor.

Box 1.3 Disasters are costly

Several tallies of the direct economic losses of some recent major disasters have been made:

- The 1999 Marmara earthquake in Turkey incurred a loss of \$20 billion.
- Losses from the 2005 floods in Ethiopia totaled \$5 billion.
- Windstorms in Mexico over 2005 cost \$7.9 billion.
- The 2001 earthquake in Gujarat, India, had a direct loss of \$2.6 billion.
- Losses from the 2004 Indian Ocean tsunami were an estimated \$4.5 billion.

Source: EM-DAT OFDA/CRED International Data Base.

were between 1950 and 1959 (\$38 billion at 1998 values). Over the 1984–2003 period, more than 4.1 billion people were affected by natural disasters. The number of affected grew from 1.6 billion in the first half of that period (1984–93) to almost 2.6 billion in the second half (1994–2003), and it has continued to increase since then.⁴ If these trends continue, natural disasters could have a global cost of more than \$300 billion a year by 2050 (IFRC, 2007g).

Natural disasters can have direct, indirect, and secondary socio-economic costs:

- *Direct costs*—physical damage, including to productive capital and stocks (industrial plants, standing crops, inventories), economic infrastructure (roads, electricity supplies), and social infrastructure (homes, schools). The reported data on the costs of disasters relate predominantly to direct costs.
- *Indirect costs*—downstream disruption to the flow of goods and services, such as lower output from damaged or destroyed assets and infrastructure and the loss of earnings as income-generating opportunities are disrupted. Disruption of the provision of basic services, such as telecommunications or water supply, for instance, can have far-reaching implications. This category also includes the costs of both medical expenses and lost productivity arising from the increased incidence of disease, injury, and death. However, gross indirect costs are also partly offset by the positive downstream effects of rehabilitation and reconstruction efforts, such as more activity in the construction industry.
- *Secondary costs*—short- and long-term impacts of a disaster on the overall economy and socio-economic conditions, such as fiscal and monetary performance,

⁴ World Bank/Independent Evaluation Group (2006). *Hazards of Nature, Risks to Development: An IEG Evaluation of World Bank Assistance for Natural Disasters*. Washington DC: World Bank/IEG, p. 2.

levels of household and national indebtedness, the distribution of income and the scale and incidence of poverty, and the effects of relocating or restructuring the economy (Benson, 2002 in UNDP, 2004).

Natural disasters also can adversely affect social relationships and networks, some of which are associated with the resilience of communities to hazards. These “social capital” costs are important but can be difficult to measure.

Disasters and Poverty

Vulnerability to risk and income shocks emanating from natural disasters is one of the fundamental dimensions of poverty. For this reason, disasters have been increasingly recognized as a threat to sustainable development, poverty reduction, and the achievement of a number of the Millennium Development Goals.

Although the largest absolute economic losses from disasters occur in higher-income countries, lower-income countries suffer far more in relative terms. Losses can be up to 20 times greater as a percentage of gross domestic product in developing countries than in industrial ones, while over 95 percent of all disaster-related deaths occur in developing countries (World Bank/ Disaster Risk Management Web site, 2008). While empirical studies demonstrate that most disaster-affected households are partially able to smooth consumption following a natural disaster, the evidence suggests that poor households are less able to cope than the non-poor (Vakis et al, 2004). The poor are particularly exposed to natural disasters and have limited access to the means to reduce their impacts.

First, the poor are more likely to reside in hazardous locations and in substandard housing, which makes them more susceptible to natural disasters. Institutional weaknesses in governance, such as poor urban planning, may increase the exposure and susceptibility of the poor (as well as the non-poor) to hazards. The poor also tend to own fewer productive assets and to have a greater dependence on their own labor to meet their livelihood needs. This gives them fewer options to cope with the impacts of the loss of assets or the death or disability of household members. Many households will use sub-optimal or even harmful coping options, such as reducing consumption expenditures on food, health, and education or trying to increase incomes by sending children to work. In addition, exposure to natural hazards affects the income-generating decisions of households. This can have long-term implications in the form of lower future income streams, longer recovery, and poverty traps.

Further to this, the poor have an important stake in public infrastructure, which, when destroyed by a disaster, becomes difficult to replace. Replacements are often delayed,

Box 1.4 Post-disaster coping mechanisms of the poor

Instead of insurance, the poor often rely on savings, depleting or mortgaging their land and assets, emergency loans from microcredit institutions, or money lenders. Alternatively, they rely on microcredit and savings, informal insurance, or arrangements that involve reciprocal exchange, such as kinship ties, community self-help, and remittances. Women in high-risk areas often engage in complex yet innovative ways of to gain access to post-disaster capital by joining informal insurance schemes, becoming clients of multiple micro-finance institutions, or maintaining reciprocal social relationships.

Source: Mechler & Linnerooth-Bayer with Peppiatt, 2007.

and reconstruction resources are diverted from other poverty-reducing development projects (DFID, 2004).

Finally, informal arrangements constitute the main source of risk management for the majority of the world's poor. As most lack access to comprehensive market and public-supported arrangements, largely due to socio-economic barriers, poor households and communities use informal and personal arrangements to protect themselves from risk. Informal arrangements may be supplemented with semi-formal arrangements, such as microcredit and microinsurance (Mechler& Linnerooth-Bayer with Peppiatt, 2007; Bhattamishra and Barrett, 2008). Both are key components of coping strategies when a disaster strikes.

At the same time, such arrangements can become overwhelmed or eroded by natural disasters. A massive earthquake affecting millions of people over a wide area will stretch most indigenous coping systems, just as repeated years of drought will exhaust communities' food and cash reserves. The exposure of many households in the same locality to the same or similar shock(s) is referred to as "covariate shock."⁵

These coping mechanisms also may be inadequate for events that were not anticipated and for which there is no prior experience, such as exposure to new or increased risks through climate change. Disasters may lead to or exacerbate the "poverty cycle," as survivors, for instance, take out high-interest loans or default on existing loans, sell assets, or engage in low-risk, low-yield farming to lessen their exposure to extreme events (Twigg, 2004).

⁵ For detailed information on covariate risk, please refer to Bhattamishra and Barrett (2008), *Community-based Risk Management Arrangements: An Overview and Implications for Social Fund Program Design*, Social Protection Discussion Paper No 0830. Washington DC: World Bank

Box 1.5 Armed conflict and disaster risk

The social disruption and dislocation of governance systems caused by armed conflict and high levels of social violence (e.g., in urban neighborhoods dominated by drug gangs) influences the capacity of households and communities to withstand natural hazards and recover from disaster. The Horn of Africa is a region in which food insecurity and famine have been particularly associated with potent mixes of conflicts and drought over the last 30 years. In recent years, at least 140 “natural” disasters have occurred in countries experiencing complex political emergencies.

People displaced by conflict often add to the populations of urban informal settlements or find themselves in refugee camps. Lack of adequate livelihood resources in these new settlements can magnify risk as the immediate environment is exploited for resources such as firewood, leading to soil loss and potentially increasing flood or landslide hazard.

The disruption or absence of government functions or the diversion of public expenditure during periods of conflict can have an erosive effect on disaster risk capacity. The January 2002 volcanic eruption of Mount Nyiragongo in Goma, Democratic Republic of Congo, was predicted by a local geologist, but with no state capacity to act on this information, no warning or preparedness measures were taken and almost half of the city was destroyed.

Disaster can also play a role in generating social instability and political change. The collapse of the Somoza regime in Nicaragua, the undermining of community-level organizations in Chile, and political change in Ethiopia and Afghanistan have all been associated with social tensions catalyzed during moments of disaster stress. On the other hand, most Acehnese saw the opening up to the international community and the aid presence that followed the 2004 Indian Ocean tsunami as a significant factor in resolving the conflict in this province of Indonesia.

On the ground it is often difficult to separate out the cause-and-effect relationships between natural disaster, social instability or inequality, and conflict or political crisis.

Source: Adapted from DFID, 2005, p. 26 and Christoplos, 2006b, p. 68.

Thus disasters can induce poverty. People who are living on the margins of poverty can become poor and the poor can become destitute due to their vulnerability and inability to mitigate disaster impacts. The vulnerability of the poor also is increased in countries that are both disaster-prone and in or emerging from violent conflict, due to exposure to multiple shocks and weak or non-existent governance structures. In turn, conflict and insecurity have also arisen from the slow buildup of disasters that result from a lack of resources, and sometimes from increased vulnerability following a disaster (World Bank/IEG, 2007c).

Rising Disaster Risk

Disasters triggered by natural hazards put development gains at risk. At the same time, development decisions can unwittingly contribute to perpetuating or increasing risk, as well as increasing or creating new forms of vulnerability (UNDP, 2004).

Box 1.6 Poor development contributes to increased risks

- The education sector in Pakistan was devastated by the 2005 earthquake in the north of the country. More than 18,000 students and 850 teachers lost their lives when more than 6,000 schools collapsed during the earthquake. Unsafe building practices and a failure to enforce building codes were major contributing factors.
- Following widespread devastation caused by Hurricane Hugo in 1989, a new aid-funded hospital was built at the foot of a volcano in the Caribbean island of Montserrat. The hospital was subsequently destroyed by pyroclastic flows after the volcano began eruptive activity again in mid-1995.

Source: ADB/World Bank 2005, Annex 9; Benson and Twigg, 2007, p. 5.

Box 1.7 Growing hazard risks in urban areas

The risks from hazards in urban areas, such as earthquakes, continues to grow, driven by high rates of urban growth, a lack of planning and building standards, and a lack of regulated settlement and urban development.

It is projected that by 2010, not only will more than 50 percent of the world's population be living in cities, but over 30 percent of the urban population will be living in slums (UN-Habitat). The increasing concentration of population and economic activities in flood and cyclone-prone coastal areas, when combined with stronger and more frequent floods and cyclones, will magnify the risk associated with climate change.

Source: Adapted from UN/ISDR, 2007b, pp. 22–23.

Increasing vulnerabilities stemming from population growth, unplanned urbanization, globalization, environmental degradation, and technological and socio-economic conditions have combined with geological, hydro-meteorological, and human-made hazards to increase disaster frequency and impact. For instance, damage assessments from the 2004 Indian Ocean tsunami concluded that there was significantly more damage to human lives and livelihoods where ecosystems had been disturbed, especially sand dunes, mangroves, and coral reefs (IUCN, 2006).

Disaster mortality is already very low in industrial countries and has been rapidly reducing in many developing countries through a combination of better development conditions and improvements in early warning, preparedness, and response. However, as the frequency and impact of disasters have increased, economic and social assets, along with the livelihoods of affected populations, have become increasingly at risk. The uncertainties brought by climate change may also erode and reverse the progress made in mortality reduction (UN/ISDR, 2007b).

Impact of Climate Change

Climate change also is contributing to increasing disaster frequency and impact. Disaster types can be classified as geological (e.g., volcanic eruptions, landslides, tsunamis, earthquakes), hydro-meteorological (e.g., floods, droughts, typhoons, severe storms), and biological (e.g., epidemics and pest infestations). Table 1.2 summarizes the key characteristics of the main geological and hydro-meteorological hazards.⁶ The large rise in the number of disasters predominantly consists of an increase in hydro-meteorological or weather-related disasters.

Climate variation is changing rainfall patterns, temperatures, and typhoon paths (IPCC, 2007). In 2007 alone, Mexico suffered from its worst flooding in five decades. Burkina Faso, Costa Rica, and Sudan were affected by the most severe flooding in years. China experienced its heaviest snowfall in 56 years, while Buenos Aires had its first major snowfall since 1918. The South Indian cyclone season also saw more activity than usual, with 10 storms and eight cyclones; two Category 5 hurricanes made landfall in the same season in the Atlantic for the first time since 1886. These events reflect the overall trend in recent years of rising risks due to climate change (UNEP, 2008).

The number of small- and medium-scale disasters is increasing.⁷ While these do not yet contribute significantly to either global disaster mortality or economic loss, they pose a real threat to the well-being of poor rural and marginal urban communities due to the asset loss and livelihood disruption caused (UN/ISDR, 2007b). The cumulative impact of these smaller disasters over time may contribute to overall poverty increases, especially as they do not tend to attract as much relief and recovery support as more high-impact and high-profile disasters.

The increase in localized disasters will require a corresponding increase in disaster preparedness and response capacity at the community and local government levels, a need recently recognized in the International Federation of Red Cross and Red Crescent Societies' new Global Alliance for Disaster Risk Reduction (IFRC, 2007b).⁸

⁶ This Toolkit only covers geological and hydro-meteorological disasters.

⁷ While there are no universally agreed definitions for small- and medium-scale disasters, a general typology that can be used is:

Small—impact is localized to a community that may have been partially or completely disrupted, straining community resources and coping mechanisms

Medium—multiple communities are affected, straining district or state-level resources

Large—multiple population centers and significant portions of the country have been affected, straining national resources

⁸ The initiative is expected to build strong partnerships with the UN (ISDR), the World Bank, and other international organizations and NGOs.

Table 1.2 Hazard Characteristics (Source: Kyoto University, 2008)

HAZARD TYPES	Slow Onset	Fast Impact	Seasonal	Warning Possible	Impact Characteristics	Benefits	Risk Reduction Measures
Geological Hazards		*		Not Available, other than on account of earthquake fore shocks	Destruction of buildings and infrastructure. High potential for loss of lives and casualties of building occupants. Possible induced landslides and fires.	Essential global tectonic function. Hot springs from EQ fault lines. Creation of coastal harbors (Naples, San Francisco, Los Angeles, etc.). Earthquakes clear out structurally substandard buildings, but tragically may kill their occupants in the process.	Earthquake-resistant planning, and construction of buildings and infrastructure. Land use planning controls. Building codes. Raising public awareness.
	*	*		Available	Lava flows, ash-falls, pyroclastic flows, gas clouds, volcanic projectiles, etc. that destroy vegetation, buildings, and infrastructure. Frequent injuries due to people falling while scraping ash from dwelling roofs.	Fertile soils in long term. Geothermal power and hot springs. Essential global tectonic function.	Volcanic monitoring. Land use planning controls. Warning systems. Evacuation plans. Raising public awareness.
		*	Can relate to heavy rainfall in monsoon seasons	Possible in certain countries (Hong Kong)	Massive destruction of buildings, infrastructure, vegetation, water courses, etc.		Avoidance of deforestation, invasive road construction, leakages from water pipes, and heavy building in landslide-prone areas.

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Table 1.2 Hazard Characteristics (Source: Kyoto University, 2008) (continues)

HAZARD TYPES	Slow Onset	Fast Impact	Seasonal	Warning Possible	Impact Characteristics	Benefits	Risk Reduction Measures
Tsunami		*		Available	Massive devastation in coastal regions of natural environment: trees, coral, etc. as well as of buildings, infrastructure, and fisheries. Extreme threat to lives.	Essential global tectonic function. Undersea earthquakes generate vital chemicals through gas emissions into oceans.	Warning system. Evacuation plans. Raising public awareness.
Hydro-meteorological Climatic Hazards							
River Flooding: • Slow Onset	*		During wet season (in area affected by rainfall but not always in areas of downstream flooding)	Available	Destruction of crops, livestock, buildings, infrastructure. Land erosion. Generally low loss of lives and injuries.	Irrigation and introduction of fertile silt over inundated lands.	Reforestation in catchment areas. River controls, warning systems, safe buildings and infrastructure. Land use planning controls. Raising buildings on stilts or mounds. Evacuation plans. Raising public awareness.
• Flash Flood		*		Limited availability	Destruction of crops, livestock, buildings, infrastructure. Land erosion. High loss of life and injuries.		Reforestation in catchment areas. River controls, warning systems, safe buildings and infrastructure. Land use planning controls. Rapid evacuation plans. Raising public awareness.
Cyclone/Hurricane/Typhoon (same terms in different regions describe identical climatic events)		*	Seasonal, but uncertainties over specific occurrence and paths	Available	Massive devastation in coastal regions of natural environment: trees, coral, etc. as well as of buildings, infrastructure, and fisheries. High loss of life potential in flood surge areas.	Can provide a deluge of vital water in drought-prone islands and coastal regions. A vital element in tropical region ecosystems.	Warning systems, safe buildings and infrastructure. Land use planning controls. Rapid evacuation plans. Raising public awareness. Planting shelter breaks. Cyclone shelters.

(continues to next page)

Table 1.2 Hazard Characteristics (Source: Kyoto University, 2008) (continues)

HAZARD TYPES	Slow Onset	Fast Impact	Seasonal	Warning Possible	Impact Characteristics	Benefits	Risk Reduction Measures
Tornado		*	Seasonal	General warnings only due to continually changing trajectories	Highly localized impact paths but massive destruction to property and lives due to extremely high wind speeds.		Wind speeds are so powerful that tornado-resistant dwellings are not feasible. Communities in tornado-prone areas often construct underground bunker shelters for protection.
Brush or Forest Fires		*	Occur in dry seasons	Available	Destruction of forests, buildings, and infrastructure.	Clearance of old growth to permit tree regeneration of forests. Certain pine trees require forest fires to germinate their seeds.	Forest tree diversification. Warning systems, public awareness.
Avalanche		*	Occur when snow is melting, possibly at times of seasonal change	Available	Destruction of anything in their path: trees, infrastructure, buildings, and lives.		Avoid deforestation to create ski runs. Use of explosives to create controlled avalanches. Building protective barriers for settlements and roads, etc. Public awareness to avoid areas prone to avalanches. Warning systems.
Drought	*		Occur in dry seasons or when rains fail to materialize	Elaborate drought, famine early warning systems	Destruction of crops, livestock, rural economies. Malnutrition and death to population within drought-prone areas. Mass movement of displaced population to towns to seek work and food and water.		Crop diversification. Local livelihood diversification. Improved farming techniques to conserve water and avoid soil erosion. Local food and seed stores. Water harvesting techniques. Early warning systems. Raising public awareness.

Box 1.8 Climate change challenges indigenous knowledge

According to Charles Kelly, who belongs to the Sogabiri Tribe on the Island of Simbo in the western Solomon Islands, in the past his tribe has firmly believed in their traditional knowledge that has been handed down for generations. A traditional priest from the Sogabiri tribe can tell when there will be a very strong wind and for how long the wind will last. This wind is locally known as Komburu. The traditional priest can determine when the winds will start by observing the falling of the ngali nut. If all of the fruit of the nut has fallen to the ground, then the winds will begin.

He can also determine the intensity and duration of the winds by observing the fallen leaves of the Rarapo tree, which grows naturally along the coast of the island. If the leaves fall under the tree, he knows that after three days the wind will stop. If the leaves fall in the interior of the village or in the inner land on the Island, he knows that the high seas, strong wind, or continuous wind will stop after eight days. If the leaves of the tree do not fall after three days, he knows that the Komburu will continue.

Nowadays he has a very difficult time in trying to determine when there will be Komburu and how long it will last. The difficulty is simply due to the changing wind pattern.

Source: Solomon Islands Red Cross, 2008, p. 26.

The poor are particularly sensitive and susceptible to the impacts of climate change, as even small changes can have devastating consequences on their livelihoods and stretch coping capacities to the limit. “Those who depend on nature for their living are increasingly unable to figure out what to expect and what decisions to make (e.g., what or when to plant, given changes in rainfall timing and intensity)” (IFRC, 2007b: 17).

Overall, the changing patterns of natural disasters will require better coordination and organization of local, national, and international development and humanitarian actors to support communities to reduce their risks and impacts. New and innovative partnerships may also need to be forged at all levels to find creative solutions to newly emerging challenges and problems, such as the loss of traditional livelihoods or living spaces.

World Bank Policy Response

The World Bank recognizes the threats to development and poverty reduction posed by the rise in natural disaster risks. The Bank has developed policies and institutional mechanisms to augment its capacity both to reduce disaster risks, including adaptation to climate change, and to lessen the impact of disasters through its operations.

Hyogo Framework for Action and Global Facility for Disaster Reduction and Recovery

The World Bank's work on disaster falls under the International Strategy for Disaster Reduction (ISDR). The ISDR also informs the disaster management policies of the Bank's partner countries. The ISDR was adopted by the Member States of the United Nations and a UN/ISDR secretariat was established in 2000. As of 2006, 34 countries also had developed National Platforms for Disaster Risk Reduction.

Within the context of the ISDR, the *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*⁹ (HFA) is the key planning document that is guiding international efforts to reduce the risk and impacts of natural disasters. The HFA's five strategic priorities for action are to:

1. Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation.
2. Identify, assess, and monitor disaster risks—and enhance early warning.
3. Use knowledge, innovation, and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels.

In 2006, the Bank established the Global Facility for Disaster Reduction and Recovery (GFDRR) for a longer-term partnership and commitment to reduce disaster losses by mainstreaming DRR in development, particularly in country strategies and processes, and toward fulfillment of the principal goals of the HFA. The GFDRR has three tracks:

- Supporting the UN/ISDR system to implement the HFA,
- Supporting national governments' implementation of the HFA, and
- Providing recovery financing for disaster reduction.

The GFDRR helps developing countries fund projects and programs that enhance local capacities for disaster prevention and emergency preparedness. Its grants support disaster risk assessments, the development of risk mitigation policies and strategies, preparation of disaster prevention projects, and additional financing for recovery—provided recipient governments demonstrate a commitment to disaster

⁹ <http://www.unisdr.org/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf>.

prevention. Two current activities of particular note are the South-South Cooperation initiative to facilitate collaboration among low- and middle-income countries to mainstream disaster risk reduction and recovery, including climate change adaptation, into development planning, and research being carried on the economics of DRR, including as a tool for climate change adaptation.¹⁰ The objective of the Cooperation initiative is to tap the knowledge of the South and to catalyze peer learning and collaboration through governments, institutions, networks, and communities in developing countries.

Policy on Rapid Response to Crises and Emergencies

In 2007, the World Bank updated its policy on *Rapid Response to Crises and Emergencies* to reflect its good practice operational experiences (OP and BP 8.00 replaced OP and BP 8.50). OP/BP 8.00 rests on four guiding principles:

- Application of the rapid response policy to address major adverse economic and/or social impacts resulting from an actual or imminent natural or human-made crisis or disaster;
- Continued focus of direct assistance on core development and economic competencies, including in all situations where the Bank supports peace building objectives and relief to recovery transitions;
- Close coordination and establishment of appropriate partnership arrangements with other development partners, including the UN, in line with each partner's comparative advantage and core competencies ; and
- Appropriate oversight arrangements, including corporate governance and fiduciary oversight, to ensure appropriate scope, design, speed, and monitoring and supervision of emergency operations.

Consistent with these principles, the Bank may provide a rapid response to a borrower's request for urgent assistance following an event that has caused or is likely to imminently cause a major adverse economic or social impact associated with a crisis or disaster. The Bank's assistance may include one or more of the following:

- Immediate support to assess an emergency's impact and develop a recovery strategy.
- Emergency recovery loans.
- Restructuring of operations within the Bank's existing investment portfolio for the country to support recovery activities, including provision of additional financing for such activities under OP/BP 13.20 (*Additional Financing for Investment Lending*).

¹⁰ For further information about the GFDRR, see www.gfdr.org

Figure 1.3: World Bank disaster related lending, 1980–2003



- Redesign of investment projects not yet approved to include recovery activities.
- A contingent emergency loan to countries at high risk of natural disasters.

Future Directions for Social Funds/CDD Operations

Social fund/CDD operations can continue to make important contributions to supporting the World Bank’s work on disaster risk management in the following key areas.

Implementing Community-based Disaster Risk Management Initiatives

The ability of social funds to deliver a range of social protection and social risk management¹¹ functions, along with the focus of CDD operations on improving service delivery, empowering communities/local governments, and expanding livelihoods opportunities (World Bank, May 2007), puts social fund/CDD operations in a good position to support initiatives to reduce the vulnerability of poor and marginal communities to natural hazards and to adapt to the challenges of climate change. This can include:

¹¹ Social protection encompasses all public interventions that help individuals, households, and communities to manage risk or that provide support to the critically poor. The concept of social risk management asserts that individuals, households, and communities are exposed to multiple risks from different sources, both natural and human-made. A clear assessment of a risk management system for any population is possible by examining the available risk management instruments in a matrix of strategies and arrangements—a risk management framework (World Bank social protection Web site, 2008).

- Strengthening the capacity of local institutions to reduce and manage the impact of shocks, including improving community-local government linkages in disaster management planning and implementation;
- Increasing access to basic social services (e.g., public health, sanitation, education) and micro-finance/micro-insurance services to build livelihood security and resilience to cope with shocks;
- Developing the physical infrastructure to reduce asset losses (e.g., seawalls, irrigation systems, health centers); and
- Assisting disaster-affected communities to protect their income and assets through public works and cash transfer programs, while organizing longer-term recovery initiatives to restore and improve income and assets.

Many social fund/CDD operations already are undertaking such activities, using community-based disaster risk management (CBDRM) approaches. The emergence of community-based approaches to disaster risk management stems from increasing international recognition that disasters are not unpredictable and unavoidable events to be addressed only by emergency specialists, but rather reflect unsolved problems of development. Instead of focusing predominantly on disaster response, the emphasis has changed toward looking at the range of factors and processes that cause hazards to turn into disasters in the first place. Thus the priority has become one of reducing people's vulnerability to and managing the risks from natural hazards (UN/ISDR, 2001).

The core principles of CBDRM are that communities bear the brunt of disasters, are the best judges of their own vulnerability, and are best placed to identify solutions to their problems. Therefore, they should be directly involved in planning and implementing disaster prevention, preparedness, and mitigation measures. In a post-disaster context, they should be fully active in decision-making and the management of relief and recovery.

The main characteristics of CBDRM (adapted from Yodmani, 2001, pp. 9–10) are the following:

- The community is the key actor as well as the main beneficiary of short- and longer-term DRM. Within the community, priority attention is given to the conditions of the most vulnerable and to their mobilization. The community participates in the entire process of DRM from situational analysis to planning to implementation.
- The primary content of disaster management activities revolves around reducing vulnerable conditions and the root causes of vulnerability through increasing a community's capacities, resources, and coping strategies.
- Disasters are viewed as unmanaged development risks and unresolved problems of the development process. CBDRM should lead to improvements in the quality of life of the poor and of the natural environment.

Box 1.9 Community-Based Disaster Risk Management in Vietnam

A CBDRM component is being piloted in Vietnam as part of the World Bank–financed Natural Disaster Risk Management Project (NDRMP). This follows a comprehensive disaster risk assessment in 10 communes within three provinces.

The CBDRM approach complements other project components to build the capacity of the most vulnerable populations to carry out risk reduction measures and reduce their vulnerability to disasters. The component supports the scaling-up of CBDRM innovative approaches, adopted during Program 135, in approximately 30 selected communes in four more provinces by preparing and implementing Safer Community Plans (SCPs). The SCPs will develop and test innovative approaches to CBDRM. The component, funded through a Japan Social Development Fund grant of \$1.5 million, uses participatory approaches to assess the risks faced by communes, as well as to set priorities and carry out disaster mitigation actions.

Four types of activities will be financed under the Pilot CBDRM Program that could subsequently be scaled up under the CBDRM component of the NDRMP:

- *Capacity building*—Building village and government local commune-level capacity building to support development of SCPs using participatory planning in 10 pilot communes.
- *Monitoring and evaluation*—Strengthening the partnership between poor communities and local government to develop and implement a monitoring and evaluation system for CBDRM activities.
- *Community structural investment subprojects*—Community-driven disaster risk reduction and mitigation, including the construction of safe water systems, multipurpose evacuation centers, health posts, canals for drainage, protection dikes, and improved roads for evacuation and access to humanitarian relief, as identified in the SCPs.
- *Community nonstructural investment subprojects*—Community-driven disaster risk preparedness, including nonstructural CBDRM subprojects to support safer commune planning for disaster preparedness and response, improved early warning and communications systems, evacuation plans and demonstration, food and water storage containers, and first aid training and equipment.

Source: World Bank 2005.

Box 1.10 Indigenous knowledge and disaster risk management in Africa

Over 2004–2006, the UN Environment Programme sponsored a study of indigenous knowledge in Kenya, South Africa, Swaziland, and Tanzania. The study found that communities face many natural hazards but the major ones are drought and floods. They have devised a variety of measures that have enabled them to survive climatic hazards with little or no support from the outside world, such as growing drought-resistant and early-maturing indigenous crop varieties, gathering wild fruits and vegetables, cultivating wetlands, and diversifying and splitting livestock.

The communities were well aware of the hazards that faced them and, in most cases, had the knowledge and institutional structures to cope with them. At the same time, the communities knew that a well-conserved environment helped them reduce risks associated with natural disasters.

Source: UNEP, 2007, p. 8.

- CBDRM contributes to people's empowerment—for physical safety, for more access and control of resources, for participation in decisions that affect their lives, and for enjoyment of the benefits of a healthy environment.
- CBDRM uses multi-sectoral, multi-disciplinary approaches that link poverty reduction with disaster management stakeholders. The community links up with the municipal and national levels to address the complexity of vulnerability issues. A wide range of approaches to risk reduction is employed.

It is now widely recognized that top-down government and institutional interventions alone are often insufficient to meet the disaster management needs of poor and vulnerable people. They are less able to address community dynamics, perceptions, and needs, and they may ignore the potential of local resources and capacities. This has, in some cases, even increased people's vulnerability. Moreover, communities are often either unaware of these formal disaster reduction interventions or find them inappropriate to their local context. The CBDRM approach emphasizes activities that strengthen communities' capacities to cope with hazards and, more broadly, to improve their livelihood security. In this way, disaster risk reduction is integrated with sustainable economic and social development.

It is important to emphasize that communities, especially those that are poor, can implement only a limited range of CBDRM measures by themselves. Efforts are needed at different levels of government and across different sectors to create the mechanisms and provide the resources required for effective disaster management. The communities themselves also need to be aware of the importance of preparing for disaster risks and to develop the skills to turn this awareness into concrete actions. Furthermore, CBDRM depends on a favorable political environment that promotes and supports this participatory process.

Increasing the Speed and Efficiency of Disaster Response and Recovery

The Bank's interest in building on the positive roles already played by social fund/CDD operations in responding to natural disaster includes, but is not limited to, the continued refinement, formal adoption, and replication of successful modifications to the social fund's organizational setup (e.g., use of decentralized teams/mobile units); modifications to operational procedures/project cycle (e.g., disbursement procedures and simplified procurement) and types of investment supported; and communication strategies used to reach stakeholders during all phases of disaster response and recovery.

Social fund/CDD operations will need to undertake this work with attention to the challenges involved, such as:

Box 1.11 Good practice in community-based disaster risk management

Over the past two decades, developmental and humanitarian organizations have learned that the most effective CBDRM programs and projects have many of the following features:

- They recognize that local people and their organizations are the main actors in reducing risk and responding to disasters and seek to involve them in defining problems, deciding solutions, implementing activities, and evaluating the results.
- They build linkages between communities and the local and national authorities to promote greater complementarity between their respective roles in disaster risk management.
- They understand the important roles played by women in disaster management and fully include them in decision-making, implementation, and evaluation.
- They are based on a thorough analysis of the particular hazard and risk environment, including the vulnerabilities and capacities of the people affected.
- They incorporate attention to the needs and views of particularly vulnerable people who may be marginalized from participation on the basis of their gender, age, disability, ethnicity, socio-economic status, or other factors.
- They recognize that livelihoods are central to poor and vulnerable people's coping strategies and they incorporate a focus on livelihoods security whenever possible.
- They analyze the close link between environmental degradation and increased risk from natural hazards and incorporate appropriate environmental activities to the extent possible.
- They treat information, education, and communication as a two-way process between communities and other disaster management stakeholders, combining local knowledge and practice with scientific and technological information to ensure that the disaster early warning, preparedness, and mitigation measures are appropriate to the local context.
- They design locally appropriate and sustainable technological interventions for risk reduction.
- They adequately design and resource baseline data collection and monitoring and evaluation systems.
- They have good community accountability systems and put them into practice.
- They promote knowledge-sharing, networking, and collaboration between different actors at local, national, and/or international levels to improve good practice.

- Minimizing the disruption to regular programming caused by emergency operations after large-scale disasters;
- Developing systems to scale up operations quickly without compromising on quality assurance and fiduciary and other safeguards;
- Balancing the need for speed with effective community participation and social inclusiveness processes;
- Coordinating effectively with a complex array of domestic and external actors, some of whom are not familiar with the Bank and have different operational approaches;
- Ensuring that efficient coordination is maintained with other areas and projects of the Bank's country operation; and
- Managing the transitions smoothly between relief, recovery, and a return to regular development programming, including scaling down staffing levels.

A number of initiatives have been taken by different social fund/CDD operations to tackle these challenges. These are discussed in Modules 4 and 5 of the Toolkit.

Addressing Vulnerability

Social fund/CDD operations also are well placed to ensure better inclusiveness in CBDRM for those groups most vulnerable to natural disasters or whose vulnerability is increased as the result of a disaster, given their extensive experience in vulnerability assessment and targeting.

There are certain groups, even among the poor, that are particularly vulnerable to disasters. The root causes of their vulnerability usually lie in their position in society. These groups may be marginalized from participation in disaster risk reduction, relief, or recovery initiatives on the basis of their gender, age, disability, ethnicity, socio-economic status (e.g., female-headed households, landless tenants, orphans, and migrant workers), or other factors. This can lead to less effective and discriminatory programs that may even put some people at greater risk.¹²

While vulnerability cannot be generalized and requires context-specific analysis, some patterns have been observed in past disasters. In slow-onset disasters (e.g., droughts), vulnerable groups have often included pastoralists, poor women/children, the elderly, the disabled, internally displaced persons and their host communities, people living with HIV/AIDS and their families, and the food-insecure in urban areas (Hedlund, 2008).

In rapid-onset disasters (e.g., cyclones, earthquakes), vulnerable groups have often included single-parent households (especially female-headed households), poor women and children, migrant or minority communities, the elderly, the disabled, internally displaced persons and their host communities or families, and landless tenants/ sharecroppers or those without clear land and property rights. More well off households who have lost both their assets and their breadwinners also may become especially vulnerable, as they may have less well developed risk-coping mechanisms (compiled from ProVention/ALNAP lessons learnt in disaster relief and recovery briefing papers 2005–08; IFRC, 2001 and 2007g; Sphere Project, 2004; Twigg, 2004).

¹² A good overview of vulnerability and capacity issues in disaster risk management can be found in Chapter 6: Marginalized Groups, in J Twigg, *Disaster risk reduction: Mitigation and preparedness in development and emergency programming*. London: Overseas Development Institute/Humanitarian Practice Network: Good Practice Review, No 9, March 2004. Paper.

Box 1.12 Giving the poor and vulnerable a voice

In development, organizations aim to work with the poorest of the poor. In disasters, they aim to work with the most vulnerable. These two groups are not identical but will often contain many of the same people, and the problems in reaching them are similar. They are nearly always the most difficult to see and to hear. They tend to be the most disenfranchised, the least likely to take chances, and the least accustomed to expressing and asserting themselves. The importance of giving the most vulnerable and the victims of disasters a voice cannot be over-emphasized.

Source: Twigg, 2004, pp. 125–126.

Specific vulnerabilities influence people’s ability to cope and survive in a disaster, and those most at risk must be identified in each context. Their existing coping skills should be recognized and supported (Sphere Project, 2004).

The use of participatory community-based approaches to assessment, planning, monitoring, and evaluation is the most effective way of identifying who is vulnerable to natural disasters and designing appropriate interventions. In addition, engaging staff or volunteers from marginalized groups, as well as working with local organizations that represent these groups—where they exist—can be useful ways to increase their participation in CBDRM activities. Vulnerability may not be obvious, or assumptions may be made about vulnerability that later prove to be incorrect, as many of the people most susceptible to hazard impacts are among the most marginalized in society.

Box 1.13 Accounting for the needs of the disabled in disaster response

The Turkey Emergency Earthquake Recovery Loan (EERL), which financed cash transfers to earthquake survivors, explicitly considered the needs of disabled people. The EERL consisted of cash transfers to survivors and newly disabled persons who suffered property damage whether or not they were covered by social security. The philosophy of the EERL was that earthquake survivors would need temporary assistance to cope with the aftermath of the earthquake and, further, that families who lost their bread-winner to death or who had a disabled member would be further stressed and in need of additional assistance. In 2002, the government estimated that 12.29 percent of the population had a disability (but, of course, not all these were caused by the earthquake). Two audits and a beneficiary assessment verified that EERL benefits reached their target population.

Source: Vakis, 2006, p. 15.

Social fund/CDD operations have the capacities and mechanisms to give vulnerable groups greater access to resources and an increased role in decision-making. They can also act as a role model for others, sharing their experiences of what works effectively in a given country context. For example, many international responses to major disasters are extremely weak in their attention to gender equity considerations (Cosgrave, 2008).

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Documents

Department for International Development (2004b). "The impact of climate change on the vulnerability of the poor." London: DFID. <http://www.dfid.gov.uk/pubs/files/climate-change/keysheetsindex.asp>

UN Development Programme (2004). *Reducing Disaster Risk: A Challenge for Development*. New York: UNDP/Bureau for Crisis Prevention and Recovery.

UN Inter-Agency Secretariat for the International Strategy for Disaster Risk Reduction. *World Conference on Disaster Reduction 18–22 January 2005, Kobe, Hyogo, Japan: Proceedings of the Conference*. Geneva: UN/ISDR Hyogo-framework-for-action

——— (2007b). *Disaster Risk Reduction: 2007 Global Review*. Geneva: UN/ISDR. ISDR global review

Vakis R (2006). *Complementing Natural Disasters Management: The Role of Social Protection*. Washington DC: World Bank, SP Discussion Paper No 0543. social protection

World Bank (2006a). *Hazards of Nature, Risks to Development: An IEG Evaluation of World Bank Assistance for Natural Disasters*. Washington DC: The World Bank. IEG natural_disasters_evaluation

Yodmani S (2001). *Disaster Risk Management and Vulnerability Reduction: Protecting the Poor*, Paper Presented at Asia Pacific Forum on Poverty. Bangkok: Asian Disaster Preparedness Centre. Yodmani paper

Web Sites

Intergovernmental Panel for Climate Change: <http://www.ipcc.ch>

The IPCC is a scientific intergovernmental body set up by the World Meteorological Organization and the United Nations Environment Programme. Its role is to assess on a comprehensive, objective, open, and transparent basis the latest scientific, technical, and socio-economic literature produced worldwide relevant to the understanding of the risk of human-induced climate change, its observed and projected impacts, and options for adaptation and mitigation.

ProVention Consortium: <http://www.proventionconsortium.org>

The ProVention Consortium is a global coalition of international organizations, governments, the private sector, civil society organizations, and academic institutions dedicated to increasing the safety of vulnerable communities and to reducing the impacts of disasters in developing countries. Among other things, ProVention engages in advocacy for increased policy attention and commitment to reducing natural hazard risks, develops innovative approaches to the practical applications of disaster risk management, and shares knowledge and resources for organizations, practitioners, and communities active in disaster reduction.

UN Inter-Agency Secretariat for the International Strategy for Disaster Risk Reduction: <http://www.unisdr.org/>

The UN/ISDR is the focal point in the UN System to promote links and synergies between and coordination of disaster reduction activities in the socio-economic, humanitarian, and development fields, as well as to support policy integration. It serves as an international information clearinghouse on disaster reduction, developing awareness campaigns and producing articles, journals, and other publications and promotional materials related to disaster reduction.



MODULE 2

Integrating CBDRM into The Project Cycle

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Module Summary

Module 2 offers guidance on incorporating disaster risk management, using community-based approaches, into the World Bank's country programs and social fund/community-driven development projects in countries at high risk of natural disasters. The Bank's broad policy directions in this area are outlined, along with some of the key areas of information and analysis required for effective mainstreaming of community-based disaster risk management (CBDRM) into social funds and community-driven development (CDD) operations.

The foundation of CBDRM is community-level risk assessment. Information is provided on the World Bank's Global Natural Disaster Hotspots tool for conducting multi-hazard risk analysis and on methods for conducting hazard, vulnerability, and capacity assessments to inform the development of country programs and social fund/CDD projects and sub-projects.

■ Key Principles of Disaster Risk Management Mainstreaming

Natural hazard-related issues need to be considered in national and sectoral development planning, as well as in the design of all programs and projects in hazard-prone areas. This is required both to protect the development investments against natural hazards and to strengthen the hazard resilience of the communities they serve.

In 2001, the World Bank launched a *Global Natural Disaster Hotspots* initiative to provide information and methods to inform the Bank decisions on priority areas for investment in disaster risk reduction (DRR). This multi-hazard risk analysis, which looked at six major natural hazards—cyclones, drought, earthquakes, floods, landslides, and volcanoes—identified 86 geographic regions or “hotspots” in the world where the risks of natural disasters are particularly high. These are locations where it is more a question of when rather than if natural hazards will strike and threaten both lives and investments in development (see “The Growing Scale and Impact of Disasters” in Module 1 for information on the high socio-economic costs of disasters).

The 2006 evaluation by the Independent Evaluation Group (IEG) of the World Bank’s natural disaster assistance recommended the development of a strategy or action plan for assistance related to disasters that, as well as supporting improved emergency response operations, should “make provisions to give more attention to natural hazards during the appraisal of investment projects generally, and specifically in the preparation of Poverty Reduction Strategy Papers (PRSPs), Country Assistance Strategies (CASs), and other strategic documents” (World Bank, 2006a, p. 7). In its response, the Bank’s senior management recognized the importance of a more strategic approach to disaster management and the need to mainstream disaster risk reduction into CAS and PRSP documents in high-risk countries (World Bank, 2008).¹

Box 2.1 Identifying countries at high risk of natural disasters

Global Natural Disaster Hotspots has developed an online, interactive hotspots mapping tool (Hotspots Tool), which provides detailed disaster risk data for countries and regions around the globe. Information is also provided on World Bank disaster management projects in each country and region.

Source: World Bank, Hotspots Web site.

¹ World Bank (2008b). *Toward a New Framework for Rapid Bank Response to Crises and Emergencies*. Washington, DC (unpublished), p. 27.

■ Integrating CBDRM Into The Project Cycle²

PRSP and CAS Documents

The incorporation of hazards-related information into PRSPs and CASs for disaster-prone countries will set the strategic framework for designing all country-level programs, including social fund/community-driven development (CDD) projects. Social fund/CDD operations' knowledge and experience of the vulnerabilities and coping strategies of poor communities should inform the diagnosis of the country's major risks arising from natural hazards. This information can also make a significant contribution to the Bank's dialogue with partner governments on the importance of investment in DRR and climate change adaptation as a key element of poverty reduction strategies. It will require the development of more systematic channels than currently exist for the feedback of these local-level lessons learned into national assessments and planning.

The CAS/PRSP preparation processes also can establish a platform for building DRR linkages between social fund/CDD operations and other World Bank operations in a country. For example, the DRR/mitigation strategies developed by governments may identify hazard-prone areas where construction of infrastructure (buildings, roads, etc.) needs to incorporate hazard-proofing measures or where key "lifeline" facilities (e.g., hospitals, schools) require retrofitting to increase their hazard resistance.

Box 2.2 Incorporating disaster risk management into Indonesia's CAS

In disaster-prone Indonesia, the Government of Indonesia (GoI) and the World Bank decided to deepen the focus on disaster risk management in the 2003–07 Country Assistance Strategy. The Bank undertook to explore with partners way to support the operationalization of new GoI disaster risk management legislation and institutional arrangements, while integrating improved disaster risk reduction into its sectoral work. Joint technical assistance in selected key areas was to be provided, including developing national and local government capacity for assessing disaster damage, losses, and needs; assessing capacity to absorb catastrophic events; supporting the development of a social protection system to manage sources of vulnerability; and designing instruments for financial risk transfer and flexible risk financing.

Source: World Bank (2006). IBRD/IDA/IFC/MIGA Country Assistance Strategy Progress Report for Republic of Indonesia, pp. 14–16.

² This section is largely adapted from Benson and Twigg (2007). *Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations*, Guidance Note 5. Geneva: Provention Consortium. DRR Toolkit

Project Identification, Preparation, and Appraisal

The initial planning stages of the project cycle (identification and appraisal) are the key entry points at which disaster risk issues can be factored into projects. The information collected and documented at these stages will form an important element of the baseline data used to monitor disaster risks and to assess the effectiveness of DRR measures taken throughout the life of the project.

The collection and interpretation of hazards information should form part of essential project preparation and appraisal activities, including risk analysis, vulnerability assessment, environmental appraisal, and socio-economic appraisal. It is important that hazards information and assessment do not stand alone but are fully integrated with other planning tools. This includes information generated through community-based risk assessments.

Box 2.3 Assessing Hazards

Information on the following key features of natural hazards is needed to identify past, present, and potential hazards and their effects:

- *Location and extent.* Is the project area affected by one or more natural hazards, what types of hazard, and where?
- *Frequency and probability of occurrence.* How often are hazard events likely to occur (in both the short and the long term)?
- *Intensity/severity.* How severe are the events likely to be (e.g., flood levels; speed of winds, and volume/rate of rainfall during hurricanes; magnitude and intensity of an earthquake)?
- *Duration.* How long will the hazard event last (from a few seconds or minutes in the case of an earthquake to months or even years in the case of drought)?
- *Predictability.* How reliably can we predict when and where events will happen?

Project planners should also be aware of:

- Secondary hazards resulting from a hazard event (e.g., landslides triggered by an earthquake or heavy rainfall; fires in buildings set off by earthquakes; dam failure due to floodwaters);
- Hazards outside the project area that could affect it (e.g., by cutting off supplies of power or raw materials, displacing communities); and
- How hazard events occur, including not only natural physical processes but also the impact of human activities that create or exacerbate hazards (e.g., deforestation causing slope instability and hence landslides).

Source: Benson and Twigg, 2007, pp 20–21.

During project identification, information on significant natural hazards and vulnerabilities that may affect the project and sub-projects should be collected and analyzed. The information should be summarized in the Project Concept Note and reflected in the Project Information Document (PID). This includes the development of risk reduction objectives or performance indicators. If significant threats are identified, further information gathering and analysis will be required to identify key issues and provide information about how they will be addressed during project preparation. This should be done as a component of environmental and social safeguards analyses and reflected in the Integrated Safeguards Data Sheet.

During project preparation, all significant natural hazards and risks identified need to be addressed, with the Bank offering analysis and advice where requested by the partner government. The Environmental Assessment Report and Environmental Action Plan needs to include analysis of the possible impacts of natural hazards on the project and steps to mitigate harm. They should identify the major risks and vulnerabilities faced by the country in relation to natural hazards and the main causes and should formulate policies and concrete actions to deal with the problems. Likewise, the Indigenous Peoples Development Plan should identify the potentially adverse consequences of natural hazards on the health, productive resources, economies, and cultures of indigenous peoples.

At the appraisal stage, Bank staff need to review and verify the soundness and completeness of the analyses, identify any gaps, and recommend adjustments to the project, as required. This information should appear in the *Project Appraisal Documents* and be included in the revised PID prior to project negotiation and approval.

Implementation and Supervision

During implementation, the project should be monitored regarding the impact of natural hazards and vulnerabilities on the project (and sub-projects) and its beneficiaries. As the vulnerabilities of people often change over time, it is important to regularly update this information over the life of the project.

Project Closing and Evaluation

The planning assumptions and outcomes relating to the likely impact of natural hazards on the project should be reviewed and lessons learned identified. This information should be contained in the Implementation Completion Report and the IEG audit, as well as any later impact evaluation or project performance assessments undertaken.

Figure 2.1: Incorporation of Hazards and Vulnerability Information in the Project Cycle



Source: Adapted from Benson and Twigg (2007).

Operational Issues

Assessing Hazards, Vulnerabilities, and Capacities at the Community Level^B

Risk assessment is a necessary first step for any serious consideration of DRR strategies, projects, or activities. Risk assessments are carried out to determine the likelihood of certain hazard events occurring and the magnitude of their possible consequences,

³ This section is largely adapted from Benson and Twigg, 2007, Guidance Note 9.

Box 2.4 Definitions

Risk	The probability of harmful consequences, or expected losses (deaths, injuries, property and livelihood loss, economic activity disrupted, or environment damaged) resulting from interactions between natural or human-induced hazards and vulnerable conditions.
Capacity	A combination of all the strengths and resources available within a community, society, or organization that can reduce the level of risk or the effects of a disaster. Capacity may include physical, institutional, social, or economic means as well as skilled personal or collective attributes such as leadership and management.
Hazard	A potentially damaging physical event, phenomenon, or human activity that may cause loss of life or injury, property damage, social and economic disruption, or environmental degradation.
Vulnerability	The conditions determined by physical, social, attitudinal, economic, and environmental factors or processes that increase the susceptibility of a community to the impact of hazards.

Source: UN/ISDR (2004).

followed by the development of strategies to reduce or manage any risks that are determined to be unacceptably high.

Natural disaster risk can be described as the probability of harmful consequences, or expected losses resulting from interactions between natural or human-induced hazards and vulnerable conditions. Assessments of risk also need to take into account the strengths and resources available within a community, society, or organization that can reduce the level of risk or the effects of a disaster—in other words, its capacity to anticipate, cope with, resist, and recover from the impact of a hazard. Capacity may include physical, institutional, social, or economic means as well as skilled personal or collective attributes such as leadership and management (UN/ISDR, 2004).⁴

Community-based risks can be assessed by carrying out hazard, vulnerability, and capacity assessments (HVCAs or VCAs). (H)VCAs use participatory methodologies and tools to generate an understanding of the risks from the hazards that communities face; the social, economic, and environmental factors that determine their vulnerabilities; and the capacities they can mobilize and strengthen to address these challenges. This is usually linked to the design of locally specific DRR solutions. (H)VCAs can also be combined with other methods to produce national-level risk assessments.

⁴ Different areas of the World Bank have considered various definitions of disaster risk. The Bank may need to develop one common definition in the future.

Box 2.5 Country-level VCA

A World Bank national-level analysis of vulnerability in Guatemala in 2000–2001 used quantitative data from a recent extensive and cross-sectional Living Standards Measurement Survey, carried out an in-depth qualitative survey on poverty and exclusion in a sample of 10 villages, and complemented this with other administrative and statistical information including maps and reviews of social protection programs. The data were then subjected to several formal analytical and statistical techniques.

The analysis covered the different kinds of shock (e.g., economic, social, natural) that were sources of vulnerability at macro- and micro-levels; their frequency and differential impact on household income, consumption, wealth and inequality; coping strategies and their effectiveness; and the value of external assistance.

The findings led to a better understanding of the links between vulnerability and poverty, thereby strengthening the analytical and operational content of the government's poverty reduction strategy, as well as the Bank's programs for poverty assessment and social protection in Guatemala.

Source: Benson and Twigg, 2007, p 108.

Many different ways and forms of conducting a (H)VCA have developed over the years.⁵ Regardless of which specific methodology is used, the most important features of a good community level (H)VCA (adapted from Benson and Twigg, 2007, p. 107) are that it is:

- Holistic, ensuring that all relevant aspects are considered;
- Analyzes hazards and disasters in the context of poverty, vulnerability, and development;
- Identifies the range of elements that put communities at risk (lives, health, incomes, livelihood, social ties, property, etc.), along with an assessment of their exposure to all kinds of external shocks or pressures, including hazards and disasters;
- Identifies the most vulnerable, recognizing that different groups of people are vulnerable to external shocks in different ways and to different extents;
- Looks not only at hazardous conditions and the immediate symptoms of vulnerability but also at the underlying factors contributing to their vulnerability;

⁵ The International Federation of Red Cross and Red Crescent Societies (IFRC) has used VCA as the basis for CBDRM planning for over 10 years. In 2006–08, IFRC reviewed its experiences and developed a new generation of VCA “learning-by-doing” training manuals and tools. These are included in the References section of the Toolkit. They can also be accessed at: [What-is-VCA](#); [how-to-do-VCA](#); [VCA-toolbox](#); [VCA lessons learned](#). Another resource is the ProVenton Consortium's Community Risk Assessment Toolkit, which is regularly updated. CRA Toolkit.

Table 2.1 Capacities and Vulnerabilities Analysis

Originally developed in the 1980s to make relief interventions more developmental, this model has been used widely in other disaster and development contexts, and many other VCA methods have built on it. The basis of the VCA framework is a simple matrix for viewing people's vulnerabilities and capacities in three broad, interrelated areas. Five other factors can be added to the basic matrix to make it reflect complex reality: disaggregation by gender, disaggregation by other differences (e.g., economic status), changes over time, interaction between the categories, and different scales or levels of application (e.g., village or national levels).

Source: Anderson and Woodrow, 1998 in Benson and Twigg, 2007, p. 107.

	Vulnerabilities	Capacities
Physical/material What productive resources, skills and hazards exist? (i.e., land, climate, environment, health, skills/ labor, infrastructure, housing, finance, technologies)		
Social/organizational What relations and organization exist among people? (Includes formal political structures and informal social systems)		
Motivational/attitudinal How does the community view its ability to create change? (Includes ideologies, beliefs, motivations, experiences of collaboration)		

- Examines coping capacities and resilience to shocks and hazards (assessments often fail to pay enough attention to this dimension); and
- Uses assessment methods that can identify changing vulnerability trends over time, not just take a snapshot of current conditions.

Community-level (H)VCA uses similar participatory information-gathering tools as in poverty or social analysis, such as participatory rapid or rural appraisal and participatory learning for action (examples in Annex 2.1). (H)VCA hazard assessment approaches could be integrated into the risk and vulnerability analysis (RVA) methodology currently used by social fund/CDD operations.

Effective community-level risk assessment requires combining scientific and empirical data about hazards with local knowledge, especially in a situation where the hazard has not yet been experienced by the community (Yodmani, 2001)—for example, earthquake hazards in Nepal or changing drought and flood patterns in Africa caused by climate change. Technical hazard assessment information is an important complement to the more socio-economically oriented (H)VCA process. Some organizations have

invited personnel from agencies such as a National Meteorological Office or Ministry of Environment or from local universities to share information with communities during the (H)VCA process.

To succeed, (H)VCA depends on the involvement of relevant stakeholders in providing and analyzing data. It is particularly important to include vulnerable people in the process and, in hazard-prone areas, all those who are at risk from those hazards. Collaborative involvement of vulnerable people with local government officials in the VCA process should be encouraged, as this can stimulate a shared understanding of the issues and appropriate solutions, as well as having the potential to influence broader policy and practice.

Communities often have different perceptions of relative risk and priorities for action than external agencies. These need to be understood and incorporated into calculations of project risk and socio-economic cost-benefit analyses (IFRC, 2006c; UN/ISDR, 2004). They also need to form part of a dialogue to combine community and government priorities, interests, and capacities if sustainable and relevant disaster risk reduction outcomes are to be achieved.

Also, some communities or members of communities may be unaware of certain hazards (e.g., if they have not yet experienced the effects of climate change or not yet had an earthquake or not had one for many years). There is evidence of VCAs leading to better community hazard awareness and identification (Benson and Twigg, 2007). To achieve such outcomes requires comprehensive engagement with communities, including robust dialogue and information-sharing with them at each stage of the VCA process.

Integrating CBDRM into Social Fund/CDD Sub-Projects

Once national and/or local hazard, vulnerability, and capacity assessments have been completed—either through an (H)VCA, a modified RVA, or some combination of methods that is most practical for the social fund/CDD operation concerned—CBDRM sub-projects and activities can also be identified and designed. This can be done with only modest adaptation of the usual processes of geographic targeting, menu and eligibility criteria, and an inclusive and participatory sub-project identification and implementation process, as follows:

1. Target geographic areas that have been identified as being both hazard prone and having high levels of vulnerability through the project's risk assessment processes. Hazard and vulnerability mapping, linked to existing poverty maps, would be an important element of this work.

2. Include CBDRM activities in sub-project menus and eligibility criteria.
3. Design socially inclusive disaster management sub-projects that target the most vulnerable, including, but not limited to, persons with disabilities, children, women, and the elderly. Designs should be based on the needs and priorities identified through community VCAs, in full consultation with the government authorities.
4. Incorporate CBDRM into the information, education, and communication activities undertaken by social fund/CDD operations.

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Benson and Twigg (2007). *Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations*. Geneva: ProVention Consortium. http://www.proventionconsortium.org/themes/default/pdfs/tools_for_mainstreaming_DRR.pdf

Dilley M, Chen R et al (2005). *Natural Disaster Hotspots: A Global Risk Analysis*. Washington, DC: The World Bank/Hazard Management Unit. http://publications.worldbank.org/ecommerce/catalog/product?item_id=4302005

Twigg J (2007). *Characteristics of a Disaster-resilient Community: A Guidance Note*. London: DFID. <http://www.sheltercentre.org/shelterlibrary/publications/578.htm>

USAID (2007). *Adapting to Climate Variability and Change: A Guidance Manual for Development Planning*. Washington DC: USAID. www.usaid.gov/our_work/environment/climate/docs/reports/cc_vamannual.pdf



MODULE 3

Disaster Risk Reduction (Prevention, Preparedness, and Mitigation)

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Module Summary

Module 3 provides an overview of the main principles of disaster risk reduction—prevention, preparedness, and mitigation—and their relationship to community-based disaster risk management (CBDRM). Five potential areas of work on CBDRM for social fund/community-driven development operations are discussed: capacity-building of governments and communities to plan and implement CBDRM and disaster preparedness activities; structural (e.g., public works) and non-structural (e.g., legislation) measures to mitigate disaster risks, with a particular focus on hazard-resistant construction; diversification of livelihoods; risk financing and transfer methods (e.g., microfinance, micro-insurance); and adaptation to climate change. Guidance is provided on three operational issues, including building

government and community support for CBDRM, fostering public-private partnership, and undertaking information, education, and communication activities to increase disaster risk awareness and change risk behavior.

■ Key Principles of Community-Based Disaster Risk Reduction

As noted in Module 1, disasters are not unpredictable and unavoidable events but unsolved problems of development. Disaster risk reduction (DRR) aims to minimize vulnerabilities and disaster risks throughout a society in order to avoid or to limit the adverse impacts of hazards and to facilitate sustainable development (UN/ISDR, 2004). This is achieved using a disaster risk management (DRM) approach. DRM refers to the systematic process of using administrative decisions, organization, operational skills, and capacities to implement policies, strategies, and coping capacities of the society and communities to lessen the impacts of natural hazards and related disasters (UN/ISDR, 2004). For more information on DRR /DRM, please see “What is Disaster Risk Management?” in Module 1.

Community-based disaster risk management (CBDRM) is a process of DRM in which “at risk” communities are actively engaged in the identification, analysis, treatment, monitoring, and evaluation of disaster risks in order to reduce their vulnerabilities and enhance their capacities. This means that people are at the heart of decision-making and implementation of DRM activities. The involvement of the most vulnerable is paramount, and the support of the least vulnerable is necessary (ADPC, 2006). This entails paying attention to the needs and views of women and men in local communities and vulnerable people who may be marginalized from participation on the basis of their gender, age, disability, ethnicity, socio-economic status, or other factor. In Module 1, “Addressing Vulnerability” provides an overview of vulnerability issues and “Implementing Community-based Disaster Risk Management Initiatives” contains further information about CBDRM, while Modules 7– 9 give specific guidance on inclusive programming.

International experience has shown that DRM measures are most successful when they include the direct participation of the people most likely to be exposed to hazards. Investments in community-based preparedness and early warning, particularly in places more at risk of natural disasters, have saved lives, protected property, and reduced economic losses. For example, the volunteer-based Bangladesh cyclone preparedness program has successfully warned, evacuated, and sheltered millions of people since the 1970s (IFRC, 2006a).

People living in disaster-prone areas also develop their own disaster survival techniques and coping mechanisms, using indigenous knowledge and practices. These practices strengthen household and community resilience and preparedness. CBDRM approaches seek to understand and build on these existing community capacities, some of which are now being challenged by the impact of climate change.

Efforts also are made to build linkages between communities and the local and national authorities, as many of the root causes of vulnerability rest in broader institutional, political, and developmental decision-making. Any local CBDRM system should be integrated into state and national DRM plans and resourcing arrangements.

CBDRM programming requires a holistic perspective that recognizes the links between vulnerability, poverty, and socio-economic development. It focuses on investing in building safer and more resilient communities by reducing the vulnerability of people, especially the poor, to the effects of hazards to a manageable and acceptable level.

Possible Areas For Social Fund/CDD Operation Support

Social funds and community-driven development (CDD) operations are well suited to help poor and marginal communities reduce their vulnerability to natural hazards due to the close relationships they have developed with communities and civil society organizations, their decentralized and flexible manner of operation, and their experience in working with local and national governments to reduce poverty and vulnerability. Building community resilience and local institutional capacity to mitigate the impacts of hazard events has already been incorporated as one of the mutually reinforcing components of social protection in social fund/CDD projects and sub-projects.

Some of the areas of CBDRM where social fund/CDD operations can make a significant contribution include:

Box 3.1 Local capacity saves lives in Venezuela

Catucho, a neighborhood in Venezuela's capital, Caracas, was hit by severe floods in December 1999. Field reports suggested that community solidarity and strong community organization combined to save hundreds of lives. As the flood waters rose, neighbors helped one another by passing on the latest news about water levels, helping older residents from their homes, and in some cases forcing people who were reluctant to evacuate to move to safety. Only 15 people were believed to have been killed, whereas hundreds lost their lives in other neighborhoods.

Source: D Sanderson, 'Cities, Disasters and Livelihoods,' Environment & Urbanization, Vol 12, No 2, 2000, pp. 93–102 in Twigg, 2004.

- Strengthening the institutional capacities of communities and government for disaster risk management, including adaptation to climate change;
- Increasing local skills and capacities in disaster preparedness and mitigation;
- Supporting structural (e.g., construction of sea walls and irrigation systems, rehabilitation of mangroves, and stabilizing slopes) and non-structural (e.g., building codes and policies/procedures for risk analysis of infrastructure projects) measures to reduce or avoid the possible impacts of natural hazards;
- Building up and diversifying livelihoods assets and activities; and
- Developing and strengthening risk transfer and financing mechanisms.

Strengthening Community and Government Disaster Risk Management Capacity

Poor and vulnerable communities cannot prevent, prepare for, or manage all of the hazard risks that they face alone. They need the support of their local and national governments. Many countries have disaster management policies and legislation. Some have disaster management authorities and/or coordinating bodies. However, national central-level government agencies often do not have strong links to the community or even, sometimes, to local government. The weakest link in their disaster response chain is the community level, and there are numerous examples of disaster early warning and preparedness systems breaking down at this level—with devastating consequences.

A national political environment that supports CBDRM must be created. One entry point for social fund/CDD operations to support this objective is to assist the national and local governments in the 168 countries that have committed to the Hyogo Framework for Action (HFA) and the 34 countries that have developed complementary National Platforms for Disaster Risk Reduction, focused on implementing the HFA's five strategic priorities for action (see "World Bank Policy Response" in Module 1 for details). The National Platforms are a nationally led forum or committee of DRR stakeholders. They are intended to coordinate the mainstreaming of DRR into development policies, planning, and programs. This includes strengthening partnerships across sectors and disciplines, as well as among civil society organizations (CSOs), volunteer groups, and the private sector. Among other things, they aim to provide opportunities for CSOs to dialogue and contribute to incorporating DRR into local development processes.

Whether in collaboration with National Platforms or other national disaster management structures, social fund/CDD projects can play an important role in developing new models for strengthening community and government relationships in disaster prevention, preparedness, and mitigation. Social fund/CDD operations can bring community-level information and perspectives on hazards and vulnerability, as well as lessons learned from their experiences working with communities and local govern-

ment, into national DRR planning processes. They can introduce demand-driven approaches to DRR consultative and investment processes. Social fund/CDD operations will need to develop effective multi-stakeholder communication strategies in order to achieve these outcomes.

While national governments should provide the overall strategic framework for CBDRM, the design and implementation of CBDRM measures should occur primarily at the regional, municipal, and community levels. This is due to the fact that most emergencies will be smaller-scale, localized events, that community members will be the first responders, and that more-isolated or underserved communities will need greater self-sufficiency in anticipating and responding to these events (Twigg, 2004). Decentralization of disaster preparedness and response responsibilities creates the conditions for more rapid responses that are better informed about local needs and designed for the specific hazard and vulnerability context (Pusch, 2004).

Social Funds/CDD projects and sub-projects can support national and local governments and communities to develop effective decentralized DRM systems, using community-based disaster risk management approaches, by:

- Sensitizing officials to the importance of investing in CBDRM, including climate change adaptation, as a key element of development/poverty reduction;
- Assisting local governments and communities to design and implement CBDRM plans that include prevention, preparedness, and mitigation activities;
- Building the capacities of local institutions to coordinate effectively with the national government, including supporting legislation, policies, systems, and procedures to mitigate risks and facilitate coordinated disaster response during times of emergency;
- Developing and implementing public education programs to raise awareness of risks from natural hazards, including climate change–related risks;
- Training communities and governments to develop skills and capacities in disaster preparedness (including early warning systems), emergency responses, and climate change adaptation; and
- Forming partnerships with communities, government, nongovernmental organizations (NGOs), and the private sector to guide these efforts.

Developing Local Skills and Capacities in Disaster Preparedness

Disaster preparedness, particularly in areas assessed as being at higher risk from natural hazards, is an important subset of CBDRM planning. Effective disaster preparedness saves lives and property (IFRC, 2007c). It has two main aims: to help people avoid impending disaster threats and to put plans, resources, and mecha-

Box 3.2 Strengthening local disaster management institutions in Bangladesh

Disaster risk management measures are being incorporated into the World Bank's Local Governance Support Project (LGSP) in Bangladesh. The project is designed to analyze the connections between local government and community responses to natural disasters in Bangladesh and to offer guidance on the roles of local institutions in disaster management, distinguishing issues of community and local government responsibilities.

Strengthening the capacity and accountability of local government bodies is a strategic goal in the Bangladesh Poverty Reduction Strategy Paper. However, it has been widely recognized that local government in Bangladesh is weak, especially in rural areas. The lowest tier of government, the Union Parishads (UPs), have limited resources, little revenue-raising authority, and almost no influence on how the central government uses its resources in their areas. The World Bank and the Government of Bangladesh established the LGSP in order to strengthen the capacity of the UPs.

Given the disaster-prone context of Bangladesh, the Social Development team in the South Asia Region worked with the LGSP team to develop an integrated disaster management component for the project. The project was structured to support a positive working relationship between UPs and local communities and to build relationships with various actors in the community and the country as a whole, including NGOs concerned with disaster risk management and risk reduction. This is being done with a view to supporting disaster risk reduction and mitigation efforts in UP communities, especially those identified as having a high level of risk.

The LGSP offers a potential framework and common standards for local governments working on disaster-related initiatives with communities. It can provide support for the choices made by communities, for if there are no resources to support disaster-focused priorities, then community priorities may be constrained.

Source: Bangladesh Case Study, in this Toolkit.

nisms in place to ensure that those who are affected receive adequate assistance. It is assumed that some people and property will remain vulnerable to disasters, despite mitigation measures, and that agencies will have to deal with a disaster's impact (Twigg, 2004). Table 3.1 outlines the key elements of a disaster preparedness framework.

Communities and governments may need technical and financial support to design and implement their disaster preparedness (and contingency) plans. In addition to public works for disaster mitigation, this usually entails development of community-based early warning systems, identification of evacuation routes and asset protection strategies within communities, stockpiling supplies and creating relief funds for use in the event of an emergency, and training and equipping community volunteers for disaster response. Annex 3.2 provides information on programming strategies and considerations for each of these specific areas.

Table 3.1 Disaster Preparedness Framework

<p>1. Vulnerability assessment Starting point for planning and preparation, linked to longer-term mitigation and development interventions as well as disaster preparedness.</p>	<p>2. Planning Disaster preparedness plans agreed and in place that are achievable and for which commitment and resources are relatively assured.</p>	<p>3. Institutional framework Well coordinated disaster preparedness and response system at all levels, with commitment from relevant stakeholders. Roles and responsibilities clearly defined.</p>
<p>4. Information systems Efficient and reliable systems for gathering and sharing information (e.g., forecasts and warnings, information on relevant capacities, role allocation and resources) between stakeholders.</p>	<p>5. Resource base Goods (e.g., stockpiles of food, emergency shelter, and other materials), services (e.g., search and rescue, medical, engineering, nutrition specialists), and disaster relief funding (e.g., for items not easily stockpiled or anticipated) available and accessible.</p>	<p>6. Warning systems Robust communications systems (technologies, infrastructure, people) capable of transmitting warnings effectively to people at risk.</p>
<p>7. Response mechanisms Established and familiar to disaster response agencies and disaster victims (may include evacuation procedures and shelters, search and rescue teams, needs assessment teams, activation of emergency lifeline facilities, reception centers, and shelters for those displaced).</p>	<p>8. Education and training Training courses, workshops and extension programs for at-risk groups and disaster responders. Knowledge of risk and appropriate response shared through public information and education systems.</p>	<p>9. Rehearsals Evacuation and response procedures practiced, evaluated, and improved.</p>

Source: R. Kent (1994), Disaster Preparedness (New York/Geneva: UNDP/DHA Disaster Training Programme).

Given the number of stakeholders involved in CBDRM, including organizations that will “spring up” wanting to provide assistance after a disaster, it is critical that the roles and responsibilities of each agency or actor are clearly defined and regularly reviewed in government disaster preparedness plans. For organizations working at the local level, it is important to establish the extent of decentralization in the plan and the extent to which they will be allowed to make operational decisions on their own. The plans also should be periodically reviewed and updated, as required.

Reducing Hazard Impacts Through Structural and Non-structural Measures

Structural disaster mitigation measures refer to any physical construction to reduce or avoid possible impacts of hazards, including engineering measures and construction

of hazard-resistant and protective structures and infrastructure. Non-structural measures refer to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, that can reduce risk and related impacts (UN/ISDR, 2004).

A number of social fund/CDD sub-projects have helped communities and local governments undertake structural measures to limit the impact of natural hazards and environmental degradation, such as the construction of flood-resistant public buildings in Vietnam through Program 135 and local irrigation systems in southern Malawi through the Malawi Social Action Fund. Physical works—such as seawalls, land terracing, reforestation, drainage channels, and retaining walls—can make a big difference in the protection of communities. For example, in Honduras, Nicaragua, and Madagascar, highly deforested and soil-depleted areas were among the hardest hit by hurricanes; not surprisingly, these same zones were also among the poorest in those countries.

Social fund/CDD operations also can set a standard of good practice in infrastructure construction programs by incorporating hazard-proofing into project designs¹ and ensuring that facilities are not built in hazardous locations, such as floodplains. This is particularly important in the case of schools, due to the lives at stake, and for life-line services such as health centers and access roads, as these facilities will be most needed when a disaster strikes (Siri, 2004). Hazard-proofing requires the use of technical specialists to advise on the specifications of project designs, to set standards, and to inspect the quality of works. Activities to strengthen the technical capacity of local governments, NGOs, and CBOs can also be incorporated; through the Madagascar Social Fund (FID III), for instance, local small contractors, artisans, skilled laborers, and NGOs were trained on various aspects of infrastructure construction.

Box 3.3 The high price of not building to reduce hazard risks

The 7.6 magnitude earthquake that struck Pakistan in October 2005 caused severe damage to or the collapse of 95 percent of the educational buildings in the Azad Jammu Kashmir and 53 percent in North West Frontier Province. In total, 18,095 students and 853 teachers died. In addition, 423 health facilities sustained full or partial damage. Health care staff were killed or injured and information records and systems were lost, resulting in a complete breakdown of the health care system.

Source: Benson and Twigg, 2007, p. 146.

¹ For detailed information on hazard-proofing and retrofitting, see “Restoring Communal Assets” in Module 5.

Structural mitigation needs to be supported by non-structural mitigation measures, wherever possible, such as defining the institutional network for land use zoning, strengthening environmental legislation, requiring risk analysis for infrastructure plans and building projects, identifying needs to retrofit existing critical structures (e.g., hospitals and schools) or to protect key public assets (e.g., land tenure records), and securing funding so that the institutions responsible are able to act (Pusch, 2004). ActionAid's Nepal school safety program is a good example of a combined approach to structural and non-structural mitigation; it incorporates four key elements (ActionAid Nepal, 2006):

- Information dissemination and awareness raising about potential effects of earthquake risk (and other hazards) on population, children, and schools and about how to reduce the risk. Provision of training in critical areas like first aid, leadership, swimming lessons, etc;
- Making school structures resistant to earthquakes and floods;
- Putting in place school disaster preparedness plans and regular evacuation drills, which are linked to the community contingency plan; and
- Planning for arrangements to keep schools operating during and quickly after a disaster.

The Inter-Agency Network for Education in Emergencies also has developed quality Minimum Standards Related to Disaster Risk Reduction and an accompanying Toolkit for their implementation.

Box 3.4 Disaster risk reduction pays

- Spending 1 percent of a structure's value on vulnerability reduction measures can reduce probable maximum loss from hurricanes by around a third in the Caribbean, according to regional civil engineering experts.
- In the United States, \$1 spent by the Federal Emergency Management Agency (FEMA) on hazard mitigation generates an estimated \$4 on average in future benefits, according to a study of FEMA grants (including for retrofitting, structural mitigation projects, public awareness and education, and building codes).
- Only two schools were left standing in Grenada after Hurricane Ivan in 2004. Both had been subject to retrofitting through a World Bank initiative. One of the schools was used to house displaced persons after the event.
- In 1995, Hurricanes Luis and Marilyn damaged 876 housing units in Dominica, causing a total loss of \$4.2 million. The small wooden houses that were destroyed did not comply with local building codes. But all the buildings that had been retrofitted via simple modifications to local construction techniques under a Safer Construction Program funded by the U.S. Agency for International Development successfully withstood the hurricanes.

Source: Reproduced from Benson and Twigg, 2007, pp. 6–7.

Diversifying Livelihood Sources

Investment in diversifying the sources of livelihoods of poor people living in disaster-prone areas can be an effective longer-run DRR strategy. Families who lose their means of making a living during a disaster find their recovery from adverse effects more difficult and their vulnerability to future disasters increased. They also are less likely to invest in structural disaster mitigation measures, as this will be a low priority in comparison to survival (Yodmani, 2001).

Diversity in livelihood sources is important for increasing people's capacity to withstand or cope with natural hazards and disaster impacts. For example, a family that has two different sources of income—a tract of land, say, and a shop—may better withstand the loss of a crop and a draught animal during severe flooding, as it still has the shop to generate income to replace these lost assets. A family that loses its crop and a draught animal but has no other source of income will sink deeper into poverty (adapted from Yodmani, 2001, p. 7).

Social fund/CDD projects can contribute to reducing the vulnerability of the poor to disasters, especially people who are in danger of falling below subsistence levels, by generating new sources of income and enhancing social capital. They can help the small and medium-size businesses of vulnerable areas and groups to generate economic and social value by providing investment capital and business advisory support. Social fund/CDD operations also can contribute to widening social capital and furthering community-based arrangements to reduce and mitigate risk for the poor (Siri, 2002), as described in the next section.

Box 3.5 Building community resilience through livelihoods support in Malawi

The Nkhokwe Forestation sub-project of the Malawi Social Action Fund (MASAF III) has provided disaster mitigation support to drought-affected communities by focusing on building livelihoods resilience through the enhancement of social and economic capital. The project has 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 will be the community's common asset, and the income from the forest will be used to develop a community credit system with the help of the Community Savings and Investment Component of the MASAF project. The forestation project also has helped local communities generate fertilizer through compost. In the long run, this will help reduce farmers' dependence on costly commercial fertilizer.

Source: World Bank, 2008b.

Mitigating Risk through Risk Transfer and Financing Mechanisms²

The Bank's Social Risk Management Framework (Holzmann and Jorgensen, 2000) provides a useful context for understanding some of the ways developed by the poor and vulnerable to cope with the impact of natural hazard events. The SRM Framework is based on the premise that all individuals, households, and communities are exposed to multiple risks from different sources and adopt various forms of risk management. Key among these are:

- Market-based arrangements, which provide households with various financial products that help them deal with risk (e.g., insurance, savings, and credit);
- Public arrangements, which provide a range of support like unemployment and old age insurance, disability benefits, direct cash assistance, or public works—through its legislative abilities, government also can introduce preventive strategies (e.g., developing hazard-resistant building codes for disaster-prone areas) (Vakis, 2006); and
- Informal and personal arrangements, which provide cash or in-kind support, such as kinship networks, mutual aid, and self-help groups.

Informal and semi-formal arrangements constitute the main source of risk management for the majority of the world's poor, as most lack access to comprehensive market and public-supported arrangements. At the same time, such arrangements can become overwhelmed or eroded when many households in the same locality are exposed to a natural disaster (see "Addressing Vulnerability" in Module 1).

A recent study on community-based risk management arrangements concluded that social funds can help communities reduce their exposure to covariate risk by providing greater support to informal institutions, such as burial insurance societies and health insurance associations; investing in forms of social capital building like public health and sanitation programs; and helping poor communities gain access to re-insurance and index-based insurance (Bhattamishra and Barrett, 2008)

Social fund/CDD operations already play an important role in helping poor communities reduce their vulnerability to natural hazards through Social Risk Management activities. This experience can be extended, through existing programming mechanisms and sub-projects, to increase the protection of vulnerable communities against a range of slow- and rapid-onset natural disaster risks. Social Funds/CDD operations may

² This section draws largely on Twigg, 2004, Chapter 13 pp. 223–226; on Mechler, Reinhard, and Peppiatt, 2007; and on Alderman and Haque, 2007.

also assist communities by facilitating linkages to microfinance and micro-insurance programs, which offer particular opportunities in this regard.³

Microfinance

The World Bank has supported a number of microfinance initiatives, through CDD operations, that have contributed to disaster risk reduction for poor communities. This has mainly taken the form of community-based credit and savings schemes. The Bank, the International Finance Corporation, and the Consultative Group to Assist the Poor have also supported many sustainable microfinance institutions

Box 3.6 Mitigating climate-related disaster risk through social risk management

Mongolia's microfinance program is well integrated with a number of CDD operations. Building on past success in urban microfinance, a Microfinance Development Fund (MDF) has been established. Qualifying, private microfinance providers compete to obtain funds from the MDF, provided that they channel funds to rural areas and to poorer households. Support is also provided for financial institutions to innovate and develop microfinance products that meet the needs of currently underserved groups, particularly herders living in remote rural communities.

The approach has proved highly successful. Interest rates are market-based and have been declining in recent years, and there is evidence that this can in part be attributed to the increased competition between financial institutions resulting from initiatives such as the MDF. There are also important linkages with other rural finance products, notably index-based livestock insurance that is being piloted under a parallel International Development Association-supported project. Such insurance contracts protect herders' collateral, making them more attractive as clients to microfinance providers. Microfinance providers have responded by lowering interest rates to clients with insurance contracts.

There also are important complementarities among these rural finance innovations and other CDD-related interventions. The Mongolia Sustainable Livelihoods Program includes a CDD funding "window" to finance community-level demand-driven investments in basic infrastructure and investments in pastoral risk management to improve herding communities' preparedness and recovery in dealing with drought and winter storms. Taken together, these complementary interventions help provide the public and private goods underpinnings for more secure and sustainable livelihoods for herders and other vulnerable groups through the mitigation of climate-related risks.

Source: World Bank, Community Driven Development and Microfinance (undated).

³ 'Chapter 13: Economic and financial mechanisms for risk reduction' in Twigg J (2004), *Disaster risk reduction: mitigation and preparedness in development and emergency programming*. London: ODI/HPN is a good resource on this subject. Twigg Paper

around the world.⁴ Microfinance operations have been combined with complementary CDD activities to promote more secure livelihoods, with good results (World Bank/IDA, 2007).⁵

In developing countries, financial services providers—banks, microfinance institutions (MFIs), credit unions, NGOs, and other institutions—serve around 500 million low-income clients (CGAP, 2005). Microfinance loans are often used to cope with present or potential crises that threaten livelihoods—by stockpiling food (e.g., in the event of floods), improving farmland, repairing houses, buying tools or equipment, digging wells and irrigation systems, acquiring new skills, or making gifts to family and friends so that reciprocal favors can be asked later (although the latter is not generally considered good practice). After a disaster, savings provide cash to begin meeting immediate needs; insurance payouts and credit can be used to speed recovery by replacing lost assets and helping them get back to work. Loans are often taken out to deal with household crises—especially those caused by sickness or death in the family, but also for such shocks as food shortages, sudden price increases, loss of employment, or theft (Twigg, 2004).

In 1998, flooding in Bangladesh and Hurricane Mitch in Central America caused widespread death, injury and loss among members of savings and credit programs—putting the programs themselves in jeopardy. In Bangladesh, loan recovery rates fell from 92 to 43 percent, as many households had lost their productive assets and suspended their income-earning activities. This experience led MFIs to develop a new range of disaster preparedness and mitigation products to protect themselves and their clients (Twigg, 2004), such as:

- Putting money into emergency reserves in areas with regular disasters, such as monsoon floods (though this reduces the overall amount of funds available to provide loans), or requiring savings and credit groups to pay a percentage of their own loans into an emergency fund—in both cases questions can arise over ownership, rights of access, decision-making, and terms and conditions, emphasizing the need for good preparation;

⁴ To find a microfinance institution in a community, the NGO regulator or finance regulator may offer some assistance. In addition, the Microfinance Information Exchange reports on over 1,000 MFIs worldwide and may be accessed via <http://www.themix.org/>. The SEEP Network also provides linkages to microfinance networks, institutions, and microenterprise partners in several countries.

⁵ A useful resource on the broader experience of social funds in this area is Gross A and De Silva S (2002). *Social Fund Support of Microfinance: A Review of Implementation Experience*. Washington DC: World Bank/HDN. MF Review

- Forming insurance funds, or buying insurance—in India, a federation of self-help groups called Vaigai Vattara Kalangiyam, encouraged by an MFI called PRADHAN, operates its own welfare/disaster insurance fund linked to the state insurance company's insurance scheme;
- Requiring clients to develop a contingency plan to deal with disasters—in Burkina Faso, this is reported to have been effective in reducing arrears in loan repayment during drought in 1995;
- Using non-financial credit—loans of seeds, tools, or materials—to help reduce risk and arranging rental space in grain and seed banks as has been done in Mali and Burkina Faso; and
- Providing subsidized loans to clients for emergency preparedness purchases such as food, fuel, water purification tablets, and rehydration tablets.

The successful application of such products depends on the country context, the client base, and the MFI itself. Experience has shown that MFIs can respond more effectively to disaster if they have worked through the issues, designed policies and products, and negotiated collaboration with organizations experienced in disaster risk management (Mathison, 2003). Some considerations include (Mathison, 2003; Pantoja, 2002; CGAP, 2005):

- What disaster preparedness/mitigation products (insurance, term savings accounts, emergency loans, electronic funds transfers, etc.) can be developed that clients can afford, bearing in mind that the MFI's social mission must be balanced with its longer-term financial sustainability;
- Whether smaller or less well established MFIs have the products—or the human and financial resources, liquidity, or flexibility—to handle relief and recovery financing (e.g., they may not offer individual loans or large loans to first-time clients for rebuilding assets, such as houses);
- How to separate post-disaster relief provision from microfinance activities so that clients do not get mixed messages and the credit culture becomes damaged (simple solutions such as staff uniforms that are different than their loan uniforms can be effective);
- Whether the MFI has a disaster policy in place so that staff know the conditions that under which compulsory savings requirements could be lifted, loans could be rescheduled, etc.; and
- What are appropriate forms of donor support that do not overstretch capacity or undermine building up a credit culture and longer-term financial sustainability.

In addition to supporting MFIs to provide a range of savings, loan, and insurance products for community groups and households to protect and diversify their income and assets, social fund/CDD operations can assist MFIs to develop disaster preparedness

policies and strategies that do not compromise the MFIs' role as a sustainable provider of financial services. This includes identifying appropriate emergency preparedness, response, and recovery roles and products. The *Microfinance Gateway*, the microfinance industry's largest online reference center, has a significant number of resources specifically relating to microfinance and natural disasters.

Micro-insurance

The aim of disaster micro-insurance is to provide low-income households and businesses with easily accessible and affordable life and health insurance, as well as insurance to cover the loss of small-scale assets, livestock, and crops in the event of a natural disaster. Disaster micro-insurance can cover sudden-onset events, such as earthquakes, floods, and cyclones, as well as slow-onset events, such as droughts. This section focuses specifically on asset protection.

Currently, only 1 percent of households and 3 percent of businesses in low- and middle-income countries have formal insurance coverage against disaster risks, compared with 30 percent in high-income countries (Munich Re, 2005). Instead of insurance, the poor often rely on informal and personal or semi-informal arrangements, such as reciprocal exchange through kinship ties, community self-help, and remittances.

Disaster risks have rarely been explicitly considered as a niche for micro-insurance because they affect large regions with multiple losses; thus they are more uncertain and have higher potential losses than other types of insurance. Safety nets for high-risk poor communities cannot be put into place without public-private alliances, as no one partner can operate without the assistance of the others: highly exposed and fiscally unstable developing-country governments cannot fully absorb the risks; informal community solidarity and family systems are overtaxed by large covariant losses; and private insurers cannot offer low-cost policies, given the need for expensive reinsurance and large uncertainties in the projected loss estimates (Mechler and Linnerooth-Bayer with Peppiatt, 2006).

The World Bank has done some encouraging research into the possibilities of creating new forms of public-private sector partnership to provide weather-indexed insurance for drought or flood mitigation, given the poor track record of public insurance schemes and the lack of availability or high cost of private schemes for low-income populations.

Traditionally insurers have paid claims based on actual losses to households, businesses, and farmers (indemnity-based insurance). Index-based insurance differs from this in that it features contracts written against a physical trigger (parametric insurance), such as rainfall measured at a regional weather station. In the case of weather derivatives for

Box 3.7 Insuring the poor against disaster

In 2004, the All India Disaster Mitigation Institute (AIDMI) and the ProVention Consortium introduced a micro-insurance project, *Afat Vimo*, under a Regional Risk Transfer Initiative (RRTI). RRTI partners include the Hazard Risk Management Unit of the World Bank and the International Federation of Red Cross and Red Crescent Societies.

Afat Vimo aims at converging micro-insurance, microcredit, and small scale disaster mitigation schemes for low-cost local risk transfer. It provides disaster insurance for the poor, insuring policyholders against 19 types of disasters (e.g., earthquake, cyclone, landslide, etc). Non-life damages to a policyholder's house, household assets, trade-stock, and losses of wages and livelihood are covered up to Rs. 75,000. The life insurance component pays out Rs. 20,000 in the case of death. The yearly premiums amount to Rs. 146 (roughly three days' wages).

The insurance product is unique, as it combines non-life and life insurance from different companies into one policy. AIDMI acts as an intermediary between the communities and the companies. It pays the premiums of the beneficiaries upfront, to ensure immediate coverage, and collects payment later. AIDMI also supports the policyholders with claims settlement and provides training in disaster preparedness and legal and procedural requirements.

Within 20 months of its creation, *Afat Vimo's* membership increased by 675 percent, with renewal rates averaging around 88 percent, indicating the popularity of its unified policy design. *Afat Vimo* now faces the challenge of scaling up the operation and maintaining feasible operating and administrative costs.

Source: Churchill C, Liber, D et al (2003). Making insurance work for microfinance institutions: A technical guide to developing and delivering microinsurance. Geneva: ILO.

crop risks, farmers collect insurance compensation if the index reaches a certain measure or "trigger," regardless of actual losses. For example, vulnerable households might be targeted as eligible for payment of cash or food, if insurance is triggered.

The World Bank also has been involved for several years in the management of catastrophic risks, such as the establishment of an earthquake insurance pool in Turkey, which uses a \$180-million contingent loan facility. A recent study commissioned by the Bank indicates that contingent loans also may be feasible to protect poor and vulnerable households against weather-related risks, such as those being used in a pilot index-based livestock insurance program in Mongolia.⁶ The study concluded that this type of insurance safety net could be delivered by government agencies or com-

⁶ Alderman H and Haque T (2007). World Bank Working Paper No 95: *Insurance against Covariate Shocks: The Role of Index-Based Insurance in Social Protection in Low-Income Countries of Africa*. Washington, DC: World Bank.

Box 3.8 Mongolia index-based livestock insurance

As of 2005, Mongolia is piloting index-based livestock insurance to share risks between herders, the insurance industry, and the government in three provinces of Mongolia with a \$7.75-million credit from the World Bank (World Bank, 2005a). The project combines self-insurance, market-based insurance, and social insurance. Herders retain small losses that do not affect the viability of their business (self-insurance), while larger losses are transferred to the private insurance industry (market insurance through a Base Insurance Product), and only the final layer of catastrophic losses is borne by the government (social insurance through a Disaster Response Product).

Herders pay a market premium rate for the former product, which pays out when local livestock mortality rates exceed specified trigger percentages. While excess mortality is based on weather, because it reflects a complex combination of dry windy summers and cold, high snowfall winters, the insurance index is not linked to the weather itself but to historical livestock mortality data. The insurance pays out to individual herders whenever the livestock mortality rate in the local region exceeds a specific threshold. Insurance payments are not directly linked to individual herders' livestock losses; instead, payments would be based on local region-level mortality. This should avoid or reduce moral hazards and adverse selection as well as reduce costs.

Source: Alderman and Haque, 2007, pp. 9–10.

munity organizations through existing social protection programs, such as the Malawi Social Action Fund (Alderman and Haque, 2007). This would require the adjustment of social fund/CDD sub-projects' resources and targeting mechanisms to include transitory needs, in addition to chronic poverty (e.g., incorporating information on income and asset shocks). Vulnerability assessments, such as those conducted by the World Food Program and Save the Children Fund, also could be used to fine-tune the targeting.

These initiatives are well worth further trials through social fund/CDD projects. They would need to be complemented by activities to expand and improve early warning systems due to the changes to weather patterns taking place as a result of climate change.

Adaptation to Climate Change

Current climate shocks and stresses already have a devastating impact on the vulnerability of the poor. Climate change is expected to increase community and household risks of vulnerability to hunger, disease, death, displacement, and violent conflict in many developing countries (World Bank/IEG, 2007c). This includes both direct risks, such as reduced crop yields in warmer regions due to heat stress, and indirect risks, such as food price increases resulting from lower crop yields (IPCC, 2008). Rural households that depend on the environment for a living are particularly affected, but poor

urban households also are affected by the combination of increased weather-related events and poor urban development practices, such as increased flood-related impacts (ActionAid, 2006).

The risks of increased vulnerability also have implications for deepening and increasing transient and chronic poverty, as households find their traditional asset and income bases further eroded and face new or more forms of co-variant risk or very big and irreversible risks that have a negative effect on their coping capacities. This, in turn, may increase the vulnerability of the poor to shocks of all kinds (DFID, 2004; Heltberg, Jorgensen and Bennett Siegel, 2008).

The Intergovernmental Panel on Climate Change defines adaptation as: “adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm and exploits beneficial opportunities” (IPCC Web site, 2008). There are varying views on the degree of awareness of poor communities regarding climate change and its impacts, but several studies have shown that many have recognized changes and developed adaptation strategies (e.g., UNFCCC Secretariat, 2006; IFRC, 2007e; UNEP, 2008c; SIRC, 2008). However, they often face social, economic, or political barriers to developing adaptation strategies further.

Like coping mechanisms, adaptation strategies may become stretched in the face of new and increased forms of risk. They can also be affected by lack of access to early warning and other preparedness information for weather-related risks. ActionAid found that women affected by increased flood risks in three South Asian countries had a clear understanding of adaptation actions and had developed multiple strategies but were constrained by lack of resources, knowledge/skills, and cultural barriers in access to services, such as agricultural extension (ActionAid, 2007b).

Box 3.9 African farmers adapt to recurrent drought

Rural farmers have been practicing coping strategies and tactics, especially in places where droughts recur, and have developed their own ways of assessing the prospects for favorable household or village seasonal food production. In Senegal and Burkina Faso, locals have improved their adaptive capacity by using traditional pruning and fertilizing techniques to double tree densities in semi-arid areas. These help in holding soils together and reversing desertification. Similar community-initiated projects in Madagascar and Zimbabwe have been acclaimed successes.

Source: UNFCCC Secretariat, 2006, p. 34.

A recent paper from the World Bank's Social Development Department has proposed a conceptual framework for the social risk management of climate change⁷ that emphasizes multi-sectoral measures to assist communities and households to diversify and/or protect their livelihoods sources, such as:

- Public health, food security, and nutrition;
- Clean water and sanitation;
- Access to skills, education, and knowledge;
- Policies to help households stabilize consumption through deeper labor, assets, credit, and insurance markets, through improved access by the poor to those markets, and through better social safety nets and social insurance;
- Improved disaster preparedness and management, including better safety nets to prevent irreversible human damage and enable speedier recovery;
- Social and political conditions for collective action—help the poor develop voice and political capital to demand access to risk management instruments; and
- Management of displacement and violent conflicts through strengthening rural livelihoods' asset base, orderly migration arrangements, and conflict resolution institutions.

Box 3.10 Reducing disaster risk and adapting to climate change in Africa

Some examples of activities that have been undertaken include:

- *Adaptation measures to water stresses* during droughts and high rainfall variability include irrigation water transfer and water harvesting and storage (in The Gambia, South Africa, and Sudan);
- *Measures specifically for agriculture* include planting of drought-resistant varieties of crops, labor migration, changes in farm location, reduction in herd and farm sizes, improved water exploitation methods (e.g., shallow wells), and food storage—others include crop and animal diversification, income diversification, selling of assets, early maturing crops, high-yield varieties, herd supplementation and sedentarization, and culling animals (e.g., in Nigeria, Mali, and Sudan);
- *Adaptation measures for heat waves* include heat-resistant cultivars, crop management (shorter season or early maturing crops, shifting time or location, changing type of crop, shading both crops and animals, increasing irrigation), and early warning and forecast systems; and
- *Sea level rise*: Integrated Coastal Zone Management ensures a holistic approach in coastal zone management and has been implemented in Seychelles—measures include seawalls and armors, pillar housing and raised foundation level, and construction of raised wells to avoid contamination during floods.

Source: Adapted from UNFCCC Secretariat, 2006.

⁷ R Heltberg, S Jorgensen, and P Bennett Siegel (2008), *Climate Change, Human Vulnerability, and Social Risk Management*. Washington: World Bank/Social Development Group. Working Paper

Table 3.2 Climate Changes and Impacts

Phenomenon & Direction of Trend	Likelihood of Future Trends	Examples of Major Projected Impacts by Sector			
		Agriculture, Forestry, and Ecosystems	Water Resources	Human Health	Industry, Settlements, and Society
Over most land areas, fewer cold days and nights, warmer and more frequent hot days and nights	Virtually certain	Increased yields in colder environments; decreased yields in warmer environments; increased insect outbreaks	Effects on water resources relying on snow melt; effects on water supply	Reduced human mortality from decreased cold exposure; increased mortality and illness due to malaria	Reduced energy demand for heating; increased demand for cooling; declining air quality in cities; reduced disruption to transport due to snow, ice; effects on winter tourism
Warm spells/heat waves; frequency increases over most areas	Very likely	Reduced yields in warmer regions due to heat stress; wild fire danger increase	Increased water demands; water quality problems, e.g. algal blooms	Increased risk of heat-related mortality, especially for the elderly, chronically sick, very young and socially isolated	Reduction in quality of life for people in warm areas without appropriate housing; impacts on elderly, very young, and poor
Heavy precipitation events; frequency increases over most areas	Very likely	Damage to crops: soil erosion, inability to cultivate land due to waterlogging of soils	Adverse effects on quality of surface and groundwater; contamination of water supply; water scarcity may be relieved	Increased risk of deaths, injuries, infectious, respiratory and skin disease	Disruption of settlements, commerce, transport, and societies due to flooding; pressures on urban and rural infrastructures; loss of property
Area affected by drought increases	Likely	Land degradation, lower yields/crop damage and failure; increased livestock deaths; increased risk of wildfire	More widespread stress on water supply or availability	Increased risk of food and water shortage; increased risk of malnutrition; increased risk of water- and food-borne diseases	Water shortages for settlements, industry, and societies; reduced hydropower generation potentials; potential for population migration
Increased incidence of extreme high sea level (excluded tsunamis)	Likely	Salinization of irrigation water, estuaries, and freshwater systems	Decreased freshwater availability due to saltwater intrusion	Increased risk of deaths and injuries by drowning in floods; migration-related health effects	Costs of coastal protection versus costs of land use relocation; potential for movement of populations and infrastructure

Source: Information from "Climate Change Impacts, Adaption and Vulnerability – Summary for Policy Makers of the Working Group II (World)", IPCC, <http://www.ipcc-wg2.org/> in USAID (2007).

This framework is consistent, and compatible, with community-based disaster risk management approaches. Social fund/CDD operations can support communities in areas at risk to build upon their positive coping strategies and to plan and implement effective climate change adaptation and disaster preparedness strategies as an integral component of CBDRM programming.

Operational Issues

Building Government and Community Support for CBDRM

The most important ingredients for successful decentralized CBDRM systems are the commitment of the stakeholders, good planning, adequate resources, and good coordination and collaboration between the different stakeholders—both horizontally (across sectors and disciplines) and vertically (local, regional, and national levels). Sometimes international coordination also is needed in the case of cross-border hazards, such as a shared river system, where different countries have built flood control mechanisms (Pusch, 2004; IFRC, 2007c).

However, this is easier said than done. There are often many barriers to CBDRM that cause governments or communities to give it a low priority. The NGO Tearfund conducted a survey of DRR academics, practitioners, and governments in 2006 on the challenges of successfully linking CBDRM with government policy and practice (Tearfund, 2007). Three categories of issues were identified, echoing similar research findings of other organizations.

Government-related issues that can hinder the allocation of resources for CBDRM

- Competing priorities
- Lack of financial resources and low government capacity
- Lack of supportive systems and structures
- Emphasis on disaster response rather than prevention and preparedness
- Lack of effective government decentralization

Community-related issues that can hinder the flow of information on CBDRM to government

- Poor appreciation of the government context
- Lack of understanding and clarity on good practice CBDRM (also can be a problem in government)
- Lack of influence at government level

Shared issues that can act as barriers to linking CBDRM with government policy and practice

- Different perceptions of risk
- Lack of trust
- Lack of integration of DRR in development

Local governments often suffer from having limited human resources, little revenue-raising ability or authority, and little influence on central government resource allocations. While CBDRM plans may be developed, there may be a lack of capacity and resources to act on them (Twigg, 2004). Local and central governments also may not see DRR as a priority in the face of other more visible needs, particularly if hazard events have not materialized in the recent past or have not yet been experienced. These have been contributing factors to local disaster management committees becoming defunct in the past, which was also the experience of the Local Government Support Project in Bangladesh.

This context has further contributed to many local and central governments giving low or no priority to the establishment of contingency funding mechanisms for emergencies, seeing other needs as more pressing for limited resources. When a disaster occurs, resources may be diverted from regular budgets or programs, or governments may wait for donor assistance. This sometimes leads to delayed or sub-optimal responses.

Likewise, many communities may not share the same perceptions or priorities of risk as governments or other external agencies. For example, most poor communities will tend to be more concerned about the risks of everyday life, such as unsafe drinking water, than the risks of a major disaster such as an earthquake (IFRC, 2006c). They also may be aware of some risks, such as deforestation, but feel economic pressure to continue to exploit a resource due to a lack of alternative sources of income (Twigg, 2004). Communities sometimes develop a fatalistic attitude to the risks and hazards that they face when these are chronic or difficult to address.

Ensuring that governments actually listen to communities, that communities are empowered to articulate their needs and priorities, and that both reach a shared understanding can be a substantial challenge. More broadly, a number of social fund/CDD operations have experienced difficulty in getting local government officials to undertake more than superficial levels of consultation with communities, to consult beyond the leadership, or to fully involve the women and men of communities in project decision-making. This is due to a variety of capacity, political, social, and other factors.

There is no simple solution to managing these complex economic and socio-political dynamics. However, a number of actions can be taken to gradually build up government and community support for and capacity in CBDRM.

1. Develop a strategy to engage government and communities on CBDRM

Experience has shown that effective advocacy requires good advance preparation (ADPC, 2006). The desired objectives of the advocacy should be clear, and research should be conducted or existing research collated to provide evidence to decision-makers regarding the costs and benefits of investing in CBDRM. The more this information can draw from or be tailored to the local context, the greater are the chances that it will make an impact. This includes providing information and projections about the kinds of events that are likely to happen in the future due to weather-related and human-induced changes to vulnerability. Some organizations carry out their advocacy or planning processes shortly after a hazard event has occurred, when interest is high.

The information should be specifically adjusted to the interests of the different stakeholder groups—e.g., policymakers, community groups, and the private sector—and based on tangible incentives for them, such as the image of the country, safer schools for children, prospective profits, etc. The messages should emphasize good practice and ways to move forward. The Asian Disaster Preparedness Center's *Guidebook on Advocacy: Integrating CBDRM into Local Government Policy and Programming* contains a number of key messages that may offer a useful starting point.

Box 3.11 Stakeholder engagement in East Kalimantan

East Kalimantan in Indonesia has become increasingly vulnerable to forest fires in the last two decades. Most of the burning is caused by human activities aggravated by the El Niño–Southern Oscillation. The fires have seriously affected the livelihoods of people relying on the forests, and many households are now less secure. In response to the identified needs of vulnerable communities, CARE developed a livelihoods security approach to its disaster management programming.

CARE conducted training in disaster management to develop links between local communities, the private sector (e.g., concessionaires and mining and other resource extraction companies), governments (especially at village and sub-district levels), and local NGOs. Participants used tools designed to help them analyze and learn from their experiences.

The private sector companies were a key stakeholder, as they competed with the local communities for natural resources and had a considerable impact on them. The training exposed the companies' community development staff to disaster risk management concepts and facilitated communication with the communities in a neutral setting. Combined with meetings and other activities, it enabled the incorporation of local communities' needs into the companies' plans and the integration of DRM, including conflict management, into their development activities.

Source: Adapted from Kieft J and Nur A (undated). CBDRM: a response to increased risks to disaster with emphasis on forest fires. East Kalimantan: CARE.

It can be highly effective to identify a core group of advocates for CBDRM at each level of government and across stakeholder groups, to the extent possible. These advocates should be encouraged to educate and motivate their peers on CBDRM through both formal and informal means—the latter can be very effective in winning support.

Well-designed information, education, and communication approaches will be needed to reach different audiences. Several organizations have found that holding multi-stakeholder disaster preparedness training workshops has been a useful entry point for starting a dialogue between and within communities, government, and other stakeholders like the private sector. Perseverance and patience may be required, as the stakeholders need time to think about, question, and validate the information they receive.

2. Form a multi-stakeholder group to lead the CBDRM planning and implementation process

The establishment of stakeholder committees or working groups, consisting of respected individuals and/or a core group of advocates for CBDRM, is commonly used to build support for, coordinate, and guide the process of CBDRM. This may include NGOs or CSOs that represent the interests of marginalized groups.

For example, the Technical Working Group (TWG) of the City Disaster Coordinating Council (CDCC) of Dagupan City in the Philippines has played an important role in coordinating the city's response to urban disaster risks. The TWG consists of the heads and staff from relevant government departments. They work closely with the community to inculcate a culture of safety in public life, as well as with the Barangay Disaster Coordinating Council (Community Council) in eight high-risk areas. The people in high-risk areas have also assessed their own risk, including preparation of hazard maps (earthquake, flooding, tsunami, and typhoon surge) with the assistance of the CDCC, so that they have a clear understanding of their vulnerability.⁸

In countries with a high degree of centralization, such bodies may not be able to function in as participatory a way as would be desirable; some adjustment of approach is likely to be required. The Asian Disaster Preparedness Center's *Guidebook on Advocacy* also offers useful insights into experiences from Asia in effective CBDRM work in more centralized governance systems.

⁸ World Bank GFDRR/UN-ISDR, 2008. *Climate Resilient Cities: A Primer on Reducing Vulnerabilities to Climate Change Impacts and Strengthening Disaster Risk Management in East Asian Cities*. Washington: World Bank, p. 73.

At the community level, it is preferable to use established community structures for planning and implementation, where possible, as these generally will have a solid base of organizational skills, motivation, and group solidarity. The relevant structures may include village development committees, parent-teacher associations, farmers' organizations, savings and credit groups, women's groups, youth clubs, and religious institutions. It should be noted that sometimes support is initially required to strengthen these structures; for instance, in East Kalimantan CARE found that it had to assist in the revitalization of local farmers' associations as a part of its CBDRM strategy.

3. Undertake a participatory risk assessment and CBDRM planning process

Risk perceptions can vary considerably between different stakeholders and communities and even within the same community. There are many different perspectives about risk and degrees of exposure to it. These vary according to socio-economic differences in wealth, social standing, education level, age, religion, ethnic group, and gender. Personal and collective experience also plays a significant part.

Social fund/CDD projects can play an important role in working with local governments, communities, and other stakeholders to undertake participatory processes to jointly identify the key hazards and risks they are facing, to develop disaster preparedness and contingency plans, and to identify structural and non-structural disaster mitigation actions required. This may begin with disaster management training or other forms of awareness-raising about natural hazard risks and/or be integrated into participatory development planning processes through the use of vulnerability and capacity assessments (VCAs) and participatory rapid appraisals (PRAs). Involving local officials in the process is critical to building a shared understanding and support for follow-up CBDRM actions.

VCA/PRA processes provide an opportunity to develop a better understanding of the contextual factors and constraints that generate people's diverse perceptions of risk and to design systems that are appropriate to their circumstances (for more on VCA methodologies, see "Assessing Hazards, Vulnerabilities, and Capacities at the Community Level" in Module 2). In relation to climate change, a number of methodologies have been

Box 3.12 Yemen: Unexpected outcomes

In 2005, the Yemen Red Crescent Society carried out a VCA in two districts badly affected by flash floods. As a direct result of the assessment, the organization has now designed a very popular program on road safety in order to reduce accidents, especially near schools. And statistics back up the communities' instinctive response: over the last 15 years, more people have been killed in transport accidents in Yemen than as a result of flooding.

Source: IFRC (2006c). What is VCA? An introduction to vulnerability and capacity assessment. Geneva: IFRC, p. 6.

developed for raising awareness, identifying risks, and planning actions that are compatible with VCA/PRA approaches, such as the *Red Cross/Red Crescent Climate Change Guide*.

The VCA process entails communities identifying their priorities, including actions that they have the capacities and resources to carry out themselves and actions that require external support. It should contribute to building cooperation and coordination between the key stakeholders and provide an entry point for joint action by government and communities to undertake complementary and mutually reinforcing DRM activities.

The CBDRM plan itself should identify multiple hazards faced by communities and scenarios to respond to each, including both local disasters and extreme events. It should analyze past events and how they were managed and anticipate future hazard risks, including those related to climate change and development patterns. The plan should identify measures to reduce the vulnerability of communities and of critical infrastructure, such as hospitals, power and water supplies, roads, and bridges (Twigg, 2004). It should also identify gaps in legislation, policies, and standard operating procedures and any technical assistance that may be required to fill them. For example, building codes or environmental legislation may need updating.

4. Link CBDRM planning to broader poverty reduction and/or development plans and budgets

Social fund/CDD operations can help local governments to integrate CBDRM activities into their developmental and poverty plans and budgets, including investigating ways

Box 3.13 Building support for hazard risk reduction in Nigeria

The World Bank's Nigeria Local Empowerment and Environmental Management Project (LEEMP) focuses on building community and government capacity for environmental management. LEEMP conducts awareness-raising and training activities with communities, local and state government authorities, and the private sector on the relationships between the environment, poverty, and development. Activities are carried out to identify community-level environmental and social concerns, and follow-up actions are incorporated into community development plans. Local and state authorities are also given training on environmental management, including monitoring and evaluation. At the federal level, the LEEMP is helping the government improve its policy and legislative framework and broader environmental monitoring capacity.

LEEMP is effectively linking different stakeholders and levels of government to create improvements in community-level livelihoods and protection against natural hazards, such as waterway clearance, soil erosion control, and woodlot and agro-forestry initiatives.

Source: LEEMP presentation at World Bank workshop on Building Community Based Risk Management and Responses to Natural Disasters, Bangkok, Thailand, June 10–13, 2008.

to develop affordable disaster contingency funds, as well as building support for this work among higher-level planning and budget authorities. Some activities can be incorporated into social fund/CDD projects, possibly increasing the incentive to participate.

Creating Public-Private Sector Partnerships

The domestic and international private sector often provide relief support to communities after disasters and are an important stakeholder for CBDRM. They can also play a key role, in collaboration with governments and civil society, in strengthening community resilience. For example, Munich Re and the German technical cooperation agency, GTZ, have sponsored a flood warning system in Mozambique. Nominated villagers measure daily precipitation and water levels at strategic points and report any critical situations by radio. A system of colored flags is used to signal a flood warning, with pre-designated helpers sent out with megaphones to raise the alarm. In Fiji, construction firms are represented on the Fiji Building Standards Committee and oversee the preparation of a National Building Code.⁹

Public-private sector partnerships have been successfully undertaken in (re)insurance, engineering and construction, telecommunications, utilities and transportation, and other areas. Social fund/CDD operations already work with the private sector in a number of countries and could extend this collaboration to CBDRM. The World Economic Forum recently undertook private-sector stakeholder consultations, in cooperation with the World Bank and UNISDR, and produced a framework for private-sector engagement that may provide some ideas for future partnerships in this area.

Raising Risk Awareness and Changing Risk Behavior

A vital element in any comprehensive CBDRM strategy is increasing public awareness about natural hazards and the measures available to reduce risk. The objective is not only to inform the public about the risks but also to encourage public involvement in prevention and mitigation. The involvement of all sectors of society—including national and local authorities, professional and civic groups, religious institutions, the private sector, and the media—is essential for a successful public awareness program (Pusch, 2004).

While it can be relatively easy to improve peoples' understanding of hazards and risks and how to deal with them, it is more difficult to change their behavior so that they actually take up appropriate measures. The aim of public education should be to create

⁹ WEF/World Bank, UN-ISDR (2008). *Building Resilience to Natural Disasters: A Framework for Private Sector Engagement*. Geneva: WEF. <http://www.unisdr.org/eng/partner-netw/wb-isdr/docs/Disasters-RepFINCopyright.pdf>

Box 3.14 The main tasks of risk communication

- Identify aspects of risk.
- Present and explain risk information to relevant target groups.
- Modify the risk-related behavior of people exposed to risks.
- Warn individuals and communities.
- Develop disaster management strategies for the authorities.
- Stimulate community participation in disaster mitigation.
- Facilitate discussion and joint problem-solving between specialists and communities.

Source: Adapted from B. Rohrmann in Twigg (2004), p. 168.

a “culture of safety,” where risk awareness and the adoption of measures to reduce risk are part of daily life (Twigg, 2004). This is unlikely to be achieved in a short time. To be effective, the development of educational strategies needs to be informed by the communities’ own experiences and perceptions of risk, as well as the effect of their socio-economic circumstances on the way they see and manage these risks. This includes education on hazards that the community may not yet fully recognize or understand, such as climate change.

A varied program of activities is needed to reach different target groups, to explain and reinforce messages, and to give people opportunities to think about, question, and validate the information they receive. If communication is seen as simply information campaigns developed by hazard specialists and disseminated to communities rather than a dialogue between specialists and communities, it is less likely to be successful (Twigg, 2004).

Box 3.15 Building community support for DRR in Afghanistan

In the village of Rawani, in Dand district, volunteers were being recruited to participate in a risk reduction project. When the activities were outlined to them, the communities refused to participate without a cash incentive. The team replied that there would be no such incentive but again explained the value of the project through gaining knowledge of disasters, how to prepare for them, and how to reduce the risk. After several group meetings, and having heard much more about the content of the lessons on disaster management, the village elder said: “Don’t give me anything, please just come here and give us your information and awareness about disasters.”

Source: Tearfund (2007). Turning Practice into Policy: Linking Good Practice CBDRM with Government Policy and Practice. Teddington, U.K.: Tearfund, p. 24.

New and creative approaches to reaching out to people in remote areas through the media and the Internet also should be explored, such as grassroots community radio. For instance, using a horizontal programming approach, Oxfam has found that communities they trained in disaster management in India initiated the same process in many other villages. This ensured the spread of skills and awareness and also created a strong network of community institutions (Oxfam America in Tearfund, 2007). Annex 3.1 provides a list of communication methods found to be effective in reaching communities. Annex 3.2 provides related information on community-based early warning systems, a core component of CBDRM and climate change adaptation strategies.

Social fund/CDD projects can compile information from community VCA processes on local people's perceptions of hazards and risk to guide the design and implementation of appropriate risk-awareness-raising communication strategies. They can also provide technical expertise and training to local governments regarding design and

Box 3.16 Innovative methods for increasing earthquake risk awareness in Nepal

Nepal has a long history of destructive earthquakes, with seismic studies suggesting that major earthquakes occur around every 75 years. Since the last major earthquake of 1934, the risk for the Kathmandu valley has increased significantly due mainly to uncontrolled development, lack of incorporation of earthquake safety into construction practices, and lack of awareness among the general population and authorities. The Kathmandu Valley Earthquake Risk Management Project (KVERMP) aimed to address this seismic vulnerability, a challenging task when a hazard event has not taken place for many years and awareness of the risk is not high.

The project used a variety of means to increase community and government understanding and action regarding earthquake risk. These included a symposium, an awareness rally, an exhibition, an art competition, and the distribution of posters, booklets and leaflets. Much of this activity was centered around Nepal's annual earthquake safety day.

Ten schools were surveyed for their ability to withstand earthquakes during the first phase of KVERMP. One was selected for initial retrofitting, followed by three others. Consultations were undertaken with local stakeholders in each municipality, and it was agreed that the project would contribute technical assistance and training to local masons and carpenters on earthquake-resistant construction, while the communities would provide material and labor.

The "low-tech" approach adopted for school seismic safety screening and follow-up and the use of simulations and loss estimates from the 1934 earthquake for educational activities—rather than newer technical studies—had a significant impact on the community, without causing undue panic. Ordinary people started taking interest in earthquake issues and raising questions. This prompted KVERMP to work with two wards of the Kathmandu municipality, whose residents, on their own initiative, took action to assess and to decrease the risk to their neighborhoods.

Source: Adapted from ADPC (2004). Program Completion Report: Asian Urban Disaster Mitigation Program. Bangkok: ADPC.

can pre-test methods for educational methods and materials to ensure their appropriateness and effectiveness.

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Documents

ActionAid (2006). *Climate Change, Urban Flooding and the Rights of the Urban Poor in Africa: Key Findings from Six African Cities*. London/Johannesburg: AA International. <http://www.actionaid.org/docs/urban%20flooding%20africa%20report.pdf>

Asian Disaster Preparedness Center (2006). *Guidebook on Advocacy: Integrating CBDRM into Local Government Policy and Programming*. Bangkok: ADPC. *CBDRM in LGs*

Benson and Twigg (2007). *Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations*. Geneva: ProVention Consortium. Tools

Consultative Group to Assist the Poor (2005). 'Sustaining Microfinance in Post-Disaster Asia' in *Microfinance Matters*, Issue 9/February 2005. UN Capital Development Fund. CGAP Article

Heltberg R, Jorgensen S, and Bennett Siegel P (2008). *Climate Change, Human Vulnerability and Social Risk Management*. Washington: World Bank/Social Development Group. Paper

Mechler R, and Linnerooth-Bayer J, with Peppiatt D (2006). *Disaster Insurance for the Poor? A Review of Microinsurance for Natural Disaster Risks in Developing Countries*. Geneva/Laxenburg: ProVention/IIASA. <http://www.proventionconsortium.org/?pageid=37&publicationid=126#126>

Twigg J (2007). *Characteristics of a Disaster-resilient Community: A Guidance Note*. London: DFID.

——— (2004). *Disaster Risk Reduction: Mitigation and Preparedness in Development and Emergency Programming*, Good Practice Review No 9. London: ODI/HPN. <http://www.odihpn.org/report.asp?id=2618>

United Nations Environment Programme (2008c). *Indigenous Knowledge in Disaster Management in Africa*. Nairobi: UNEP.

United Nations Inter-Agency Secretariat for the International Strategy for Disaster Risk Reduction, (2007a). *Building Disaster Resilient Communities: Good Practice and Lessons Learned*. Geneva: UN/ISDR.

World Economic Forum/World Bank, UN-ISDR (2008). *Building Resilience to Natural Disasters: A Framework for Private Sector Engagement*. Geneva: WEF. WEF/WB Report

Web Sites

Asian Disaster Preparedness Center: <http://www.adpc.net/v2007/Programs/CBDRM/>
The ADPC is a non-profit organization supporting the advancement of safer communities and sustainable development, through implementing programs and projects that reduce the impact of disasters upon countries and communities in Asia and the Pacific. The ADPC engages in institutional capacity-building, awareness-raising, and knowledge-sharing on DRM, including CBDRM. It regularly holds CBDRM courses.

Red Cross/Red Crescent Climate Centre: <http://www.climatecentre.org>
The RC/RC Climate Centre supports the International Federation and other interested parties to reduce people's vulnerability to climate risks. It supports the integration of climate risk management into RC/RC programs, provides education and communication support about climate risk management, alerts policy-makers to the impacts of climate change on vulnerable people; and analyses, documents, and shares knowledge on climate risk management. The Centre has online climate preparedness guidance notes.

UN Inter-Agency Secretariat for the International Strategy for Disaster Risk Reduction: <http://www.unisdr.org/>

The UN/ISDR is the focal point in the UN System to promote links with and coordination of disaster reduction activities in the socio-economic, humanitarian, and development fields, as well as to support policy integration. It serves as an international information clearinghouse on disaster reduction, developing awareness campaigns and producing articles, journals, and other publications and promotional materials.

World Bank Institute, online CBDRM course: <http://vle.worldbank.org/moodle>

The CBDRM course is one of the specialized courses under the comprehensive Natural Disaster Risk Management Program developed by the WBI. It is designed as an online distance learning program.



MODULE 4

Disaster Response (Rescue and Relief) and Early Recovery

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Module Summary

This module provides guidance on disaster response (immediate post-disaster actions, including rescue and relief) and early recovery (actions taken to support spontaneous recovery initiatives by affected communities). It summarizes key issues in community-based disaster response and recovery, as well as outlining actions that may be taken by social fund/CDD operations to support governments' management and coordination of disaster

response with the full and active participation of affected communities. Coordination with the United Nations and other international organizations is also discussed, as well as the development of common standards for aid delivery.

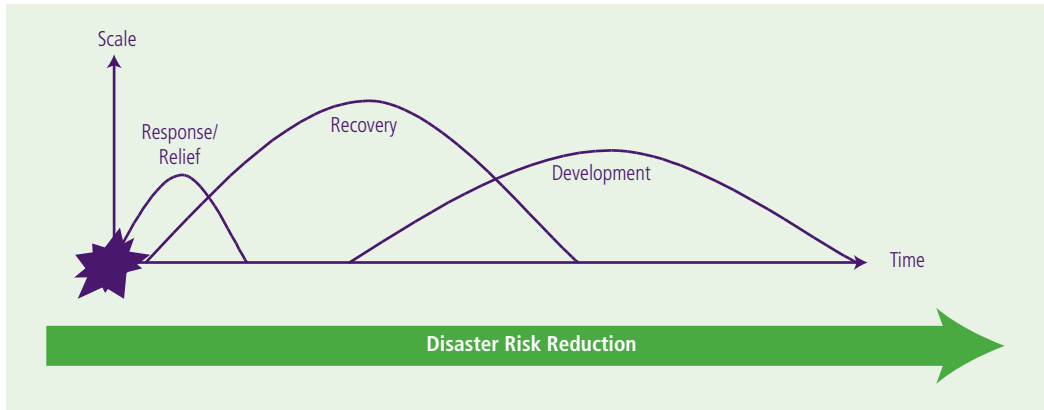
The module provides information on mobilizing and scaling up emergency response operations, including funding, procurement, human resources, disbursement, and fiduciary safeguards. Ways to conduct rapid and in-depth emergency needs assessments and vulnerability/gender targeting are explored. Options for forms of delivering relief and early recovery assistance are considered, such as cash- or commodity-based support, as well as ways to maintain good communications with affected communities throughout the response and recovery process.

■ Key Principles of Community-Based Disaster Response and Early Recovery

Disaster response refers to the provision of assistance or intervention during or immediately after a disaster to meet the needs of those affected. It is generally immediate and short-term (UN/ISDR website, 2004). The primary objective of this humanitarian assistance is to save lives, alleviate suffering, and maintain human dignity. It includes immediate rescue and relief activities, such as the provision of food, water and sanitation, shelter, health services, and other assistance. It also includes the protection of vulnerable people, such as those involuntarily displaced from their homes or whose access to relief assistance may be affected by factors such as a disability.

Actions taken during the first weeks and months after a disaster have a major impact on the recovery process to follow, and they need to be planned and implemented accordingly (World Bank/IEG, 2006a). Disaster-affected communities initially will require critical life-saving support. However, many will begin a process of self-recovery as soon as possible, as their homes, institutions, and livelihoods will have been physically destroyed or weakened by the impact of the crisis. They often recreate the risks that turned a hazard into a disaster in the first place, such as by reconstructing homes using the same building techniques that caused them to collapse. Poor households may resort to selling off their scarce productive assets, such as livestock, to meet basic needs and thus become even more vulnerable to future shocks.

The choices made regarding the kinds of relief assistance to be provided, and how it is provided, can also facilitate or hinder the early recovery of affected communities (Christoplos, 2006a). As described in Module 1, after the 2005 Pakistan earthquake the Pakistan Poverty Alleviation Fund (PPAF) distributed galvanized iron sheets and tools to communities instead of expensive winterized tents that would not last long. The com-

Figure 4.1: The Relief to Development Contiguum

munities used these items to build temporary shelters with materials salvaged from the rubble and later in permanent home reconstruction.

In addition, in rapid-onset disasters the sense of urgency that pervades relief efforts sometimes carries over into recovery, leading to shortcuts in consultative processes that may sideline local decision-making structures. People and institutions that might help rebuild communities may be left out. Too little may be done to ensure that the social and livelihoods needs of the affected population are considered. Poor and vulnerable groups may become even more disadvantaged than they were before the disaster (World Bank/IEG, 2006a).

For these reasons, early recovery work to restore essential services, livelihood opportunities, and governance capacity needs to take place in tandem with emergency

Box 4.1 Speed versus quality in the Honduran Social Investment Fund

After Hurricane Mitch, the Honduran Social Investment Fund (FHIS, from the name in Spanish) proved to be a suitable institution for carrying out emergency sub-projects since it was able to react quickly. But the speed accentuated the already existing weaknesses of FHIS, especially in the areas of quality assurance and sustainability. The direct involvement of beneficiaries in sub-project selection, design, and management was even less than it had been before. Getting things done quickly took priority over quality, leading to weaknesses in design, contracting, and supervision.

Source: Honduras Case Study, in this Toolkit.

assistance. This work should augment on-going humanitarian assistance operations, support spontaneous recovery initiatives by affected communities, and establish the foundations for longer-term recovery.¹ Early recovery assistance should create the conditions to support households, communities, and governments to undertake their own self-directed recovery and to withstand future shocks.

Experience has demonstrated a number of lessons (e.g., IFRC, 2007c; World Bank, 2006a; ALNAP/ProVention, 2008):

- Communities and individuals carry out most critical life-saving and relief activities following a rapid-onset disaster themselves, often assisted by the wider public and local and national institutions, including the military.
- Relief assistance that is not targeted to the specific needs and context of local communities often is inappropriate. After the Pakistan earthquake, heaps of donated used clothing, unsuited to cold conditions, disturbed aid traffic and prompted people to burn them to keep warm.
- Participatory community-based approaches produce good results. For instance, community-based therapeutic care is now recommended to treat uncomplicated severe acute malnutrition in emergencies. Where there are no medical complications, evaluations in Ethiopia, Sudan, and Malawi have indicated this is effective in terms of both cost and clinical outcomes.
- Communities can provide valuable information and resources during program implementation, especially for use in community targeting and distribution.
- The use of traditional community structures can also bring longer-term benefits for local ownership, participation, and sustainable impacts.

Box 4.2 Working with community organizations in disaster response

Seed banks set up by the nongovernmental organization (NGO) SOS Sahel during the 1997 drought emergency in Ethiopia were still in operation after the drought of 2004/05. SOS Sahel helped traditional funeral associations design, implement, and evaluate the project, increasing local ownership. As well as the initial seed stock, SOS Sahel provided training and capacity-building in book-keeping and community reporting systems to increase accountability.

Source: SOS Sahel in Hedlund, 2008, p. 11.

¹ Adapted from Inter-Agency Standing Committee (UN/IASC), Cluster Working Group on Early Recovery Web site, 2008.

The World Bank's 1993 Argentina Flood Rehabilitation Project is a good example. The project facilitated good interaction between the beneficiaries and the authorities, which resulted in the timely availability of construction materials and the accommodation of local customs in the architectural design of the new houses. Staff observed that this created ownership among beneficiaries and increased maintenance (World Bank/IEG, 2006a).

Possible Areas For Social Funds/CDD Operation Support

The new operational policy and procedures for *Rapid Response to Crises and Emergencies* adopted by the World Bank in March 2007 (OP/BP 8.00) offer opportunities for social fund/community-driven development (CDD) operations to support relief to early recovery transitions, through the protection and restoration of key productive and community assets and the building of government and community recovery capacity during the disaster response. The Bank can provide rapid response in support of one or more of the following objectives:

- rebuilding and restoring physical assets;
- restoring the means of production and economic activities;
- preserving or restoring essential services;
- establishing and/or preserving human, institutional, and/or social capital, including economic reintegration of vulnerable groups;
- facilitating peace building;
- assisting with the crucial initial stages of building capacity for longer-term reconstruction, disaster management, and risk reduction; and
- supporting measures to mitigate or avert the potential effects of imminent emergencies or future emergencies or crises in countries at high risk.

OP and BP 8.00 also recognize the lead of other international institutions, in particular the United Nations, in emergency response programming outside of the Bank's traditional areas (such as relief, security, and specialized peace-building). They define the role of the World Bank in relief as focused on forming "appropriate partnership arrangements with other donors for the preparation, appraisal and supervision of activities outside its core competencies."

Thus, while social fund/CDD operations may not take a lead role in carrying out immediate emergency response, they can play important support roles, including contributing to coordinated rapid humanitarian needs assessment; leveraging pre-existing partnerships with other agencies, especially civil society organizations already engaged in project cycle facilitation, technical service provision, and service delivery; and harness-

Box 4.3 Access to affected communities in Malawi

The Malawi Social Action Fund (MASAF) became a household name in Malawi as a result of its services for the poor. The MASAF was not designed to carry out relief activities, but when drought caught the country unprepared in 2004/2005, it became the vehicle of choice for the government to help poor people cope with the crisis.

MASAF's disaster response consisted mainly of cash-for-work and an agricultural inputs voucher scheme. Some of its strengths were:

- Both communities and government trusted MASAF as a delivery mechanism, due to its outreach and track record dating back to 1995;
- MASAF had the experience to design communication programs that played a key role in bringing stakeholders together on a common platform; and
- Communities understood the eligibility criteria and documentation requirements to obtain support, as they were developed using the existing MASAF funding framework.

Source: Malawi Case Study, in this Toolkit.

ing well-tested participatory community engagement methodologies. Some social fund/CDD operations have demonstrated a strong capacity for immediate disaster response (e.g., in Pakistan, Honduras, and Malawi). An appropriate role for individual operations will need to be defined in accordance with the needs and circumstances of the disaster.

Social fund/CDD operations also can make a significant contribution to community-based early recovery by helping local and national governments manage donor and public pressure to spend money quickly and visibly in rapid-onset disasters; identifying community priorities through participatory processes; ensuring that communities and local government participate in planning, designing, implementing, and managing recovery projects; incorporating capacity-building for local governments and communities into projects; and including activities for disaster risk reduction and adaptation for climate change in programming.

The specific forms of assistance and delivery mechanisms selected should be based on a thorough understanding of the context, the needs and preferences of the affected population, the objectives of the assistance, an analysis of response options and associated risks, and the capacity of social fund/CDD operations. The nature of the assistance also will vary, depending on whether the natural disaster is slow-onset or rapid-onset.

Provision of Relief Items

Emergency commodity assistance can take many forms, such as the supply of food, water, tents, tarpaulins, blankets, building materials, kitchen utensils, hygiene kits, medicines, water purification tablets, etc. Relief items may be provided in cash, in kind, or in a combination of these two approaches. Caution must be exercised in deciding what is required. In Bangladesh, for example, agencies distributed water purification tablets even though lessons from past flood responses indicated that they had limited effectiveness and that people did not use them because they felt they spoiled the taste of the water (Alam et al., 2008, p. 12).

Identifying, procuring, and distributing appropriate forms of commodity-based disaster relief assistance in a very short timeframe requires specialized logistical skills and systems. For a smaller-scale and localized disaster response, emergency supplies identified and stored as part of a local disaster preparedness plan may be sufficient to meet the most urgent needs. In larger-scale disasters, the presence of many organizations simultaneously procuring and supplying relief goods creates many complications. These can range from cargo congestion at airports and ports to domestic transport bottlenecks and blockages, as well as beneficiary targeting and security issues and the impacts of large-scale importation of goods or domestic procurement on local market dynamics.

If local markets have not been seriously disrupted or are not at risk of disruption, and if local capacity is intact or sufficiently supported, social fund/CDD community-based procurement systems are the preferred option. In addition to reducing the costs of shipping and transport from overseas, local purchase can help to stimulate the recovery of the local economy from the disaster.

In either context, it is important to coordinate closely with, or provide support through, U.N. or other experienced humanitarian relief agencies to ensure that relief assistance is appropriate, adequate, and well targeted and does not distort local markets. Markets must be closely monitored to ensure that adverse inflationary or livelihoods impacts do not occur as a result of the commodity choices made, or to mitigate their consequences, if unavoidable. For example, the livelihood of the local makers of clay roofing tile was severely affected when agencies distributed metal sheeting in the 2000 flood response in Bangladesh (ActionAid, 2002, in Alam et al., 2008). Emergency relief items provided by donors and major operational players also should be standardized and harmonized in order to facilitate field operations and logistics, to improve quality assurance, communication, and reporting, and to avoid inappropriate donations (ICRC Web site, 2008).

In larger-scale disasters, a UN UN/IASC in-country logistical cluster group is often formed to play these roles. In addition, the International Red Cross/Red Crescent Move-

ment (RC/RC) has developed an *Emergency Items Catalogue* (Catalogue) that provides generic technical specifications for essential relief items (ICRC, 2005a).

Provision of Shelter

The importance of the provision of emergency shelter and shelter-related non-food items is particularly worth noting, given the critical role they play in household survival, livelihoods, and protection. The choices made in the form of emergency shelter to be provided can have a direct impact on the speed and manner in which households and communities are able to move from emergency to durable solutions.

Social fund/CDD operations have provided emergency shelter assistance in the past but are more commonly involved in transitional and permanent shelter/housing. Module 5 provides guidance on emergency, transitional, and permanent housing and human settlements support. However, emergency operations should be aware that a number of decisions on shelter and housing—as well as on water and sanitation and communal infrastructure—will need to be made during the emergency and early recovery responses and should consult Module 5 accordingly.

Protection and Restoration of Livelihoods

For the poor and vulnerable, recovery from the impact of disasters depends significantly on how well livelihoods are protected and restored (Alam et al., 2008). The loss of income and productive assets through a disaster may cause households that already were in a state of transient poverty to sink into chronic poverty and also cause households that were on the verge of poverty to become impoverished. This is particularly the case when large groups of people have been affected by a disaster or were subjected to multiple, repetitive shocks and cannot resort to traditional reciprocity-based coping mechanisms because the coping capacity of family, friends, and neighbors has also been eroded. People in this situation are often forced to sell their productive and household assets (Alam et al., 2008).

During the critical initial period of disaster response, social fund/CDD operations can play a key role in helping people protect their income and assets through existing community outreach mechanisms. This may include activities such as:

- Replacing lost livestock and other agricultural inputs and tools;
- Replacing household assets;
- Providing fodder and veterinary services to ensure livestock survival;
- Organizing seed fairs, seed vouchers, or cash for seed; and

Box 4.4 Negative coping strategies to replace lost assets

A study by the International Food Policy Research Institute (2001) after the 1998 Bangladesh flood found that 55 percent of households lost assets, equivalent to 16 percent of their pre-flood total assets value. In Mozambique, the World Bank noted that “during the recovery period these assets were, in general, not replaced, leaving the households more vulnerable to subsequent disaster episodes” (World Bank, 2005).

NGOs working in affected areas of Bangladesh following Cyclone Sidr in November 2007 reported that many poor households had taken out private loans at exorbitant rates within a few weeks of the disaster. These households did not have access to microfinance institutions or had previously taken credit from two or three of these institutions and were at risk of defaulting on their loans (even though a three-month grace period was granted on loan repayment following the cyclone). The borrowed funds were largely used to replace lost productive assets for fishing, planting crops, and running small trade shops or home-based industries. The vulnerability of these households had increased, as they now had to produce an even higher output to pay off the additional debt.

Conversely, some households reportedly avoided this situation by using a government cash payment of BDT 5,000 received for house repair to replace lost assets and resume income-earning activities.

Source: Burton, 2008 (unpublished).

- Replacing stock, equipment, or tools lost by small businesses (including home-based businesses).

It is important that asset protection and replacement activities are developed based on needs assessments and linked to broader longer-term strategies to restore or strengthen livelihoods. For example, the Tsunami Evaluation Coalition’s 2006 evaluation of aid agency responses to the 2004 Indian Ocean tsunami and earthquakes found that women, fisherfolk, and small businesses were stereotyped: “The concentration on the distribution of assets, especially boats, demonstrated a failure to understand and support diversified and sustainable livelihoods and communities” (Christoplos, 2006b, p. 19). Assessments also are required in order to determine local preferences and market capacity to meet needs. In Kenya in 2000, Catholic Relief Services organized 14 seed fairs in three weeks, providing preferred seed for timely planting to over 8,000 families. Other organizations that relied on seed ordered from companies failed to receive supplies in time for planting (CRS, 2004).

Remittances from family members who are working in other areas or countries also have become an increasingly key component of disaster-affected peoples’ coping strategies. This was the case in Sri Lanka, for instance, following the 2004 tsunami.

Net private remittances grew by more than 28 percent between 2004 and 2005 and topped \$1.7 billion, and some skilled expatriates returned home to provide medical support to affected communities (IOM, 2006). Annex 4.1 provides further details on the role of remittances in natural disasters.²

Social fund/CDD operations are already engaged in activities to increase poor communities' access to modern technological cash transfer mechanisms. Help in the restoration of remittance flows after a disaster may be a quick and effective way of supporting livelihoods recovery, especially as recipients tend to share remittances with their extended families and even their neighbors (Savage and Harvey, 2007).

Restoration of Community Assets

Where poor households have lost their means of making a living or become food-insecure, food aid or labor-intensive public works schemes (e.g., food-for-work) to restore or improve community assets can provide them with much-needed income. Rubble clearance, marketplace rehabilitation, or drought mitigation works are examples of commonly used means of injecting income into the local economy in the aftermath of a disaster.

The use of cash in emergency responses, either as an alternative or a complement to commodity assistance, is increasing. This includes cash grants, cash for work, providing cash to microfinance institutions for low-interest loans or other forms of financial support, and vouchers for goods such as seed and livestock. While there has been some debate over the strengths and weaknesses of cash-based approaches over the past decade, a number of organizations have systematically collected evidence regarding the appropriate circumstances in which to use cash, the policies and procedures required to do so, and the results that can be achieved.

Overall, research has found that in appropriate circumstances cash-based programs can be less costly, more timely, and better adjusted to people's needs and preferences than the distribution of commodities (Oxfam, 2006; Harvey, 2006; Adams and Harvey, 2007; SDC; etc). Beneficiaries have used unconditional cash transfers for a variety of purposes (Oxfam, 2006), such as:

- Purchase of food, kitchen utensils, clothes;
- Paying off debts and loans and extending credit;
- Payment of school costs for fees, clothes, transport;

² Another useful source of information on remittances is Savage K and Harvey P (2007). *Remittances during crises: implications for humanitarian response, Briefing Paper 26*. London: ODI, p. 4. hpgbrief26

Box 4.5 Use of unconditional cash grants in Sri Lanka

A cash grant program for families affected by the 2004 Indian Ocean tsunami and earthquakes was initiated by the government and supported by the livelihood component of the Bank's assistance program. First, families affected by the disaster were identified by a local official (*Grama Niladhari*, the administrator of the lowest administrative unit of about five villages), who sent the list of families up to the Divisional Secretaries. The aggregated lists at the divisional level were then sent to the commercial bank branches in affected areas that created accounts in the names of these families. Finally, the funds from the Treasury were transferred to the relevant banks, which in turn credited the beneficiaries' accounts. The cash transfers given were for \$50 per family (in four installments, with the first occurring three months after the tsunami). These transfers supplemented three other assistance programs, including a one-time payment to families who had suffered deaths, a dry ration program, and a housing grant intended for families who suffered full or partial destruction of housing.

Source: Vakis, 2006, p. 10.

- Purchase of livestock and agricultural inputs;
- Payment for health care;
- Setting up small shops; and
- Purchase of tools for petty trade, such as wood cutting or donkey carting.

The 2006 IEG evaluation highlighted the Bank's positive experiences in post-disaster cash transfer programming, noting that "cash support stabilizes the situation of the poor during early recovery" (World Bank/IEG, 2006a, p. 49). This includes initiatives like the rental funds support provided to households displaced by Turkey's 1999 Marmara earthquake and house reconstruction support (both cash and materials) provided to small farmers following the 1991 North China earthquake.

Social fund/CDD operations have a demonstrated capacity in the effective use of cash-based approaches for relief and recovery, such as the social safety net activities of Madagascar's Community Development Project. This includes being able to meet the important requirements for success at ensuring high levels of community participation at all stages of design and implementation, providing appropriate technical guidance, and establishing both community-based and external quality assurance systems.

The community block grant system of many social fund/CDD operations, with its emphasis on building the capacity of communities in the procurement and financing of their own sub-projects, provides another mechanism for communities to receive direct cash transfers. As participatory techniques are used in needs assessment and decision-making, beneficiaries can have their self-identified priority needs for goods and services met. Procurement is sometimes also faster, simpler, and more transparent

Box 4.6 Malawi: Implementing a productive safety net in response to drought

In response to drought in 2004/2005, the Malawi government implemented a Public Works Program through the Malawi Social Action Fund. In September-December 2005, cash income was provided to vulnerable households through Conditional Cash Transfers (PWP-CCT) to enable them to buy food and agricultural inputs for the next growing season. The program contributed to Malawi producing a bumper crop of 1.5 million tonnes of maize in 2006.

The PWP-CCT was designed along the lines of MASAF 3 Local Authority Managed Projects, a conventional Public Works Program that MASAF had been implementing for 10 years. Beneficiaries were paid a wage that was 20 percent lower than the market wage; the local leadership, with assistance from the Local Authorities, selected the beneficiaries. Only one person per household was eligible to work under the program. The program's innovation was to tie the cash payment to a condition that beneficiaries buy seeds and fertilizer as inputs for the following year's harvest. After working on the program for 10 days, beneficiaries earned enough to buy one 50-kilogram bag of maize and one 50-kilogram bag of subsidized fertilizer. The PWP-CCT ran alongside a government program of farm inputs subsidies. If there had been no parallel government initiative, the cash transfer would have been inadequate to meet the cost of these inputs.

Nearly 600,000 people benefited directly from the public works program. MASAF successfully disbursed \$12.1 million to all 28 district assemblies of Malawi, and 1,838 public works sub-projects were carried out across the country.

Adapted from October 2006, "MASAF Public Works Projects-Conditional Cash Transfer: Citizen Feedback on Performance and Implementation of the Drought Response Program," MASAF, Lilongwe, Malawi, and May 2006, "Findings Issue 262, Malawi: Public Works Programme—Conditional Cash Transfers as an Emergency Response to a National Food Shortage," World Bank, Operations Results and Learning Unit, Africa Region, Washington, DC.

than programs undertaken through government line ministries (e.g., the Kecamatan Development Program (KDP) in Aceh, Indonesia).

Likewise, funding can be channeled through social fund/CDD-supported microfinance institutions and savings societies to provide low-interest credit to meet such needs. The Mongolia Sustainable Livelihoods Program (MSLP) has a CDD funding "window" that is used to finance demand-driven investments in basic infrastructure at the level of community groups and investments in pastoral risk management to improve herding communities' preparedness for and post-disaster recovery from drought and winter storms. The MSLP also has created separate financing windows to meet individual or community needs. There may be potential to expand this delivery channel for future emergencies.³

³ In 2008, the SEEP Network published guidance on interventions to promote enterprises, employment, cash flow, and asset management with conflict- or disaster-affected businesses and households. SEEP recovery standards (draft)

Box 4.7 Emergency Assistance Social Fund, Kecamatan Development Program, Aceh

The Indian Ocean tsunami and earthquakes hit 38 sub-districts in Aceh, Indonesia, at various stages of implementing KDP sub-projects. In many locations, these initiatives were destroyed or the community's situation changed dramatically. Communities faced immediate shortages of basic necessities such as food, blankets, tarpaulins, water containers, household utensils, and cooking equipment (amounting to 5.3 percent of total KDP funds for 2005).

In almost all cases, villages hit by the tsunami had funds in their communal accounts that had not yet been disbursed. They were permitted to allocate 25 percent of these funds to any pressing social needs they deemed urgent and necessary. The items to be purchased were detailed in "procurement packets" for recording purposes and then the funds were distributed to those in need. The affected villages were also permitted to allocate another 25 percent of the next cycle of KDP funding to their village account if they decided there were families and individuals still in need of assistance. New villages joining KDP were also entitled to allocate 25 percent of their block grants for social purposes, as long as they had been affected by the tsunami.

Source: Indonesia Case Study, in this Toolkit.

When considering the use of cash-based approaches, the following issues are important to address (adapted from Hedlund, 2008, p. 6):

- Accurate market analysis and monitoring is crucial to ensure that cash provided will meet needs as intended. The food equivalent—how much food the cash will buy—can vary considerably between seasons and places, and particularly between urban and rural areas. This applies to other commodities as well, such as seed and livestock.
- There must be realistic assessment of the capacity to distribute cash and sufficient funds for capacity-building. This includes the management and administration of cash, accounting, logistics of transport and distribution, supervision, and monitoring. For example, following the 2007 cyclone in Bangladesh, the Bank undertook cash distribution through the Local Governance Support Project (LGSP) as part of a short-term livelihoods response. The Bank had to adapt the LGSP framework due to the widely divergent levels of capacity in the Union Parishads (local government), most of which were not yet part of the LGSP.
- The choice of how to distribute cash must reflect a program's objectives, targeting strategy, existing infrastructure for managing cash, and security conditions.
- In larger-scale disasters, where multiple agencies are operating, coordination is important to ensure that common wage labor and other standards are applied to cash-for-work schemes to avoid causing wage inflation, competition between

agencies, or mistargeting of the poor and vulnerable due to setting wage rates too high.

- Monitoring the impact of cash distributions requires gender sensitivity, as decisions about how cash is spent and who makes that decision, may create conflict within households. In Malawi, the NGO Concern used gender-specific techniques to find out how men and women spent the funds.

Meeting Psychosocial Support Needs

The importance of providing psychosocial support to the survivors of disasters has been increasingly recognized (IFRC, 2004; ALNAP/ProVention, 2005; UN/IASC, 2007). In addition to grief counseling, providing survivors with income-earning opportunities tied to physical work can be very effective (World Bank, 2005). Participation in shelter reconstruction also can play a vital role in the psychosocial recovery process if there is an active role for survivors.

In 2007 the UN Inter-Agency Standing Committee (IASC) released the *IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings* (Guidelines), which identify a number of community-level forms of support that can help disaster survivors deal with their trauma. Social fund/CDD operations in Pakistan and Aceh also have trained community-level staff to recognize and respond to trauma among disaster-affected people.

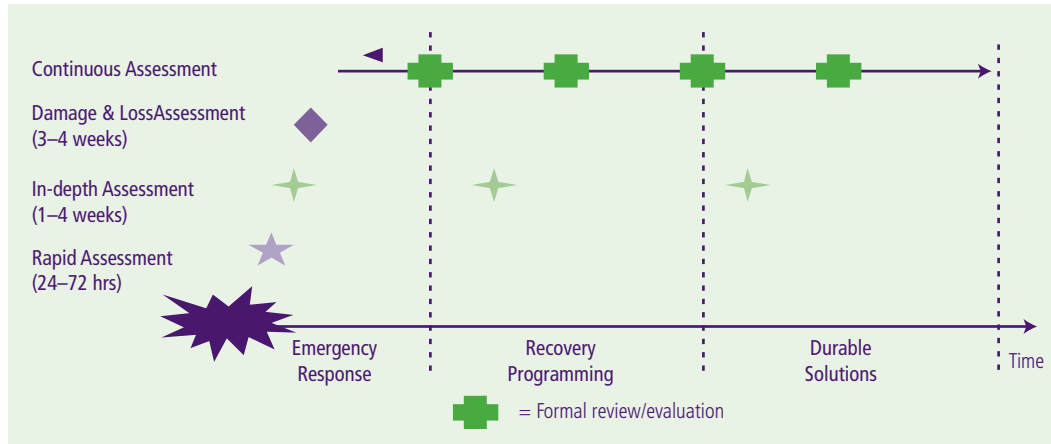
Operational Issues

Identifying Response and Recovery Needs

Needs assessment and community participation are critically linked to effective targeting of relief and recovery assistance. Target populations must be identified on the basis of actual need, and beneficiary consultation and participation is essential for effective targeting (Beck, 2005b). Coordinated, multi-disciplinary, multi-agency assessments are the best mechanism to ensure that these needs and priorities are adequately identified and the linkages between sectors understood (World Bank/IEG, 2006a). They also can avoid or reduce the problem of duplication and identify gaps in aid coverage.

Post-disaster needs assessments should take place in stages and be viewed as a continuous process rather than a 'one-off' exercise conducted shortly after a disaster. A staged approach is needed because in rapid-onset disasters the situation can change rapidly, as affected households and communities constantly reassess their

Figure 4.2: Needs Assessment Processes



options and take action accordingly. For instance, temporarily displaced people often move between a number of different types of accommodation, based on costs, livelihood needs, anticipation of compensation or rebuilding assistance, and other factors. It is important to understand these dynamics in order to ensure that relief and recovery responses remain relevant and appropriate. Even in slow-onset disasters the ability to interpret and respond to early warning information in a timely and appropriate manner requires regular and ongoing monitoring and dialogue with communities.

Rapid and in-depth assessments

In the case of rapid-onset disasters, rapid assessments normally take place over the critical first 24 to 72 hours of the emergency, at the same time as initial life-saving rescue and relief operations. Preliminary information is gathered about deaths and injuries; access to food, water, sanitation and shelter; and the condition of key lifeline facilities (hospitals, access roads, etc.). Environmental hazards also need to be identified (toxic spills, landslide risk areas, etc.). Initial observations can be made about damage and losses to housing, livelihoods, the environment, and other infrastructure.

Table 4.1 Main Categories of Information in an Emergency Assessment

- Vulnerable/at risk groups
- Coping strategies
- Health
- Food and nutrition
- Safety, security, and protection
- Water, sanitation, and hygiene
- Shelter
- Livelihoods
- Infrastructure
- Environmental hazards

If this information is systematically gathered using simple pre-designed standard forms and Geographic Positioning System technology, where possible, it can be invaluable for planning both emergency and recovery assistance. Annex 4. 2 provides examples of the 24 and 72 hour emergency assessment form templates used by the International Federation of Red Cross and Red Crescent Societies.

This can be complemented by more in-depth assessments of community needs, vulnerabilities, and coping strategies over the course of the first few weeks. The detailed identification of vulnerable groups with special relief/recovery needs within the local context (single parents, orphans, landless tenants, etc.) should be carried out at this time. For slow-onset disasters, existing social fund/CDD data collection and analysis methods can be used, but within a more intensified monitoring framework.⁴

Social fund/CDD operations can support local governments and partner organizations to mobilize to carry out this work, supported by operations staff. This has been done successfully in many operations, such as in Indonesia, Malawi, Pakistan, and the Philippines. Often, information has already begun to flow upwards quickly from community-based organizations (CBOs) through existing project mechanisms within hours of a disaster striking.

The Honduran Social Investment Fund, in collaboration with the Unit for Social Indicators within the State Secretariat for Planning, developed a social data mapping system

Box 4.8 Mobilizing local resources to carry out emergency assessments

The Philippines national Linking Arms Against Poverty-Comprehensive and Integrated Delivery of Social Services Program, KALAHÍ-CIDSS, was being piloted in Quezon Province when four successive destructive tropical cyclones struck the area, causing intensive flooding and landslides. The Local Government Units, through their disaster coordinating councils, immediately carried out damage and needs assessment with the relevant government agencies. They also essentially led the search and rescue, evacuation, retrieval and relief, and recovery operations during the disaster response.

Source: World Bank draft case study of Kalahi-CIDSS, unpublished.

⁴ Numerous guides are available on emergency/early recovery needs assessments, such as IFRC emergency assessment guidelines (emergency guidelines), Benfield/CARE rapid environmental impact assessment guidelines (Rapid EIA; Shelter env checklist), UNHCR participatory assessment guidelines (UNHCR guidelines), UN/IASC health/nutrition/WASH clusters' rapid assessment tool (WASH/Nutrition guidelines), and UN/IASC gender handbook (Gender Handbook).

that integrated digitized maps of the country with available statistics on access to social services, population characteristics and social indicators, and investments from the social fund. This proved to be a useful tool for setting priorities and targeting areas and communities in most need of help.

Joint damage, loss, and needs assessments

The World Bank often plays a lead role in coordinating with governments and donors after major rapid-onset disasters. Joint damage, loss, and needs assessments (JDLNAs) usually commence three to six weeks after the event and lead to multi-donor financed reconstruction and rehabilitation programs.⁵ While the JDLNAs make a positive contribution to coordinated assessment and planning of rehabilitation and reconstruction, past assessments have had some shortcomings:

- They generally have not been updated as more accurate information comes in.
- Country and social context and the differential effects of disaster on vulnerable groups have received little attention.
- They have focused on needs without considering capacities (World Bank/IEG, 2006a).

Through a recent initiative, efforts are now being made to integrate the JDLNAs with U.N. community-focused early recovery needs assessments to produce a combined Post Disaster Needs Assessment (PDNAs). Social fund/CDD operations can make a significant contribution to improving the accuracy and quality of JDLNAs and to developing the PDNA methodology by providing pre-and post-disaster information on poverty, vulnerability, and coping strategies of the affected population. They can coordinate and encourage inputs and participation from local NGOs, CBOs, and international humanitarian NGOs, whose knowledge and experience have not been well incorporated in the past. This information also should support operations' application of social analysis, indigenous people's issues (OP/BP 4.20), involuntary resettlement (OP/BP 4.12), and environmental assessment (OP/BP 4.01) safeguards.

For example, following the 2004 tsunami and earthquakes, the level of physical damage and losses was overestimated in Aceh Province, while in Pakistan it was underestimated. Both situations created later difficulties for government and aid agencies in adjusting their strategies and programming to a different emerging reality. The KDP and the PPAF were able to undertake in-depth assessments through their community mobilization structures and produce more accurate and contextualized information

⁵ JDLNAs are carried out using a methodology developed by the UN's Economic Commission for Latin America and the Caribbean (ECLAC Methodology). The World Bank offers staff training courses on the methodology, which are available through the Bank's training catalogue.

Box 4.9 Assessing damage, losses and needs in Aceh Province

The Kecamatan Development Program assisted the JDLNA following the 2004 Indian Ocean tsunami and earthquakes, with community facilitators administering a damage and loss assessment survey. The results were summarized by the facilitators and local government managers before being sent to the provincial capital for analysis. The community maps produced of damage and loss stayed in the village or local government offices and served as the basis for discussions about repairs and improvements. The information collected through the damage and loss survey, combined with additional information gathered by the facilitators, was seen widely as the most reliable source of factual information about conditions in the field.

The damage and loss profile indicated that the priorities for reconstruction focused on rebuilding the livelihoods and social fabric of the devastated communities. The sectors identified as needing attention were: providing housing and shelter; generating enterprise, commerce, and income creation; rebuilding rural livelihoods (agriculture and fisheries); providing public services; assisting the newly vulnerable; and rebuilding communities.

Source: Indonesia Case Study, in this Toolkit.

about the disaster's impact. This information also was used by government planners and communities to target assistance.

For slow-onset disasters, social fund/CDD operations appear to have well-established information-sharing and planning mechanisms with governments and donors. There may be further scope for direct involvement of CBOs and local partner organizations in this work. There also may be scope to support improvements to community-based early warning systems (CBEWS) (refer to Annex 3.2) and the use of this information to guide earlier responses to impending crises, such as famine. Effective CBEWS are becoming increasingly important in the context of climate change.

Continued assessment

Once detailed assessments have been carried out and agencies are fully operational, information should be continuously collected and analyzed to ensure that programs remain relevant and effective. This includes inviting feedback from and reporting to beneficiaries on progress and issues.

Targeting Vulnerable Groups

Forms of vulnerability

Disaster impacts on people vary, depending on their levels of social vulnerability and risk. The uneven impacts of disaster arise from differences in income status, culture, gender, home location, and land tenure. Relief and recovery assistance can exacerbate

these differences if not carefully targeted. Those who were already poor and socially vulnerable are usually at higher risk (see “Addressing Vulnerability” in Module 1 for details). For example, inequities have occurred when the immediate cash needs of the poor have been ignored during the emergency response and they have had to sell their productive assets (World Bank/IEG, 2006a).

The UN/IASC Protection Cluster also has identified a number of vulnerability and protection risks that can arise as a result of natural disasters. Some of these are unequal access to assistance, discrimination in aid provision, enforced relocation, sexual and gender-based violence, loss of documentation, recruitment of children into fighting forces, unsafe or involuntary return or resettlement, and issues of property restitution.⁶ For instance, after the 2001 earthquakes in El Salvador, single women insisted that the sheeting provided for temporary shelters be opaque and strong. In the past, it had been translucent, making it easy to see when they were alone. Given that it could easily be cut with a machete, many women had been raped (ALNAP, 2003).

Internally displaced persons (IDPs)

Natural disasters often force many among the affected population to leave their homes, with a high number of people becoming temporarily or permanently internally displaced. Experience has shown that discrimination and disregard for economic, social, and cultural rights may emerge during emergency response. The longer the displacement lasts, the greater the risk of human rights violations (UN/IASC, 2006a). Although responsibility for the protection of IDPs rests with national governments and local authorities, they are often unwilling or unable to meet these needs. Thus groups providing humanitarian assistance must include effective safeguarding of the rights of IDPs under international humanitarian and human rights law (OCHA/UN/IASC, 1999).

Important among these is the right of IDPs to make informed and voluntary decisions as to whether they want to return, to settle and integrate at the place where they found refuge, or to go elsewhere (Brookings Institution-University of Bern, 2007). There may be situations in which the national authorities may determine that conditions are too unsafe to permit return to an area (e.g., the disaster has made the area uninhabitable). However, there have also been situations where forced relocation has occurred (e.g., when habitation risks were actually not high or a disaster offered an opportunity to move poorer people away from land with potentially higher value and to re-develop it). Social fund/CDD operations will need to take these considerations into account when determining appropriate forms of post-disaster

⁶ *Protecting Persons Affected by Natural Disasters: UN/IASC Operational Guidelines on Human Rights and Natural Disaster*, 2006. Guidelines

support for IDPs, including livelihoods and social cohesion issues in situations where relocation is the only option.⁷

Targeting criteria

The principles used to take vulnerability into account when designing social fund/CDD projects under normal circumstances are equally applicable to disaster contexts.⁸ In fact, the need for inclusive approaches becomes magnified, as this can have an adverse impact on survival and recovery within some marginalized groups.

Although exceptions may be made during emergencies for the full application of social and environmental safeguards to programming, attention must still be given to these issues, as well as to the policies and procedures in relation to indigenous people (OP/BP 4.10) and involuntary resettlement (OP/BP 4.12). This information will be particularly important to guide accelerated combined identification-preparation-appraisal missions.

Collecting information on the age, gender, and diversity of the affected population allows for more accurate targeting of assistance to ensure it is equitable and reaches the most vulnerable and marginalized.⁹ It is equally important to understand power relations (World Bank/IEG, 2006). Often women and minority groups have less social, economic, and political power and are less well represented in formal leadership structures. Youth, the elderly, the disabled, landless tenants, and families hosting those displaced may also be less visible and inadvertently overlooked in assessment processes. At-risk groups can include those who move from transient to chronic poverty or those who find themselves impoverished as a result of the disaster—a factor not always recognized in relief and recovery planning.

Issues of inclusion need to be periodically monitored and incorporated into monitoring and evaluation systems, including performance indicators. Partner organizations and government may need training in how to work with marginalized vulnerable groups and how to use participatory techniques. While existing social fund/CDD criteria can be largely applied, they may need to be adjusted to account for the changing circumstances of different groups, such as the large number of people who become permanently disabled following an earthquake.

⁷ The Brookings Institution–University of Bern Project on Internal Displacement also has developed a field manual on human rights and natural disaster (Field Manual) and a useful framework on identifying durable solutions for IDPs (Durable Solutions)

⁸ For example: Van Domelen J (2007). *Reaching the Poor and Vulnerable: Targeting Strategies for Social Funds and other Community-Driven Programs*. World Bank/HDN. Targeting strategies

⁹ The UK's Disaster and Emergency Response Group has developed a Gender and Diversity Checklist for Disaster and Emergency Response. Checklist

Targeting mechanisms

Choosing the right targeting strategies to ensure that those most vulnerable and in need are reached in a disaster can be tricky. A combination of targeting strategies may be required, with close monitoring of their outcomes (Hedlund, 2007). These can include:

- Geographic targeting, provided this does not get determined by political considerations;
- Administrative targeting by specific groups (e.g., the elderly, single-parent households, children, the disabled);
- Self-targeting, where an individual or family can decide if they want to participate (e.g., setting wages at or below market rates in a cash-for-work program); and
- Community-based targeting, where the community decides who is most vulnerable.

Social fund/CDD operations are highly experienced in vulnerability targeting and can apply most existing methods and tools to the disaster context, albeit initially needing to use the most rapid and simple methods for gathering information. At the same time, it is important to be aware that community norms sometimes may be at odds with agency norms about what constitutes “poverty” and “vulnerability.” Local leaders or organizations may wish to distribute resources more equally to the wider community on the basis that “everyone has been affected by the emergency, so everyone should receive a share of the aid.” The concept of what constitutes a community also may be contested, especially in displacement situations.

Box 4.10 Vulnerability in the Pakistan earthquake

Culture-specific definitions of vulnerability used in the *Implementation Guidelines for the PPAF Earthquake Rehabilitation and Reconstruction* teams included:

1. Widows having no male child over the age of 18
2. Women with disabled husbands
3. Divorced women / abandoned women / unmarried women who are past marriageable age and are dependent on others
4. Disabled (physically or mentally)
5. Unaccompanied minors (i.e., orphans)
6. Unaccompanied elders over the age of 60
7. Landless due to land sliding / red zones/fault line area

Regardless of the targeting strategy used, more successful targeting outcomes are associated with:

- A multi-agency structure and inter-agency dialogue, including government and non-government organizations, to make targeting decisions; and
- An appeal process communicated clearly to communities—who to appeal to, how appeals should be carried out, and how appellants can expect to be treated (DFID, 2006b).

Women’s access to the appeal process is very important, as they are often under social pressure not to complain. Appeals need to be documented in order to track individual cases and to monitor whether certain groups are systematically excluded or favored (Hedlund, 2008).

Achieving Gender Equity¹⁰

Gender analysis of all relief, recovery, and reconstruction projects is essential in order to assess and monitor their direct and indirect impacts on women’s time and resources. Attention to gender is consistently one of the weakest areas of humanitarian response (ALNAP, 2004). Poor women are likely to be among the groups most seriously affected,

Box 4.11 Combining vulnerability targeting methods

Following Indonesia’s Yogyakarta and Central Java earthquake in 2006, the IFRC undertook a large-scale temporary shelter program, a priority need identified by local communities during a post-disaster needs assessment. Tools and materials, along with cash grants, were provided to neighborhood groups to carry out the construction work.

The communities were initially selected for support by correlating high pre-disaster poverty levels with high levels of post-disaster damage and loss. Communities already covered by other aid organizations were then screened out. Rapid and in-depth assessments were carried out with these communities.

Neighborhoods chose the most vulnerable in their community to receive building assistance first, on the basis of their own local knowledge combined with basic criteria provided by the IFRC (i.e., the elderly, disabled, single-parent households, expectant mothers, orphans). There were no disputes over the selection process during implementation.

Source: IFRC, 2008

¹⁰ This section draws heavily from the work of ALNAP and ProVention’s “learning from disasters” series of briefing papers.

and older poor women from minorities may be even harder hit and the last to recover. There may also be higher levels of gender-based violence following a disaster. If entry points for appropriate consultation with women are not identified and used, there may be low understanding of a number of protection risks. This can be especially the case if a woman has lost her male relatives or they are severely or permanently injured (Module 7 provides detailed information on gender considerations in disaster response).

Ensuring Good Beneficiary Communications

The social fund/CDD operations can play a key and often overlooked role in early disaster response—ensuring that information reaches affected people in a clear and timely manner about relief assistance and emerging plans for recovery assistance. This is especially important for ensuring that communities understand the selection criteria, documentation requirements, and feedback or complaint mechanisms available for sub-projects/activities. It is equally important to get the feedback of affected people to ensure that what is being done is appropriate and is meeting their priority needs, including the creation of formal grievance mechanisms. (“Social Accountability Mechanisms” in Module 6 outlines some of the grievance and feedback mechanisms that have been created through social fund/CDD operations.)

The media also play an important role in disseminating information and giving voice to community concerns and perceptions. They can be influential either in ensuring that a response is adequately funded and that attention is given to longer-term recovery and risk reduction issues or in taking a short-term view and pressuring agencies to disburse funds quickly (Beck, 2005b). Therefore advocacy with the media should be included in communications strategies.

Box 4.12 Ensuring good stakeholder communications during emergency operations

For its emergency operation in Aceh Province, the Kecamatan Development Program recruited 28 sub-district information facilitators in addition to its existing network of male and female 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, etc). The facilitators also were responsible for dissemination of 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.

Source: Indonesia Case Study, in this Toolkit.

Coordinating and Managing Response and Recovery

When stakeholders' views are not considered, the solution they are given often fails to solve their problems (World Bank/IEG, 2006). Emergency response and recovery should build on and be coordinated with local and national disaster risk management strategies, preparedness plans, and mechanisms, engaging in dialogue if these are inappropriate or ineffective (World Bank/IEG, 2006; Alam et al., 2008). If there are functional national/local disaster management committees or equivalent bodies in the affected areas (preferably with both government and civil society representation), they should become the focus of relief and recovery planning. At the same time, social fund/CDD operations will need to be prepared to support governments and communities in the event of a breakdown of systems or overwhelming loss of life during a rapid-onset disaster.

National government

Social fund/CDD operations should aim to support the national leadership to manage and coordinate relief and recovery. Government response and recovery plans should be developed in consultation with affected communities and other stakeholders, including the private sector. Where governments are highly centralized, or where there are issues of corruption or lack of access to communities, achieving this outcome may not be easy.¹¹

For a larger-scale disaster, national governments sometimes create temporary national relief and/or recovery coordination bodies. These may be tiered down to the state/provincial and district levels. While this is a useful way to concentrate the resources required to deal with a complex major response, it also can create dilemmas. Line agencies may feel bypassed or become competitive about obtaining their share of the resources. The normal disaster management committee or agency also may become sidelined. If the Bank provides technical support to temporary agencies, it would be desirable to encourage governments to integrate those who are normally involved in smaller-scale disaster management into these structures and to develop a transition strategy that progressively builds their capacity to undertake response and recovery coordination roles.

If a natural disaster strikes in a conflict-affected area, government capacity and mechanisms for management and coordination may be weak or non-existent. Planning and coordination structures may need to be established with external support, building upon established mechanisms for the provision of humanitarian assistance to the

¹¹ Some useful insights into approaches for negotiating access in difficult contexts can be found in Ramalingam B and Pavanello S (2008). *Cyclone Nargis: Lessons for Operational Agencies*. London: ALNAP. Nargis paper

conflict-affected population. Decision-makers will need to consider the equity implications of the types and levels of support given to disaster-affected communities in relation to that provided to conflict-affected communities. For instance, if people previously displaced from their homes by conflict see those displaced by a natural disaster being given priority in housing, this can create tensions within or between communities.

Local government

While support to national government is important, coordination tends to be more effective at the local level, and community participation and response work better through decentralized structures (Houghton, 2005). Social fund/CDD operations can support local governments to coordinate and direct local relief and recovery efforts. For example, the FHIS emergency response in Honduras gave an important coordinating role to municipalities and mayors in deciding on priorities for emergency sub-projects. This helped build their capacity and paved the way for a pilot in 2002 of a decentralized operation of the project cycle for FHIS sub-projects, in which municipalities became largely responsible for the process and communities were better integrated.

At the same time, local governments may be overwhelmed by international support and/or, conversely, be bypassed by aid agencies due to their real or perceived lack of capacity. This has occurred even in slow-onset disasters. For major disasters, the World Bank and other donors have provided technical advisers and other resources to assist national level government relief and reconstruction/recovery coordination bodies, to good effect. Providing similar forms of support to local governments working in disaster-affected areas is equally or even more important, as the human and financial resource base is likely to be more limited, yet the focus of operational response will be centered at this level.

There can be challenges to doing this. Local governments and their elected representatives have to manage many small and diverse interest groups. They may be unfamiliar or uncomfortable with community-based relief/recovery planning, distribution and accountability systems. Programming expectations also must be kept in line with absorptive capacity, especially during the more complex and resource-intensive recovery stage. Social fund/CDD operations will need to draw from their pre-disaster experience to identify appropriate and acceptable ways to build capacity to manage pluralistic stakeholders in an equitable way, while ensuring financial and social accountability for projects.

In some rapid-onset disasters, there is damage and dislocation to the local government and its facilities, including the loss of its staff due to death or injury. For instance, following the recent earthquake in Pakistan, affected municipalities in the North West

Frontier Province (NWFP) suffered severe damage and losses to buildings and equipment, including the loss of approximately 25 percent of their revenue records and 85 percent of municipal birth, death, police, judicial, and other records (World Bank/PPAF, 2008). In such cases, local governments may need support from the social fund/CDD operation to rebuild capacity while the operation works through other partner organizations to deliver assistance to affected communities. Where this occurs, local governments should be kept informed and their direct participation reintroduced as their situation improves.

Local partners and community-based organizations

Local partner organizations and CBOs are the backbone of community-based disaster response and recovery. Social fund/CDD operations have found that they provide rapid, accurate information about disaster impacts and have effective outreach to affected communities. They have the local knowledge to identify vulnerable people for assistance and can facilitate the re-establishment of social cohesion, identified as vital to recovery in the 2006 evaluation of the World Bank's assistance for natural disasters (WB/IEG, 2006a).

Consultation with partner NGOs, institutions, and CBOs should commence as soon as possible following a disaster, and their respective roles and relationships with the social fund/CDD emergency operation should be clearly defined. This includes assessing whether they have been adversely affected by the disaster themselves or, when they receive requests to partner with incoming humanitarian organizations, how they will balance and manage these roles. Ideally this will have been done previously, as part of disaster preparedness planning for operations working in disaster-prone provinces/districts or countries.

Box 4.13 The key role played by local partners in disaster response and recovery

The speed and effectiveness of the initial response to the Pakistan earthquake was attributed to PPAF's existing presence in the affected areas. Information regarding the impact came from community organizations through partner organizations up to the PPAF field teams and headquarters. When distributing corrugated galvanized iron sheeting and Toolkits, the Rehabilitation and Reconstruction Unit noticed "there was a marked difference between organized and non-organized communities." Existing community-based organizations had remained intact and were a major asset in organizing shelter assistance.

Because six of PPAF's partner organizations were already working in affected areas with well-established CBOs, this also contributed to a speedier response. During rehabilitation and reconstruction, the opportunity was taken to strengthen existing CBOs and to establish some new ones.

Source: Pakistan Case Study, in this Toolkit.

United Nations and other international actors

Coordination with other agencies providing emergency response and recovery assistance is emphasized in OP 8.00. Globally, the United Nations coordinates its international response through the U.N. Emergency Response Coordinator, who is based in the U.N. Office for the Coordination of Humanitarian Assistance. The main in-country mechanisms by which international coordination occurs in major disaster responses is through the designated U.N. Resident Humanitarian Coordinator, national and/or regional multi-donor/agency coordination bodies, and the U.N. cluster system. Further detail about these mechanisms is provided in Annex 4.3. The exact coordination structure used will depend on the nature, scale, and context of the disaster. Understanding these structures is a key part of effective response.

Box 4.14 Cross-border cooperation for a regional drought response

An Inter-Agency Regional Humanitarian Strategic Framework for Southern Africa was launched in April 2005. This framework guided the humanitarian response to an impending drought crisis in the region, identifying actions required to address immediate and longer-term needs. An inter-agency contingency planning process also brought together key regional stakeholders, ensuring that participants were informed of the status of preparedness in their respective countries, and consolidated a comprehensive picture of the support expected.

Source: Malawi Case Study, in this Toolkit.

Social fund/CDD operations can contribute to strengthening partnerships between humanitarian and developmental actors during relief and early recovery by building the capacity of national and local governments to conduct joint humanitarian and recovery needs assessments, in collaboration with other stakeholders and aid providers in the affected country. Social fund/CDD operations can directly contribute to national and local level multi-sectoral strategic planning and coordination, as was done during the drought response planning for Malawi and the tsunami response in Aceh. They can support the development of an overall framework for working with communities, including protocols for reaching disadvantaged and underserved groups, and can encourage provincial and local authorities to use more decentralized approaches to allow NGOs and other agencies to reach the most remote and isolated affected people.

Establishing Common Standards for Assistance

Many problems arise during relief, rehabilitation, and reconstruction as a result of the use of different standards for the provision of assistance. For example, one organiza-

tion might use different selection criteria to receive housing support in a community than another organization working in a neighboring community. Social fund/CDD operations can promote the use of common standards and codes of conduct for relief and recovery to minimize problems of quality and inequity. Setting clear standards also can help all agencies to manage expectations and to ensure the transparency and accountability of assistance.

A number of international codes of conduct and sets of common standards for humanitarian aid have been developed since the 1990s. Some of the better known among these include:

- *Sphere Humanitarian Charter and Minimum Standards in Disaster Response*;
- *Code of Conduct for The International Red Cross and Red Crescent Movement and NGOs in Disaster Relief*;
- *People in Aid Code*; and
- *Humanitarian Accountability Project International's* NGO accreditation system.

In 2003 several donor governments—together with U.N. agencies, NGOs, and the RC/RC—also created the Good Humanitarian Donorship initiative. This established a set of principles and good practice, along with an implementation plan, for donors focused on donor financing, management, and accountability (GHD Principles & Plan).

The most widely (but not universally) accepted common international standards are those found in the Sphere Project's *Humanitarian Charter and Minimum Standards in Disaster Response* ([Sphere](#)). The Charter and Standards outline an operational framework for accountability in disaster assistance. The handbook provides minimum standards, performance indicators, checklists, and guidance notes for water supply, sanitation, and hygiene promotion; food security, nutrition, and food aid; shelter, settlement, and non-food items; and health services. This is in addition to identifying minimum acceptable standards common to all sectors. The Sphere handbook has been translated into multiple languages for use by local organizations, and well-developed training programs in its use operate worldwide.

Social fund/CDD operations and their in-country partner organizations that are working in countries or areas with high natural hazard risks and that may become involved in disaster response should familiarize themselves with international humanitarian laws, principles, codes of conduct, and standards. An understanding of current humanitarian system reforms by social fund/CDD managers will also facilitate more efficient and effective disaster responses.

Mobilizing and Scaling Up Resources Quickly

Obtaining disaster response funding

OP/ BP 8.00 allow greater speed, flexibility, and simplicity of IBRD and IDA financing responses to crises and emergencies. Once funds are redirected to an emergency operation, it becomes coded as such in the Bank's operational and financial systems, making them subject to streamlined procedures and reduced turnaround standards. Specifically, emergency operations:

- are processed under accelerated, consolidated, and simplified procedures and are subject to streamlined *ex-ante* requirements (including in fiduciary and safeguards areas);
- involve a different balance between *ex-ante* and *ex-post* controls and risk mitigation measures compared with regular operations, including on issues of fraud and corruption (which require intensified supervision support);
- may include Bank financing of up to 100 percent of the expenditures needed to meet the development objectives of such operations, including recurrent expenditures, local costs, and taxes;
- may include retroactive financing of up to 40 percent of the loan amount for payments made by the borrower not more than 12 months prior to the expected date of signing the legal documents;
- may include a quick-disbursing component designed to finance a positive list of goods required for the borrower's emergency recovery program and procured following procedures that satisfy the requirements of economy and efficiency (normally, the national emergency procurement procedures of the borrower); and
- may receive a Project Preparation Advance of up to \$5 million for start-up emergency response activities.

"To maximize Bank assistance in emergency situations, at the borrower's request the country director may approve a temporary increase in the cost-sharing limits in all Bank-financed operations in the country." (OP/BP 8.00)

The revised procedures should reduce some of the constraints faced in the past by social fund/CDD operations in quickly mobilizing and disbursing funds following a major natural disaster, including delays experienced in the release of counterpart funding. However, even with streamlined financial management procedures, it can still take four weeks to get Board approval for simple project restructuring and 10 weeks for emergency projects of a simple design, so operations must take this into account in their planning. Social fund/CDD operations often also initially use unallocated funds from projects and the overall social fund budget. An assessment should be made of progress of the current

programs against the amounts allocated by region and district, to determine where reallocation would cause minimal disruption to regular programming.

Scaling up operations

In the event of a rapid-onset disaster or an impending slow-onset crisis, social fund/CDD operations should activate their disaster management procedures, where available.¹² One of the earliest decisions that will need to be made is whether the response can be managed locally or external assistance will be required.

The social fund/CDD operations in Honduras and Pakistan were able to quickly establish field offices in or near to disaster-affected areas largely using personnel from regular programs following Hurricane Mitch in 1999 and the 2005 Pakistan earthquake. Operations in some other countries have worked through their existing partnerships with local and international organizations to support the rapid provision of relief to people affected by rapid-onset disasters. For example, in the Philippines NGOs involved in the KALAHI-CIDSS¹³ program provided free services, cash, materials, and equipment donations to augment government resources following four successive tropical cyclones in 2003.

Some of the lessons learned from these experiences have been the importance of:

- Decentralizing decision-making authority to field offices so they do not experience delays in responding to immediate needs;
- Ensuring that there are sufficient staff with appropriate skills available to direct such operations, including the need to scale up and mobilize personnel quickly; and
- Establishing good internal communications between the social fund/CDD emergency operation and the Bank's other emergency and regular programming channels.

The more flexible management procedures and arrangements introduced through BP/OP 8.00 provide room for greater decentralized decision-making during an emergency operation. The main structures to be established will depend on the nature of the emergency or the declaration of a "corporate emergency" by the Bank. This can include the establishment of a Rapid Response Committee (RRC) and delegation of decision-making authority to task teams and country-based Bank officials, with delegation of authority through the Country Director to enable country-based officials to approve

¹² A useful resource at this time would be a checklist for disaster response preparedness. The *UN/IASC In-Country Team Self-Assessment Tool for Natural Disaster Response Preparedness* offers a practical example of such a checklist: Checklist

¹³ Linking Arms Against Poverty-Comprehensive and Integrated Delivery of Social Services.

Box 4.15 Mobilizing for a rapid response in Honduras and Pakistan

Following the devastation caused by Hurricane Mitch, the Honduras Social Investment Fund established nine temporary regional offices in less than three days. Responsibilities and resources were delegated to high-level FHS staff members who acted as regional directors. The regional offices were authorized to approve projects of up to \$100,000 and worked closely with the municipal authorities.

The Pakistan Poverty Alleviation Fund established a Disaster Relief Centre in Islamabad two days after a crippling earthquake struck the North West Frontier Province and Azad Jammu Kashmir. Shortly afterwards, four field coordination units were set up in the earthquake-affected areas to monitor relief distribution, carry out continuous needs assessment, and report cases of relief abuse (particularly concerning the most vulnerable people) to the relevant authorities.

Source: Honduras and Pakistan Case Studies, in this Toolkit.

Project Preparation Facilities, sign legal agreements, and coordinate with sector teams. The Country Director also may elect to establish an in-country coordination committee to maintain a broader strategic focus and ensure complementarity between different components of the Bank's emergency response operation.

Where a separate sub-structure is required closer to the site of the disaster to carry out the emergency operation, the RRC, country director, or a more senior manager may need to devolve some administrative and financial powers to the unit or sub-units established. The creation of a callable roster of designated emergency staff by the Bank also should greatly reduce the administrative and financial management strain faced by past social fund/CDD operations, which had to rely largely on internal resources to run field offices. Additional operational and technical support can be provided through this roster.

The experience of some social fund/CDD operations working in slow-onset disasters is that local government partners experienced absorptive capacity challenges in the administrative and financial management of scaled-up quick response operations. For instance, audit reports from the Malawi Social Action Fund's large cash transfer—public works program consistently reported weaknesses in adhering to procurement procedures and in financial management and reporting systems by local assemblies responsible for program implementation.

In future, for both larger-scale slow-onset and rapid-onset disasters it would be desirable to base field offices or an expanded programming capability within local government structures whenever possible. This would allow closer collaboration with the

local authorities, combined with the technical and capacity-building support that may be required to implement both relief and longer-term recovery programming. Forms of support could include technical assistance for procurement, finance, engineering, and community participation during the emergency period and could be adjusted later to meet the specific needs of recovery. These can be drawn from the private as well as the public sector.

Getting the Right Skills

The deployment or recruitment of local and international personnel with management skills and technical expertise in disaster response and recovery are essential to a smoothly run emergency response and recovery operation. For instance, specialists in shelter, emergency water and sanitation, and hazard-resistant infrastructure may be needed to train and supervise local technical facilitators. Additional administrative and financial staff also are likely to be needed, such as computer database operators, finance officers, and auditors to document the progress and outcomes of accelerated sub-project approval and expenditure procedures.

Several social fund/CDD operations have also emphasized the importance of having quality community facilitators. A major challenge can be scaling up partner organization and CBO staff or village facilitators to liaise between communities, local government, and project personnel for planning and implementation. For example, KDP in Indonesia had to expand its network of operations from 111 to 221 sub-districts following the 2005 Indian Ocean tsunami/earthquake, requiring a substantial increase in district and sub-district consultants and elected village facilitators.

Some social fund/CDD operations have experienced difficulty in the recruitment of such staff due to a scarcity of trained personnel, delays in funding, or competition between donors. A lesson learned by the PPAF during the Pakistan earthquake operation was the importance of ensuring that personnel deployed or recruited by partner organizations receive sufficient training and on-the-job technical support on participatory community programming, gender and vulnerability analysis, and ways to promote inclusiveness. In some countries, special attention will need to be given to ensuring that recruitment processes for community-level facilitation teams attract sufficient numbers of women to ensure adequate outreach to affected women.

Program expansion should only proceed at the pace of available capacity, despite pressures that may be experienced to scale up rapidly, as untrained or unsupported new staff and volunteers may reduce the efficiency and effectiveness of the operation and create further stress for traumatized populations. Wage inflation also will need to be monitored by the operation, and a funding contingency built into human resource budgetary planning.

Box 4.16 Expanding post-disaster community outreach

The PPAF's Earthquake Relief, Rehabilitation and Reconstruction Program (E3RP) deployed Social Mobilization Teams (SMTs) through its partner organizations (47 in Azad Jammu Kashmir and 60 in North West Frontier Province). Each team was designed to include an engineer and a male and female social organizer and had responsibility for 800–1,000 households. The SMTs played a critical role in housing reconstruction by carrying out damage assessments, social mobilization, training, and quality control activities.

A constraint faced by the operation was the lack of sufficient female team members for some of the SMTs, despite the requirement to include women. This reduced the capacity of PPAF to work with vulnerable families, particularly those headed by women. Partner organizations did not appear to understand gender issues or disabled-friendly housing design. The PPAF concluded that, in future, it would be desirable to train and monitor partner organizations on vulnerability and gender issues.

Source: Pakistan Case Study, in this Toolkit.

The World Bank, like many other organizations, has had to manage the budgetary implications of increasing local staff, as well as the issues associated with eventually reducing numbers. There are no easy solutions to managing staff expectations. Clarity and transparency about the duration of employment is essential, including in contracts. This should be part of an operational exit strategy that is regularly updated by all partners. Where there are large contractions in disaster-related employment occurring more broadly, transitional support and guidance also could be offered, where feasible and appropriate (e.g., time off to search for employment, skills building, and career planning).

Poaching of staff and wage inflation also are problems experienced by most organizations, including governments, in disasters where there is a strong international response. While there are no easy solutions to this problem, social fund/CDD operations could work with the head of the emergency response operation to liaise with national government on policies and measures to control wage inflation during emergency operations.

The 2004–05 *ALNAP Annual Review* reported that the success or failure of relief operations is largely dependent on staff quality. In several emergencies, international agency personnel on the ground have often felt unsupported. Many had insufficient time to prepare for departure and only limited briefings. Recent experience has shown the value of setting aside dedicated time within operations to address progress, consider staff support needs, and promote dialogue between field and headquarters personnel (Beck, 2005b). Also, some local and international staff may become affected or “burned

out” from disaster response work. Resilience varies among individuals, and this must be monitored. UNHCR’s *Handbook for Emergencies* provides some general guidance on identifying and managing such issues.

Expediting Procurement and Legal Processing

BP 8.00 allows World Bank emergency operations to undertake simplified and expedited procurement, including using the disaster-affected country’s emergency procurement system. The degree to which that system is compatible with social fund/CDD decentralized community-based procurement models will need to be assessed to determine which the fastest and most efficient route is. If the government does not have emergency procurement procedures, it is necessary to establish a protocol—preferably prior to a disaster event. This reflects a lesson learned by some social fund/CDD operations that it was difficult to persuade government partners to return to regular procurement procedures once the emergency was over. A few social fund/CDD operations have developed operational guidelines or procedure manuals for emergencies, based on their experience (e.g., FHIS, PPAF, KDP). This represents good practice in disaster preparedness.

The following measures have been used by some social fund/CDD operations to speed up the sub-project approval and procurement processes during emergency operations:

- Using simplified and standardized sub-project proposal pro forms;
- Waiving funding ceilings and instead determining the level of funding based on the actual amount of damage;
- Waiving or lowering the community contributions for sub-projects in areas badly affected by disaster (including for regular developmental activities);
- Shortening the procurement process (e.g., the process in Honduras was decreased from 50 to 8 steps);
- Simplifying the procurement rules, such as shorter deadlines for bid invitations (changing from open competition bidding, which would take longer), selection of small and medium-size enterprises on a smaller bid invitation basis, and use of sole source procedures for partners already active in a disaster-affected area;
- Diversifying the number of directly contracted executing partners;
- Contracting and procuring directly by the social fund rather than by communities; and
- Undertaking technical audits during implementation to allow the rapid reorientation of procedures, if needed.

It should be noted that some social fund/CDD operations have found that using the existing processes for procurement and disbursement has been more efficient and helped with quality control, as the communities and local government agencies were familiar with and trusted them. This has been more the case with slow-onset

Box 4.17 Speeding up procurement in Honduras during an emergency

Implementation support in the field from the regional procurement advisor (RPA) ensured rapid implementation. Having the RPA on the ground during the initial stage of the operation, in addition to an engineering consultant, had a tremendous impact on expediting the process within the country and in gaining internal Bank support for streamlined procedures and processes.

With the Country Director's and RPA's support, procurement processes and contracting began immediately, providing a "comfort letter" to the contractor, ensuring that funds to pay for goods and works was forthcoming, prior to amending credit agreements and seeking Board approval.

Large-scale contracts using direct contracting or sole source, shopping for goods over an agreed timeframe, and covering specific or immediate emergency operation made rapid implementation possible. Sole source or direct contracting did not depend on the size of the contract but was based on the gravity of the emergency and the relative necessity of speed in the immediate response to recovery efforts. For example, sole source was used to purchase goods such as immediately operational military-type Bailey Bridges.

Source: Honduras Case Study, in this Toolkit.

disasters, but it indicates the importance of returning to normal procedures as soon as feasible.

Where the procedures are temporarily changed during an emergency, confusion can arise within government. Such changes need to be well communicated to officials at all levels, and the support of financial and administrative personnel may be needed to help local governments adjust and streamline their normal procedures. Likewise, if funds are reallocated from existing projects to emergency operations, it is important that the restructuring of the funding is reflected in the revised project objectives and legal agreement. During the FHIS response to Hurricane Mitch, this was not done, leading to a poor evaluation of a restructured environmental development project.

Managing Fiduciary Risks

To address the risks associated with the need for speed in processing and implementing emergency operations, World Bank task teams are now required to provide more intensive supervision (OP/BP 8.00). To ensure adequate support to operations, task teams can draw from designated emergency staff from the regions (legal, financial management, loan, procurement, and safeguards). During larger operations, the presence of additional personnel who can interpret the changed programming context and liaise with head office legal advisers to resolve more complex issues can greatly

increase the operation's efficiency. This was demonstrated by the experience of FHIS in Honduras. The embedding of some technical expertise within local government counterpart agencies to support their handling of higher and more complex workloads associated with relief and recovery operations also should help.

Unless an emergency is protracted, the delivery of relief and early recovery assistance usually should not last for more than six months. Given the volatile nature of rapid-onset disasters, progress reporting over the emergency period likely will need to be frequent (e.g., weekly or monthly) and shared with all the stakeholders. Module 6 provides further information on the establishment of management information systems, audit procedures and community-based monitoring and evaluation systems to act as project safeguards during emergency operations.

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Documents

Alam K, Herson M and O'Donnell I (2008). *Flood Disasters: Learning from Previous Relief and Recovery Operations*. Geneva/London: ProVention/ALNAP. Flood lessons

Cosgrave J (2008). *Responding to Earthquakes: Learning from Earthquake Relief and Recovery Operations*. Geneva/London: ProVention/ALNAP. <http://www.alnap.org/publications/ALNAPLessonsEarthquakes.doc>

Harvey P (2005). *Cash and Vouchers in Emergencies*. London: ODI/HPG. Harvey paper

Hedlund K (2008). *Slow-onset Disasters: Drought and Food and Livelihoods Insecurity: Learning from Previous Relief and Recovery Responses*. Geneva/London: ProVention/ALNAP. article

International Federation of Red Cross and Red Crescent Societies (2007). *Disaster Response and Contingency Planning Guide*. Geneva: IFRC. IFRC contingency

Longley C, Christoplos I, and Slaymaker T (2006). *Agricultural Rehabilitation: Mapping the Linkages between Humanitarian Relief, Social Protection and Development*. London: ODI/ HPG Report 21. <http://www.odi.org.uk/hpg/papers/hpgreport22.pdf>

Savage K and Harvey P (2007). *Remittances during Crises: Implications for Humanitarian Response, Briefing Paper 26*. London: ODI. [hpgbrief26](#)

Sphere (2004). *Humanitarian Charter and Minimum Standards in Disaster Response*. Geneva: The Sphere Project. Sphere standards

UN/Inter-Agency Standing Committee (2007). *Initial Rapid Assessment Tool: Guidance Notes*. Geneva: UN/IASC Health/Nutrition/WASH Clusters. WASH/Nutrition guidelines

——— (2006). *Protecting Persons Affected by Natural Disasters: IASC Operational Guidelines on Human Rights and Natural Disaster*. Geneva: UN/IASC. Guidelines

——— (2006). *Women, Girls, Boys and Men: Different Needs – Equal Opportunities: Gender Handbook in Humanitarian Action*. Geneva: IASC. *Gender Handbook*

Web Sites

Overseas Development Institute: Humanitarian Practice Network: <http://www.odi.org.uk/HPG/>

The Humanitarian Policy Group is a team of independent researchers and information professionals working on humanitarian issues. It is dedicated to improving humanitarian policy and practice through a combination of high-quality analysis, dialogue, and debate. It conducts integrated research, as well as publishing policy briefs and the *Disasters* journal.

ProVention Consortium: <http://www.proventionconsortium.org>

The ProVention Consortium is a global coalition of international organizations, governments, the private sector, civil society organizations, and academic institutions dedicated to increasing the safety of vulnerable communities and to reducing the impacts of disasters in developing countries. Among other things, ProVention develops innovative approaches to the practical applications of disaster risk management and shares knowledge and resources for organizations, practitioners, and communities.

UN Inter-Agency Standing Committee (IASC) Clusters: www.humanitarianinfo.org/iasc/content/cluster/

Endorsed by the IASC in 2005, the Cluster Approach aims to ensure sufficient global capacity, predictable leadership, strengthened accountability, and improved strategic field-level coordination and prioritization in humanitarian response to crises. The approach is designed around the concept of partnerships between U.N. agencies, the International Red Cross and Red Crescent Movement, international organizations, and NGOs. Partners work together toward agreed common humanitarian objectives both at the global level (preparedness, standards, tools, stockpiles, and capacity-building) and at the field level (assessment, plan-

ning, delivery, and monitoring). There are several cluster working groups covering areas such as shelter; water sanitation and hygiene, etc. They produce guidance on good practice in humanitarian response.



MODULE 5

Longer-Term Disaster Recovery (Rehabilitation and Reconstruction)

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Module Summary

Module 5 provides guidance on key issues in longer-term post-disaster recovery (rehabilitation and reconstruction). The range of forms and methods for social fund/CDD operations to deliver recovery assistance are described, with a focus on: the restoration of communal assets, livelihoods, shelter/housing; and natural resources. Actions to incorporate disaster risk reduction and climate change adaptation activities into recovery programming are discussed within this context. The module concludes with information on the integration of recovery programming into regular social fund/CDD operations.

Key Principles of Longer-Term Disaster Recovery

Disaster recovery (rehabilitation and reconstruction) refers to the decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery provides an opportunity to develop and apply disaster risk reduction measures (UN/ISDR, 2004). Alongside the provision of life-saving emergency relief and quick-impact measures to protect or replace key small-scale productive assets and income of poor and vulnerable households and communities, planning must begin for longer-term recovery.

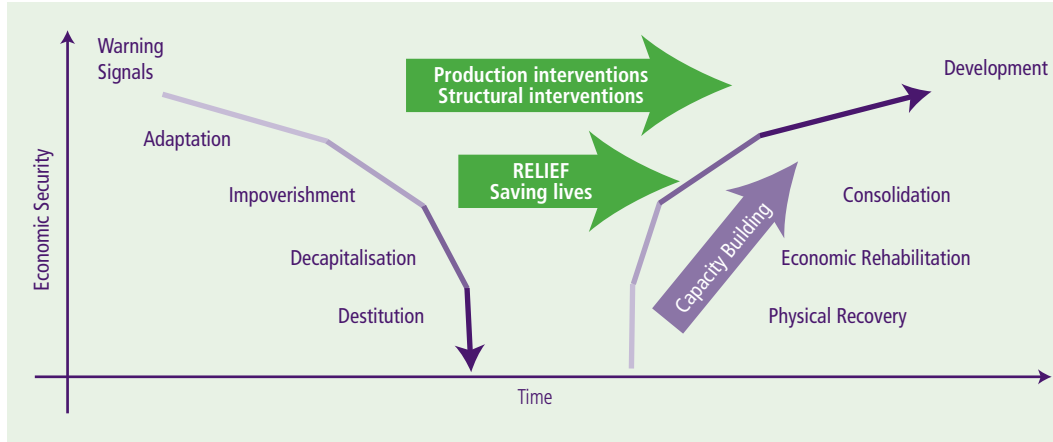
Recovery can encompass a wide range of activities, such as the rehabilitation or reconstruction of infrastructure (e.g., roads, bridges, water supply and sanitation systems, and electricity supply); of facilities such as schools, hospitals, and health centers; of irrigation systems and farmland; of housing and settlements; and of livelihoods. It includes restoring the facilities and capacity of governments, the private sector, and civil society. Recovery also entails helping communities find ways to cope with the socio-economic and psychosocial impacts of the disaster.

When a natural disaster strikes in a poor community, not only does it cause serious loss of life and property, it often takes away or threatens the livelihoods and future of those who have survived. This is especially the case where productive household members have been lost or permanently disabled. For a large number of households, not only will their short-term economic and social vulnerability be increased, but their ability to cope with future shocks also may be eroded. These pressures can contribute to increased poverty and marginalization in society. They can aggravate tensions or conflicts that may have already existed within or between communities prior to the disaster.

In the case of slow-onset or regularly recurring hazard events or shocks, many poor communities live in a constant state of recovery, where temporary relief has become a permanent coping strategy. For example, in Malawi drought occurs with such frequency that people have little time to recover before another drought hits. This has resulted in deepening poverty, chronic food insecurity, and aid dependency.

For these reasons, recovery programs need to tackle both transient and chronic poverty issues, requiring both social protection and economic activities. In order to be effective and sustainable, longer-term recovery initiatives should be linked to national and local development processes and to an understanding of the economic, social, and political conditions that existed prior to the disaster. Some of these are likely to have been contributing factors to the vulnerability that led to the disaster; others may have an impact

Figure 5.1: The crisis process



Source: ICRC, 2005b, p. 8.

on the recovery strategies adopted, such as underlying structural issues. Lack of understanding of these processes can lead to poorly targeted and inappropriate assistance. Social fund/CDD operations can bring a valuable longer-term developmental perspective, as well as directly contribute to the social protection and economic development elements of recovery. Social funds/CDD operations also have more opportunities to incorporate the lessons learned from disaster responses than some humanitarian NGOs that only work in-country during an emergency relief response.

Recovery activities also should do more than merely restore disaster-affected people and institutions back to the situation that existed before the disaster. They should contribute to strengthening the capacity of communities and governments to reduce their vulnerability to future hazards and shocks; they could restore destroyed mangroves as protection against storm surges, for instance, or develop the disaster management skills of local government authorities.

Possible Areas for Social Fund/CDD Operation Support

Restoring Communal Assets

Social fund/CDD operations have a long history of supporting community sub-projects to restore important community infrastructure after disasters, such as schools, roads, health centers, and irrigation systems. The various forms of community block grants and local contracting systems developed over years of operation make social fund/

Box 5.1 The consequences of poorly planned recovery

The response to the 2004 Indian Ocean tsunami and earthquake successfully avoided the traditional funding gap between the relief and recovery phase, due to the early access of agencies to large sums of money for recovery projects. Despite this achievement, the perceived pressure to spend, the competition for “beneficiaries,” and a lack of expertise in sustainable livelihoods, community development, resource management, and engagement with government processes led to the following results for a number of organizations:

- Poor market research leading to inappropriate business models
- Environmental damage to forestry, topsoil (Alexander, 2006), and fish stocks
- Poor access to credit
- Faulty or badly planned boat production
- Poor-quality reconstruction
- Inflation-inducing profligacy
- Poor anticipation of skills shortages and inadequate training, leading to outsiders meeting the demand for labor, instead of promoting local employment opportunities
- Poor targeting, leading to waste and social tensions (such as people who are not really fishers receiving boats, sometimes more than one, while fisherfolk have been left empty-handed)
- Fragmented programming resulting in houses without connection to water and sanitation, schools where few or no children now attend, and fishing boats and nets where there is neither cold storage nor potential buyers.

Source: Tsunami Evaluation Coalition Synthesis Report, 2006, pp. 71–72.

CDD operations well suited to support demand-driven small-scale infrastructure as well as other safety nets operations such as public works programs.

Clearly, the potential social and economic costs of not investing in hazard-proofing of key structures and infrastructure for high-probability hazard risks outweigh the costs

Box 5.2 Use of block grants by communities in Aceh Province, Indonesia

During 2005, Kecamatan Development Program (KDP) communities in Aceh chose to invest 86.2 percent of their block grants in small-scale rural infrastructure such as roads, bridges, clean water supply, irrigation, and canals. About 1.6 percent of total funds were allocated to economic activities, including revolving funds for women and soft loans to groups for small businesses and agriculture. For education, KDP communities allocated 5.9 percent of their funds to school construction and renovation, scholarships, and the purchase of school materials. Health facilities such as pre- and post-natal clinics and general village clinics received about 1 percent of the funds allocated.

Source: Indonesia Case Study, in this Toolkit.

of spending funds on ensuring their safety and durability. In many (but not all) cases, the modifications required are simple and inexpensive, such as incorporating cross-bracing into buildings to protect them from wind or raising structures above flood-lines. Indigenous knowledge can play an important role in identifying locally feasible and cost-effective solutions. Bangladeshi communities, for example, have devised simple methods for protecting their homes against floods and wind, such as raised plinths (the base, foundation, or lower part of a house) or detachable wall panels that can be moved to the roof (Twigg, 2004).

Where agencies have undertaken hazard-proofing, a common experience is that they only do it for the hazard event that most recently took place or for hazards with a low probability of occurring. This can increase the opportunity costs and risks. For example, a building may be strengthened to resist earthquakes when the most commonly experienced hazards are cyclones. Decisions to incorporate hazard-resistant measures into construction or to retrofit key facilities (e.g., schools and hospitals) should be based on careful assessment of the communities' degree of vulnerability to different hazards rather than on the hazards themselves. This includes undertaking risk and cost-benefit analysis.

Social fund/CDD operations need to make hazard-resistant construction a requirement for all structural works, whether pre- or post-disaster, and to incorporate this into the objectives and performance measurement system for sub-projects.

Steps undertaken to ensure appropriate, adequate, and cost-effective hazard-proofing include:

- Ascertain the hazards of highest risk to communities;
- Review local/national building codes, policies, and practices;
- Recruit appropriate technical expertise to design infrastructure/facilities with hazard-proof features;

Box 5.3 Protecting schools and health centers in Madagascar

Starting in mid-2004 the Madagascar Social Fund, *Fond d'Intervention pour le Developpement* (FID), undertook the construction or rehabilitation of schools and health centers to make them resistant to cyclones with winds of up to 250 kilometers an hour. From 2004 to 2006, some 2,041 school buildings and 311 basic health centers were built to comply with these anti-cyclone codes (UNISDR 2006).

Source: Madagascar Case Study, in this Toolkit

- Train technical facilitators and construction personnel in how to build in these features; and
- Monitor and supervise construction, including an independent technical audit and safety certification process.

The longer-term focus should be on building local capacity to carry out this work independently.

The rehabilitation of water supply and sanitation systems is usually a significant recovery need after a rapid-onset disaster.⁷ However, quite often these systems are not built back to account for local conditions, such as recurrent flooding. For instance, following flooding in Nicaragua the construction of latrines increased. But when local rivers swelled to high levels, the latrines became a source of contamination (Oxfam, 2003).

Social fund/CDD operations can incorporate flood mitigation measures while rehabilitating water, sanitation, and health systems for future protection. Some of these include:

- Strengthening health volunteer networks to enhance their effectiveness in emergency preparedness and response;
- Raising tube-wells and boreholes above flood water level to prevent contamination;

Box 5.4 Communities monitor water quality after a cyclone

Following Cyclone Ami in Fiji in 2003, the drinking-water quality on the island of Vanua Levu did not conform to World Health Organization guidelines values for safe drinking water. Turbidity and total coliform levels significantly increased (up 56 and 62 percent, respectively) from pre-cyclone levels, which was likely due to the large amounts of silt and debris entering water-supply sources during the cyclone. The local utility found it difficult to maintain a reliable supply of treated water in the aftermath of the disaster, and communities were unaware they were drinking water that had not been adequately treated. A simple paper-strip water-quality test (the hydrogen sulfide, H₂S) kit was distributed for community-based monitoring as a pilot test. It was concluded that the H₂S test would be well suited to wider use, as it is inexpensive and easy to use, thus enabling communities and community health workers with minimal training to test their own water supplies without outside assistance. It was recommended that this be accompanied by public health education.

Source: Mosley, Sharp, and Singh, 2003.

⁷ This discussion draws directly on Alam, Herson, and O'Donnell, 2008, p. 10.

- Paying attention to placement and arrangement of sanitary facilities to limit impact on groundwater and ensure safety for community members;
- Using innovative approaches to sanitation in flooded areas, such as raised latrines, pitliners or rings, sealed pits or tanks, or contained leach fields; and
- Extending hygiene education to schools and community groups.

Social fund/CDD sub-projects can consider increasing their range of eligible non-structural disaster mitigation activities to include the strengthening of livelihoods assets, such as introduction of fuel stove technology to reduce the use of firewood or participatory hygiene and sanitation activities to complement the installation of “hardware” systems (Bhattamishra and Barrett, 2008), as has been done in the Second Water Supply and Sanitation of Low Income Communities Project in Indonesia.

Livelihoods

In the longer-term, post-disaster livelihoods assistance should continue to focus on the social protection of the poorest and most vulnerable households, combined with measures to increase the productivity of their livelihood activities and to diversify household income sources. This will help to increase their resilience to future disasters.

For disaster-affected communities, livelihoods are generally the key recovery issue. Disasters can have an impact on household livelihoods through (Cosgrave, 2008):

- Loss of human capital through death, injury, or psychological impact;
- Loss of assets including land, livestock, and shops;
- Loss of employment, either in formal economy or the informal sector; and
- Loss of markets or access to them.

Households also will weigh up the opportunity cost of participating in recovery assistance programs. For example, poor women may have to choose between providing labor to restore an access road and restoring their home garden.

Social protection

To avoid creating aid dependencies, social protection activities (see “Protection and Restoration of Livelihoods” in Module 4) should be gradually reduced and ended for vulnerable households for whom the disaster has been a one-off idiosyncratic event. For the chronically poor and food-insecure, and for those on the verge of moving from transient to chronic poverty, a reliable transfer of resources may still be required, while undertaking programs to reduce long-term vulnerability.

To continue to build up household income and assets during the recovery period, social fund/CDD operations can maximize the use of local skills, labor, and materials when restoring housing and communal assets. This includes identifying support roles, such as providing meals or drinking water to the workers, for those with less strength or mobility (e.g., disabled or elderly). Housing reconstruction may sometimes be a sufficiently strong vehicle to promote more general economic recovery, as happened after the Yogyakarta earthquake (Mansfield, 2007).

Market analysis

Surprisingly little market analysis is carried out by agencies to determine the pre-and post-disaster trends in demand for goods and services. Social fund/CDD operations can help government or the private sector conduct such surveys in order to determine where best to invest in business and employment creation. This information can provide important guidance as to whether people should be encouraged to continue with the same occupations or be equipped for a different means of earning a living or whether income sources can be diversified. For example, an oversupply of fishing boats in Aceh Province after the 2004 tsunami put added pressure on fish stocks that had been declining prior to the disaster and increased pre-existing vulnerabilities (Christoplos, 2006b).

Market surveys can also correct a tendency among some agencies to view the livelihoods of poor households in overly simplistic ways—farmer, fisher, trader—rather than seeing the diverse set of productive activities usually undertaken. They can further develop strategies for the urban poor and vulnerable, who may, for example, have depended on one job in a factory or an office that has now collapsed. Market analysis also may help identify appropriate education and training opportunities to help individuals diversify their income sources or move into new occupations when they have lost a means of living or it is under threat due to changing markets or climate change.

Social fund/CDD operations can greatly facilitate appropriately targeted livelihoods recovery by undertaking coordinated market research activities, working with agencies like the International Labour Organization and the Food and Agriculture Organization and sharing the results widely with other agencies engaged in recovery activities.

Savings, credit and insurance

The development of programs in these areas can help recovery and future risk management among poor and vulnerable disaster-affected households in a variety of ways. Households can use production or investment credit to build up assets and increase their future capacity to self-insure. They then can use precautionary savings or credit to smooth consumption in the face of either income shocks or anticipated variations in income or expenditures (e.g., dowries, weddings, or funerals). Social fund/CDD operations could expand their current focus on micro-credit institutions and savings

societies to include working through traditional community coping mechanisms such as burial societies (Bhattamishra and Barrett, 2008).

The Bosnia and Herzegovina Local Initiatives Project, operating in a post-conflict situation, created almost 200,000 jobs through the provision of microcredit services. Within three to five years the micro-credit organizations contracted under the project were able to quadruple their active clients to about 100,000, to reduce their interest rate by half, and to cut their portfolio at risk to 1 percent (IDA, 2007). And in India, as a result of specially targeted initiatives of the Andhra Pradesh District Poverty Initiative Program more than 1.2 million rural poor have taken up death and disability insurance coverage, up from fewer than 1,000 before the project (IDA, 2007).

These kinds of results also are possible in post-disaster programs, as illustrated by the experience of the Malawi Social Action Fund (MASAF). As a part of its cash-for-work emergency public works program, MASAF encouraged beneficiaries to form Community Savings and Investment Groups (COMSIP) to facilitate the purchase of agricultural inputs. The program instilled a cooperative culture and links to financial institutions. Usually assets were sold off during droughts, but this pattern changed with COMSIP (Case Study: Malawi Social Action Fund, in this Toolkit).

Other

Other activities can be undertaken to strengthen livelihoods resilience and facilitate adaptation to climate change, many of which are already being done through social fund/CDD operations, such as promoting flood or drought-resistant crop varieties and building strengthened pens and trap ponds to retain fish during floods.²

Shelter, Housing, and Human Settlements

Large-scale rapid onset disasters can cause widespread devastation to people's homes and community infrastructure. Shelter is critical to survival and a high priority both for relief and recovery assistance. From the emergency phase until durable solutions, it is necessary to provide families with security and personal safety as well as to protect them from exposure to the elements (e.g. rain, snow, extreme heat or cold, etc) and associated health risks. Shelter and settlements serve the important function of supporting human dignity and family and community life, as well as maximizing communal coping strategies, whether people are living on the site of their damaged or destroyed homes or have been displaced (The Sphere Project, 2004). More secure shelter in a

² In 2008 the SEEP Network published useful guidance on the promotion of enterprises, employment, cash flow, and asset management with conflict or disaster affected businesses and households. SEEP standards

Box 5.5 Key Shelter Definitions

Emergency shelter: The provision of basic and immediate shelter necessary to ensure the survival of disaster-affected persons, including “rapid response” solutions such as tents, insulation materials, other temporary emergency shelter solutions, and shelter-related non-food items (UN/IASC Emergency Shelter Cluster, 2006).

Transitional shelter: Shelter that provides a habitable covered living space and a secure, healthy living environment, with privacy and dignity for those within it, during the period between a conflict or natural disaster and the achievement of a durable shelter solution (Corsellis and Vitale, 2005).

Durable solutions: The point at which permanent settlement and shelter for both displaced and non-displaced populations have been rebuilt and established, sufficient for communities to support their own livelihoods (UN/OCHA/Shelter Centre, DFID, 2008).

safer settlement constitutes the immediate and sustainable physical foundation to livelihoods development, including by enabling protection and reducing risk (UN/UN-OCHA, 2008).

Despite the importance of shelter, housing, and human settlements, this sector has a mixed track record in post-disaster recovery. While there have been notable achievements in some countries, in many cases inappropriate assistance has been provided, such as providing tents for emergency shelter when tools, building materials, or cash would have been more appropriate; designing houses that were culturally inappropriate or difficult to maintain; neglecting to install essential services or infrastructure such as water and sanitation; not allowing space for home-based businesses, gardens, or livestock; neglecting important community infrastructure such as community centers, schools, and houses of worship; relocating displaced people to settlements far from their sources of income or social support networks; and missing the most vulnerable and marginalized groups in targeting the assistance (UN-OCHA/Shelter Centre/DFID, 2008; World Bank/IEG; 2006a; Telford, Cosgrave and Houghton, 2006; ProVention/ALNAP, 2005-08).

Some of the reasons for these difficulties have included:

- Structural obstacles such as unclear housing compensation and reconstruction policies;
- Land and property rights issues, especially for those who do not hold secure tenure, compounded by loss of documentation during a major rapid-onset disaster;
- Lack of understanding of the socio-political context of land use in the affected country;

- Focusing on the physical house itself rather than housing as part of a human settlement with associated infrastructure and services;
- Lack of attention to livelihoods and social cohesion needs in the choices of location and design, particularly where there is no other option but relocation;
- Not accounting for the needs, concerns, cultural, and equity (e.g., if new arrivals receive higher-quality housing and services than current residents) considerations of communities in which displaced households may be integrated or placed alongside;
- Absence or limited consultation with and participation of affected communities in the design, implementation, and quality control of housing and settlements;
- Bypassing poor and marginalized communities in consultative processes;
- Missing key vulnerable groups in assistance planning, such as host families providing temporary accommodation for displaced households;
- Use of poor quality materials, construction techniques, or contractors;
- Lack of environmental impact or risk assessment;
- Lack of quality control systems and procedures; and
- Corruption, coercion, or political influences on shelter and housing choices.

The process of sheltering is about much more than the physical (re)construction of buildings. It has economic, social, political, and cultural dimensions that require a sound understanding both of the local context in which assistance is being provided and the needs and preferences of affected households and communities. The UN-OCHA, Shelter Centre, and DFID recently released guidelines on *Transitional Settlement and Reconstruction after Natural Disasters* (Guidelines), which provides in-depth guidance on a wide range of issues and considerations in shelter and housing. This includes 10 key principles for shelter assistance, drawn from extensive international experience (Annex 5.1).

From the World Bank's perspective, the goal of shelter and housing assistance is to help those made homeless by disaster get back on their feet as quickly as possible, while focusing on the poorest and encouraging mitigation measures to help reduce the impact of future disasters (World Bank/IEG, 2006). The Bank has played a major role in helping disaster-affected countries finance transitional shelter and longer-term housing and human settlements rehabilitation and reconstruction. This has ranged from facilitating self-help construction of temporary shelter, while simultaneously undertaking housing reconstruction programs, to providing households with cash or materials to repair or rebuild themselves. Assistance has also been provided to relocate disaster survivors when the areas in which they were previously living have been deemed unsafe for habitation.

The Bank has supported activities to set up emergency refuges on site and strengthened early warning systems. For example, in Bangladesh the construction of cyclone

shelters was funded, providing Bangladeshis at risk with a place to go during severe storms. Sea-level monitoring and warning systems were also implemented (World Bank/IEG, 2006a).

Social fund/CDD operations have contributed and can continue to contribute to positive sheltering outcomes for the poor and vulnerable in several important ways.

Vulnerability and needs assessment

Social funds can help local governments assess community vulnerabilities, needs, capacities, and preferences for shelter/housing support and carry out a process of community-based planning for assistance. This includes obtaining information on the livelihoods-related, environmental, and land and property rights considerations for settlement planning (Annex 5.2 summarizes livelihoods and shelter linkages). After the 2004 tsunami and earthquakes in Aceh, for example, participation helped ensure that important features, such as water and sanitation, were incorporated into housing design (Oxfam 2006).

Support for policy development

Technical support and community data can be provided to local and national governments for the development of clear and flexible shelter and housing policies that meet the varied needs of the affected population, including vulnerable groups, while improving hazard resistance. Support also can be provided for the development of frameworks for entitlements and assistance.

Box 5.6 Incorporating land and property rights into shelter/housing assessments

The following information should be collected to determine land tenure considerations in planning:

- Number of parcels of land affected and extent of registration in the formal land administration system
- Numbers of landowners affected; numbers of dead and missing
- Extent of destruction of land and personal identity records
- Degree of landholding and landlessness among displaced persons
- Number of renters and informal or illegal settlers displaced
- Number of women displaced or renters or residents of informal settlements
- Number of female-headed households among displaced and non-displaced
- Assess operation of land institutions prior to disaster, including efficiency and effectiveness in ensuring tenure security, access to land, and protection of human rights relating to housing, land, and property
- Response of land institutions to disaster

Source: UN-OCHA/Shelter Centre/DFID, 2008, p. 229.

Settlement planning

The 2006 Independent Evaluation Group report noted the difficulties in resettlement programs. Due to the severe negative impacts that relocation can have on community livelihoods and social cohesion/coping mechanisms, relocation should only be considered as an option when there is no other alternative to ensure the physical safety of communities. The World Bank has safeguards procedures in place for assessing displacement issues, and these need to be carefully followed where a natural disaster has caused either temporary or permanent displacement. If relocation is assessed as the only safe option, then special attention must be paid to the location and settlement planning (refer to principles #4 and #5 for transitional settlement and reconstruction in Annex 5.1).

Social fund/CDD operations can provide facilitation between government, contractors (where used), and communities in designing settlements that include important community services (roads, water and sanitation, schools and health centers, security lighting, etc) and facilities that promote social cohesion (community centers, places of worship, parks, playgrounds, etc). This may also include the integration of livelihoods support into planning, as was done in the Ecuador El Niño Emergency Recovery Project.

Cash transfers for transitional housing or home repair

The Bank, through social fund/CDD operations and other mechanisms, has provided grants to households to create or rent transitional accommodation or to carry out home repairs, where feasible. Evaluations and beneficiary surveys have indicated that recipients were satisfied with this assistance and preferred it to material support, as it gave speed, choice, and dignity (World Bank/IEG, 2006a).

These transfers work well if a good distribution structure exists and if local markets are functional (World Bank/IEG, 2006a). Social fund/CDD operations could consider incorporating the provision of payments through existing community grant structures. Assistance to local governments, partner organizations, and communities with vulnerability targeting—for example, to ensure that groups such as the disabled and the elderly are assisted with buying supplies or undertaking repairs—and monitoring to minimize the risks of misappropriation or elite capture of the benefits is another important role, as was done following the Marmara earthquake in Turkey.

It is also important to note that cash transfer schemes based on home ownership often miss vulnerable people without land title, such as squatters, unregistered migrants, and female-headed households. For example, following the 2005 Pakistan earthquake the government provided a compensation payment to house owners whose homes had been destroyed. One report observed that landlords, who had themselves suffered financial losses from the earthquake, were reluctant to use the money to rebuild accommodation occupied by tenants. In other cases, landlords collected compensa-

tion for damage to their tenants' homes but passed only a fraction of this money to the tenant (Adams and Harvey, 2006). Beneficiary selection criteria need to be developed with careful attention to inclusiveness issues.

Some situations will arise where the local markets are temporarily not functioning well (e.g., in floods) or easily accessible to affected people (e.g., those with restricted mobility). In such cases, support may need to be provided in the form of tools, materials, and other items (blankets, kitchen sets, etc.) to construct safe and habitable shelters from the rubble. This assistance should be provided through established commodity relief channels and processes (see "Provision of Relief Items" in Module 4). The Pakistan Poverty Alleviation Fund (PPAF) directly supplied transitional shelter tools and materials to hard-to-reach mountain communities following the earthquake there.

Whether cash or commodities are provided, technical support may be required to guide communities on safe transitional structure construction, and arrangements may need to be made to help those who do not have the physical capacity to purchase or transport materials or build a temporary structure.

Owner-driven housing construction

Social fund/CDD operations also can provide funding and technical and community facilitation support to owner self-build schemes for permanent housing, as was done by the PPAF. Owner-driven housing usually entails a system of tranced payments for reconstruction or repair of housing, carried out by home-owners themselves or contractors they have engaged. Standards for the incorporation of hazard-resistance are

Box 5.7 Community local government participation in owner-driven rebuilding in Gujarat

The Gujarat Emergency Earthquake Reconstruction Program Project (GEERPP) aimed to promote sustainable recovery in areas affected by the 2001 earthquake and to lay the foundation for sustainable disaster management capacity in Gujarat. The main component of the project was an owner-driven permanent housing construction and house repair program.

Through another component, village level sub-centers were established to build capacity for earthquake-resistant construction and to form self-help groups to monitor the program and be responsible for disaster preparedness in the future. This was supplemented by information, education, and communication activities, along with gender sensitization workshops for those working with the affected communities. A community-based disaster preparedness program also was initiated, and local government mechanisms to undertake social audits were strengthened.

Source: World Bank, GEERPP Project Identification Document (undated).

established in advance and technical guidance/education is provided to home-owners, contractors, and craftspeople. Inspections take place at each pre-determined stage of the work before the next tranche of payment is released to ensure that the work has been completed and conforms to standards.

The 2006 Tsunami Evaluation Coalition (TEC) report noted that owner-driven reconstruction was faster than agency-driven reconstruction in countries affected by the 2004 tsunami, despite the low levels of subsidy it received (de Ville de Goyet and Morinière, 2006). In Gujarat, a study found that client satisfaction and perceptions of post-earthquake housing quality were highest for owner-driven housing schemes (Duyne-Barenstein, 2006). However, owner-built housing may not be appropriate in situations where homes are rented, as is the case for many poor urban apartment dwellers, or where owner-built housing is not the pre-disaster norm.³ Inflationary effects in the construction industry also must be gauged, as this has reduced the value of payments and delayed rebuilding in some cases.

Even where owner-driven housing reconstruction is undertaken, it is important to ensure that required supporting infrastructure and essential services also are rehabilitated or rebuilt within a settlement planning framework, such as access roads, water and sanitation, and schools.

In addition, like cash transfers for transitional shelter, vulnerability targeting and monitoring is required. In Gujarat, the Emergency Earthquake Reconstruction Program Project specifically conducted gender sensitization workshops for those working with the affected communities.

Land titling

Many poor and marginalized people face various barriers to obtaining land and property rights. Housing construction projects can offer an opportunity to recognize their formal ownership of this important asset, one that may be used to gain access to credit for other productive activities. For example, in many developing countries women are not allowed to own land or houses. Some Bank projects have elevated women's status in society by providing land titles in the names of both men and women, as was done in Maharashtra. Unprecedented in this region, even widows received houses in their own names and ex-gratia payments for lost relatives (World Bank/IEG, 2006a). Social fund/CDD projects can promote more equitable land titling and property rights for the poor and marginalized.

³ The UN-OCHA transitional shelter guidelines offer comprehensive advice on multiple forms of agency-driven housing and settlement planning and construction for situations where cash-based approaches are not an option.

Information, education, and communication on hazard-resistant construction

Grant recipients and the builders that they use also need education and training on hazard-resistant construction. The development of the training approach and package should involve local builders and craftspeople and incorporate indigenous knowledge of safe building techniques. Efforts should be made to ensure that women are included, as they often play roles in house construction and maintenance that are not acknowledged. Women in the earthquake-affected areas of Pakistan, for instance, are responsible for plastering walls and various interior work (Burton, unpublished).

Awareness-raising and skills building can be done through a combination of formal training and on-the-job technical support, supplemented by written or visual material suitable to the literacy levels (including technical literacy) of the communities involved. For example, through the PPAF E3RP, 194 partner organization engineers and social organizers were trained as trainers and 249 craftspeople became master trainers. Over 14,000 craftspeople had skill upgrading training and more than 75,000 homeowners received orientation training on government earthquake-resistant construction guidelines (World Bank PPAF case study, forthcoming).

Reconstruction usually provides at least a temporary stimulus to the labor market, often contributing to wage inflation for certain occupations. There may be opportunities to train individuals in construction-related skills and increase their earning capacity.

Table 5.1 Communicating Building for Safety

Communication in planning	Respect local knowledge and aspirations Involve the beneficiaries at all stages Before trying to teach, find out how people learn
Educational materials	Concentrate on one or two essential messages Adapt educational techniques locally Identify clear targets and educational contexts Use demonstration buildings or models Invest in staff
Illustrating building for safety	Draw literally, as people unused to reading pictures will interpret the images very literally Avoid abstraction Use three dimensions Stress relevant detail and avoid unnecessary detail Avoid unfamiliar symbols and conventions and explain symbols Only use cartoons if understood and not seen as patronizing Where possible, avoid connections and sequences, as images are generally read individually Cultural associations: identify the codes of respectability and avoid things that are alien
Pre-production testing	Always test new materials with representative samples of the target audience

Source: UN-OCHA/Shelter Centre/DFID, 2008, p. 257.

Box 5.8 Community training in hazard-resistant construction in Yogyakarta

Following the 2006 Yogyakarta and Central Java earthquake, the Indonesian Red Cross (PMI) and the International Federation of Red Cross and Red Crescent Societies (IFRC) implemented a cash-based owner self-build transitional shelter program. This was the highest priority need identified by communities. With the help of local craftspeople, the technical faculties of a local university, and a consultant specializing in bamboo construction, a prototype was developed for a transitional shelter that met safety standards, was made of local materials and could be built in less than a week for under \$200. The design of the prototype underwent several rounds of development to bring it to a stage where non-skilled community members could easily build it themselves.

An illustrated guide on how to construct the shelter was developed and tested before being distributed to communities. PMI volunteers were also trained in how to build a demonstration model for each village. The volunteers were then able to provide technical assistance to community members if they faced problems building their own shelters. Mobile construction clinics were set up, in collaboration with the university, to disseminate information on hazard-resistant building techniques, including responding to community queries on the retrofitting of existing houses.

Source: IFRC, 2007, unpublished draft.

This can include training of vulnerable women in non-traditional areas such as block and tile making, as was successfully done in Aceh Province through the ILO (Vianen, 2006).

Monitoring and quality control

Quality control systems for housing construction have been established by having a limited number of approved designs and a set of strict design rules or by providing design advice and quality control. Independent inspectors then verify the standard of the work. It is important that uniform standards are set by government and applied, as differences can lead to tensions between or within communities.

Box 5.9 The role of communities in monitoring and evaluation

Community-based organizations (CBOs) have proved to be an effective means of monitoring and evaluation. In the Pakistan Earthquake Rehabilitation and Reconstruction Project (ERRP), CBO members were trained in seismically resistant construction. These community organizations took responsibility for monitoring reconstruction being carried out by villagers and guiding them in case of deviation from accepted guidelines. CBOs in some cases undertook responsibility for collective procurement, transportation of material and collective excavation of foundations for reconstruction of houses. This resulted in savings of up to 21 percent in construction costs.

Source: Pakistan ERRP (2007).

International experience has demonstrated that communities have a key role to play in monitoring the appropriateness and quality of rehabilitation and reconstruction activities. CBOs can check on progress and provide feedback to contractors, government, and donors. Agreements with governments and contractors (where used) should incorporate a role for CBOs in quality assurance systems, and the CBOs should be given guidance on carrying out the role. The Ecuador El Niño Emergency Recovery Project engaged an NGO to facilitate interactions between stakeholders and to conduct training programs (Environmentally and Socially Sustainable Development Network, 2001). Government agencies also can be trained to carry out technical and social audits.

Integrating risk reduction into rebuilding programs

The construction of housing and human settlements also offers opportunities to provide information and support to affected people who need to understand their current and future vulnerability. This will allow them to better determine in what ways their building patterns are vulnerable to risks, what efforts can be made to strengthen housing and community facilities with minimum adverse impact on the local economy and environment, and how this protection can be maintained over the longer term

Box 5.10 Rebuilding more flood-resistant human settlements

House construction:

- Raising plinths and foundations.
- Combining a strong frame with lighter wall material that can be replaced after floods
- Raising shelves to protect valuables.
- Using more-durable building materials that resist water damage.
- Planting water-resistant plants and trees to protect shelters from erosion.
- Establishing community committees to monitor construction quality and settlement planning.
- Doing community outreach to promote hazard-resistant design approaches in future building.

Settlement Planning:

- Prohibiting resettlement in the most hazardous areas, if possible.
- Improving access to safe land. (Many people must choose to live in floodprone areas to ensure access to shelter or livelihoods.)
- Limiting obstruction of natural channels, using absorbent paving materials and roof catchments to reduce runoff; designing drainage to minimize intensity of water flows.
- Raising and reinforcing access roads.
- Establishing community emergency shelters and evacuation routes.
- Setting up early warning systems, including rain or river gauges and community monitoring to alert communities to flood threats.

Source: Adapted from Alam et al, 2008, p. 11.

Table 5.2 Common Natural Disasters and Some Environment-Related Consequences

Type of Disaster	Associated Environmental Impact
Hurricane/ Cyclone/ Typhoon	<ul style="list-style-type: none"> • Loss of vegetation cover and wildlife habitat • Short-term heavy rains and flooding inland • Mud slides and soil erosion • Saltwater intrusion to underground fresh water reservoirs • Soil contamination from saline water • Damage to offshore coral reefs and natural coastal defense mechanisms • Waste (some of which may be hazardous) and debris accumulation • Secondary impacts by temporarily displaced people • Impacts associated with reconstruction and repair to damaged infrastructure (e.g., deforestation, quarrying, waste pollution)
Tsunami	<ul style="list-style-type: none"> • Groundwater pollution through sewage overflow • Saline incursion and sewage contamination of groundwater reservoirs • Loss of productive fisheries and coastal forest/plantations • Destruction of coral reefs • Coastal erosion and/or beneficial deposition of sediment on beaches/small islands • Marine pollution from back flow of wave surge • Soil contamination • Loss of crops and seed banks • Waste accumulation; additional waste disposal sites required • Secondary impacts by temporarily displaced people • Impacts associated with reconstruction and repair to damaged infrastructure (e.g., deforestation, quarrying, waste pollution)
Earthquake	<ul style="list-style-type: none"> • Loss of productive systems (e.g., agriculture) • Damage to natural landscapes and vegetation • Possible mass flooding if dam infrastructure weakened or destroyed • Waste accumulation; additional waste disposal sites required • Secondary impacts by temporarily displaced people • Impacts associated with reconstruction and repair to damaged infrastructure (e.g., deforestation, quarrying, waste pollution) • Damaged infrastructure as a possible secondary environmental threat (e.g., leakage from fuel storage facilities)
Flood	<ul style="list-style-type: none"> • Groundwater pollution through sewage overflow • Loss of crops, livestock, and livelihood security • Excessive siltation may affect certain fish stocks • River bank damage from erosion • Water and soil contamination fertilizers used • Secondary impacts by temporarily displaced people • Beneficial sedimentation in floodplains or close to river banks

(continues to next page)

Table 5.2 Common Natural Disasters and Some Environment-Related Consequences
(continued)

Type of Disaster	Associated Environmental Impact
Volcanic Eruption	<ul style="list-style-type: none"> • Loss of productive landscape and crops being buried by ash and pumice • Forest fires as a result of molten lava • Secondary impacts by temporarily displaced people • Loss of wildlife following gas release • Secondary flooding should rivers or valleys be blocked by lava flow • Damaged infrastructure as a possible secondary environmental threat (e.g., leakage from fuel storage facilities) • Impacts associated with reconstruction and repair to damaged infrastructure (e.g., deforestation, quarrying, waste pollution)
Landslide	<ul style="list-style-type: none"> • Damaged infrastructure as a possible secondary environmental threat (e.g., leakage from fuel storage facilities) • Secondary impacts by temporarily displaced people • Impacts associated with reconstruction and repair to damaged infrastructure (e.g., deforestation, quarrying, waste pollution)
Drought	<ul style="list-style-type: none"> • Loss of surface vegetation • Loss of biodiversity • Forced human displacement • Loss of livestock and other productive systems
Epidemic	<ul style="list-style-type: none"> • Loss of biodiversity • Forced human displacement • Loss of productive economic systems • Introduction of new species
Forest Fires	<ul style="list-style-type: none"> • Loss of forest and wildlife habitat • Loss of biodiversity • Loss of ecosystem services • Loss of productive crops • Soil erosion • Secondary encroachment for settlement or agriculture
Sand Storms	<ul style="list-style-type: none"> • Loss of productive agricultural land • Loss of productive crops • Soil erosion

(ALNAP, 2003). For example, if a community has been experiencing or is expected to experience increased drought, then water harvesting technology can be introduced into housing design. If flooding events are regular or are expected to increase, homes and community facilities can be designed to better withstand this hazard.

Rehabilitating the Environment and Improving Natural Resources

Natural disasters have many impacts on the environment. These can include soil erosion, water contamination, and losses of biodiversity and vegetation cover.

An environmental impact assessment (EIA) needs to be carried out in order to determine how the disaster has affected the environment and the safety of communities and those who depend on natural resources for their livelihoods. This can be done using a combination of technical and participatory methods, some of which can be incorporated into community-level vulnerability and capacity assessments (VCAs). The Benfield Hazard Research Institute and CARE have a well-developed and field-tested rapid post-disaster EIA methodology.⁴ The U.N. Environment Programme also has recently developed and begun field-testing a post-disaster EIA tool.⁵ Both include pro formas and checklists for gathering information.

In addition, humanitarian and relief-related activities may themselves have an impact on the environment. Specific attention needs to be given to these when planning rehabilitation and reconstruction activities. The problematic activities include:

- overextraction of groundwater aquifers;
- water contamination from improper sewage disposal;
- selection of inappropriate or energy-intensive systems such as desalination plants;
- unsustainable supply of shelter materials;
- unsustainable use of timber for construction and fuelwood;
- deforestation;

Box 5.11 Applying environmental safeguards in Madagascar

As part of the preparation for a supplemental credit after the 2004 cyclones, a preparation mission was undertaken to identify possible environmental and social safeguard risks associated with subprojects being funded under the FID (Fond d'Intervention pour le Developpement) project. The main issues identified were inadequate waste management procedures for health centers and schools; lack of erosion control measures for feeder roads, particularly in areas prone to erosion; and potential cumulative impacts associated with improved access to natural habitats and forests via rural roads resulting in habitat degradation.

To address these issues, training has been provided to FID staff and their implementing partners on the application of good-practice measures for environmental protection during the construction and operation of sub-projects and on monitoring sub-projects for safeguard compliance.

Source: Madagascar Case Study, in this Toolkit.

⁴ C Kelly (2005), *Quick Guide: Rapid Environmental Impact Assessment in Disasters*. London: Benfield Hazard Research Centre, University College/CARE International. ea_guidelines

⁵ UNEP (2008), *Environmental Needs Assessment in Post-Disaster Situations: A Practical Guide for Implementation*. Geneva: UNEP . UNEP EIA

Box 5.12 Protecting lives and livelihoods in Vietnam

The Vietnam Red Cross mangrove planting program was implemented in eight provinces in Vietnam to protect coastal inhabitants from typhoons and storms. The project created 2,000 hectares of mangrove plantations. This cost an average \$0.13 million a year over the period 1994 to 2001 but reduced the annual cost of dyke maintenance by \$7.1 million.

The program helped save lives, protect livelihoods, and generate livelihood opportunities, such as the production of marine fish. In 2001, the project area was struck by the worst typhoon in a decade. The lack of significant damage to the sea dyke and aquaculture pond systems demonstrated the effectiveness of the mangroves.

Source: Adapted from IUCN, 2006 and Benson and Twigg, 2007

- land degradation and soil erosion;
- waste disposal; and
- selection of inappropriate sites for temporary shelter and site planning (UNEP, 2008).

These considerations should be incorporated into the environmental safeguards analysis carried out as a part of recovery project and sub-project design and appropriate impact mitigation activities should be identified.

Programming and Operational Issues

Identifying the Poor and Vulnerable

Recovery is not a neutral process. There are always different interest groups and agendas that must be balanced when deciding where and how to allocate resources, and elite capture is a real risk (Cosgrave, 2008). Without careful planning, the recovery process can exacerbate existing social and economic inequalities. Social fund/CDD operations should be able to apply VCAs, participatory rapid appraisals (PRAs), or other forms of social analysis currently in use to determine who are the poorest and most vulnerable of the disaster-affected communities they are currently working or plan to work with. “Addressing Vulnerability” in Module 1 and “Targeting Vulnerable Groups” in Module 4 provide guidance on needs assessment and targeting approaches in a post-disaster context.

Communications

People need access to information about reconstruction plans in order to make informed decisions about their own future plans. The TEC Indian Ocean tsunami and

Box 5.13 Vulnerability targeting in a resettlement project

Through the Ecuador El Niño Emergency Recovery Project, 1001 of the poorest families in Ecuador were resettled into new homes. These people could not return to their original homes because their houses had been destroyed, and the local government had declared their areas as too dangerous to live in. A full social and economic support package was designed to accompany relocation.

Using information collected during the evacuation and rescue stage from several government agencies and NGOs, the Coordinating Unit for the *Programa de Emergencia para el Fenómeno del Niño* (COPEFEN) first selected the hardest hit cities and municipalities for the project. Based on an initial stakeholder analysis, COPEFEN identified characteristics of the poor affected by the floods. COPEFEN then established criteria for selection of the families that would be eligible to participate. These criteria were designed to target the poorest. In each of the 10 selected cities or communities, a committee was created with members from Civil Defense, the municipal government, the community, and, in some cases, volunteers.

These committees selected participating families based on the following criteria:

- House destroyed beyond repair by El Niño;
- Residence in the destroyed house at the time of El Niño;
- House located in one of the selected municipalities;
- Residence in temporary housing (rescue centers, tents, in the streets, or with other family or friends);
- Family consists of at least three members, or two members if one or both are elderly or if one of them is handicapped;
- Family does not own other property in Ecuador;
- Willingness to participate in the capacity building classes and in community works; and
- Agreement not to transfer the benefits of participating in the project, nor to rent or sell the property for 20 years.

Source: World Bank, Social Development Note No 64, July 2001, p. 2.

earthquakes evaluation found that most organizations failed to inform affected people in a timely, accurate, and comprehensive manner, which greatly affected their ability to proceed with their own recovery activities (Telford, Cosgrave and Houghton, 2006). Social fund/CDD operations can support local government and partner organizations to ensure affected communities have access to accurate and up-to-date information on project progress and broader recovery. “Raising Risk Awareness and Changing Risk Behavior” in Module 3 and “Ensuring Good Beneficiary Communications” in Module 4 provide details of some methods that can be used.

Financing Recovery in Ongoing Social Fund/CDD Operations

The main funding expense for emergency operations occurs during rehabilitation and reconstruction. Existing project portfolios may be adjusted or additional funding provided for projects following negotiations between the Bank and the borrowing

country. For major disasters, a donor conference may be convened to elicit pledges of grant aid or soft loan support from donors for identified recovery needs. Sometimes the aid substantially covers key recovery costs; at other times there is a shortfall that governments must meet themselves or choose priority projects from their recovery plans. In the latter case, the World Bank's lending portfolio may be adjusted, with some funds moved from development projects into rehabilitation and reconstruction. Social fund/CDD operations will need to make judicious choices from within their projects if faced with this need.

OP/BP 8.00 and the Standby Recovery Financing Facility may offer opportunities to make progressive linkages between post-disaster recovery programming and the integration of disaster risk reduction initiatives into Country Assistance Strategies, Poverty Reduction Strategy Papers, and social fund/CDD operations. Such links are already being made in some countries, as funding for disaster recovery that incorporates risk reduction elements can be considered—in some instances—as a key element of poverty alleviation and integrated into normal programming channels. The Community Recovery Project through the Urban Poverty Program in Earthquakes-Tsunami Affected Areas of Nanggroe Aceh Darussalam and North Sumatra is an example.

Having the flexibility to program in this way should help deal with the issue of short timeframes (maximum of 3 years) in Bank emergency projects, when recovery often can take 5–10 years (World Bank/IEG, 2006a). This may entail diversifying the social fund/CDD eligibility criteria and sub-project menus to reflect any new forms of vulner-

Box 5.14 Earthquake recovery financing in Pakistan

The PPAF initially reallocated \$5 million from existing project sources to fund the relief effort. The World Bank later made \$100 million of additional funding available for rehabilitation and reconstruction activities, including the restoration of infrastructure. However, because the number of destroyed and damaged houses greatly exceeded initial estimates, a further \$138 million was provided. The Earthquake Relief, Rehabilitation and Reconstruction Program (E3RP) component of this financing was considered an integral part of PPAF's ongoing poverty alleviation program and consistent with its development objective of "improving access of poor communities to infrastructure" through participatory development and social mobilization. Of the total of \$238 million, \$198 million was allocated to low-cost seismically appropriate housing, \$16 million to the rehabilitation or reconstruction of village-level infrastructure, and \$15 million to the restoration and rehabilitation of communities, with the remainder spent on monitoring, supervision, operating costs, and technical support.

The International Fund for Agriculture Development and Kreditanstalt für Wiederaufbau (German Financial Cooperation) also contributed funds: \$26.37 million and \$16.8 million respectively.

Source: Pakistan Case Study, in this Toolkit.

ability or disaster mitigation/climate change adaptation activities identified during post-disaster needs assessments, as MASAF did during the 2005 drought response.

The new Global Fund for Disaster Risk Reduction launched the Standby Recovery Financing Facility (SRFF) in 2007. The SRFF supports accelerated disaster recovery in low-income countries. It links recovery financing with *ex ante* disaster risk reduction and climate change adaptation. The SRFF is structured to fast-track the distribution of predictable and effective disaster recovery resources that enable risk reduction to be introduced into the disaster recovery phase, when there is the greatest opportunity to “build back better.” It is administered by the World Bank and managed by a partnership between the Bank, the UN/ISDR, major donors, and recipient countries. It has two funding mechanisms:

- The Technical Assistance Fund, which supports technical assistance for disaster recovery planning to strengthen preparedness and response, including the deployment of Standby Recovery Teams to help with needs assessments and post-disaster planning, and
- The Callable Fund, which is activated when a disaster strikes—its resources are targeted to support Disaster Recovery and Financing Plans—or similar recovery plans—developed by the affected country (World Bank GFDDR website, 2008).

While this support may not be channeled through social fund/CDD operations, it could still potentially bring some benefits—for example, through the provision of expertise to partner governments on community-based needs assessments and planning.

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Documents

Adams L and Harvey P (2006). “Issue Paper No 4: Cash and Shelter,” Learning from Cash Responses to the Tsunami. London: ODI/HPG. <http://www.odi.org.uk/hpg/papers/cashissue4.pdf>

Barakat S (2003). *Housing Reconstruction after Conflict and Disaster*, Network Paper No 43. ODI/HPN, London. Barakat paper

Beck T (2005a). *Learning Lessons from Disaster Recovery: The Case of Bangladesh*. Washington, DC: World Bank, Disaster Risk Management Working Paper Series 11. Bangladesh paper

Christoplos I (2006). *Links between Relief, Rehabilitation and Development in the Tsunami Response*. London: TEC.

Duyne Barenstein J 2006. *Housing Reconstruction in Post-earthquake Gujarat: A Comparative Analysis*, Network Paper No 54. London: ODI/HPN. <http://www.odihpn.org/report.asp?id=2782>

International Federation of Red Cross and Red Crescent Societies (2001). *2001 World Disasters Report: Focus on Recovery*. Geneva: IFRC. <http://www.ifrc.org/publicat/wdr2001/>

Kelly C (2005). *Quick Guide: Rapid Environmental Impact Assessment in Disasters*. London: Benfield Hazard Research Centre, University College/CARE. International. Rapid EIA

Longley C, Christoplos I and Slaymaker T (2006). *Agricultural Rehabilitation: Mapping the Linkages between Humanitarian Relief, Social Protection and Development*. London: ODI/HPG Report 21. <http://www.odi.org.uk/hpg/papers/hpgreport22.pdf>

Telford J, Arnold M et al (2004). *Learning Lessons from Disaster Recovery: The Case of Honduras*. Washington, DC: World Bank, Disaster Risk Management Working Paper Series 8 Honduras paper

UN-OCHA/Shelter Centre/DFID (2008). *Transitional Settlement and Reconstruction After Natural Disasters*. Geneva: OCHA. Transitional Settlement

Vakis R (2006). *Complementing Natural Disasters Management: The Role of Social Protection*. Washington DC: World Bank, SP Discussion Paper No 0543. social protection

Wiles P, Selvester K et al (2005). *Learning Lessons from Disaster Recovery: The Case of Mozambique*. Washington, DC: World Bank, Disaster Risk Management Working Paper Series 12. Mozambique paper

Web Sites

International Recovery Platform: <http://www.recoveryplatform.org>

The International Recovery Platform is a multi-agency initiative launched in May 2005 to support the Hyogo Framework for Action. It seeks to fulfill strategic goal (c) of the framework by

functioning as an international repository of knowledge and as a networking mechanism for recovery, aiming to address the gaps and constraints inherent in the current contexts of recovery.

ProVention Consortium: <http://www.proventionconsortium.org>

The ProVention Consortium is a global coalition of international organizations, governments, the private sector, civil society organizations, and academic institutions dedicated to increasing the safety of vulnerable communities and reducing the impacts of disasters in developing countries. Among other things, ProVention develops innovative approaches to the practical applications of disaster risk management and shares knowledge and resources for organizations, practitioners, and communities.

Shelter Centre: <http://www.sheltercentre.org>

The Shelter Centre is an NGO supporting communities affected by conflicts and natural disasters through collaboration and consensus in humanitarian transitional settlement and reconstruction response. It is involved in research, development, dissemination, and operational implementation of humanitarian settlements and shelter policy, best practices, equipment, and field programs. The Shelter Centre also coordinates a shelter practitioners' network that meets biannually.



MODULE 6

Monitoring and Evaluation

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Module Summary

Community-based disaster (risk) management monitoring and evaluation (M&E) systems should focus not only on measuring the performance of programs and projects but also on providing a vehicle for empowering communities and increasing public accountability.

Module 6 outlines some of the key challenges in measuring the performance of community-based disaster risk management and response/recovery projects. Information and examples are provided on the development of results-based performance frameworks at

the project and sub-project levels (including objectives, expected results, and performance indicators). The application of M&E methods and tools to disaster contexts is discussed, including M&E plans, participatory M&E, and social accountability mechanisms; measuring institutional performance; impact assessments; financial and technical audits; management information systems; and data collection instruments.

■ Key Principles of CBDRM Monitoring and Evaluation

Community-based disaster (risk) management (CBDRM) programming is primarily about putting local people at the center of processes to define their risks from natural hazards, to identify and implement appropriate solutions to reduce this risk, and—when disaster strikes—to support their self-directed recovery. Consequently, CBDRM monitoring and evaluation (M&E) systems need to focus both on measuring the performance of programs and projects and on providing a vehicle for empowering communities and increasing public accountability. Local people should be able to hold CBDRM service providers to account.

Social fund/community-driven development (CDD) operations have well established M&E systems that incorporate a range of instruments for ensuring the efficient and effective delivery of community-focused and demand-driven development assistance. These systems can be equally applied to CBDRM, with modest modifications for larger-scale post-disaster response contexts and the challenges specific to the natural disaster context.

■ Challenges to CBDRM Monitoring and Evaluation

In the case of disaster risk reduction (DRR) and climate change adaptation, the hazard event(s) for which project activities are planned and implemented may not occur over the life of the project, making the impact of disaster prevention, preparedness, and mitigation activities not directly measurable. This is particularly the case with geophysical hazards, such as earthquakes. Capturing changes to community resilience also can be difficult, and it may take some time before a demonstrated impact is seen.

Disaster response and early recovery programs have sometimes faced difficulties capturing information adequately and ensuring financial and social accountability, while trying to meet urgent life-saving and livelihood needs through expedited planning and implementation processes. This situation is often compounded by public and donor pressures in large-scale and more visible disasters. In particular, there are many cases where the beneficiary accountability mechanisms put in place have not been adequate, leading to the provision of inappropriate and poorly targeted assistance.

In addition, although there has been widespread belief within the development community that well-targeted recovery programs may be an effective means of reducing poverty, it has proved hard to capture a disaster's impact on livelihoods, economic activity, and individual well-being, particularly for the poorest and most vulnerable within the affected communities. Lessons have not always been learned from one disaster to the next, even within the same country, leading to the repetition of avoidable mistakes (ProVention Consortium Web Site, 2008).

Overall, a lack of shared national and international methodologies and standards for measuring DRR, response, or recovery has been a significant impediment to developing effective systems to measure disaster management programming outcomes and promoting a culture of learning in this field, let alone measuring CBDRM outcomes.

Developing a CBDRM Performance Results Framework

Baseline Data Collection

Strategic CBDRM project and sub-project objectives, expected results, and performance criteria should be identified during the project identification and appraisal phase of social fund/CDD projects in disaster-prone/high risk countries. Social funds/CDD operations already have a comparative advantage in this regard, as comprehensive poverty and vulnerability assessments are a regular feature of their work. The findings of environmental and socio-economic appraisals, combined with community-level hazard risk assessments or (H)VCAs should form a solid basis for measuring progress and performance in CBDRM (see 'Assessing Hazards, Vulnerabilities, and Capacities at the Community Level' in Module 2 for details). In a post-disaster context, the damage, loss, and needs assessments conducted with the affected communities should identify objectives, expected results, and performance criteria (see "Identifying Response and Recovery Needs" and "Establishing Common Standards for Assistance" in Module 4).

The quality of social fund/CDD operations' ongoing community-level data collection and analysis has proven invaluable in a number of disaster response operations. For example, the Kecamatan Development Program (KDP) was one of the few community-based projects operating in Aceh, Indonesia prior to the 2004 Indian Ocean tsunami/earthquakes. Through its work, the KDP had developed extensive knowledge of community characteristics, poverty issues, and organizations, in addition to established processes for community needs assessments. This information proved to be an important baseline for assessing the pre-and post-disaster situation of affected communities where KDP worked and developing community-level recovery objectives and targets (Case study on KDP, in this Toolkit).

Box 6.1 Developing community level baseline data in Haiti

In Haiti, the Local Risk Management component of a World Bank-supported Emergency Recovery and Disaster Management Project (ERDMP), being implemented by the Civil Protection Directorate, has been carrying out risk mapping in 54 communes across five departments. This work is being facilitated through three major NGOs, using CDD approaches, and also focuses on strengthening government and civil society linkages in CBDRM through Communal Civil Protection Committees. The risk mapping process has guided the development of local disaster risk mitigation micro-projects and provides a locally relevant basis for the measurement of both the performance of the project component and sub-projects.

An interim ex-post evaluation of the local risk mitigation activities undertaken to date will be carried out and will include a basic cost-benefit analysis, including communities' perceptions of these benefits. The evaluation is expected to help inform ongoing project activities, as well as contribute to the emerging body of knowledge specific to community driven local disaster risk mitigation activities.

Source: World Bank (2008). Project Paper on a Proposed Additional Financing (Grant) in the Amount of SDR 4.7 Million (US\$7.4 Million Equivalent) to the Republic Of Haiti for an Emergency Recovery and Disaster Management Project.

Assessing Performance at the National, Project and Sub Project Levels

Social fund/CDD operations can help national and local governments develop common systems for monitoring and evaluating CBDRM across programs and projects. For example, an initiative was taken after the 2004 Indian Ocean tsunami and earthquakes to develop a system to monitor recovery interventions, called the Tsunami Recovery Impact Assessment and Monitoring System (TRIAMS). This system, which will operate across five countries until 2010, is meant to enable government authorities to perform a gap analysis at sub-district and community levels. This includes identifying pockets not covered by existing recovery programs and addressing unmet needs, as well as preventing inequities through the allocation of tsunami-related resources.

The core components of TRIAMS include overall and country level output and impact indicators across the primary sectors of recovery, overall risk reduction indicators, both quantitative and qualitative data on beneficiary perspectives, and additional qualitative data to help explain findings of key output and outcome indicators.¹ Social fund/CDD operations could work with governments to adapt this performance measurement system for use in future disaster risk reduction and re-

¹ A full description of the TRIAMS process, including global and country-level performance indicators, can be found at: www.ifrc.org/docs/pubs/disasters/triams-bangkok-en.pdf.

response programming, including climate change adaptation, as well as learning from the experiences of those involved in TRIAMS regarding the challenges and successes of making the system work.

At the project level, Annex 6.1 provides an example of a results-based framework developed by the Asian Disaster Preparedness Center (ADPC) for a multi-country institutional capacity-building project in risk reduction. Annex 6.2 outlines the M&E Matrix prepared for the World Bank–administered project in Thailand: Emergency Response to the Effects of the Tsunami on Vulnerable Populations in Southern Thailand. The matrix can be used to measure the performance of both projects and sub-projects.

Objectives, Expected Results, and Performance Indicators

The objectives, expected results, and performance indicators for CBDRM projects and sub-projects should focus on areas such as ensuring adequate protection of the assets and income of poor and vulnerable communities and households; improving livelihood assets, diversity, and sustainability; increasing local resilience; improving the safety of key infrastructure; increasing and improving institutional capacities; climate change monitoring and adaptation (where applicable); and ensuring social inclusiveness.

The use of CBDRM programming approaches creates some challenges for defining key results and performance indicators. The vulnerability of communities will change over time, and both projects and sub-projects will need to be able to capture these changes and adjust performance measurement systems as needed. Some indicators may have to be modified or new ones will emerge, so it is important build some flexibility into the results framework. Participatory and ongoing community-based monitoring is essential for picking up these important changes over time.

This section describes some examples of recent initiatives from which social fund/CDD operations can draw information to develop flexible and appropriate CBDRM project/sub-project M&E objectives, key results, and performance indicators.

The Department for International Development’s (DFID) Disaster Risk Reduction Inter-agency Coordination Group guidance note on the characteristics of a disaster-resilient community. The guidance note contains five comprehensive tables corresponding to the five key themes of the Hyogo Framework for Action. Each table provides information on the components of resilience, the characteristics of a resilient community, and the characteristics of an enabling environment. The note is designed to be linked to tools such as vulnerability and capacity assessment and to be used at different stages of the project cycle. It offers a useful summary of key considerations in assessing community capacities that can be used to gather baseline information and to formulate

project and sub-project objectives, key results, and performance indicators, both for disaster risk reduction and response/recovery.² The Guidance Note is currently being pilot-tested.

The Asian Disaster Preparedness Center Guidelines for Good Practice in Community-Based Disaster Risk Management (ADPC_Guidelines). The guidelines include six process and eight outcome indicators on CBDRM, including participatory monitoring and evaluation, and how to measure them.

The Aceh Community Assistance Research Project (ACARP). ACARP was a qualitative social research project aimed at identifying and understanding the factors that supported and constrained recovery and redevelopment in Acehese communities affected by the 2004 tsunami and earthquakes. The project brought together the Indonesian government, the Australian Agency for International Development, the World Bank, the U.N. Development Programme (UNDP), international nongovernmental organizations (NGOs), and local academic institutions. In 2007, ACARP analyzed the interactions between communities and external agencies in the recovery process in the areas of governance (leadership, decision-making and problem-solving, transparency and accountability, women's participation, and social capital); livelihoods and livelihoods support; and housing and infrastructure. The information was used to inform higher-level planning and decision-making. The ACARP household survey questionnaire and field coding guide are useful references.³

ACARP also effectively dealt with one of the methodological dilemmas often faced in the evaluation of CBDRM assistance: the lack of or ethical issues surrounding comparison or control communities that did not receive assistance. The project conducted its research in an equal number of communities identified as having experienced "more successful" and "less successful" recovery, in addition to doing "before/after tsunami" comparisons within each community.

A comparative analysis of local perceptions of different types of housing reconstruction after the 2001 Gujarat earthquake, carried out by the Department of Environment, Construction and Design of the University of Applied Sciences of Southern Switzerland, the Department of Social Anthropology of the University of Zurich, IL&FS Ecosmart India (Mumbai), and Arid Communities and Technologies (Bhuj) in 2004–05. The Checklist for Village Profiles and Household Questionnaire Survey

² J Twigg (2007), *Characteristics of a Disaster-resilient Community: A Guidance Note*, Version 1 (for field testing). London: DFID, 2007. <http://www.sheltercentre.org/shelterlibrary/publications/578.htm>

³ Aceh Community Assistance Research Project (2007). *The Acehese Gampong Three Years On: Assessing Local Capacity and Reconstruction Assistance in Post-tsunami Aceh*. (ACARP: city of publication unknown, pp. 175–82). ACARP report

cover a comprehensive range of housing, infrastructure, livelihoods and governance issues.⁴

The Adaptation Learning Mechanism (ALM). The ALM project captures climate change adaptation experiences and good practices via an open knowledge platform. The ALM is funded by the Global Environment Facility and implemented by UNDP, in partnership with the World Bank and the U.N. Environment Programme. While still at an early stage of development, the *Web site* is collecting M&E resources on climate change adaptation, among other topics. UNDP also recently developed a useful *presentation* on climate change adaptation M&E that includes community-level information.

Further to this, Annex 6.3 provides a list of the output and outcome performance indicators and data sources for disaster risk reduction and recovery developed for TRIAMS, some of which could be adapted to social fund/CDD sub-projects, such as those related to local resilience systems.

Some Specific Considerations in DRR Projects

In situations where a hazard event or events may not occur over the life of the project (particularly the case with geophysical hazards, such as earthquakes), project results frameworks must rely largely on process indicators or proxies to measure the results achieved. These can include (Twigg, 2004):

- The quantity and quality of physical mitigation measures, such as embankments, emergency shelters, earthquake-resistant buildings, and soil and water conservation structures—a judgment about the quality of such technical innovations serves as a proxy indicator for their impact, their resilience to actual hazard events; and
- Changes in attitude, skills, practices, organization, or awareness of local government agencies and communities—for recurring hazard events (e.g., regular flooding) or if a geophysical or other irregular hazard event does take place after a project has been implemented, disaster responses can be evaluated to provide insights into the effectiveness of DRR measures.

If a hazard event/disaster does result in a CBDRM project/sub-project, disaster response evaluations can measure the efficiency, effectiveness, and impact of disaster preparedness and mitigation measures against various performance criteria:⁵

⁴ Dwayne Barenstein J 2006. *Housing Reconstruction in Post-earthquake Gujarat: A Comparative Analysis*, Network Paper No 54. London: ODI/HPN, pp. 29–35. <http://www.odihpn.org/report.asp?id=2782>

⁵ Adapted from ProVention Consortium Web site, 2008.

- **Overall assessment** – timing, extent, and quality of coverage/data; involvement of local versus external actors; quality of presentation of findings (i.e., can they be read and understood quickly); communication of findings (speed, presentation).
- **Communications** – staff knowledge of information needs and systems, volume, frequency and direction of information flows, coverage and reliability of communications technology/infrastructure.
- **Operations** – adequacy of stockpiles; transport and distribution of resources; interaction/coherence between agencies; human, technical, and material capacity; involvement of local organizations and communities in needs assessment and distribution of relief; adherence to common codes and standards; connectedness (linkages between emergency and other aid, between relief and development).
- **Mitigation** - ability of structural works to protect community assets and retrofitted structures to withstand the impacts of the hazard event.
- **Targeting, impact, and empowerment** – ability to reach those most in need and to address needs of the poorest and most vulnerable, extent to which assistance empowers beneficiaries (e.g., through participation in processes), appropriateness in terms of the extent to which goods and services provided meet priorities of beneficiaries (e.g., livelihoods as well as immediate needs), timeliness of aid delivery, efficiency and cost-effectiveness of aid delivery, impact (lives saved, alleviation of suffering, positive and negative effects of assistance on livelihoods).
- **Monitoring and evaluation** – capacity to carry out M&E, level of beneficiary participation, transparency, and accountability (to beneficiaries and donors).

Monitoring and Evaluation Methods and Instruments

Monitoring and Evaluation Plan

As with any project, social fund/CDD operations need to develop a monitoring and evaluation plan to guide the ongoing assessment of progress against the project results framework. This will entail a range of qualitative and quantitative methods for the management of project risks, quality control and overall project/sub-project performance measurement.

Participatory Monitoring and Evaluation

Participatory monitoring and evaluation (PM&E) is a tried-and-tested approach used by social fund/CDD operations in their regular operations that also can be used in CBDRM. In fact, some social fund/CDD projects already have established participatory M&E mechanisms in their CBDRM or response/recovery programs (for example, KDP in Indonesia and the Local Governance Support Program (LGSP) in Bangladesh).

Box 6.2 Kecamatan Development Program monitoring and evaluation system for tsunami assistance

The Kecamatan Development Program (KDP) in Indonesia used the following methods to assess its relief and recovery assistance:

- *Internal Monitoring:*
 - Reporting by government officials and field consultants
 - Community participatory monitoring
 - Case studies and documentation of lessons
 - Financial supervision and training
 - Complaints handling and grievance procedures
- *External Monitoring:*
 - NGO independent monitoring
 - Independent journalists' monitoring
- *Evaluation:*
 - Impact evaluation study
 - Technical infrastructure and economic activity evaluations
 - Audits and financial reviews
 - World Bank supervision missions

Source: Indonesia Case Study, in this Toolkit.

In PM&E, project stakeholders at various levels engage in monitoring or evaluating a particular project, program, or policy; share control over the content, the process, and the results of the M&E; and actively participate in taking or identifying corrective actions to improve performance and outcomes. Both participatory and conventional M&E approaches use qualitative and quantitative methods for information gathering and analysis. What distinguishes PM&E is that emphasis is placed on who measures change and who benefits from learning about these changes. The core principles of PM&E are:

- Treating the primary stakeholders as active participants in M&E, not just sources of information;
- Building the capacity of local people to analyze, reflect, and take action;
- Facilitating joint learning by all key stakeholders; and
- Catalyzing the commitment of stakeholders to taking corrective actions.

In particular, communities should be involved in designing, implementing, and following up on the M&E system, including developing key results and performance

indicators. The vulnerability and capacity assessment process can assist in establishing a community-focused baseline for CBDRM projects/sub-projects. Some follow-up methods used successfully in post-disaster programming have included community scorecards (e.g., in the Malawi Social Action Fund), client satisfaction surveys, and feedback workshops.⁶

Social Accountability Mechanisms

Accountability to beneficiaries and other key local stakeholders has emerged as a major concern in natural disaster-related programming over the past two decades, and a great deal of work is currently under way by many international organizations to strengthen their performance in this area.

Social fund/CDD operations have extensive and effective experience in using social accountability mechanisms to assess the coverage, equity, appropriateness, and relevance to stakeholders of projects/sub-projects. These mechanisms build citizen voice and create space for more pro-active engagement of citizens/civil society with the state. Many have their origins in PM&E approaches such as local determination, analysis, and action. Social accountability tools and methods can, and have been, applied to DRR, response, and recovery sub-projects. Social fund/CDD operations have the potential to play a leadership role in ongoing efforts of the international humanitarian community to improve social accountability.

Establishing a **social accountability framework** for social fund/CDD projects and sub-projects is a useful way to identify the objectives and methods for achieving full and active community participation in planning, managing, monitoring, and evaluating DRR, response, and recovery activities. This can be built into the overall project results framework and monitoring and evaluation plan. The Emergency Capacity Building Project, an initiative of seven international humanitarian NGOs, has developed a user-friendly guide on disaster response impact measurement and accountability (*Guide*) that can be used with local community-based organizations (CBOs).

Some specific social accountability mechanisms that can be incorporated in social fund/CDD projects and sub-projects are described in this section. The World Bank also has an active Community of Practice on Social Accountability that exchanges lessons and shares experience in this area, as well as a social accountability Web site with use-

⁶ For further information on PM&E, see Chambers R and Mayoux L (2004). *Reversing the Paradigm: Quantification and Participatory Methods*. Manchester: University of Manchester . Paper; and Estrella M, Blauert J et al. (2000). Chapter 1 in *Learning From Change: Issues and Experiences in Participatory Monitoring and Evaluation*. London: Institute of Development Studies. Book

Box 6.3 Beneficiary accountability framework for tsunami response in India

Oxfam and its partners in India developed a beneficiary accountability framework for use in monitoring and evaluation that drew on various well-known humanitarian standards and principles, including the Code of Conduct for NGOs and Red Cross and Red Crescent Societies, the Sphere Humanitarian Charter and Minimum Standards for Humanitarian Response, Humanitarian Accountability Partnership-International, and People in Aid. This included measures of:

- **Participation** – Involvement of beneficiary groups at various stages of the program; roles, perceptions, and satisfaction levels
- **Transparency** – Providing information to both those who seek to assist and those who are assisted about the local partners and their programs, budgets, process of beneficiary selection, and accountability principles
- **Staff Capacities and Attitudes** – Capacities of staff (knowledge and attitudes) to effectively respond to beneficiaries needs
- **Complaints and Response** – Mechanisms for receiving complaints and responding to beneficiaries in a fair and efficient manner
- **Learning and Use in Decision-making** – Involvement of beneficiary groups in assessing needs, monitoring, and evaluating program components and using them in decision-making
- **Disaster Response on Local Capacities** – implementation through local partners; staff profiles (local/ community level staff)

Source: Oxfam, South India Program Accountability to Tsunami Survivors Evaluation Summary 2007.

ful resources and examples of the application of social accountability mechanisms in Bank projects.⁷

Participatory public expenditure management processes that directly involve affected communities, CBOs, and partner organizations in allocating, disbursing, and/or monitoring and evaluating the use of relief and recovery funds can be very effective in CB-DRM. Social fund/CDD operations have used a number of these methods as fiduciary safeguards—for example, training CBOs to manage the disbursement of block grants, undertaking community-based procurement, and using expenditure monitoring tools such as public notice boards and meetings.

At the community or sub-project level, most of the existing fiduciary oversight and control systems currently used by social fund/CDD operations should be applicable. Social fund/CDD operations can adapt existing community-based financial monitor-

⁷ See <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTPCENG/0,,contentMDK:20509313~pagePK:210058~piPK:210062~theSitePK:410306,00.html>

Box 6.4 LGSP disaster risk management component safeguards

Local Oversight: Union Parishads (UP) are the primary level of local rural government in Bangladesh. All projects of the UP under disaster response funding will be supervised and monitored during implementation by the UP leadership and the Disaster Committee, where it exists. The UP or Disaster Committee will meet with residents of the ward/ village who benefit most directly from the proposed expenditures. At least two members will be women.

The UPs or Disaster Committee will be responsible for:

- Regular monitoring of implementation of individual projects in terms of quality, quantity, and timeliness, as indicated in the approved procurement and implementation plan;
- Advising UP of corrective measures if any defects are identified during implementation;
- Discharging functions assigned by the UP;
- Reviewing the award recommendation and work-order/purchase order to the recommended bidder;
- Reviewing environment and social forms; and
- Reporting to the wider community on implementation quality and efficiency and on impacts, as well as handling any other functions assigned by the UP.

Accountability and M&E: The UPs will each have a process for beneficiary input, such as the complaint mechanisms that were documented by the Tsunami Evaluation Coalition (Christoplos, 2006b). In addition, each UP will be required to publicly display information on financial allocations and on provision for further resources that will allow for a public budgeting process with timely updates. NGOs providing resources in the UP should also publicly display their allocations to allow for greater transparency of all resource use. Efforts at ensuring inclusion of those with particular vulnerabilities, such as disability or other forms of exclusion, will be included in each UP.

Monitoring activities will be carried out during the course of the project. NGO and government representatives will visit different localities within the project during the relief and rehabilitation phases of programming and meet with local government officials, community members, and local NGOs to review the progress and quality of the work.

Fiduciary and Safeguard Arrangements: Funding will be provided through the existing LGSP UP bank accounts. Disbursements will be made by the Local Government Division (LGD), in two or three installments, directly into the UP bank accounts. The UP chairman will apprise the community and LGD about the receipt of installments. The UPs also will:

- Hold open community meetings (at ward and UP level) to update the community on the plan and budget details, with minutes to be posted on UP notice boards;
- Publicly disclose UP-level and scheme-specific information on a regular basis at community meetings and display the same on UP notice boards; and
- Submit and display timely reports to the community and the LGD.

UP disaster-related funds will be specifically and identifiably recorded in the UP budget as additional items in the annual budget and financial statements of the UP. The recording of the funds should be in line with the specific, mandatory procedures for the use and financial management of block grant funds that are prescribed for LGSP block grants.

Source: Bangladesh Case Study, in this Toolkit.

ing systems to their emergency response programs, if required. Partner organizations and new local staff may need additional training and support to learn how to conduct audits and prepare appropriate financial reporting.

Beneficiary feedback and grievance handling mechanisms should be established to find out if projects and sub-projects are meeting beneficiary needs and to identify and address any emerging issues in implementation. The Linking Arms Against Poverty-Comprehensive and Integrated Delivery of Social Services Project (KALAH-CIDSS) in the Philippines has a specially created complaints and grievance team for all its activities. Local partner NGOs also monitored the assistance provided to communities through KALAH-CIDSS following cyclones in 2004.

After a large-scale disaster, the human resources required to ensure robust beneficiary feedback and grievance handling procedures may need to be increased. The NGO Tearfund engages locally recruited accountability officers for its major disaster operations, aiming to ensure they are ethnically and gender-balanced (Tearfund, 2007).⁸

The KDP project in Indonesia introduced complaint handling as an M&E performance criteria and employed 28 sub-district “information facilitators” as part of its 2004 Indian Ocean tsunami/earthquakes response. The facilitators covered most aspects of data collection, information sharing, and communication with stakeholders and external partners. Through their work and the work of existing technical and empowerment facilitators, the project was able to identify and respond to community concerns regarding reconstruction programs (World Bank, forthcoming).

Periodic **social and gender audits** can be conducted to obtain the views of communities and vulnerable groups on the assistance provided to date and their own assessment of future needs. A social and gender audit conducted three to four weeks after the disaster has struck, done with other agencies, can have a positive impact on defining the direction of rehabilitation and reconstruction programming. The social audit carried out by a large coalition of NGOs and social organizations in Nicaragua in 1999 following Hurricane Mitch, to solicit communities’ views on reconstruction planning, is an early example of the effective use of such an approach (Twigg, 2004).

Financial and Technical Audits

In addition to Bank supervision missions, most social fund/CDD operations working in a disaster risk reduction or response/recovery context have found that regular financial

⁸ Tearfund has developed a useful set of guidelines on disaster management beneficiary accountability good practice; Guidelines.

Box 6.5 Social audit after Hurricane Mitch

Nicaragua was badly affected by Hurricane Mitch in October 1998. In February 1999, a coalition of over 320 NGOs and social organizations carried out a social audit in order to incorporate communities' points of view into reconstruction planning. The methods used to collect information included reviewing institutional documents, household surveys, interviews of key informants, and discussion groups. The audit surveyed more than 10,000 homes in 16 municipalities affected by Mitch. Community leaders, mayors, and leaders of local organizations were also interviewed.

The audit provided evidence of the extent and nature of the losses suffered (economic and psychological) but was particularly valuable in allowing survivors to express their views about the aid they had received. It included:

- the coverage of aid (percentage of survivors who had received it),
- the value of different items,
- which organizations had helped most,
- the orderliness of aid distribution,
- equity in distribution,
- coordination with external organizations, and
- how far survivors' views were taken into account.

Source: Adapted from Social Audit for the Emergency and Reconstruction Phase 1. Managua: Coordinadora Civil para la Emergencia y la Reconstrucción de Nicaragua, 1999) in Twigg, 2004, p. 201.

and technical audits and reviews have been an effective way of identifying weaknesses or gaps in systems or procedures and ensuring or improving the quality and accountability of emergency response and recovery.

Technical audits can be carried out by appropriately qualified specialists to assess the quality of disaster mitigation works, including the hazard-proofing of facilities, as has been done through the Malawi Social Action Fund. In the case of housing reconstruction, owner self-build payments have been disbursed in stages, based on successful passing of a technical inspection of each phase of the work, with very good results in terms of improved building safety and fiduciary accountability.

Similarly, training audits can test the usefulness and application of disaster preparedness and response training. Regular financial audits and follow-up by community level facilitators have been found to improve community block grant loan repayments and to reduce financial problems in communities in post-tsunami programming through KDP.

Measuring Partner Performance

For social fund/CDD operations, it is also important to be able to assess the project quality control and beneficiary accountability capacities of local partner organizations. This can be done using existing organizational capacity assessment methods. Additionally, in 2005 the Emergency Capacity Building Project undertook to develop a Common Humanitarian Accountability Framework for international humanitarian NGOs involved in the project. The draft Framework identifies eight core areas of accountability and associated performance indicators specifically oriented to disaster-related programming that could be adapted or integrated into social fund/CDD assessments (*Framework*). A UK NGO, MANGO, has also developed a specific guide and training programs for NGOs on financial accountability mechanisms that may be helpful (*Guide*).

Management Information Systems

CBDRM sub-projects can use the normal systems and methods of social fund/CDD operations to capture financial and administrative information on their location, costs, and progress. But a number of social fund/CDD operations have encountered difficulties capturing and recording disaster-related information in their MIS after large-scale disasters. In some cases, this was related to the volume of information that needed to be processed quickly; in other cases, project staff and government agencies could not adjust the MIS poverty protocols and coding and the methods of measurement under the changed circumstances of a disaster. The development of protocols/coding that allow baseline information to be captured for monitoring CBDRM projects/sub-projects in advance of a disaster should reduce or eliminate this problem.

Until then, either the existing MIS will need to be modified or a new MIS needs to be established as soon as possible after a disaster, preferably during the initial humanitarian needs assessment. This should capture data about the affected population for use in all follow-on relief and recovery planning and monitoring. The database may build upon the existing social fund/CDD operation's MIS, provided it has the capacity to adjust beneficiary and sub-project targeting and performance tracking parameters. If information is systematically gathered using pre-designed standard forms and Geographic Positioning System (GPS) technology where possible, the MIS can be an effective tool for monitoring the distribution and coverage of both cash-based and material support to communities and households.

The Honduran Social Investment Fund, in collaboration with the Unit for Social Indicators within the State Secretariat for Planning, developed a social data mapping system

that integrated digitized maps of Honduras with available statistics on access to social services, population characteristics and social indicators, and investments from the social fund. This proved to be a useful tool for setting priorities and targeting areas and communities in most need of help.

Social fund/CDD operations also can assist with building the capacity of local governments and partner organizations to administer an MIS system. In the case of the Pakistan Poverty Alleviation Fund (PPAF), the operation successfully supported local partner organizations to carry out the field work related to the establishment and ongoing monitoring of a database on damage to housing stock. The MIS even helped monitor the performance of the partner organizations in the field—for example, alerting database managers to double-counting in the damage assessments or misreporting by local contractors of assistance provided to households (when the same beneficiary photos or data appeared twice). As the experience of the PPAF illustrated, investment in good upfront training of those conducting the field work and managing the database pays off.

Indonesia's social fund/CDD operation, which include recovery projects for the 2004 Indian Ocean tsunami and earthquakes and the 2006 Yogyakarta and Central Java earthquake, also has well-developed MIS systems. This includes a public Web site (e.g., www.rekompakjrf.org for the Yogyakarta and Central Java projects), where complaints can be made. The follow-up to grievances is then tracked and posted through the system.

Box 6.6 Quality control through design of an effective MIS in Pakistan

The PPAF's Rehabilitation and Reconstruction (RNR) Project supported housing reconstruction by developing a comprehensive MIS to record the data being gathered through housing damage assessments. The MIS was designed to capture all the issues identified—from house damage to types of buildings, construction processes, delivery of compensation, and compliance criteria for safe construction. The detailed MIS helped identify the housing needs from an initial estimation of 34,000 to a modified estimation of 120,000 households. Through this system, the PPAF also found nearly 22,000 cases of households that were ineligible for payments as they had already received multiple compensation payments or could not be traced.

The effectiveness of the MIS depended on Social Mobilization Teams (SMTs). Each SMT was equipped with a laptop, digital camera, and GPS; team members recorded information into a database against designed parameters. This information was uploaded weekly to the PPAF regional offices. The RNR's two regional offices would check that data and upload it to the PPAF RNR office in Islamabad.

While this tool was developed during the reconstruction phase of PPAF's work for a specific purpose, it provides a good role model for the establishment of broader MIS in future operations.

Source: Pakistan Case Study, in this Toolkit.

Figure 6.1: Sample beneficiary record from PPAF MIS

Initial assessment

Applicant

Form No: 597990 Date: 02-Aug-06 Grievances: G.Type: Incomplete form: Canceled: Look =>

Fraud Case: Stop Payment: Partner Organization: Omar Asghar Khan Develop... Govt. Representative: Muhammad Sajjad

Cross Reference with Army/Govt. Survey: Engineer: Riaz Khan Social Mobilization Team: Dalola

Serial Number: 2580 House Type: Damage Category:

Damage Status: Payment Made: Yes Localization: Rural

1 - Location Information

Admin Code: 0293 Village: Dalola 1

Patwar Circle: Dalola Union Council: Dalola

Tehsil: Abbottabad District: Abbottabad

GPS - N: 34.21 684 Province: NW.F.P

GPS - E: 73.23 899 Altitude: 2622

2 - Owner, Family and Bank Information

Occupant's name: Muhammad Yousaf Father's Name: Shah Wali

Gender: Male Age: 56 CNIC Number: 13101-0819801-5

Land Ownership: Muhammad Yousaf Occupation: Farmer

Vulnerability Type: Marital status:

Legal Guardian name: Guardian's N.I.C.#:

Bank Information: Bank: a) Account Number: 2362

b) Title of Account: Muhammad Yousaf c) Name of Post Office/Bank: National Bank Of Pakistan

Post Office/Bank Address: National Bank Of Pakistan ,Boi Dhani District Abbottabad(1376).

Adult Male: 1 Disabled adult Male: 0 Children Male: 0 Disabled children Male: 0 Died: 0

Adult Female: 1 Disabled adult Female: 0 Children Female: 0 Disabled children Female: 0 Total family members: 2

3 - Livestock

(Current Number of Animals) (Lost in Earthquake)

Cow: 0 Sheep: 0 Buffalo: 1 Goat: 1 Cow: 0 Sheep: 0 Buffalo: 0 Goat: 0

Record: 1 of 1

Second stage of payment

Damage Assessment

Form No.: 597990 Occupant: Muhammad Yousaf

Plinth Level Inspection: Lintel Level Inspection: Plinth Level Inspection - Timber: Lintel Level Inspection - Timber: Plinth Level Inspection - Confined:

A - Particulars of the owner of the house: SMT: Dalola Date: 26-Nov-07

Bgok No.: 602 Serial No.: 45096 Last CL No.: 003031

Mr./Mrs./Ms. (With whom MOU signed): Muhammad Yousaf Last LLCL No.:

W/o, D/o, S/o: Shah Wali CNIC/ NIC: 13101-0819801-5

GPS - N: 34219862 GPS - E: 73235381 Altitude: 797 (in Meters) Not Started: Under construction: Incomplete:

B - Training C - Spot checks by SMT D - Certification by SMT E - Recommendations for payments by SMT E - Status of Livestock

It is recommended / Not recommended that the 4th installment of Rs. 50,000/- from the Housing Reconstruction Grant be Released / Not Released to the owner of the house/household, identified above

Released: Not Released:

Field Engineer: Riaz Khan

Government Representative: Aqeel Abbasi

Click Add/Change to add picture

Add/Change Refresh Remove

Data Collection Methods

A wide variety of tools is available for collecting information on the outcomes of disaster-related programming. The choice of method depends on the nature and scale of the project, the type of information required, and the frequency, ease, and cost of collection.

Table 6.1 Data Collection Methods

Method	Example of application to DRR evaluation
Formal surveys of beneficiaries and other stakeholders	<ul style="list-style-type: none"> Survey of builders and occupants of hazard-resistant housing to ascertain application of skills and increased security Household survey on food production, availability, consumption, and marketing to identify patterns and shifts in vulnerability
Structured and semi-structured interviews with staff, partners, beneficiaries, and other stakeholders	<ul style="list-style-type: none"> Individual stakeholder interviews building up picture of level of understanding of the project, agency-community working relationships, effectiveness of coordination mechanisms, and outcomes of DRR interventions
Group discussions with stakeholders, especially beneficiary communities (e.g., participatory workshops, focus groups)	<ul style="list-style-type: none"> Beneficiary workshop to identify and assess benefits of particular DRR interventions and unforeseen impacts Expert workshop to assess potential effectiveness of new DRR methods or approaches Feedback workshop with beneficiaries and other stakeholders to test/confirm evaluation findings
Rapid assessments	<ul style="list-style-type: none"> Post-disaster telephone or field survey to indicate effectiveness of warning and response mechanisms and factors affecting them
Direct observation and visual surveys	<ul style="list-style-type: none"> Visual surveying of structural mitigation measures to determine quality of design and workmanship, take-up of technologies or techniques; disaster resilience inferred from this or assessed through post-disaster surveys Observation of coping strategies and other risk-reducing behavior before, during, and after disasters
Case studies	<ul style="list-style-type: none"> Personal or group accounts of use of skills, materials, and organizational capacity acquired from disaster management training courses during subsequent events
Simulations	<ul style="list-style-type: none"> Group simulation or exercises (table-top or field) of disaster management activities or responses to disaster events, to test plans, skills, equipment, etc.
Documentary evidence	<ul style="list-style-type: none"> Content analysis of educational material on risk reduction and management produced by project Quantitative and qualitative data about project delivery, effectiveness, impact and costs from project documentation Secondary data collection to complement or validate information collected by the evaluators in the field

Source: Benson and Twigg, 2004, pp. 158–59.

Impact Evaluation

Impact evaluation merits particular attention as traditionally it has been an area where the humanitarian system has not been strong. Analyzing the impact of a humanitarian intervention, particularly in relief or recovery, is not straightforward. A number of methodological constraints and factors particular to humanitarian action make impact measurement challenging, such as the difficulties of the operating environment, the need to act quickly in situations of immediate crisis, a tendency to value action over analysis, and a lack of consensus around the core objectives of humanitarian aid (Hofmann, Roberts et al., 2004).

In addition, development definitions of impact may not fully capture the nature of humanitarian assistance or disaster risk management (DRM) more broadly. In particular, the concept of change is central in developmental definitions of impact, but in DRM the aim is often to avert negative change (for example, to prevent famine) rather than to bring about a positive change. This may be harder to measure (Hofmann, Roberts et al., 2004).

Nevertheless, the quantitative and qualitative assessment tools already in use by social fund/CDD operations can be applied to impact assessment of CBDRM projects and sub-projects, as well as broader meta-evaluations, albeit with some modification in certain cases to account for the context of natural disasters. For example, many humanitarian organizations use a series of real-time evaluations during various stages of their relief and early recovery responses to capture impact data that otherwise might not be systematically collected and recorded by heavily burdened relief personnel. Others put dedicated M&E personnel into the field during these stages of the response operation to ensure impact analysis is being regularly conducted, as the situations of affected populations can change rapidly, and the responses may need to be adjusted to reflect these experiences.

A 2004 research report of the Overseas Development Institute's Humanitarian Policy Group comprehensively reviewed the methodological approaches to analyzing the impact of humanitarian assistance. Its findings are relevant to broader CBDRM and can provide a useful resource for considering CBDRM impact evaluation design.⁹

⁹ Hofmann C A, Roberts L, et al. (2004). *Measuring the Impact of Humanitarian Aid: A Review of Current Practice*, HPG Report 17. London: ODI/HPG. <http://www.odi.org.uk/hpg/papers/HPGReport17.pdf>

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Documents

Adam S (2006). *Evaluating Social Fund Impact: A Toolkit for Task Teams and Social Fund Managers*, SP Discussion Paper No. 0611. Washington: World Bank. <http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/Social-Funds-DP/0611.pdf>

Buchanan-Smith M and Telford J (2004). *An Introduction to Evaluation of Humanitarian Action: Course Manual*. London: Channel Research/Active Learning Network for Accountability and Performance in Humanitarian Action. <http://www.odi.org.uk/ALNAP/resources/training.htm>

Bainbridge D, Tuck E, and Bowen K (2008). *Beneficiary Accountability: Disaster Management Team Good Practice Guidelines*. London: Tearfund Guidelines

Emergency Capacity Building Project (ECBP) 2007. *Impact Measurement and Accountability in Emergencies: The Good Enough Guide*. Oxford: Oxfam GB for the ECBP, Oxford. Guide

SEEP Network (2008). *Minimum Standards for Economic Recovery after Crisis (draft)*. SEEP. <http://communities.seepnetwork.org/sites/hamed/files/Economic%20Recovery%20Standards%20July%20Draft.pdf>

The Sphere Project. *Humanitarian Charter and Minimum Standards in Disaster Response*. Geneva. Sphere standards

Web Sites

Active Learning Network for Accountability and Performance in Humanitarian Action: <http://www.alnap.org/>

ALNAP is a network of humanitarian organizations and experts, including members from donor, NGO, Red Cross/Crescent, UN, and independent/academic organizations. ALNAP seeks to improve humanitarian performance through increased learning and accountability. It maintains a comprehensive database of evaluations, lessons learned, and evaluation methodological references.

World Bank Social Accountability: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTPCEN>

This Web site contains numerous resources for incorporating social accountability tools and mechanisms into programming, such as the Social Accountability Sourcebook.



MODULE 7

Gender in Community-Based Disaster Management

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Module Summary

Module 7 offers guidance on mainstreaming gender in community-based disaster risk management strategies and projects. It emphasizes the need to mainstream gender at policy, program, and project levels and offers suggestions on best practices from project experiences in diverse settings. Gender issues in disaster management incorporate women's as well as men's particular needs and vulnerabilities, especially in times of rapid social, physical, and economic change. Gender-sensitive disaster management attempts to foster the conditions that strengthen women's and men's capabilities to contribute to disaster preparedness, recovery, and resilience at household and community level. Support for improvement of monitoring, feedback, and accountability measures matters, as does gender analysis in disaster management policy arenas and promoting inclusive participation in design and implementation.

* This Module was written by Anna Dimitrijevic and Anne T. Kuriakose.

Key Principles of Gender-Inclusive CBDRM

Gender-equitable approaches to disaster management can enhance the effectiveness of operations and improve disaster resilience at the community level. Community-based disaster management programs can incorporate gender concerns at the project level (in both identification and design and implementation), as well as at the policy level through attention to gender issues across broader disaster management agendas that may be inconsistently or rarely applying gender mainstreaming approaches. There is also a need for improved demand-side governance around gender: that is, locally based initiatives and community organizing to increase the accountability of policymakers on gender-sensitive disaster management as well as development and monitoring of gender-sensitive legislation and guidelines. Attention to gender mainstreaming at these multiple levels will enhance program sustainability and improve equity outcomes for all disaster-affected persons, regardless of gender.

Natural disasters can be disproportionately deadly for women (World Bank, 2008c). The Kobe earthquake of 1995 killed 1.5 times more women than men, while in the Southeast Asian tsunami of 2004, three to four times more women than men died across the region (World Bank, 2008c). Women and children also account for more than 75 percent of displaced persons following natural disasters (Chew and Ramdas, 2005). Out-migration is a common outcome in disaster-affected areas. However, migration tends to take on a gendered pattern, with men more commonly moving in search of employment and resources than women, often leaving behind de facto female-headed households (World Bank, 2008c).

Box 7.1 Social impacts of emergencies

The Food and Agriculture Organization and the World Food Programme report that:

- Emergencies often increase existing vulnerabilities
- Disasters exacerbate gender differences
- Women play a key role in the effectiveness of prevention, disaster relief, reconstruction, and transformation
- Emergencies offer fertile ground for change in gender relations

Women can take on more responsibilities in the public sphere (including markets and formal and informal employment) during disasters, but without sufficient support (including skills development and network building) and awareness raising, they can be forced back into traditional roles once the crisis is over and conditions “normalize.”

Source: FAO and World Bank, 2005: 3; World Bank 2008c

Box 7.2 UN Inter-Agency Standing Committee statement on gender and humanitarian assistance

In 1999, the United Nations Inter-Agency Standing Committee issues a statement on gender and humanitarian assistance, requiring all member organizations to:

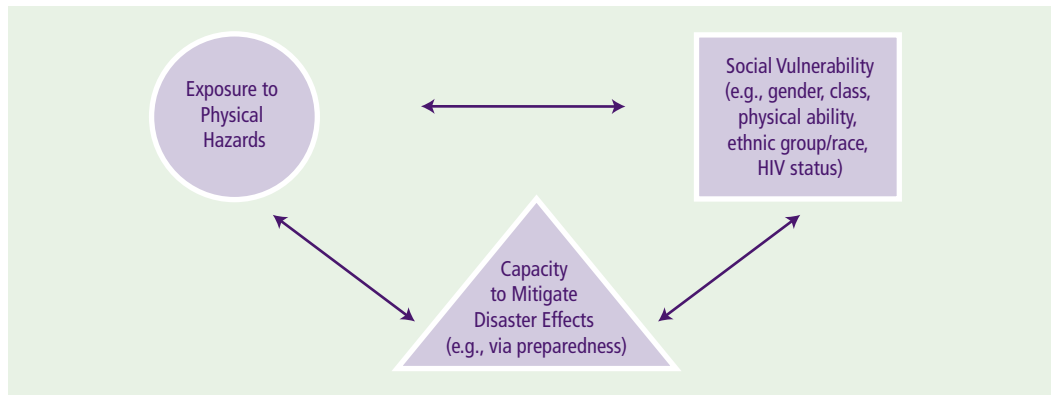
- Formulate specific strategies to integrate gender issues
- Collect and analyze gender-disaggregated data
- Build capacity for gender programming
- Develop reporting and accountability mechanisms to ensure attention to gender.

Source: FAO, 2005

Households and individuals are more vulnerable to the negative impacts of disasters (and resulting poverty traps) when they are socially disadvantaged, live in hazardous and disaster-prone areas, or live in communities with low levels of disaster preparedness activity. Gender-sensitive risk assessment and disaster planning can decrease mortality rates of women and men in such areas due to women’s key role in community management and institution-building.

The term “gender,” in contrast to the biological term “sex,” refers to socially constructed “expectations of the roles and behaviors of males and females” (World Bank, 2002). Globally, social expectations and gender-derived economic patterns mean that,

Figure 7.1: Contributing factors in disaster vulnerability profile



Source: Based on Enarson, 2000, in World Bank, 2008c.

broadly speaking, men’s mobility, survival skills, access to information, wealth levels, nutritional levels, recognized economic activity, and coping strategies are different and usually “privileged” compared with those of women. Hence the roles usually ascribed to men are valued more highly than those ascribed to women. In the labor market, this gender segmentation means that “skills” themselves are socially constructed and remunerated in ways that are regressive for women.

Women are disproportionately vulnerable to disasters due to social norms that, for example, place them in greater physical harm (as in *purdah* norms keeping women inside earthquake-damaged housing) or negatively affect their access to immediate relief (due to unfamiliarity with the public sphere as well as male relief staff’s lack of familiarity with targeting female beneficiaries) (World Bank, 2008c). Having sufficient personal autonomy could be a matter of life or death especially in rapid onset disasters. Many women perished in the 1991 Bangladesh cyclone and flood while they waited for their husbands to return home and lead them to safety (D’Cunha, 1997). Other specific case experience in South Asia has shown that traditional restrictions on women learning to swim hurt women’s survival rates during the 2004 tsunami.

Gender-specific mortality patterns in disasters also affect communities’ ability to recover over time. As women traditionally care for children, the elderly, and the disabled, these vulnerable groups are particularly threatened following large-scale loss of the female population. Displaced women, including refugees, can suffer loss of entitlements at the community level that they rely on to provide for their families, thus affecting the welfare of all household members (FAO and World Bank, 2005). Women’s lack of political influence can also negatively affect the access to resources following displacement, thus requiring special outreach efforts to ensure women’s and girls’ needs are identified and met during relief and rehabilitation, particularly during distribution of durable and non-durable goods, as well as longer-term assets such as housing and land title (FAO and World Bank, 2005). The right to own land has impacts ranging from increased collateral for credit to women’s empowerment, including increasing decision-making power within and outside the household.¹

¹ The legislative environment in India on gender and land ownership is largely progressive, particularly since the introduction of the 2005 Hindu Succession (Amendment) Act that removed a discriminatory clause on agricultural land. However, implementation of the law is patchy. In Uttar Pradesh state, women own 0.01 percent of land. Recognizing the disparity, the Ministry of Rural Development instructed that 40 percent of agricultural land settled under land reform programs be registered in women’s names. The remaining land was to be put jointly in the name of husbands and wives. However, compliance with this directive was weak, and there are reports of women who received land under this scheme being pressured by their families to hand over the property to male relatives (Awasthi, 2006).

Men's and women's psychological responses and economic decision-making following disasters are also gendered in various ways, with an upturn in domestic violence perpetrated against women following disasters that lead to loss of male livelihoods. Such violence can be decreased through the provision of adequate counseling to men following disaster events. The new roles and responsibilities that emerge for women and men in the wake of disasters as part of household livelihood coping strategies (particularly in the case of asset and traditional livelihoods loss or depletion²) and related household disruption and physical displacement also can lead to changes in sexual behavior and increase rates of sexual abuse for men and women and increased HIV and STD transmission rates (FAO and World Bank, 2005). Widowed men, for example, may quickly enter into marriages with underage girls to compensate for the lack of child care, cooking, and other skills left by the death of a wife. Targeting men for such skills training and offering creative alternatives such as communal child care arrangements can offer some relief. Wartime deaths of male household members leave widows, single women, and mothers without male children behind, which influences labor force projections and the gender profile of occupations (FAO and World Bank, 2005). Such women face expanded labor requirements for agricultural cultivation and also risk eviction from their lands without secure title (FAO and World Bank, 2005).

Disaster Preparedness and Gender

Early Warning Systems

Technological capacities to detect and forecast disasters have greatly improved in recent years. In order to fully realize the benefits of these developments, it is also necessary to ensure that disaster warnings reach all affected communities, including those in areas of underdeveloped infrastructure. In addition, warning systems need to be sensitive to the social context, so that the system design does not exclude any groups within the community. Women's high illiteracy rates in many countries or restrictions on their physical mobility may hinder their access to information. Project dissemination and early warning mechanisms need to take particular consideration of this and design measures to improve outreach of information.

It cannot be assumed that the same information channels are used by men and women. The example of Peruvian fishing communities is often cited to illustrate this point: it was discovered after an El Niño–Southern Oscillation event that the fishermen had

² For example, women in India had responsibility for livestock and poultry management in 50–90 percent of cases (World Bank 2008c): extension efforts to respond to livestock loss should thus target women in order to reach those actually doing the work.

been warned about the approaching disaster. However, the men made no provisions in preparation. In these communities, women were in charge of managing household budgets, so had the information reached them, they would have had the opportunity to adjust their planning accordingly. This was not the case, as the men failed to pass on the warning for socio-cultural reasons (Anderson, 2001).

Survival Skills

Disaster preparedness training may need to incorporate teaching specific survival skills that are particularly lacking among men or women. Physical skills, such as the ability to climb trees or to swim, can save lives in a rapid onset disaster. Even though gender-disaggregated data are often unavailable or inadequate, there is ample empirical evidence that in many cases where most fatalities were women, the lack of survival skills was a major contributing factor. In India, up to three times as many women died in the 2004 tsunami while in Indonesia women accounted for up to four times the number of male casualties. While not all of this disparity can be reduced to different physical skills, Guha-Sapir et al. (2006) found that the ability to swim reduced the overall mortality rate by more than 60percent.

Gender-aware survival skills training needs to be designed in a socially sensitive manner because it helps to be aware of customs relating to who can normally swim in the sea—for example, some fishing communities believe that if women enter the water it will bring bad luck for the day’s catch. And traditional clothing can be restrictive in a number of ways. In Tamil Nadu, India, some disaster training was conducted with the help of equipment that was meant to be strapped to the body, and the design could not be negotiated by women who wore saris (Dimitrijevic, n.d.). There are also indigenous efforts under way to experiment with clothing design that would allow more freedom of movement, such as wearing *chudidars* or similar trouser-like undergarments instead of petticoats underneath saris (Ranjani Krishna Murthy, Chennai, India, personal communication, 2007). Lower nutritional levels, resulting from unequal access to food resources within poor households that favor men and boys also hamper women’s ability to survive disasters.

Project Identification And Design

Targeting of programs and effective program design requires careful identification upfront of affected population sub-groups. Crises will differentially affect men, women, boys, and girls from rural areas, from urban areas, and from camps for internally displaced persons or refugee camps, as well as those returning or resettled after the crisis (World Bank 2008c). Program and policy design needs to take into

account the status of assets, physical infrastructure, and policies and legislation at different stages, along with changes in the financial, technical, political, and institutional resources available to different sub-groups as a result of disasters and aid interventions. Women can face legal and other formal barriers to assets, markets, and information flows set up in the context of disaster response and recovery (World Bank 2008c).

Infrastructure is another sector that has frequently been programmed in a gender-blind manner. However, women's and men's preferences and priorities with regard to reconstruction and infrastructure rebuilding can vary significantly, again highlighting the need for both women's and men's participation in project identification and planning. Infrastructure is intended to facilitate daily activity and movement, whether for productive or other purposes. Where typically male activities and movement are the only ones considered, women can be disadvantaged, as in the inadequate provision of street lighting negatively affecting women's physical safety or the provision of public transport on routes outside of those important for women's economic activities. The gender division of labor also makes drinking-water collection and fuelwood gathering key tasks for women, meaning that improved access to water and energy can significantly improve women's (and other household members') quality of life and productive assets.

■ Project Implementation

Women are often systematically excluded during relief operations due to gendered assumptions about economic activity and head of household status (Yonder 2005). Gender-blind assumptions around who constitutes a "typical" entrepreneur mean that emergency response has directed grants and loans largely to men, while female-owned assets and economic activities have been neglected by recovery aid, leading to lower household incomes and productivity. Women face hurdles in qualifying for aid due to lower literacy levels and limited information on how to get access to resources, particularly when they are displaced and lose access to traditional leaders, local networks, and other sources of information. Formal criteria for aid distribution often exclude women, for example by requiring proof of landownership.

Paying attention to the gender composition of aid staff also matters in reaching female beneficiaries in many countries. In Iran, relief teams operated by the Red Cross/Red Crescent Society now include women so that female survivors can more freely discuss their needs. Woman-to-woman assistance also proved effective in Bangladesh, where earlier strong social norms had kept women away from distribution lines for emergency assistance. Strong *pardah* norms and the domestic childcare responsi-

bilities of women had earlier prevented women from standing in line to receive relief (Enarson, n.d.).

There have been accounts of disaster response that meets both the practical daily gender needs of women, based on the gender division of labor (e.g., women as cooks and “nurses” at home) and their strategic gender interests, such as literacy, leadership training, and access to finance. Following the 2004 tsunami in Thailand, T-LAC and the Asia Foundation organized inclusive legal aid workshops in the affected southern provinces. Paralegal volunteers from local communities were trained, with 50 percent of the cadre being women—both those directly affected by the tsunami and those less so. Training took place every three months, covering topics from legal education to identifying and assisting in cases of violence against women. Volunteers helped identify children who were being sexually abused by relatives and brought the cases to court, and they also provided legal advice to tsunami victims on such issues as government aid (Dimitrijevic, n.d.).

It is important to foster inclusive and representative participation in project identification, design, implementation, and evaluation. The active involvement of women and men, whether directly or through representative organizations, aids equitable and efficient disaster management that responds to the needs, vulnerabilities, opportunities, and capacities of women, men, and other gender groups such as transgendered persons.³ Encouraging the participation of women, and ensuring representativeness along other dimensions such as age and physical abilities, in disaster planning and risk assessments minimizes the chances of significant social exclusion in preparedness strategies. It also uses information and women’s knowledge about local conditions and resources relevant to activities, asset protection strategies, and ways of life in the community that may not be apparent to traditional leaders, and it encourages other processes of empowerment and capacity-building in other realms. The more capacity individuals develop for autonomous action, the higher the likelihood that they can contribute to communal efforts when disaster strikes, thus enhancing community resilience overall.

³ There can also be a more explicit gender dimension to exclusion in the case of those who do not fit traditional gender categories. Transgendered persons in India (known as *aravans*) are born either inter-sex or biologically male. They do not consider themselves either women or men, and dress in feminine clothes. Ration cards used for disbursing relief aid in India require a categorization of cardholders as either male or female. The *aravans* do not fit into these categories and thus typically do not receive cards or aid. In the tsunami relief and reconstruction efforts, members of these communities did not have access to housing assistance, nor did injured *aravans* receive standard compensation that was perceived to be for men and women only. Ex-gratia aid was not paid to those who suffered bereavement and became widowed in the disaster (Pincha et al 2007).

Box 7.3 Good practice: Enhancing women's participation in disaster preparedness activities

The government of India, in cooperation with the U.N. Development Programme, has established a nationwide system of community-based disaster preparedness. Village disaster management committees have been established to run community contingency funds and form village teams for disaster response. The committees also draw on the experience of elderly village members and undertake village-specific mapping of risks, vulnerabilities, and capacities. Target membership includes members of women's organizations. Women are encouraged to become members of the shelter management, search and rescue, first aid, and water and sanitation disaster management teams (though the extent to which women's participation in other teams, such as early warning or damage assessment teams, is encouraged is less clear and may point to artificial segregation of women's "participation").

Source: Pervaiz et al., n.d. National Institute of Disaster Management.

Monitoring And Evaluation

Community-based Monitoring and Accountability

Even in highly decentralized disaster management, there will be policy areas where economies of scale remain and central government is still in charge of crafting and executing policy. Communities nonetheless can play a role in feeding information upwards.

Bottom-up channels for monitoring (e.g., via women's self-help groups or through beneficiary monitoring) can ease discriminatory pressures locally. Women could report back to local authorities or to district-level dedicated officials, with these persons in turn obligated to report to the state authorities on particular benchmarks. Community involvement produces a more accurate picture of needs and diminishes the likelihood of overlooking less "visible" and more marginalized groups. Information flow should be continuous and circular. Hence, information dissemination strategies also require as much attention as monitoring and reporting and need to be built into guidance on policy and procedures. This is particularly the case with the dissemination of best practice on gender and disaster management.

Documentation of good practices and information exchange is important during and after disaster response. Within India, gender considerations pooled from good practice by the Gujarat Disaster Management Authority's experience with earthquake response were successfully applied in the Tamil Nadu relief agenda after the Gujarat Authority's

Box 7.4 Gender-sensitive M&E indicators for disaster management

Indicator	Means of Verification
<ul style="list-style-type: none"> No. of deaths disaggregated by gender, age, location Percent of women and men receiving extreme weather information and bulletins through targeted dissemination methods Percent of women on disaster preparedness committees No. and percent of women and men receiving gender-specific disaster training Gender-disaggregated statistics on male and female beneficiaries receiving land allocations, emergency rations, replacement livestock, seeds, loans Satisfaction levels of women and men with post-disaster management and reconstruction No. and percent of women reporting violence per month (threats, beating, rapes) Percent of women and men with access to insurance packages Changes at start and end of emergency support in women and men’s levels of nutrition, health, education, vulnerability 	<ul style="list-style-type: none"> Government records Focus groups/ household surveys/ media/ non-governmental organizations (NGOs), especially women’s groups Networks of health organizers, community organizers and human rights defenders Community meeting minutes Women’s community-based groups and NGOs Training records Agricultural extension records Camp management records Regional land department records Focus groups/ Interviews with stakeholders Interviews with community leadership, police records Refugee camp management records Household surveys Project Management Information Systems School records

Source: World Bank, 2008c.

field visit. Even so, in many cases district collectors were developing their own guidelines in an ad hoc manner on the ground. In Nagapattinam district, menstrual products were only included in the relief packages after the district collector’s wife spoke with women in the shelters who brought this to her attention (Dimitrijevic, n.d.). In Tamil Nadu, India, Irula tribals had migrated to coastal areas due to environmental pressures on their original settlement areas. These recent in-migrants were largely “invisible” when disaster policies were drawn up in the aftermath of flooding and the 2004 tsunami that devastated the area. Irula communities near South Chennai thus remained largely without any form of government or NGO assistance (Dimitrijevic, n.d.). This social exclusion at the community level was felt doubly by women, who had low levels of mobility and skills.

Data Management

Disaster resilience is affected by a wider range of policies outside a strictly disaster-specific scope (e.g., from maintenance of national identification registries to nutrition

Box 7.5 Some tips for gender-sensitive disaster program design and implementation

Identification

- Include women in pre-and post-disaster planning
- Secure permanent housing and land rights for displaced women

Design and Implementation

- Stress in project field manuals the need for male and female program staff, including for food distribution
- Disseminate emergency and recovery information through community-based channels, such as schools, and not only over the radio
- Ensure women's physical safety through efforts to prevent violence, including rape, by creating safe spaces and facilities and programs for women's and girls' legal redress
- Protect girls' access to education, including schools built near temporary housing
- Target women's specific health needs and culturally appropriate services and relief items (prenatal and maternity care; suitable bathrooms, sanitary supplies, head scarves)
- Design income generation activities to allow for women's maintenance of households not only at "supplementary" levels but as full breadwinners (particularly for female heads of household)

Evaluation

- Undertake participatory monitoring and evaluation using focus group discussions and other methods, with women and men and with girls and boys

Source: Based on Chew and Ramdas 2005.

and literacy programs). Bottom-up monitoring is crucial here. Improving data collection of gender-disaggregated statistics is often overlooked in disaster management planning. It is important, however, in order to implement programs in a self-critical manner, assess disaster impact, and undertake program evaluation. Gender-disaggregated data on mortality and morbidity allow the identification of pre- and post-disaster patterns and facilitate an appropriate response to felt needs on the ground.

Possible Areas for Social Fund/CDD Operations Support

Maintaining a variety of gender-disaggregated registries can prove crucial in disaster relief, when access to compensation and even basic relief is conditional on proving personal identity, as well as family connections—especially marriage—and pre-disaster possessions. In southern Thailand, many marriages had not been officially registered prior to the tsunami, as this was simply not a customary practice in the region. Following the disaster, tsunami widows found it difficult to claim compensation. Men, in

particular, who had lost their wives faced great difficulties in claiming legal guardianship over their children (Dimitrijević, n.d.). The maintenance of national identification registries can mitigate the impact of losing personal documents in rapid onset disasters. Without such systems, alternative proofs of identity include driving licenses, passports, and alternative ID systems are difficult for the poor to obtain, particularly women.

Social funds within the World Bank system can contribute to broadening the range of disaster policies and to mainstreaming gender in key policy areas via information, education, and communication activities. There is an important scope for disseminating information within the framework of these programs and for contributing know-how, including access to training courses developed and provided by the World Bank Institute on community-based disaster management and on mainstreaming gender into disaster management.

Women's economic contribution, especially in the informal sector, is substantial and yet undervalued. Women's paid and unpaid labor is a significant contribution to local and national economies: in El Salvador, a nationwide study found that even by traditional measures, women's economic contribution to the household was equal to or greater than men's in 49 percent of urban homes and in 56.6 percent of rural households (ECLAC 2003). ***Better data on the informal sector*** would allow planning for the re-vitalization of what can be an important part of the local economy following a disaster. While gathering such data can be a difficult exercise, improvements on current practice are certainly possible. The World Bank attempted to do this in the 1999 Marmara Earthquake Assessment in Turkey (World Bank, 2006a).

Needs assessments and reconstruction plans often overlook the need to replace tools commonly used by women for their economically productive activities. Sewing machines and bicycles used for transporting goods to market are two examples of assets whose replacement significantly affected women's ability to recover livelihoods in South Asia, and yet they were not included in reconstruction assistance in recent disasters (Tata Institute of Social Sciences 2005). Client identification and outreach, as in the provision of business credit following a disaster, can similarly be gender-biased. Loans in the United States were found to be awarded disproportionately to male-owned businesses after disasters such as the 1997 Red River floods, although female-owned businesses also needed credit.

Women's active participation in post-disaster risk assessment also reduces the likelihood that reconstruction and recovery planning will overlook women's economic activity, including their role in particular value chain stages, such as product processing and marketing. For example, in fish value chains of many coastal communities, men undertake the fishing while women process and market the catch. If recovery efforts

concentrate only on repairing fishing fleet and nets but overlook the need for processing equipment and women's means of transportation, household and community welfare can be compromised.

There is a role for World Bank Social Funds to support this process through instruments dedicated to **capacity-building**. Programs that target community-based organizations such as self-help groups, NGOs, and local government all belong here. The World Bank's Local Governance Support Project in Bangladesh mentioned in Module 2 provides an example of the way in which disaster management measures can be integrated into capacity-building programs.

Anticipating and planning for organizational obstacles and policy impediments to gender-equitable disaster management is crucial. Allies should be identified and sought across a variety of spheres (public, private, and voluntary, including community

Box 7.6 Common myths and institutional obstacles to gender mainstreaming

Agency staff or other stakeholders often resist efforts to promote gender equity in projects and programs using the following objections. Understanding the basis of these objections can help identify organizational routes forward to overcoming such biases.

Objection 1: Disasters affect everyone – there is no need to make special provision for gender.

While natural hazards do not discriminate on the basis of gender, race, age, or political standing, disasters result from the confluence of natural hazards with socially determined factors. Social customs, policy assumptions, and the legislative environment have a great impact on the disaster resilience of individuals and communities.

Objection 2: Gender sensitivity is all well and good, but there are more urgent concerns to address when disaster strikes.

The "tyranny of the urgent" is a false economy. Improved gender sensitivity in disaster management results in improvements for the entire community, including men, and for vulnerable and marginalized groups such as transsexuals, particularly in rapid-onset disasters, thus reducing the likely scale of injuries and losses of life. It also recognizes a larger set of economic activities and therefore strengthens disaster resilience, mitigates losses, and speeds up the whole post-disaster recovery process. The systematic mainstreaming of gender into disaster management may have spinoff effects for better-organized disaster response in general as the advance preparation of organizational structures and guidelines and the maintenance of information channels reduces the burden on first responders.

Objection 3: We already have programs that take into account the vulnerabilities of women, children, the elderly, and those with physical or mental limitations.

Gender mainstreaming goes far beyond the particular vulnerabilities that women face in a given context; it also helps men as well as other gender groups such as transsexuals, who often suffer casual discrimination outside of the disaster context. The lessons learned include the case of the *aravanis* in India, who were excluded from post-tsunami aid because they did not identify as either women or men, categories that the standard aid mechanism was set up to operate with exclusively.

Table 7.1 Gender-sensitive approaches to disaster management

Stage	Preparedness	Relief	Recovery and Reconstruction
Policy	<ul style="list-style-type: none"> • Legal infrastructure (land rights; inheritance; adoption) • Human development (health/ education; skill development) • Gender Strategy in place ex ante for disaster response (with benchmarks for monitoring) • Gender-disaggregated data from health and social services ready for disaster managers 		<ul style="list-style-type: none"> • Ensure gender-specific relief and food security strategies are translated into longer-term asset-building and livelihood/ employment strategies
Implementation	<ul style="list-style-type: none"> • Information and knowledge dissemination (accessible channels) • Social organizing and committee coordination with women and men • Army, police, judiciary, and first responders receive gender-sensitive training in disaster response 	<ul style="list-style-type: none"> • Needs assessment (aid composition) • Targeting and aid distribution (female staff; outreach methods) • Post-disaster counseling (esp. male-targeted) • Procurement and logistics • Gender-sensitive M&E 	<ul style="list-style-type: none"> • Livelihood recovery (considering prevailing gender patterns in economic activity) • Infrastructure investments (participatory needs assessment with women and men) • Social reconstruction and women's leadership training • Women's preferences regarding housing reconstruction and rehabilitation

Source: Based on Dimitrijević n.d. and FAO 2005.

organizations). Different stakeholders may be encouraged to join the effort through varied appeals, such as to project efficiency and/or sustainability, meaningful economic and human development outcomes, or empowerment objectives.

Further Resources

Here are some of the major resources on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the full Reference List at the end of the Toolkit.

Documents

ActionAid. (2007b). *We Know What We Need: South Asian Women Speak Out on Climate Change Adaptation*. London: ActionAid International and Institute of Development Studies.

Food and Agriculture Organization (FAO) and World Food Programme (WFP). (2005). *Socio-Economic and Gender Analysis (SEAGA) for Emergency and Rehabilitation Programs*. Rome: FAO and WFP.

International Federation of Red Cross and Red Crescent Societies (IFRC). (2007). *World Disasters Report: Focus on Discrimination*. Geneva: IFRC. Available online at <http://www.ifrc.org/what/disasters/resources/publications.asp>

Rozaan. (2006). Checklist to facilitate Gender Sensitivity of Relief and Reconstruction efforts for Survivors of the Earthquake in Pakistan. Geneva: World Health Organisation. http://www.who.int/hac/techguidance/pht/womenshealth/Pakistan_Checklist_for_assessing_gender_sensitivity.pdf

Twiggs J. (2007). *Characteristics of a Disaster-Resilient Community: A Guidance Note*. London: Department for International Development. Available online at <http://www.sheltercentre.org/shelterlibrary/publications/578.htm>

UN/ Inter-Agency Standing Committee (UN-IASC). (2006b). *Women, Girls, Boys and Men: Different Needs? Equal Opportunities: Gender Handbook in Humanitarian Action*. Geneva: IASC.

Web Sites

Grassroots Organizations Operating in Sisterhood (GROOTS) International: <http://www.groots.org>

GROOTS is a network linking leaders and groups in poor rural and urban areas in the South and the North. GROOTS aims to develop, over time, a movement giving voice and power to grassroots women's local visions and initiatives attracting long-term partners, and creating new policies, to expand and strengthen their leadership. Community resilience and recovery is one of our thematic program areas, in which GROOTS members exchange practices and develop advocacy. Publications and resources on this subject can be found on the web site.

Prevention Web: http://www.preventionweb.net/english/professional/publications/index.php?o=ent_datepublished&cid=0&tid=38&hid=0&oid=0&o2=DESC&ps=50

PreventionWeb is an information portal on disaster risk reduction (DRR), developed by the UN International Strategy for Disaster Reduction secretariat, in support of the Hyogo Framework for Action. Its primary purpose is to facilitate the work of professionals involved in DRR and promote an understanding of the subject by non-specialists by providing a common platform for institutions to connect, exchange experiences and share information on DRR. The gender references section of the professional resources area of the web site provides a comprehensive list of publications and tools related to gender integration in disaster risk management.



MODULE 8

Focus on Disability

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Module Summary

Module 8 provides a basic understanding of disability as a broad concept and its relationship with poverty in disaster situations. Key principles and specific disability guidelines are provided to help social fund/CDD operations incorporate disability criteria as part of disaster risk management mainstreaming, including considerations regarding the project cycle.

Key Principles of Disability-Inclusive CBDRM

People with disabilities have been defined as one of the largest minorities on Earth. Although reported disability prevalence rates from around the world vary dramatically, recent studies suggest that people with disabilities represent 10–12 percent of the world’s population (Mont, 2007). In the past, the concept of disability was traditionally

* This Module was written by María Verónica Reina.

focused on the individual and defined according to various medical conditions. This medical model has recently been replaced by a more holistic, social approach that emphasizes the role of the physical, cultural, and policy barriers a person faces in order to understand her or his disability.

Thus, disability should be broadly understood and conceptualized as a social construct in the same way that gender, race, and ethnicity are. This way of understanding disability is important because it shows the need to identify, remove, and prevent the creation of societal limitations that prevent people with disabilities from participating in society. It also promotes an enabling environment for all and it is consistent with the goals of inclusive development, democratization, and good governance (Guernsey et al., 2007b).

In addition, it is important to highlight that disability and poverty are intrinsically linked. There is a wide consensus that people with disabilities are disproportionately poor and that poor people are disproportionately disabled (World Bank, 2004). Several reports demonstrate that people with disabilities in low-income countries struggle to secure their rights and opportunities, experience poverty more intensely, and have fewer possibilities to escape poverty than people without disabilities (IDRM, 2004, 2005).

Given the inclusive nature of its mission, community-driven development (CDD) contemplates disability in the development of its initiatives while addressing vulnerable populations. Social fund/CDD programs have adopted a variety of interventions to address disability issues, including community-based rehabilitation, education and vocational training, income generation activities, building up social capital, and advocacy and policy reform (World Bank, 2007b).

Table 8.1 Examples of Medical and Social Models*

Situation	Medical Model	Social Model
Young women using a wheelchair	"Oh, this poor woman, she should go to a doctor and discuss with him if there is a therapy that could enable her to walk again, like everybody else."	"The community really should build ramps in front of public buildings, so that persons like her can participate in social life. When she gets a job, her employer will have to build accessible rooms."
Man with an intellectual disability	"Perhaps there is some medicine or treatment that could improve his perception. He should try a psychiatrist."	"It's a good solution that he lives with his brother, so he is in the community."
Parents with a hearing-impaired daughter	"I'm sure in a few years there'll be a hearing aid available that will make this child able to hear better."	"We should all learn sign language, so that we can communicate with this child and all other hearing-impaired people."

* Adapted from Handicap International and Christian Blind Mission, *Manual Making PRSP Inclusive*, at <http://www.making-prsp-inclusive.org/en/6-disability/611-what-is-disability/611-the-four-models.html> (accessed July 25, 2008).

In 2007, the World Bank issued a Guidance Note to incorporate disability criteria into Bank-supported projects. The guidelines recommend integrating social analysis of disability in the design of thematic and sector projects and programs. Particularly regarding CDD, the guidelines advise undertaking a twin-track approach, pairing activities targeting primarily at people with disabilities (usually called “disability specific actions”) with disability mainstreaming within the broader project cycle. Moreover, recommendations stress the need of complementing the conventional demand-driven approach of CDD with the provision of rights-based safety nets to avoid the exclusion of people with disabilities, who are often made voiceless by numerous barriers to participation. The conventional demand-driven approach could exclude vulnerable groups through its overemphasis on active participation. Owing to historical, systemic, and physical barriers, people with disabilities, especially those who are severely disabled, can only participate in the decision-making process if they are included in the entire project phase (World Bank, 2007e).

Specific Guidelines to Include Disability in CBDRM

Natural disasters can cause significant numbers of physical and psychosocial disabilities through amputations, spinal cord injuries, head trauma, and multiple fractures, among other injuries. For example, of the 3,500 people injured in the 1963 earthquake in Skopje, Macedonia, 1,200 people experienced permanent disabilities (UNDRO, 1982). Also, sexual abuse and emotional distress often contribute to a new generation of survivors with disabilities (WHO, 2005).

Table 8.2 Possible consequences and disabilities resulting from disaster*

Type of Hazard/Disaster	Immediate consequence	Possible disability
All natural disasters	<ul style="list-style-type: none"> • Malnutrition • Vitamin A deficiency • Psychological shock • Loss of medicines (for diabetes, epilepsy, etc.) 	<ul style="list-style-type: none"> • Developmental disability • Visual disability • Psychosocial disabilities • Worsened existing disability • Increased risk of developing a new disability
Flood	<ul style="list-style-type: none"> • Drowning 	<ul style="list-style-type: none"> • Respiratory disabilities
Cyclone/Tornado/Earthquake	<ul style="list-style-type: none"> • Trauma • Bodily injury (with or without infection) • Head injury • Burn 	<ul style="list-style-type: none"> • Paralysis, spinal cord injury • Limb loss/amputation • Physical/intellectual disability • Physical disability

* Handicap International (2004). *How to Include Disability Issues in Disaster Management, following Floods in Bangladesh 2004*, http://www.handicap-international.fr/bibliographie-handicap/5CooperationInternationale/contextes_urgence/HIDisaster.pdf (accessed July 25, 2008). Different types of disaster scenarios may be crossed with disability analysis from a medical perspective, see <http://www.cimerc.org/sip.pdf> (accessed July 25, 2008).

In addition, the disruption of goods and services such as fuel, water, energy, jobs, health, and education may be indirect causes of temporary or permanent disabilities.¹ Moreover, disaster recovery situations can continue inflicting injuries on people.

In effect, disasters are major causes of disability, but they also have a greater impact on those who are already disabled, due to typical lack of access to information and services (International Federation of the Red Cross and Red Crescent Societies, 2007g). In countries with poor structural development and scarcity of resources, the impact of natural disasters on people with disabilities is devastating. The loss of family members, homes, and livelihoods in the aftermath of a disaster particularly affect such individuals (WHO, 2005). Even if families can evacuate with their disabled members, getting access to relief supplies is almost impossible. Moreover, life in temporary shelter can be extremely difficult due to discrimination by other survivors.

Despite the evident disadvantages encountered by people with disabilities in disaster situations and the requirement that humanitarian relief and reconstruction assistance should be provided without any discrimination, disaster planning, response, mitigation, and reconstruction for people with disabilities remain fundamentally inadequate in the field of development and humanitarian assistance (World Bank, 2006b; IASC, 2008). For example, despite the fact that the Sphere Humanitarian Charter and Minimum Standards in Disaster Response, an international initiative aimed at improving the effectiveness of humanitarian assistance, recognizes disability as cross-cutting issue, it does not include effective practical guidance to include disability considerations for the provision of humanitarian assistance during disasters. Since all development efforts are ultimately meant to make significant contributions in decreasing risk and vulnerability factors, an expressed inclusion of people with disabilities among vulnerable groups would reflect positively on the overall outcomes of such plans. In particular, the disability factor must be included in disaster risk management plans if they are to be inclusive of all those living in at-risk communities (World Bank, 2006b).

It is relevant to highlight the fact that in the past, any emphasis on disability has concentrated on the emergency phase after the catastrophe. Recently, a more holistic approach to the issue is evolving, which considers more long-term needs for continued integrated management, care, social support, and reintegration of people with

¹ Maria Kett and others extensively documented the inclusion of persons with disabilities in the tsunami-affected areas. Several examples of the consequences of disruptions of goods and services can be found in Kett, Maria et al. (2005), *Disability and Conflict and Emergency Situations: Focus on Tsunami-affected areas*, Disability Kar, http://www.tsunami-evaluation.org/NR/rdonlyres/E5B2F467-A956-4135-95A4-69C1D2A8F04B/0/handicap_international_disability_conflict_feb06.pdf (accessed July 25, 2008).

disabilities into their communities. From this perspective, post-disaster reconstruction can be seen as an opportunity to build a more inclusive society (World Bank, 2007e).

Key Principles

The following are key principles applicable to all phases of disaster risk management to be inclusive of people with disabilities:

- **Non-discrimination:** According to international law, people with disabilities must have the same opportunities to benefit from programs, services, and activities related to disaster management as other people. In effect, the recently adopted UN Convention on the Rights of Persons with Disabilities requires equal access for, and prohibits discrimination against, people with disabilities in all aspects of life and establishes the obligation to ensure the protection and safety of all people with disabilities in situations of risk, including natural disasters (UN, 2006a).
- **Accessibility:** People with disabilities should be able to enter and use facilities and gain access to the mainstreamed programs, services, and activities that are provided within the framework of disaster management. Notification of emergencies, evacuation, transportation, communication, shelter, distribution of supplies, food, first aid, medical care, housing, and application for and distribution of benefits should be accessible for people with disabilities on an equal basis with others (World Bank, 2006b).
- **Disability as a transversal criterion:** Inclusion of disability can be accomplished only if a “vulnerability perspective” is integrated in all aspects of operations. Disability is a cross-cutting issue and should be incorporated in all stages of risk management projects. It can also make a critical contribution to the overall disaster agenda, as disability accommodations may benefit other vulnerable groups with functional limitations, such as infants, pregnant women, older people, and other people with specific characteristics (World Bank, 2007e). For instance, adjustments that contemplate visual, hearing, motor, and other disabilities can be relevant for older adults: older people often present conditions that interfere with walking or using stairs, such as joint pain, paralysis, or the use of a mobility device such as canes, crutches, or walker. They also can have cognitive difficulties, be easily fatigued by temporary or permanent conditions, and/or experience vision loss or hearing loss.
- **Involving people with disabilities and their organizations in all stages of a community-driven disaster management:** People with disabilities are the most knowledgeable about their own needs and are generally the best source of expertise on what does and does not work for them. In addition, disability organizations are a tremendous resource, both for planning purposes and in the event of an actual emergency. Including community members with personal disability experience and representa-

tives from disability organizations in planning, training exercises, and accessibility surveys of facilities will help test assumptions and greatly improve overall preparedness. It also can help establish working relationships that serve everyone’s interests in times of need. Moreover, including people with disabilities as stakeholders, decision-makers, and beneficiaries at all stages and levels is important in designing a project that is truly inclusive (CT Council on Development Disabilities).

- **Awareness raising about disability issues:** People with disabilities are generally not well considered, especially in a situation of poverty or disaster. Lack of awareness about disability issues makes people with disabilities invisible to those who plan for the reduction of community vulnerability to natural hazards. Strengthening the capacity on disaster preparedness of communities, partner NGOs, and government must include advocacy, communications, and training on the specific needs of the disabled population (Step, 2005).
- **One size does not fit all:** People with disabilities do not all require the same assistance and do not all have the same needs. Many different types of disabilities affect people in different ways. Preparations should be made for individuals with a variety of functional needs, including individuals who use mobility aids, require medication or portable medical equipment, use service animals, need information in alternate formats, or rely on a caregiver (FEMA, 2007).
- **Community-based rehabilitation:** Community-based rehabilitation (CBR) is an approach that has grown out of the need to bring integrated health and social services closer to people. CBR attempts to combine physical rehabilitation and continued medical care with empowerment and social inclusion through the participation of both the individual with a disability and the community in the process of rehabilitation and management of disabilities (World Bank, 2007e). CBR programs

Table 8.3 Types of Disabilities and Warning Systems*

Types of Disabilities	Warning Systems
Visual disabilities	<ul style="list-style-type: none"> • Auditory signal system/alarms • Announcements • Posters written with large characters and color contrast
Hearing disabilities	<ul style="list-style-type: none"> • Visual signal systems – red flag, symbols • Pictures
Intellectual disabilities	<ul style="list-style-type: none"> • Turn lights off and on frequently • Special signals – red flag, symbols • Clear and brief announcements by rescue workers
Physical disabilities	<ul style="list-style-type: none"> • Auditory signals system/alarms • Announcements

* Kabir, F. (2008), *Mainstreaming Disability Issues in Disaster Risk Reduction*, Dakha, 3rd APDF General Assembly, http://www.nfowd.com/APDF_Papers.html (accessed July 25, 2008).

- in disaster-affected areas can reinforce the capacity of agencies that are active in emergency aid and reconstruction to include people with disabilities in their plans and operations (Boyce, 2000).
- **Appropriate early warning systems:** Disabled people can play a significant role in the design of relevant and appropriately targeted early warning and information, education, and communication systems. The development of early warnings in a disabled-friendly manner uses multi-model warning means (visual signs or signals, auditory alarms, peer support, community support, etc.), which, adapted to local conditions, can contribute to a wider dissemination and communication of risk information (UN, 2006b).

■ Possible Areas For Social Fund/CDD Operation Support

Incorporating Disability Dimensions of Disaster Risk Management in the Project Cycle²

Disability represents a critical dimension of social exclusion. Conducting social analysis to examine access to project benefits and providing opportunities for the voices and participation of those individuals with disabilities are therefore vital for more sustainable and inclusive project outcomes. Incorporating disability-inclusive social analysis at each stage or level of World Bank operations can offer important perspectives in upstream/macro-social analysis (the national, regional, or sector level), sociological appraisal conducted as an integral part of project selection and appraisal, and social assessment for a particular project (World Bank, 2007e) Specifically, the inclusion of disability criteria as part of a disaster risk management mainstreaming could be included in all stages of the project cycle as follows.

Identification

Project Concept Note (PCN)

Ensure early identification of the disability dimension of risk management:

- Identify domestic legislation and accessibility standards related to disability and disability and disaster management, if available.
- Comply with legislation and/or standards at meetings and consultations
- Address barriers preventing the participation of people with disabilities in meetings and consultations

² Guernsey, K., et al. (2007b), Making Inclusion Operational. Legal and Institutional Resources for World Bank Staff on the Inclusion of Disability Issues in Investment Projects. Washington DC, World Bank.

- Include government departments and/or officials responsible for disability issues and disability and emergency planning, if available
- Include disability leaders and disabled people's organizations
- Check Country Assistance Strategy and/or Poverty Reduction Strategy Paper for disability references and/or disability and disaster management

Project Information Document (PID)

Capture disability issues when describing disaster risk, alerting those inside and outside the Bank:

- Include disability considerations in disaster management issues referenced in the PCN
- Convey nature of project disability components related to disaster risk management
- Distribute PID through Public Information Centers and other information outlets

Preparation

Integrated Safeguards Data Sheet

Expressly address disability when applying Bank Safeguards Policies for Indigenous Peoples and Involuntary Resettlement

Environmental/Social Assessments (EA/SA)

Determine and address significant potential effects of hazards on people with disabilities:

- Address disability issues as part of environmental screening
- Include people with disabilities in the EA screening process
- Highlight EA findings and recommendations for inclusion in later project documents

Appraisal

Project Appraisal Document (PAD)

Elaborate disability issues:

- Capture and expand on issues addressed in PCN and PID, developing understanding of target groups through further vulnerability and capacity analysis, sustainable livelihoods analysis, and social impact assessment methods
- Include disability in monitoring and evaluation targets and indicators related to disaster risk management
- Include disability in risk management plan and risk monitoring arrangements
- Respond to issues raised during project concept consultations

- Reflect best and most accurate disability data available
- Include disability to facilitate meaningful Quality Enhancement Review
- Include budgets reflective of disability components
- Reflect PAD in revised and updated PID
- Indicate how the project incorporates current best practices related to disability and development, as drawn from the Bank's prior work and that of other international actors. (People with disabilities and their representative organizations can be an excellent source of information related to best practices that may be relevant for the project.)

Negotiation and Board Approval

Legal Agreement

Clarify and specify roles, definitions, and standards that apply to project disability components related to disaster risk management:

- Provide disability-related definitions
- Specify standards, legislation, and/or operational guidelines to be used to implement project disability components
- Gather data on implementation of project disability components through financial management system
- Include project disability components in project description
- Identify people and processes needed to implement and monitor project disability components
- Reference procedures and standards needed to ensure accessible procurement and non-discrimination in hiring of consultants with disabilities, if needed

Implementation and Supervision

Procurement

Ensure procurement processes and outcomes related to disaster management do not inadvertently create barriers to inclusion of people with disabilities:

- Ensure that goods and services purchased are consistent with relevant standards and client country agreements regarding accessibility
- Ensure that contract bidding processes are accessible, permitting people with disabilities equal opportunity to participate in bidding
- In the case of a co-financed disaster risk management operation, review and agree on any disability standards promoted by donors

Supervision

Determine whether there is appropriate compliance with loan agreement provisions most relevant to people with disabilities:

- Ensure that tools, policies, and guidelines related to disaster management used in supervision activities are inclusive of disability
- Obtain information directly from local disabled people's organizations in order to facilitate assessment activities related to disaster management

Project Status Report (PSR)

Monitor and supervise implementation of disability components:

- Ensure PSR project development objectives reflect the disability objectives of the PAD
- Capture disability components in project performance ratings
- Capture disability aspects in safeguard compliance assessments related to disaster management
- Capture disability in legal covenant compliance assessments related to disaster management
- Gather disability-related data from people with disabilities and others during site visits related to disaster management
- Follow up with people with disabilities to generate solutions to implementation problems related to disaster management

Implementation and Completion

Implementation Completion and Results Report

Provide a full and accurate reflection of the degree to which the project disability components have been implemented in order to build institutional capacity and memory:

- Be accurate and explicit in addressing project disability components
- Address lessons learned regarding implementation of project disability components in consultation with people with disabilities

Disaster Risk Reduction (Prevention, Preparedness, and Mitigation)

Disaster preparedness and emergency response systems are typically designed for people without disabilities, for whom escape or rescue involves walking, running, driving, seeing, hearing, and quickly responding to instructions, alerts, and evacuation announcements. Incorporating access to disaster management programs for people with disabilities includes physical, program, communication, and technological considerations in several aspects of planning and execution (NCD, 2006a). The following items are especially relevant to the inclusion of people with disabilities in disaster risk reduction:

- **Planning:** Natural disasters and other crises are critical contexts for people with disabilities: This includes people who already have a disability as well as those who

- become disabled as a result of crises. Both require special assistance to survive, recover, and lead a decent life. For the first group, the priority is ensuring their safety and protection. Successful CBDRM plans including people with disabilities must guarantee:
- Inclusion of people with disabilities in the different stages of planning
 - Monitoring and evaluation of the inclusion of vulnerable groups, including people with disabilities, in preparedness
 - Self-emergency plans and support groups at the community level (ILO, 2003)³
- **Training:** Participation in disaster response training prepares program staff, communities, and individuals for the extraordinary organizational, procedural, emotional, and environmental aspects of operations within the context of a disaster. Regarding training, several disability and disaster practitioners have recommended:
 - A “two-pronged” approach to training: training people with disabilities and training emergency planners and responders from governmental and other agencies
 - Providing training in accessible format for people with disabilities and other populations
 - Training trainers for small towns and rural areas to multiply outreach effects (World Bank, 2006b)
 - **Registration:** Advance planning requires identifying where individuals with disabilities live, the nature of their disability (mobility, sensory, intellectual, or psychosocial) and the type of special assistance each might require in the disasters most likely to occur. However, registration of people with disabilities could raise issues related to the right of privacy of specific groups. Moreover, families may fear becoming labeled, stigmatized, or marginalized and thus may not register their disabled members. If registration of people with disabilities is not favored, potential alternatives include self-registration, local training, organizing information in an environment where investments and information sharing are maximized in a deliberate and cost-effective manner, and mainstreaming disability in local disaster exercises. In addition, people with disabilities in developing countries are more vulnerable to not having their births even registered. So they may have problems getting cash compensation or proving land/house ownership (missing out on rebuilding, if, for instance, other family members with title die or become separated) (Lansdown, G., 2005).

³ Self-emergency plans are personal plans developed by people with disabilities to prepare themselves for a major disaster. Usually they include self-assessment, establishing a support team, and disability-specific provision of supplies.

- **Evacuation Preparedness:** Emergency preparedness exercises including real participation (not simulation) of people with disabilities are highly recommended. (World Bank, 2006b).
- **Risk and Resource Mapping:** If they are included in a risk mapping exercise, people with disabilities can identify possible barriers they may eventually face in a disaster situation. For example, a person who has difficulty walking or seeing may not be able to negotiate over rubble to reach the relief shelter following an earthquake. Similarly, in the resource mapping it is important to identify resources for people with disabilities: accessible drinking water and sanitation sources, accessible shelters, volunteers to provide physical support, rehabilitation centers, health care/hospital services for injured persons, special schools or schools that include children with disabilities, etc. Again, people with disabilities and those who serve them are the best source of information for mapping issues of their concern (Handicap International, 2004).

Emergency Response (Rescue and Relief)

Activities to provide emergency assistance for victims or stabilize the situation and reduce the probability of secondary damage commonly neglect people with disabilities. In response, disability should be included as a cross-cutting issue in emergency and recovery needs assessment processes.⁴ Emergency response and relief programs including people with disabilities should contain specific considerations related to:

- **Rescue:** Search, rescue, and evacuation of people with disabilities may require specialized techniques. When there is no preparedness planning in place, it is very important to allow the person with a disability to advise on her or his specific needs (for example, how to move her or him, what is the best place for her or him to be temporarily allocated, what medicines to bring, etc.) (Handicap International, 2004).
- **Temporary Shelters:** Shelters must meet minimal accessibility levels so that all members can find safety. It is particularly important to ensure appropriateness, particularly regarding accommodation, washrooms, etc. for wheelchair and mobility aids users. Clothing, bedding, and personal hygiene items may need to be adapted or required in additional quantities for people with disabilities, for example for those with incontinence problems. Cooking and eating utensils may need to be adapted for usage. Important shelter elements include:

⁴ *The Handbook for Estimating the Socio-economic and Environmental Effects of Disasters* (United Nations Economic Commission for Latin America and the Caribbean, 2005) includes a guide to gather victim information according to the optimum disaggregation level allowing the identification of high-risk categories (children under five, nursing mothers and pregnant women, disabled or wounded people and old people). <http://siteresources.worldbank.org/INTDISMGMT/Resources/2populationaffected.pdf>.

Box 8.1 Psychosocial disabilities

The percentage of people with psychosocial disabilities increases in disaster situations. On the other hand, people with existing psychosocial disabilities are at greater risk, as they may find difficulties exercising coping mechanisms or the disaster may disrupt their support networks. People with psychosocial disabilities are also at elevated risk for abandonment in situations that involve displacements. Disaster response plans often do not include provisions to evacuate people with psychosocial disabilities. During Katrina evacuations, for example, emergency officials physically lost residents of group homes and psychiatric facilities, many of who are still missing. The National Council on Disability of the United States found that pre-Katrina disaster planning did not contemplate the needs of people with psychosocial disabilities; as a result, many people died or unnecessarily suffered severely traumatic experiences. Disaster management planners should take into account people with physical disabilities as well as people with psychosocial disabilities.

Source: National Council on Disability, 2006b.

- General accessibility
 - Accessible latrines ramps, large door, and handrail along with space inside to accommodate wheelchair
 - Accessible washrooms
 - Accessible distribution facilities and strategies for food items and non-food items
 - Heating—because of lack of mobility, people who are injured or with disability may need additional blankets and warmer clothes
 - Specific protections from abuse—people with disabilities have a grater chance of harassment, abuse, or neglect in camps and temporary shelters (Step, 2005).
- **Health and Nutrition:** Accessibility of health infrastructures is of primary concern and should be considered, when possible, from the point of view of road/transport/financial access, with a concern of where and how the person will go after being discharged. Specific considerations should be made for:
 - General health services (they should be accessible for people with disabilities)
 - Assistive devices (crutches, wheelchairs, etc.)
 - Specialized health services for people with disabilities, including provision of specific drugs
 - Specific nutrition considerations including specific diets, supplementary feeding program for children, additional rations for adults and utensil considerations (for example, some children with disabilities may have difficulties using usual utensils to eat and may need spoons, straws, etc., to ensure proper intake of food)

Box 8.2 Education and children with disabilities in disaster situations

- Ensure temporary schools provide for minimal accessibility levels
 - path / road to go to school should be flattened and free of obstacles
 - ramp at the entrance (1:10 slope, handrails)
 - latrine seats (seat heights, handrails, water point, etc)
 - enough space to turn a wheelchair (circle of 90cm diameter)
 - large doors to allow a wheelchair to enter the facility (80cm)
 - children and teachers should be sensitized to the special needs of children with injury / disability
 - provide appropriate teaching material and furniture

- Ensure reconstruction plans for schools provide for minimal accessibility levels
 - use universal design to plan as minimum standards of accessibility
 - path / road to go to school should be flattened and free of obstacles
 - involve parents of children with disability and children themselves in the design of the schools

- Ensure and monitor attendance of disabled children.
 - compare the registration data with the rate of attendance
 - identify barriers to attendance and look for solutions

- Make special effort to make educational and training opportunities as inclusive as possible.
 - include children with injury/disability in normal schools as early as possible
 - provide support and training to teachers
 - raise awareness with children and teachers about children with injury/disability special needs
 - use appropriate teaching material and means

- Integrate non-discrimination and protection messages (including on the rights of disabled people) into emergency (and regular) school curricula.

Source: Step Pakistan, 2005.

- **Water:** Additional measures may be needed to ensure that access to water is equitable, for example:
 - Access to water points and or water distribution, taking into account people with low mobility or using mobility aids or those who cannot afford standing for long waits
 - Water pump and container accessibility

- **Engaging disabled people's organizations (DPOs) as stakeholders in disaster response and relief:** DPOs can be a precious tool to provide relief to disabled survivors. In Pakistan, for example, after the earthquake of 2005 members of the Milestone Society for the Special Persons visited the newly disabled persons,

- providing them with food and clothing and most of all empowering them through peer counseling about independent living, particularly in the Melody Relief Camp (Disabled Peoples' International Asia and Pacific Region, 2007).
- **Communication and technology adjustments:** Disaster relief and recovery plans, programs, and outreach efforts (including early warning systems) should be available in formats accessible to people with disabilities and older adults—e.g., in Braille, large print, audio tapes, and text format—or at least alternative means and channels for them to be informed should be considered (World Bank, 2006b).
 - **Livelihoods:** When evaluating different possibilities (cash vs. commodities, etc.), people with disabilities should receive an explanation of options and their preferences should be included in relief interventions. It is important to ensure that cash for work programs pay disabled workers fairly (ODI, 2005). In-kind relief may be necessary to replace assets such as wheelchairs, crutches, and other aids lost or needed as a result of a disability acquired during the disaster, given that these devices may not be available for local purchase. On the other hand, disasters can provide opportunities for people with disabilities to improve self-sufficiency. The process following relief can be used to include people in the workforce, to improve access to credit, and to create livelihood opportunities and economic resources including vocational training, training on business, market networking, etc. Providing economic support to family caregivers should also be considered. Finally, the inclusion of people with disabilities in livelihoods measures must be monitored (Shanta Memorial Rehabilitation Centre, 2005).

Rehabilitation and Reconstruction

During the major reconstruction that follows a large number of natural disasters, planners often miss opportunities to avoid recreating the exclusion of people with disabilities by adapting the design of the built environment. It is far more cost-effective to modify the plans for a new building at the outset than to adapt an existing building to make it accessible. Depending on the type of building, providing full access facilities from the outset costs an average additional 1.12 percent (Oosters, 2005; Vakis, 2006). Measures to ensure that people with disabilities benefit from rehabilitation and reconstruction efforts include the following.

- **Inclusion of universal design in reconstruction:** The idea behind universal design is that any space, building, product, service, or information is designed in a way to be accessible, usable, understandable, and comfortable for all people. The principle is not to differentiate between people with and without disabilities in design. In this way, universal design does not require additional equipment, special spaces, or particular services specifically for a certain group of people as it accounts for diversity at the very beginning of the design process (Zahirovic, 2005).

- **Specific Measures:**
 - Ensuring that disability issues are incorporated into rehabilitation and rebuilding work.
 - Obtaining the input of disability experts in the planning process
 - Increasing the awareness of compensation programs/ economic recovery packages among people with disabilities, their family members, caregivers, DPOs, and organizations serving people with disabilities
 - Increasing the accessibility of support programs (including time, place, and mode of communication considerations to ensure participation of people with disabilities)
 - Facilitating people in obtaining legal services and the recovery or reissuance of lost legal documents
 - Giving people with disabilities access to accessible housing and land rights
- **Involvement of people with disabilities and their representative organization:** DPOs can be instrumental in identifying the needs of their community as well as the buildings and facilities that need to be adapted. They can also recommend cost-effective modifications in order to ensure accessibility to the physical environment and are vital to monitoring and evaluating accessibility.
- **Mainstreamed and specific targeted programs for the recovery of people with disabilities and their families:** In coordination with community-based rehabilitation networks, DPOs and relevant sectors facilitate rehabilitation programs that increase the mobility and independence of people with disabilities in order to make them economically productive. They also facilitate the accessibility of other services and goods such as medical treatments and therapy (physiotherapy,

Box 8.3 Example of a post-disaster specific targeted project

The 7.6-magnitude earthquake that hit Pakistan on October 8, 2005, devastated one of the most remote mountainous parts of the world and one of the poorest parts of Pakistan. According to the joint Asian Development Bank–World Bank Needs Assessment, approximately 73,000 people died and more than 70,000 were severely injured or disabled. In addition, several people already disabled lost their support systems and whatever services they were receiving prior to the earthquake. Implemented by the Pakistan Poverty Alleviation Fund through performance-based contracts with NGOs with capacity and expertise already on the ground in the affected areas, the PK Earthquake Social Welfare/Disability Project financed physical and psychosocial rehabilitation services, skills development, and mobility enhancement of people with disabilities and their families, as well as capacity building of service providers, NGOs, and disabled peoples organizations to provide services, raise public awareness on disability issues, and represent persons with disabilities.

Source: PK Earthquake Social Welfare/Disability, Project Information Document -PID, Report No.: AB2395.

- speech therapy), appropriate assistive devices, compensations, subsidies for livelihoods, etc. For example, the Turkey Emergency Earthquake Recovery Loan, which financed cash transfers to earthquake victims, explicitly considered the needs of people with disabilities. Another example of mainstreamed approaches can be found in Annex 8.1.
- **Consideration of other cross-cutting issues in rehabilitation programs:** Gender, age, poverty, environment, and psychosocial issues often intersect with disability in the configuration of people's particular situations. Special attention should be paid to children with disabilities, particularly in terms of their educational situation (World Bank, 2006b).

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Documents

Guernsey, K., M.Nicoli, and A. Ninio.(2007a). *Convention on the Rights of Persons with Disabilities: Its Implementation & Relevance for the World Bank*. Washington, DC, World Bank Rights Paper

Examining Inclusion: Disability and Community Driven Development <http://siteresources.worldbank.org/DISABILITY/Resources/280658-1172671461088/ExaminingInclusion.pdf> by World Bank Social Development Notes, Community Driven Development, May 2005

Meeting the Needs of People with Disabilities—New Approaches in the Health Sector <http://siteresources.worldbank.org/DISABILITY/Resources/280658-1172610662358/MeetingNeedsWiman.pdf>

World Bank Technical Notes for the Poverty Reduction Strategy Sourcebook, by Ronald Wiman, Einar Helander, and Joan Westland, June 2002

Web Sites

African Decade Secretariat: <http://www.secretariat.disabilityafrica.org>
Disability rights, Empowering DPOs, inclusive development.

Asia Pacific Disability Forum: <http://www.normanet.ne.jp/~apdf/index.html>
Disability Rights, Gender issues, Youth, Other: Research & Development, Accessibility

CBM Christoffel- Blindenmission: <http://www.cbm.org/>,
Education & literacy, Health, Rehabilitation, Economy & Employment, CBR, Inclusive Development

Handicap International: <http://www.handicap-international.org.uk/>; <http://www.handicap-international.us>
Disability rights, Community development, Health, Humanitarian relief, Other: Inclusive Development, Rehabilitation



MODULE 9

Focus on Older People, Children, and Minorities

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Module Summary

Module 9 provides a brief overview of the particular needs and capacities of older people, children, and minorities and migrants when designing community-based disaster risk management (CBDRM) strategies and projects. It explores the risks and consequences of exclusion of these groups and identifies some actions that may be taken to increase inclusiveness in CBDRM processes.

Older People

Key Principles of Age-Inclusive Community-based Disaster Risk Management (CBDRM)

It is very difficult to find disaster data disaggregated by age, but the number of older people affected by disasters is often measurably higher than their proportion in the

general population (IFRC, 2007g). People over 60 can be particularly vulnerable to natural hazards, due to:

- A lack of mobility, which hinders their ability to escape from hazards and access humanitarian services;
- Pre-existing chronic health ailments;
- Nutritional needs that do not get adequately taken into account during emergency responses (e.g., difficulties in chewing, digesting, and absorbing sufficient micronutrients); and
- Isolation from families and/or social services (IFRC, 2007g).

Isolated vulnerable older people can fall into any of several categories: single older people who are frail or disabled, older couples or couples where one or both partners are disabled, older people living with young dependents, and older people living in non-supporting families (UNHCR/HelpAge International, 2004).

While older people are commonly accepted as being vulnerable or potentially vulnerable to natural hazard impacts, humanitarian responses have often done very little to meet their particular needs, used systems that discriminate against them, and on occasion undermined their capacity to support themselves (UNHCR/HelpAge International, 2004). Older people are rarely consulted about their needs and priorities, and misconceptions about them tend to compound their vulnerability and contribute to discrimination against them in post-disaster assistance. Some common

Box 9.1 Understanding the needs of older people in disaster response

Some of the common problems faced by older people after natural disasters include:

- Lack of building materials and labor to help them to build shelters
- Loss of economic assets and income sources
- Loss of mobility aids, prosthesis, and spectacles
- Limited or no mobility to reach relief distribution points, health clinics, and other services
- Lack of medicines to treat chronic conditions
- Difficulty in collecting fuel and water to cook meals
- Digestion problems with food aid
- Acute joint and muscle pain from sleeping on hard or damp surfaces
- Separation from families and community sources of support
- Exclusion from recovery activities, such as livelihoods and care-giver support

Like most disaster-affected people, older people most commonly give priority to livelihoods and shelter needs, but this is not always well recognized or acknowledged in programming responses

Source: UNHCR/HelpAge International (2004).

assumptions include that the extended family and community will protect them, that they are no longer productive members of society, or that they receive rather than give care in the family.

HelpAge International has found that many older people in developing countries get missed in disaster responses and do not always get treated equitably by their families. They also have documented that an increasing number of older people have become primary caregivers to their children and grandchildren as a result of conflict or diseases such as HIV/AIDS, as well as contributing economically to their households (IFRC, 2007g). Older people, predominantly women, often become caregivers for children displaced from their families in natural disasters.

Research has further highlighted the valuable roles that older people play in emergencies, as well as the economic and social contributions they can make to disaster risk management (DRM). In addition to their economic and social capacities, many older people have considerable knowledge of their environment and the hazards within it. They are more likely to have first-hand experience of previous disasters or knowledge of traditional drought-resistant varieties of food growing in the wild that can be eaten at times of food scarcity. Contrary to popular belief, older people are not necessarily difficult to train or to get to accept new ideas, and they are often keen to play an active role in their community (Twigg, 2004).

Greater attention needs to be paid to the incorporation of the needs and capacities of older people in CBDRM planning and implementation. For example, as experience in Tanzania has illustrated, older people can play an invaluable role in reducing the vulnerability of other older people.

Box 9.2 Older people improve health service delivery in Tanzania

Helpage International Tanzania has helped older people in Tanzania monitor the delivery of health services to older people, in line with government commitments. In Arusha, this work has been carried out in partnership with the Arusha Retired People's Association (CHAWAMA). Members of CHAWAMA and local leaders at the village and ward level were trained to act as project facilitators and then formed older people's committees, which took part in the monitoring process. As a result of this work, charges for consultations and drugs at health centers have been reduced dramatically, and government officials have asked CHAWAMA to establish a system to authorize older people to be treated free of charge by doctors. In addition, the project has given older people a sense of respect and many said that they now felt their concerns were being listened to.

Source: HelpAge International Website.

Possible Areas for Social Funds/CDD Operations Support

Social funds/CDD operations already have well-developed methodologies for assessing and responding to vulnerability within poor communities. These approaches can be applied and enhanced to ensure adequate attention to older people in CBDRM programming. Some specific actions that can be taken are:¹

- Provide training and/or other educational activities on inclusiveness issues and considerations for older people in CBDRM for the staff of social funds/CDD operations and their governmental and nongovernmental organization (NGO) partners at all levels;
- Identify technical experts on older people and disasters to provide specialist inputs into the social safeguards analysis and design processes for social fund/CDD projects and sub-projects, as well as for partner government CBDRM policy and program development;
- Ensure that older people are located, identified, and directly consulted during vulnerability, capacity, and needs assessment processes;
- Incorporate their needs and priorities into project/sub-project designs, including livelihoods;

Box 9.3 Incorporation of older people in disaster recovery

In 1999–2000, in Chokwe, a flood-affected province of Mozambique, HelpAge International and a local partner NGO, Vukoxa, supported a volunteer-based home visiting program in eight villages covering older people and those who were sick or disabled. The home visitors were expected to raise awareness of aging issues in the community, give practical support and undertake counseling.

The home visitors, who called themselves *vaingeseli* (the listeners) and included many older people, were selected by the community. They were trained to understand how aging takes place and how it changes people's needs, to identify signs of older people's vulnerability, and to listen to and record problems and methods of solving them. They were issued with bicycles to travel to villages, and received a modest gift such as salt, sugar, or soap.

By October 2000, 35 *vaingeseli* had been trained and were caring for nearly 200 people. The project appeared to be helping to change attitudes toward older people and to be encouraging the elderly to become more involved in community discussions.

Source: 'Mozambique: Restoring Older People's Livelihoods' (2000) in Twigg, 2004, p. 91.

¹ Adapted from UNHCR/HelpAge International best practice guidelines for disaster programming with older people

- Recognize and facilitate the sharing of older people’s knowledge, experience, and strategies in CBDRM;
- Involve older people in disaster risk reduction, response, and recovery projects/ sub-projects at all levels;
- Ensure that older people, including any groups that may represent their interests, are on relevant decision-making and advisory bodies, such as disaster preparedness committees, emergency coordination committees, and special issue groups (e.g., psycho-social; health and nutrition, livelihoods, and shelter); and
- Develop outreach strategies for disaster response to facilitate two-way communication with older people and incorporate them into disaster relief and recovery social accountability systems.

Children

Key Principles for Child-Inclusive CBDRM

Research conducted by the Save the Children UK has concluded that children will bear the brunt of the likely increase in frequency and intensity of natural disasters resulting from climate change, given that they generally constitute around half of those affected by today’s crises. The group’s 2007 report, *Legacy of Disaster*, projected that in the next decade up to 175 million children every year are likely to be affected by the kinds of natural disasters brought about by climate change (SCF Alliance, 2007). In particular, there is likely to be an increase in the number of deaths of children under five in Africa from malaria—currently 800 000 per year; an increase in the number of children dying each year from malnutrition—currently 3.5 million; and an increase in the number of children withdrawn from school or sent out to work due to the impacts of slow-onset or recurrent natural disasters on families. Overall, children’s health, food security, and protection will be adversely affected.

Poorer children are particularly vulnerable to natural hazards. Many factors affect their vulnerability (Twiggy, 2004; SCF Alliance, 2006), such as

- Nutritional deficiencies that become exacerbated during times of drought and famine;
- Lack of physical strength and/or practical skills, such as swimming, to get them to places of safety during rapid-onset disasters;
- Lack of literacy and education on how to prepare for or respond to disasters;
- Lack of understanding of their dietary, material, and emotional needs in disaster response; and

- Abuse and exploitation of those who become separated from or lose their parents during a disaster.

Knowledge of traditional coping strategies also is very important for understanding children’s vulnerabilities to natural hazards. For example, in some countries, women and children may be given preference when food is scarce, but in others they may not (Twigg, 2004).

The solutions to reducing children’s vulnerabilities lie predominantly in developmentally oriented disaster risk reduction activities to reduce the underlying risk factors of poverty, hunger, and lack of livelihood opportunities. Social protection measures—such as insurance, cash transfers, pensions, and child grants—have also been shown to bring positive benefits to protecting children and reducing their vulnerability. There is evidence to suggest that children benefit both directly and indirectly from even very small cash transfers (SCF Alliance, 2008).

But children should not be seen only as the victims of natural disasters and climate change. Experience has demonstrated that children have considerable knowledge of the threats facing their community and can play very useful roles in disaster preparedness (Chawla and Johnson, 2004). For example, the Iranian government’s investment in educating children about earthquakes has dramatically cut mortality of all ages in earthquakes over the past 10 years (SCF Alliance, 2008). The NGO Plan International also has drawn on children’s local knowledge to designing a flood preparedness initiative.

Box 9.4 Children’s vulnerability to flooding in Bangladesh

In a study of children’s vulnerabilities during floods in Bangladesh, the Save the Children Fund Alliance found:

- Children face deprivation because of adults’ attitudes/biases.
- Children suffer from starvation, thirst, dirtiness, abuse, even death because of poor planning and inadequate provisions.
- Children suffer loss of dignity because of bad methods of relief distribution and maltreatment by aid workers.
- Children experience neglect and abuse because of aid workers’ lack of accountability, “fake aid workers,” and a parent or caregiver’s reduced capacity to protect them.
- Children face denial of services because of flaws in the targeting procedure.
- Children experience family separation due to haphazard and unplanned evacuation and lack of preparedness.
- Children face anxiety and fear because of inappropriate response models (of caregivers and aid agencies).
- Children face difficulties meeting their special needs, such as education and play, due to inappropriate interventions.

Source: SCF Alliance, 2006, p. ix.

Although it is still important to target disaster preparedness and early warning messages at parents (especially mothers), since children will likely depend on their parents in time of emergencies, children also should be directly involved in the planning and implementation of community-based disaster preparedness and early warning systems. Institutions such as schools, child care centers, and nurseries also can provide a focus for CBDRM with children. This can take the form of raising awareness of hazards and risk and promoting good practice in risk reduction through the school curriculum. Such initiatives can be combined with physical measures to hazard-proof educational facilities, a major cause of death and injuries among children in rapid-onset disasters such as earthquakes.

Possible Areas for Social Funds/CDD Operations' Support

Social funds/CDD operations can contribute to reducing the vulnerability of children and strengthening their capacities in disaster preparedness and early warning through a number of means:

- Provide training and other educational activities on children's issues and considerations in CBDRM for the staff of social funds/CDD operations and their governmental and nongovernmental partners at all levels;
- Identify technical experts on children and disasters to provide specialist inputs into the social safeguards analysis and design processes for social fund/CDD projects and sub-projects, as well as for partner government CBDRM policy and program development;
- Ensure that children are consulted during vulnerability, capacity, and needs assessments and that their ideas are fully considered in project/sub-project planning processes;

Box 9.5 Learning from children in Vietnam

In the Go Cong Dond District of Vietnam, an area vulnerable to floods and storms, the International Save the Children Alliance has undertaken a community-based disaster risk reduction (DRR) program. Children's views were actively sought in the community consultation process. One community decided to spend the DRR funds it received on upgrading an evacuation road to withstand the typhoon season. This idea came from the children, who wanted to make sure they would not lose access to their school and playground in the event of flooding.

Some other "child-friendly" activities carried out in the Vietnam DRR program included the provision of child-size life vests and evacuation boats for schools.

Source: Adapted from SCF Alliance, 2008, p. 10.

- Do not treat children as one homogenous group during assessments—make certain that gender, socio-economic, age, and ethnic differences are taken into account (the issues and approaches to working with older children will differ from those of younger children);
- Undertake structural and non-structural disaster preparedness and mitigation activities targeted both at children attending schools and those within communities who may not have access to formal education;
- Develop strategies to respond to critical short-term disruptions to household social welfare payments and remittances from family members living away from the community;
- Target social protection and livelihoods activities at the vulnerable members of communities at high risk from natural disasters; and
- Coordinate with UN agencies and NGOs to identify and support initiatives to protect children from neglect, abuse, and exploitation during emergency response operations—community-based organizations and other local social fund/CDD partner organizations could potentially play an effective role in supporting and monitoring children’s situation.

It should be noted that working with children usually requires different skills and approaches to working with adults. Social funds/CDD operations’ staff and partners may need specialized training if they do not already have skills or experience in this area. In particular, staff involved in post-disaster needs assessment with children may require guidance, especially if trauma and protection issues are involved. The Participatory Assessment prepared by the UN High Commissioner for Refugees in 2006 offers some useful advice on this subject. Plan International also has produced a series of useful notes on working with children.²

Minorities and Migrant Workers³

Key Principles for Minority and Migrant-Inclusive CBDRM

Ethnic minorities and migrant communities, both regular and irregular, need to be taken into account in CBDRM. Minorities and migrants are often more vulnerable to hazards than majority communities, usually as a result of social exclusion. Decision-makers may overlook their needs and capacities and may even deliberately exclude them from decision-making. The exclusion of ethnic minorities, often accompanied by

² Plan International, Participatory Learning and Action Notes 1-40, available from www.planotes.org

³ This sub-section is largely adapted from J Twigg, 2004, Chapter 6, pp. 98–101.

poverty, may force them to settle in dangerous locations, take on hazardous jobs, or live on land of poor quality that produces little food. Language, educational, and cultural barriers can restrict access to information on risk and risk avoidance. Migrants can be doubly vulnerable: as members of minority ethnic groups, they may be neglected or even persecuted; as strangers to an area, they may lack the knowledge and coping strategies to protect themselves.

Consequently, when a disaster occurs, ethnic minorities and migrant communities can become forgotten, hidden groups that miss out on humanitarian assistance and support. Because their basic needs are overlooked, they become even more marginalized and vulnerable. For instance, the International Organization for Migration (IOM) found that the December 2004 Indian Ocean tsunami aggravated the already precarious legal and socio-economic position of many thousands of migrants from Myanmar who worked in agriculture, fisheries, and construction along Thailand's shoreline. Because of their status, many did not come forward for assistance for fear of arrest and forced return. Others faced difficulties re-establishing their legal identity or recovering lost permits and authorizations. Some were unable to reclaim the bodies of dead relatives, and the majority failed to claim the compensation offered by the Thai government for deceased relatives (IOM, 2006).

The impacts of climate change are making the need for increased attention to the vulnerability of ethnic minorities and migrants even more pronounced. As early as 1990 the Intergovernmental Panel on Climate Change noted that the greatest single impact of climate change might be on human migration—with millions of people displaced by shoreline erosion, coastal flooding, and agricultural disruption. In the mid-1990s, it was reported that up to 25 million people had been forced from their homes and off their land by a range of serious environmental pressures including pollution, land degradation, droughts, and natural disasters. Although it is difficult to estimate the numbers of people who will be forced to move over the long term as a direct result of climate change, 200 million climate migrants by 2050 has become the accepted figure. This represents a tenfold increase over today's entire documented refugee and internally displaced populations (IOM, 2008).

Inclusive, nondiscriminatory approaches are required to overcome minority and migrant groups' vulnerability to natural disasters. National climate change adaptation strategies, currently under development in a number of countries, need to include analysis of and planning for climate migrant scenarios. Participatory, community-based approaches to the development of local disaster preparedness and climate change strategies also can provide opportunities to combat discrimination (IFRC, 2007b). But this requires sound knowledge of "do no harm" approaches to project design and implementation in order to ensure that perceptions of inequitable distribution of benefits do not occur. A significant challenge in this regard is the relative dearth

Box 9.6 Not getting the message

Southern California is at high risk for a major natural disaster. The Tomas Rivera Policy Institute of the University of Southern California and the Asian Pacific American Legal Centre of Southern California recently conducted a study on whether immigrants with limited English proficiency (LEP), who may be poor and less educated, had access to the information necessary to prepare for and survive a disaster.

The study found, among other things, that government agencies and NGOs for the most part were not providing culturally sensitive disaster preparedness education in languages spoken by the immigrants, that there were no tools in place to provide rapid translation of emergency information to LEP populations, that emergency service providers relied on translations by ethnic media outlets and bilingual family members (usually children), and that agencies did not have mechanisms in place to reassure the public that migration status would not be linked to disaster response assistance.

The study recommended that disaster service personnel and government officials should:

- Assess the language needs of preparedness education materials in their service areas;
- Ensure that simulation exercises incorporate the language needs of the LEP community;
- Assess available language resources and their anticipated use during a disaster;
- Establish working groups with emergency services personnel, NGOs that serve ethnic communities, and ethnic media on how to better promote preparedness materials;
- Make federal and state government databases of secondary language resources available in their areas of operation; and
- Separate immigration enforcement from humanitarian aid.

Source: Summarised from TRPI/ALPAC (2008).

of evaluations and case studies on the impact of disasters and disaster risk management programming on minorities and migrants and good practice in this area.

Possible Areas for Social Funds/CDD Operations' Support

Some possible areas of activity for social funds/CDD operations, adapted from the International Federation of Red Cross and Red Crescent Societies' *2007 World Disasters Report*,⁴ are:

- Include representatives of ethnic minority and migrant groups in vulnerability, capacity, and needs assessments;

⁴ From Chapter 4 in IFRC, 2007g, pp. 57–58. Web link

- Develop partnerships or other forms of collaboration with organizations that represent the interests of minority and migrant groups;
- Develop an understanding of discrimination against minorities/migrants in the project/sub-project area;
- Consult with community members and human rights specialists to identify any need to adjust programming to ensure accessibility by minorities/ migrants;
- Develop strategies to ensure that ethnic minorities and migrants are actively involved in the development of CBDRM projects/plans and educational activities;
- Support the development of disaster preparedness and early warning information, education, and communication activities and systems that are designed with and for ethnic minorities and migrant workers (i.e., culturally appropriate, available in their languages, and through communication networks they normally use);
- Work with human rights and disaster management experts to develop indicators on the impact of discrimination against minorities and migrant workers in CBDRM;
- Commission empirical research to contribute to improving knowledge and practice on minorities/migrants and disasters; and
- Create mechanisms to feed the lessons learned from this work into national disaster management and climate change adaptation strategies and activities.

Further Resources

Below are some of the major resources available on this topic. For bibliographical information on the documents and other resources cited in this Module, please see the References section at the end of the Toolkit.

Documents

International Federation of Red Cross and Red Crescent Societies (2007g). *2007 World Disasters Report: Focus on Discrimination*. Geneva: IFRC. <http://www.ifrc.org/what/disasters/resources/publications.asp>

International Organization for Migration (2006). *Migration, Development and Natural Disasters: Insights from the Indian Ocean Tsunami*. Migration research series No. 30. Geneva: IOM. <http://www.iom.int/jahia/Jahia/cache/offonce/pid/1674?entryId=14556>

——— (2008). *Migration and Climate Change*. Migration research series No. 31. Geneva: IOM.

Save the Children Alliance (SFC Alliance) (2008). *In the Face of Disaster: Children and Climate Change*. London: SCF Alliance. www.savethechildren.net/media/publications/2008/IntheFaceofDisaster.pdf

Save the Children Sweden (2007). *Child-Led Disaster Risk Reduction: A Practical Guide*. Stockholm: Save the Children Sweden. www.rb.se/bookshop

UNHCR (2006). *The UNHCR Tool for Participatory Assessment in Operations*, Office of the United Nations High Commissioner for Refugees, Geneva. UNHCR guidelines

UNHCR/HelpAge International (2004). *Older People in Disasters and Humanitarian Crises: Guidelines for Best Practice*. London: HelpAge International. www.helpage.org/Resources/Manuals/main_content/1118336526-0-10/bpg.pdf

Web Sites

HelpAge International: <http://www.helpage.org>

HelpAge International is a global network of more than 70 not-for-profit organizations in 50 countries that advocate for the rights of disadvantaged older people. The network has a strong knowledge-sharing focus and has produced research and guidelines on older people and disasters.

International Organization for Migration: <http://www.iom.int/>

IOM is an intergovernmental organization that works to help ensure the orderly and humane management of migration, promote international cooperation on migration issues, assist in the search for practical solutions to migration problems, and provide humanitarian assistance to migrants in need, including refugees and internally displaced people. IOM conducts and publishes research on migration and natural disasters and on migration and climate change.

International Save the Children Alliance: <http://www.savethechildren.net>

Save the Children is the world's largest independent organization for children and works in over 120 countries. It advocates for children's rights and supports child-centered humanitarian aid and development. Save the Children regularly produces research on children's issues, including CBDRM and climate change.



CASE STUDIES

Decentralized Disaster Risk Management in Bangladesh¹

1. Introduction
2. Program Components and Procedures
 - 2.1 Disaster Risk Management and LGSP approach
 - 2.2 Local Oversight of LGSP and Disaster Risk Management Implementation
 - 2.3 Accountability and Monitoring and Evaluation
 - 2.4 Fiduciary and Safeguards Arrangements
 - 2.5 Disaster Risk Management Measures
3. Specific Issues Addressed
4. Post-disaster Actions: Flood Response and Cyclone Response
5. Role of Government and Partner Organizations
6. Considerations in Urban Risk Management

Case Study Summary

World Bank's Local Governance Support Project (LGSP) in Bangladesh was designed to analyze the connections between local government and community responses to natural disasters in Bangladesh and to offer a guidance note and handbook on the roles of local institutions in disaster management, distinguishing issues of community and local government responsibilities. The LGSP developed a handbook as support to local communities and local government in developing contextually adapted disaster risk management and disaster risk reduction priorities that can be integrated into the LGSP framework and implemented in the 4,500 Union Parishad (UPs), or lowest tier of rural local governments in Bangladesh.

Disaster planning and response at the UP level is based on the identification and establishment of priorities of local disaster goals through open public meetings with widespread community representation, timely preparation of the UP disaster plan, and discussion of

¹ This case study was written by Stephen Commins (SASHD) with input from Nilufar Ahmad (SDV).

the LGSP block grant and proposed disaster expenditures with the UP community. A wide range of disaster-focused measures can be undertaken through the disaster risk management approach in LGSPs, including water supply, roads and bridges, social infrastructure, disaster shelters, markets, etc.

Several lessons learned have emerged from the experience this far:

- *One challenge that the Bank faced in responding to the cyclone involved distribution of cash as part of a short-term livelihoods approach. The Bank had to adapt the LGSP framework due to the widely divergent levels of capacity in UPs, most of which were not yet part of the LGSP.*
- *For longer-term recovery, attention has been given to rebuilding agricultural resources, livelihoods, and markets. One lesson from the initial work on the floods and cyclone is that there is high value in efforts on pre-disaster risk reduction initiatives that would effectively incorporate disaster risk management into long-term development goals, as well as into UP planning and expenditures.*
- *The involvement of NGOs can contribute to greater transparency and accountability, through support of both public consultations and information sharing.*
- *Several measures could be undertaken to ensure that the programs include safeguards for women, children, and other vulnerable groups. Security for women and girls and for children in flood shelters can be increased, for example, through provision of separate latrines and other facilities.*

The current LGSP operations are focused on the UP system, which involves decentralized rural government structures. Based on lessons from the LGSP experience, there may be a related decentralized urban government project in the future.

■ 1. Introduction

This case study outlines the work undertaken on integrating disaster risk management measures into the World Bank's Local Governance Support Project (LGSP) in Bangladesh. The project was designed to analyze the connections between local government and community responses to natural disasters in Bangladesh and to offer a guidance note and handbook on the roles of local institutions in disaster management, distinguishing issues of community and local government responsibilities. The key objectives were to:

- Offer a framework for better understanding of how local governments and communities can play effective roles in disaster risk management and how communities can hold the local state accountable

- Disseminate the framework to policy makers in Bangladesh to enhance their ability to influence policy and the institutions that empower local governments and communities in disaster-prone areas to effectively manage and reduce disaster risks
- Based on dialogue with different stakeholders, develop a handbook that would support local communities and local government in developing contextually adapted disaster risk management and disaster risk reduction priorities that can be integrated into the LGSP framework and implemented in the 4,500 Union Parishad (UPs), which are the lowest tier of rural local governments in Bangladesh.

Through establishing disaster risk management goals and priorities within a larger and longer-term framework, the project was designed to support both local government capacity and accountability in the LGSP.

Strengthening the capacity and accountability of local government bodies is a strategic goal in the Bangladesh Poverty Reduction Strategy Paper. However, it has been widely recognized that local government in Bangladesh is weak, especially in rural areas. The lowest tier of government, the Union Parishads, has limited resources, little revenue-raising authority, and almost no influence on how the central government uses its resources in their areas.

The Local Government Division (LGD) in the Ministry of Local Government, Rural Development and Cooperatives of the Government of Bangladesh has piloted a number of initiatives on local government reforms, with the active participation of local communities. LGD initiated in July 2006 a nationwide Local Governance Support Project (LGSP) to improve local governments' ability to manage service delivery, with active citizen engagement. Given the disaster-prone context of Bangladesh, LGD, together with World Bank, developed a Disaster Risk Reduction (DRR) Handbook and an integrated disaster management initiative within the project.

The LGSP DRR Handbook was structured to support a positive working relationship between UPs and local communities and to build relationships with various actors in the community and the country in disaster management. It is envisaged that a strong coordinated and collaborative effort would forge developmental linkages and undertake networking with other agencies, such as nongovernmental organizations (NGOs), that are concerned with disaster risk management and risk reduction. The DRR initiative within LGSP has been forward-looking in its effort at strengthening capacity and efficiency of UPs and communities to deal with or handle disasters in the future.

In terms of developing effective local processes for disaster risk management and disaster risk reduction, the work of the Bangladesh Local Governance Support Project offers a unique opportunity for strengthening local institutions and communities.

LGSP seeks to support local governments in providing services that meet community priorities, using a predictable and transparent fiscal transfer system.

2. Program Components and Procedures

The Bangladesh Local Governance Support Project has six components:

- Component 1 funds fiscal transfers to eligible local governments for basic local service delivery and provides incentives for good governance and service delivery performance.
- Component 2 supports downward accountability of UPs to citizens, by mobilizing communities to establish priorities for development needs, as well as community and government monitoring systems.
- Component 3 supports core local government capacity development in implementing the block grant.
- Component 4 supports the government in conducting regular, outcomes-based evaluations of the project in the context of the evolution of the local governance system.
- Component 5 supports a social protection pilot that would test the use of conditional transfers for national functions that can be devolved to local governments.
- Component 6 supports second-generation pilots of learning and innovation, which are being implemented in six districts of six divisions.

2.1 Disaster Risk Management and LGSP Approach

The disaster risk management work was designed to integrate and thus sustain disaster risk and mitigation efforts into UPs and communities, especially those identified as having a high level of risk. The long-term ability of communities to implement disaster risk management measures is directly related to the work of the LGSP in building up the capacity and accountability of local governments. The capacity and resources for local government and the wider national policy frameworks affect how disaster risk management efforts can be integrated and then implemented within LGSP work.

The LGSP provides the foundation for determining where disaster risk management can be planned and implemented. It offers the potential of an overall framework and common standards for local government working on disaster-related initiatives with communities. It can provide support for the options or choices made by local communities, for if there are no resources to support disaster-focused priorities, then community priorities may be constrained. LGSP support also underpins the capacity for monitoring

and evaluation. The level of monitoring and evaluation capacity is also a key determinant of the nature of contracting arrangements that can be designed. The types of contracts that are most effective depend on the ability to monitor and enforce the terms.

In regards to the disaster risk management and LGSP project, the key institutional features of LGSP that are most pertinent are the second and third components. One objective of the second component is to institutionalize accountability into existing systems based on incentives associated with the expanded block grant, complemented by mandatory disclosure by UPs to both communities and to higher tiers of government. Regular open meetings, public disclosure, and regular reporting would be at the core of the local participatory process and would be conditions of block grant release.

Regarding the third component, local governments require support to undertake participatory strategic planning, design and manage project implementation, and monitor and evaluate project outcomes. The project would provide information and support to the various actors involved in block grant implementation. It would help the government develop a capacity-building framework that meets emerging nationwide local government capacity and development needs.

2.2 Local Oversight of LGSP and Disaster Risk Management Implementation

As noted earlier, Union Parishads are the lowest tier of rural local government in Bangladesh. All projects of the UPs under disaster response funding would be supervised and monitored during implementation by the UP leadership and the Disaster Management Committee (DMC), where it exists. (Each UP is supposed to have a DMC, but many are non-functional; one aspect of the LGSP disaster risk management work would be to re-establish the DMCs.) The UP chairman heads the Disaster Management Committee, and it consists community members and representatives of local NGOs. The DMC would meet with residents of the ward or village who benefit most directly from the proposed expenditures. At least two members of the DMC would be women.

The DMC would be responsible for:

- Monitoring regularly in order to supervise the implementation of individual projects in terms of quality, quantity, and timeliness, as indicated in the approved procurement and implementation plan
- Advising the UP of corrective measures if any defects are identified in the implementation of the scheme
- Discharging functions assigned by the UP
- Reviewing the award recommendation and work-order/purchase order to the recommended bidder

- Reviewing environment and social forms
- Reporting to the wider community on implementation quality and efficiency and on impacts, as well as handling any other functions assigned by the UP.

2.3 Accountability and Monitoring and Evaluation

The UPs would each have a process for beneficiary input, such as the complaint mechanisms that were documented by the Tsunami Evaluation Coalition (Telford and Cosgrave 2006). In addition, each UP would be required to publicly display information on financial allocations and on provision for further resources that would allow for a public budgeting process with timely updates. NGOs providing resources in the UP should also publicly display their allocations to allow for greater transparency of all resource use. Efforts at ensuring inclusion of those with particular vulnerabilities, such as disability or other forms of exclusion, should be included in each UP.

To ensure effective project implementation for each UP's disaster risk management initiatives, monitoring activities could be carried out during the course of the project. NGO and government representatives can visit different localities within the project during the relief and rehabilitation phases and meet with local government officials, community members, and local NGOs to review the progress and quality of the work.

2.4 Fiduciary and Safeguard Arrangements²

Once the overall Local Governance Support Project budget, including disaster-related requests, has been submitted by the UP, the funding would be provided through the existing LGSP UP bank accounts. Disbursements would be made by the Local Government Division in two installments, directly to the UP bank accounts. The second tranche would require initial reporting from the UP on the disbursement of the first tranche. The UP chairmen would apprise the community and LGD about the receipt of the first installment via a revised dual channel reporting system.

In addition to the initial disaster-related proposal, UPs would:

- Hold open community meetings (at ward and UP level) to update the community on the plan and budget details, with minutes to be posted on UP notice boards
- Publicly disclose UP-level and scheme-specific information on a regular basis at community meetings and display the same on UP notice boards
- Submit and display timely reports to the community and the LGD.

² This section is adapted from World Bank 2008.

UP disaster-related funds should be specifically and identifiably recorded in the UP budget as additional items in the annual budget and financial statements of the UP. The recording of the funds should be in line with the specific, mandatory procedures for the use and financial management of block grant funds that are prescribed for LGSP block grants.

2.5 Disaster Risk Management Measures³

Consultations and reviews of existing resources on disasters and disaster response programs offered guidance on measures of the most likely importance to local communities. A wide range of disaster-focused measures can be undertaken through the disaster risk management approach in LGSPs, as described in this section.

Drinking water sources and sanitation facilities: Tubewells are often the primary source of clean drinking water in the UPs. Residents often cannot use other water sources, such as ponds or canals, due to pollution and sewage. Sanitation and hygiene conditions in communities depend on such factors as the availability and coverage of latrines. There are also issues of addressing arsenic pollution in communities, where this has been identified as a problem and where mitigation measures may have been damaged by flooding. Projects can include the construction of community sanitation facilities above the 10-year flood level, installation of community-managed tube wells above the 10-year flood level, and construction of water storage tanks.

Roads, bridges: Various roads are usually the only means of transportation and communication. These can be categorized into three major types: paved, semi-paved, and mud roads. These roads are also very important during the floods as a way to assist or rescue people and their assets.

River bank protection and embankments: In many communities, embankments have been built in order to protect the land, crops, and homes in communities near rivers and to mitigate the impacts of flood conditions. The main affected zones depend on the nature of flood pattern and the impact of receding floods. Severe erosion can affect the survival of communities, as water resources management has played a major role in agriculture growth and in poverty reduction. Erosion can cause substantial irrigation loss and displacement of people due to loss of land, crops, and housing. In addition, siltation causes closing of the gates of the distribution channels.

Sluice gate: The main function of the sluice gates is to regulate water, depending on the need for it. There are some sluice gates in UPs for conserving and controlling

³ This section is adapted from CDMP 2005.

receding water. Some sluice gates will be affected by floods, others may be nonfunctional due to lack of maintenance.

Disaster shelter centers: Some communities have flood shelters that may be damaged at times of severe flooding, and these need to be repaired. Residents of a UP may also decide, based on recent floods, that they want more shelters. They can be involved in determining locations for new shelters. Construction of new shelters can be coordinated with the repair of roads for reaching them.

Schools and clinics: Among the key local facilities in many communities are schools and health clinics. They are often damaged by floods, and their rehabilitation would be a priority for education and health services.

Markets: Local markets can be damaged by floods, whether buildings, market stands, or roads linkage. Investments in rebuilding market sites should be included as part of rehabilitation planning. Other projects can focus on support for agriculture and rural income, such as construction of livestock pens above the 10-year flood level, construction of market sheds, and the rehabilitation or construction of common property irrigation facilities.

3. Specific Issues Addressed

Identification of priorities comes through working with local community members and with NGOs that provide a supporting and facilitating role. Even as NGOs have supporting, facilitating, and catalytic roles, they should plan for an enabling role as much as possible in disaster risk management processes over time, so that the government's role is strengthened through partnerships with community members and local organizations. At the same time, the involvement of NGOs can contribute to greater transparency and accountability, through support of both public consultations and information sharing. (See Appendix 1 for an example of a planning matrix for UP and Disaster Management Committee meetings.)

Planning at the UP level is based on the following principles:

- Identification and establishment of priorities of local disaster goals through open public meetings with widespread community representation
- Timely preparation of the UP disaster plan
- Discussion of the LGSP block grant and proposed disaster expenditures with the UP community.

Each UP, together with the respective women member or members who have been appointed to the community's Disaster Management Committee, would organize a

ward-level community meeting to inform communities about the proposed disaster allocations to the UP, in addition to a brief explanation about the disaster planning process. The objective of the meeting would be to identify and approve ward-level priorities to present to the UP for possible inclusion in the disaster goals.

In the ward meeting, every effort should be made by the UP members to ensure that as many residents as possible are consulted. The UP women members can facilitate inputs from women members of the community. If necessary, a separate women-only meeting may be called, but it should be before the main ward meeting. Their disaster risk management priorities would then be presented at the open ward meeting by the UP women members. The meeting would prepare a list of disaster projects to be undertaken for the ward, giving attention to the following factors, among others:

- The monetary allocation for disaster programs to the UP within the block grant
- The opportunities for disaster programs in the UP
- The short-term and long-term benefits for the community from the disaster risk management projects
- The feasibility of the projects
- Information on environmental and social assessment.

Several measures could be undertaken to ensure that the programs include safeguards for women, children, and other vulnerable groups. Security for women and girls and for children in flood shelters can be increased, for example, through provision of separate latrines and other facilities. The local government representatives and NGOs could be mobilized and form flood mitigation committees to manage the improvements in flood shelters. People with disabilities require special attention during any rescues, as well as in shelters. Shelters should be distributed in the community in ways that relatives or neighbors friends can help people with disabilities.

A priority list of projects would be agreed and approved—by consensus vote—in the ward meeting. Minutes and the attendance list of this meeting would be sent to the UP Secretary to be kept on file for reporting, future audit, and other purposes.

4. Post-disaster Actions: Flood Response and Cyclone Response

Development of the integrated disaster management handbook within the LGSP framework provided an immediate resource to the World Bank's two urgent programmatic needs in 2007. In August 2007, a background guidance note based on the July 2007 field visits and interviews was developed as input to the Bank's response to the

floods of July and August. In November 2007, a guidance note was developed as input to the Bank's response to Cyclone Sidr. These experiences illustrated both the timeliness of the overall initiative and the major challenges facing the government and donors in implementing a program involving more than 4,500 government bodies

One challenge that the Bank faced in responding to the cyclone involved distribution of cash as part of a short-term livelihoods approach. The Bank had to adapt the LGSP framework due to the widely divergent levels of capacity in UPs, most of which were not yet part of the LGSP. This experience highlighted the long-term importance of the LGSP for future disaster programming. The UPs are responsible for developing a list of target groups and the distribution of safety nets. An open and participatory process was undertaken for making the list of target groups. UPs distributed seeds, fertilizer, and other inputs to farmers and other occupational groups and provided marketing support. Major NGOs and civil administration were also involved in the livelihood programs.

For longer-term recovery, attention has been given to rebuilding agricultural resources, livelihoods, and markets. One lesson from the initial work on the floods and cyclone is that there is high value in efforts on pre-disaster risk reduction initiatives that would effectively incorporate disaster risk management into long-term development goals, as well as into UP planning and expenditures.

■ 5. Role of Government and Partner Organizations

As noted earlier, the LGSP initiative is part of the overall decentralization process undertaken by the government of Bangladesh. The Bank's project functions as part of the LGD's work with UPs, so the integration of the disaster risk management program fit within the government's own structures.

This meant that the disaster risk management guidance note was closely aligned with LGSP operations, including LGD and other government departments. The incorporation of the materials developed by the Comprehensive Disaster Management Programme (CDMP) provided a close connection as well, as the CDMP office is located within the Disaster Management Bureau rather than operating as a separate donor operation. The CDMP staff had developed a well-tested and community-based set of resources for use in community disaster risk reduction programs with local communities across Bangladesh. This material was adapted for inclusion in the guidance note for disaster-related work. Recognizing the importance of their operational experiences, the input of Bangladeshi and international NGOs was also sought. The LGSP DRR Handbook was developed in consultation with CDMP. A national workshop was organized by LGD in July 2008, in partnership with the Ministry of Food and Disaster Manage-

ment, the Disaster Management Bureau, and CDMP, to bring synergy between the two activities. CDMP is piloting its DRR Toolkit in seven UPs, while LGSP is taking the lessons from these pilots and expanding them to 4,500 UPs nationwide.

6. Considerations in Urban Risk Management

The current LGSP operations are focused on the UP system, which involves decentralized rural government structures. Based on lessons from the LGSP experience, there may be a related decentralized urban government project in the future. In any urban project, there are differences from rural disaster risk management that would need to be incorporated into the project design.

Certain urban characteristics have direct relevance for addressing disaster risks. Urban settlements have a spatial concentration of tens of thousands or millions of people in one location, posing special problems regarding hazards. The particular dynamics of urban development can concentrate risks that increase situations of vulnerability for large populations. For example, recent flooding in Dhaka was partially linked to the establishment of slum settlements on canals and water channels, reducing water outflows. With urban settlements in general, large impermeable surfaces and concentrations of buildings will disrupt natural drainage channels. It is also common for cities to develop next to rivers or on a coast as ports, which often means a heightened risk of flooding.

In terms of local government and urban risk management, cities have large transient populations, which makes it more difficult to engage people's interest in disaster risk reduction. Low-income urban settlements are often characterized as having limited social assets—such as a lack of extended family structure, established networks of contacts, or strong relationships of trust. For many newly urbanizing groups, which rely on mutual help and support, social assets can be built up over time, however.

Building social assets, in particular, can increase the chances of greater self-reliance within households and communities. Squatters and slum dwellers will set up residence in high-risk areas in order to be close to sources of income. There are opportunities for future urban local governance projects to connect improved mechanisms of accountability with community engagement in risk reduction. Given the realities of climate change and the impacts of the summer floods and Cyclone Sidr in 2007, risk reduction in future urban-focused initiatives should become a central component of urban development programs in Bangladesh.

Appendix: Example of UP Community Planning Matrix for Stakeholders

Present and Future Hazards and Affected Stakeholder Groups

Hazards	Farmers	Landless	Elderly/Disabled	Women
1 Drought				
2 Heavy rainfall flood				
3 River erosion				
4 River-canal siltation				
5 Water logging				
6 Arsenic				
7 Storm (tornado)				
8 Hailstorm				
9 Water pollution				
10 Dense fog (cold spell)				
11 Thunderbolt				
12 Heat wave				
13 Iron				
14 Riverine flood				
15 Earthquake				

Source: Based on the Community Risk Assessment Toolkit (CDMP 2005).

References

CDMP (Comprehensive Disaster Management Programme). 2005. *A Facilitators' Guidebook for Community Risk Assessment and Risk Reduction Action Plan*.

Telford, J., and Cosgrave, J. 2006. *Joint Evaluation of the International Response to the Indian Ocean Tsunami: Synthesis Report*, London. Tsunami Evaluation Coalition.

World Bank. 2008. *Local Governance Support Project, Disaster Risk Reduction Handbook*. January draft.

Fondo Hondureño de Inversión Social in Honduras¹

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¹ This Case Study was written by Marc Maleika with input from Cynthia Burton.

Case Study Summary

Hurricane Mitch had a devastating impact on Honduras, the Honduran people, and the implementation of the country's Social Investment Fund, the Fondo Hondureño de Inversión Social (FHIS). Due to its lean and responsive institutional structure, however, FHIS was able to take on the leading role in reinstating needed services and promoting stability.

FHIS was quickly able to adapt to the situation following Hurricane Mitch and subsequent flooding. The operational flexibility of its legal framework and its capacity primed FHIS to respond immediately to local and central-level emergency and reconstruction needs. FHIS's outreach to distant areas and the swift establishment of ad hoc procedures for contracting and purchasing further underlined its capacity as a rapid response agency. Since there was no government agency capable of responding to this kind of natural disaster, the President of Honduras turned to FHIS to develop and implement a strategy.

Nine municipalities were converted in less than a week into decentralized FHIS offices with experienced technical and professional staff specialized in civil engineering, construction, and supervision. FHIS increased the number of active projects in reconstruction of small social and economic infrastructure (basic education and infrastructure, water and sanitation, health) from an average of 400 to 2,600, which enabled Honduras to address the urgent needs of more than 6,000 poor communities. Investments in reconstruction totaled \$140 million. The immediacy of the FHIS response was a key factor in mitigating a sharp decline in economic growth and negative impacts on poverty.

The IDA development credit to FHIS had both positive and negative impacts on FHIS's institutional capacity. On the positive side, FHIS's work early on with communities and local governments gave it some experience with a more demand-driven approach to operating a social fund. And the nine regional offices gave FHIS hands-on experience with a decentralized operation. On the negative side, FHIS abandoned its strict operating procedures in favor for a more flexible and immediate response but found it difficult to re-establish them as the FHIS norm once the emergency phase had passed.

1. Introduction

Honduras is the second poorest country in Central America and one the poorest countries in the western hemisphere (see Appendix A), with a gross national income of \$1,120 per capita a year. More than 50 percent of the population is below the poverty line. The Honduran economy is one of the least developed in Latin America and depends heavily on agricultural exports, such as bananas and coffee. Attempts to diversify the economy have had little success. Honduras's debt amounted to 67.1 percent

of its gross domestic product in 2006, and the country has been included in the Highly Indebted Poor Countries Initiative.

The Honduran Social Investment Fund—Fondo Hondureño de Inversión Social (FHIS)—was established in 1990 by the government of Honduras to mitigate the possible severe impacts of economic adjustment programs on the poor and the vulnerable. Central American governments often created Social Funds in the 1990s as transitional safety net instruments to respond rapidly to critical poverty situations until national-line ministries strengthened their institutional capacity. FHIS was meant to be a temporary mechanism to transfer resources to the poor, who were most affected by structural adjustment. However, FHIS has come to stay and has been playing an important role in the financing of small social infrastructure subprojects throughout the country.

Since its inception, FHIS has played a central role in the government’s “social safety net” and has included support for a number of social assistance–type subprojects, including health and hygiene training, nutrition, early childhood education, and programs for special disadvantaged groups (street children, elderly and disabled individuals, and indigenous groups).

The government decided to extend the FHIS mandate to 2012 and to redesign its operations toward constructing social infrastructure related to human capital formation, with the aim of reducing poverty. FHIS and the government focused their efforts on expanding and improving the quality of primary services in health, education, nutrition, water, and sanitation as their primary poverty reduction and social development strategies.

Given its good performance and the slow speed of modernization and reform in the line ministries, FHIS became the principal and in some cases the only government instrument for financing small-scale civil works projects in the social sectors. IDA has supported FHIS through five credits (SIF-I to SIF-V).

2. Program Components and Procedures

2.1. Goal, Principles, and Strategy

To continue IDA’s support for the successful FHIS program, the Fourth Honduras Social Investment Fund Project (SIF-IV) was prepared and approved in July 1998. Its main objective was to improve the poor’s access to small-scale social and economic infrastructure according to local development needs. The project had four components, with a total project cost of \$136 million, which was co-financed with a \$45 million IDA credit.

The three key objectives of the SIF were:

- *Subproject financing:* To support small-scale subprojects for expanding and improving basic social and economic infrastructure and providing training in maintenance. Subprojects were identified and sponsored by communities in close coordination with local governments and nongovernmental organizations (NGOs). Another subcomponent provided funds for two FHIS subprograms, the Social Assistance and Nuestras Raíces projects. Under the former, FHIS addressed the social needs of the disadvantaged and underserved groups (women, street children, and the disabled). With the help of the Nuestras Raíces program, the FHIS supported the social and economic needs of poor indigenous and ethnic minority communities.
- *Pilot program for local institutional strengthening:* To enable communities and local government to increase the efficiency of their cooperation and to better coordinate with stakeholders at the local, regional, and national levels.
- *Pilot program to strengthen community and rural water systems:* To provide technical assistance to improve attention to local communities needs for water systems (World Bank 1998a).

The project design set forth to support capacity-building for strengthening FHIS's institutional arrangements, particularly those of local-level actors. Appendix B explains the participatory approach of SIF-IV in detail.

Like previous IDA credits, SIF-IV was developed and overseen in collaboration with other cofinancing agencies, including the Inter-American Development Bank (IDB), the German Credit Institute for Reconstruction (KfW), the Swedish International Development Cooperation Agency (SIDA), and the Organization of Petroleum Exporting Countries (OPEC).

2.2. Implementation Mechanism

FHIS was considered necessary as long as the government was struggling “to regain fiscal balance” and as long as “line ministries are (were) strengthening capacities” (World Bank 2006). Yet during implementation of the project, it was recognized that the existence of FHIS had little to do with fiscal balance or strengthened capacities of line ministries. FHIS was collaborating already much more with municipal authorities, promoting decision making on public sector investment at the municipal level (World Bank 1997). FHIS “had taken over the project-implementing functions of line ministries and had begun to look at a new focal point of institutional strengthening and development partnership: municipalities and community organizations” (World Bank 2000).

Technical assistance was mainly provided during 1996 and 1997. Fourteen consultancies were planned (World Bank 1996), and eight were already finished by April 1997. A management information system (MIS) with 48 performance indicators was created that monitored performance on a weekly basis. An important contributing factor in this strengthening was the fact that the three main financing agencies—the IDB, the Bank, and KfW—allowed FHIS to work with the same subproject cycle.

In 1997 a new arrangement was signed so that FHIS could begin carrying out the small subprojects and provide assistance to municipalities (World Bank 2000). FHIS provided technical assistance to a few municipalities and some 50 environmental subprojects were implemented.

FHIS's extensive work in 1998 to identify and establish priorities for community and municipal needs was an opportunity for the municipal mayors to practice a participatory approach to municipal planning. This work laid the foundation for a new way of working for FHIS and also for the municipalities in terms of capturing the demand of the communities based on a participatory democratic framework. The training provided by FHIS to local communities also had an impact. This exercise, piloted by FHIS at the national level, was an input into the development of the National Program of Local Development and Decentralization carried out by the Governance Ministry. One pillar of this program is local consultation and strategic and democratic planning at the municipal level.

A Basic Needs Program was meant to provide support to vulnerable groups such as orphans, small children in precarious positions, pregnant and nursing mothers, ethnic minorities, disabled people, and the elderly. Before 1995, some 1,432 subprojects had been financed, and all of them were executed by NGOs. In financial terms, however, the most important component of the program was the supply of school desks. With the approval of the third IDA credit, it was agreed between government and donors that (among other things) the program would focus on high-priority needs of a national nature, that there would be more attention to the needs of indigenous groups, and that the supply of school and health center furniture would be transferred to the infrastructure component of FHIS. Technical assistance was provided for that purpose (World Bank 1995).

The laws under which the FHIS operated in Honduras permitted the agency to operate relatively free from political interference and exempted it from normal government budgeting, procurement, and disbursement regulations. FHIS's Board of Directors consisted of top government and congressional officials and representatives of the private sector, cooperatives, and NGOs. It was chaired by the President of Honduras.

3. Impacts of Disaster

Honduras has repeatedly suffered from natural disasters. Although seismic activities are common, devastating earthquakes have been rare. Hurricanes and tropical storms account for the majority of the disaster events. Floods have been the most commonly occurring event to affect housing, infrastructure, livestock, and land.

3.1. Overview of Disaster: Magnitude and Impacts

Hurricane Mitch, which hit Honduras over the period October 25–31, 1998, is considered the worst natural disaster to have hit the country in recent times. The hurricane remained centered over Honduran territory for five days, during which strong winds and persistent rain led to extensive damage to crops as well as flooding and landslides on an unparalleled scale. Based on COPECO sources, as a result of the hurricane:

- About 5,757 people died and 12,272 were injured
- 8,058 were declared missing or presumed dead
- Overall, about 2.5 million people—40 percent of the population—were displaced temporarily or made homeless
- 441,150 people (including about 85,000 children under the age of five) had to be placed in temporary shelters
- 4.2 million people—70 percent of the population—lost access to running water.

The impacts were so severe in Honduras because of population growth, inadequate infrastructure, poor flood management schemes, and the extreme vulnerability of the poorest. Widespread deforestation caused by slash-and-burn agriculture prevented the forests from absorbing any moisture.

Approximately 60 percent of the main and secondary paved roads, 20 percent of unpaved secondary and tertiary roads, and more than 100 bridges were damaged or destroyed, as were water systems in all major areas. More than 17 percent of the country's 9,548 primary schools were damaged. The government estimated that the hurricane affected the housing conditions of about 660,000 people and that more than 30,000 new dwellings needed to be constructed and 50,000 needed rehabilitation. Estimates prepared by the U.N. Development Programme (UNDP) and the Economic Commission for Latin America and the Caribbean suggested total direct damage and indirect losses of \$5 billion, equivalent to the country's entire gross national product in 1998. Table C1 in Appendix C provides a summary of damage and reconstruction costs.

Agriculture and livestock were also seriously affected during the disaster. As a result of lost or missing livestock, erosion, and stripped fertile soil, the agricultural sector suffered significantly and agricultural output dropped drastically.

3.2. Economic, Social, and Environmental Impact Assessment

Hurricane Mitch had a substantial long-term impact on the economy of Honduras. The most serious damages were felt by the agriculture and infrastructure sectors. Mitch destroyed 75 percent of maize and beans production, 10 percent of rice, and 8 percent of sorghum. The agro-export sector also suffered extensive damage, with destruction of 80 percent of bananas and 50 percent of shrimp and with extensive damage to pineapples, melons, African palm, and sugarcane. The coffee sector was less affected, in the sense that coffee trees suffered little permanent damage, but access problems made it difficult to harvest, transport, and dry much of that year's production. Tourism infrastructure in the Caribbean Coast and the *maquila* sector also suffered damage.

3.3. Government Response and Reconstruction Policy

In response to Hurricane Mitch, FHIS and the government as a whole focused all their efforts on responding to communities' urgent needs for assistance in restoring basic infrastructure and getting the country back on its feet. Immediately after the disaster, FHIS was given the mandate by the government, in agreement with IDA and other partners, to respond to requests from both local and central government to help rebuild the country's critical local infrastructure. For the first three months after the disaster, FHIS provided the only significant resources for the reconstruction effort. FHIS was able to adopt this role since it built on existing strengths. While the swift operational pace did produce some drawbacks related to the advances made in local-level municipal planning and project monitoring—issues that were eventually redressed when the emergency phase was completed—the rapid processing mode was considered to be the only alternative at the time.

While resources under SIF-IV initially appeared adequate to cover estimated damages to community infrastructure, the needs proved to be considerably greater than early estimates. Heavy rains in late 1999 aggravated this situation by affecting heavily eroded watersheds and causing further damage to rural community infrastructure. In December 1999, with 95 percent of the original credit disbursed, IDA approved a supplemental credit of \$22.5 million to help FHIS respond to numerous outstanding subproject requests from communities, municipalities, NGOs, and other local agents that were seeking assistance in rebuilding and replacing vital infrastructure.

IDA made a strategic decision to pursue a supplemental credit when preparation for the follow-on SIF-V, which included a deepening of FHIS's efforts to support local institutional strengthening and resumption of the SIF-IV pilots, was under way. The supplemental credit was considered the best instrument to provide additional financing quickly without imposing conditionality, which was not appropriate for emergency reconstruction subprojects, and to continue the support for institutional development of FHIS and long-term development assistance under the forthcoming SIF-V. Also, since FHIS was still fully engaged in responding to communities' emergency needs, IDA did not want to ask the government to focus precipitously on remaining preparatory activities.

After the emergency, FHIS coordinated with public and private agencies to transport basic supplies (food, water, blankets, and medical supplies) to communities that were isolated due to the hurricane and floods. After the floodwater receded, FHIS moved quickly into the affected areas to clear mud and debris from roads. By coordinating with the line ministries of education and health, sector agencies, and local governments responsible for water and sanitation, roads, bridges, and waterways, subprojects were assigned priorities in each municipality. In February 1999, FHIS redirected its focus from immediate response to reconstruction.

3.4. Post-disaster Coordination

From the beginning, the presidents of the four most affected countries—Honduras, Nicaragua, El Salvador, and Guatemala—decided to hold a conference in Stockholm of the Consultative Group for the Reconstruction and Transformation of Central America on May 25–28, 1999, to set societal and political transformation rather than just recovery as their reconstruction objective. The Stockholm agenda set forth to transform the countries by addressing

- Transparency and good governance
- Ecological and social vulnerability
- Decentralization and local development
- Trade
- Migration.

The G-5 group of donors (Sweden, Germany, Spain, Canada, and the United States) and the subsequent G-15 (Italy, the Netherlands, the United Kingdom, the G-5, and multilateral agencies such as the World Bank, IDB, UNDP, and the International Monetary Fund) established a platform for continuous discussion, networking, information exchange, and division of tasks. The G-5 mechanism filled out the coordination vacuum caused by the weak Honduran government. This platform is widely regarded as good practice of good bilateral coordination. The G-5 and then the G-15 capitalized on their

small size, good personal working relationships, competent and motivated staff, and strong leadership to effectively mobilize international support and funds.

Nevertheless, donor competition between international agencies led to duplication of efforts. Prior local presence and country-specific knowledge significantly influenced the reconstruction quality and efficiency. Some staff of major international NGOs lacked this knowledge and even the ability to speak Spanish and thus caused much confusion, delayed the reconstruction work, and negatively affected the quality of the effort.

IDA staff on the ground in Honduras moved quickly to help the government coordinate with other donors and conduct a preliminary damage assessment. IDA also reallocated funds from existing operations, including disbursement of the second tranche of the Public Sector Modernization Adjustment Credit and its associated IDA reflows (totaling \$38 million), which provided much-needed balance of payments support, and from the restructuring and reallocation of about \$65 million from several ongoing investment projects: a recently approved credit for the Social Investment Fund project and for the basic education, rural land management, and environmental development projects.

4. Post-disaster Changes in the Mechanism

4.1. Policy and Vision Changes

While the original objective was not revised, FHIS's mission after Hurricane Mitch changed when it acted as the country's main agency supporting the clean-up, rehabilitation, and reconstruction of basic infrastructure in rural areas. FHIS's role in the emergency and reconstruction was consistent with its original objective and there was no formal restructuring. The supplemental credit approved by IDA in December 1999 provided additional financing for reconstruction and supported the attainment of the SIF-IV objectives. Most of the funds initially assigned to the pilot initiatives were reallocated to emergency subproject financing, although it should be noted that the Nuestras Raíces program was maintained and was very successful, and the pilot municipal participatory planning initiatives that were carried out before becoming effective (and that resumed after the emergency phase and in SIF-V) were transforming FHIS.

The end-of-project assessment proved to be challenging since the original objective still applied for the new conditions, and some of the project's most significant accomplishments related to disaster response were not foreseen in the Project Appraisal Document. However, the fact that the SIF-IV was very well defined and appraised made the rapid transformation to this new role not only feasible but also highly responsive and effective.

4.2. Management and Decision-making Changes

FHIS managed to continue its support for the Nuestras Raíces program and, to some degree, for social assistance programs for vulnerable groups. Prior to becoming effective, FHIS also launched a participatory local investment planning program (as part of the pilot Local Institutional Strengthening Component), which has since become the basis for FHIS's general approach and which also informed the government's 2002 Local Development Strategy (not to mention the approach of many other Social Funds around the world). However, by government request and in agreement with IDA, FHIS froze the remainder of its pilot programs for local institutional strengthening and community and rural water systems and reallocated funds to hurricane recovery efforts. This reallocation was formalized in the supplemental credit, and the two original components were eliminated. With the supplemental, SIF-IV received a total of \$67.5 million from IDA. The pilot programs were resumed later and are currently being financed under SIF-V. (See Table C2 in Appendix C.)

The rapid processing of FHIS during the emergency had a negative effect on the advances made in local-level municipal planning or project monitoring. Participatory processes at the community and municipal level were put on hold during the emergency phase, although they resumed operation in 2000 during the last year of the project.

4.3. Implementation and Action-related Changes

FHIS received IDA support in adopting the more flexible disbursement procedure of the Loan Administration Change Initiative (LACI)—an attempt to reduce significantly the administrative disbursement burden to borrowers (World Bank 1998b). LACI allowed the FHIS to move away from time-consuming voucher-by-voucher disbursement methods to quarterly disbursements to the project's special account.

In agreement with all the financing agencies, FHIS simplified its project cycle from 50 to 8 steps and increased its use of standardized subprojects and simplified procurement procedures. Further, the government enacted Article 27 without objection from the Bank and the two other major donors to waive competitive bidding requirements for awarding contracts. Almost all hurricane and emergency projects were procured through direct contracting.

Within 100 days, FHIS processed and approved 2,100 projects totaling \$40 million. At the end of 1999 FHIS financed about 3,400 projects—quadrupling its pre-disaster implementation rate. FHIS reconstruction projects were targeted to counter the economic impacts on the poor and to restore economic and social activities. Since most of the subprojects were relatively labor-intensive (labor accounts for 25–30

percent of most subprojects and as much as 70 percent of clean-up activities), FHIS's work created significant temporary employment in areas where productive activities were most affected. FHIS created about 100,000 person-months of employment during the first three months (similar to workfare programs in other countries).

During the project period, FHIS exceeded physical objectives and financed a total of 6,137 subprojects with an estimated cost of \$137.7 million, representing IDA, the government of Honduras, and cofinancing contributions—considerably more than the \$96.9 million projected for this component at appraisal (see Table C3 in Appendix C). Of this total, about two-thirds of the subprojects financed hurricane emergency and reconstruction efforts and the remainder were the result of the participatory municipal planning process. The average cost per subproject was just over \$20,000, with emergency subprojects costing slightly more than non-emergency ones. IDA funding accounted for 46 percent of the total SIF-IV subproject investments.

4.3.1. Project Cycle Prior to Hurricane Mitch

Prior to the emergency period, FHIS had a planned budget allocation based on the poverty map and had defined a portfolio of projects to be financed in each municipality, based on identification of the needs of each community as validated in the municipal assembly and given priorities in community meetings where social investment plans were defined for the respective municipality. FHIS selected projects that it could finance, and these then became part of the project portfolio.

4.3.2. Project Cycle during the Emergency

For the emergency period, FHIS was allowed to relax certain procedures. It was authorized, before determining the magnitude of the damage, to approve projects up to a maximum of 40 percent of the planned municipal allocation. As it turned out, there was a change in this strategy; the original ceiling was suspended and funds were provided commensurate with the actual amount of damage, which exceeded the planned municipal allocation of 40 percent.

During the project cycle, community participation in project management was minimal after the initial identification stage. During the emergency, contractors (*ejecutores*) were selected by the Regional Director based on the proposal of the municipalities. One lesson learned by the municipalities through working with FHIS during the emergency was the importance of identifying qualified contractors for project execution. Contractors had to be listed in the FHIS contractor database, but where there were none listed in the database new ones had to be entered.

All projects approved by FHIS were carried out with costs assessed using information provided by the cost center, the system being installed in the computer at the regional

seat. Each seat had a specialist for that purpose. Each contract required performance security of a minimum of 5 percent and a maximum of 15 percent of the amount of the contract. During the emergency, for projects in excess of \$50,000, the security consisted of a bond in the form of a *fianza mercantil* or, failing that, a personal check. For projects of less than \$50,000, FHIS provided an advance based on a promissory note endorsed by two persons well known in the community or by the mayor of the municipality.

4.3.3. Difficulties, Deficiencies, and Weaknesses

Although FHIS was able to quickly respond to the emergency, it became clear that the organization was not fully prepared to handle natural disasters of this magnitude.

The following were the most significant problems:

- Logistical support was insufficient, and this made operations difficult.
- The most technically and socially complex projects were not always appraised by professionals with experience in those fields.
- There was no standard menu, which caused problems in terms of the formulation, appraisal, monitoring, and auditing of new emergency projects, such as clean-up and the provisional opening of roads.
- The fact that there wasn't a quantification of actual damage for each municipality complicated the programming of activities.
- Because of the lack of a system connection, project cycle information was not updated until the very end of the process.
- All the original documentation was transferred to the central office even before a project was completed.
- In some cases, project supervision was inadequate, since some individuals hired for that purpose failed, for various reasons, to comply with their contractual obligations. Communities, which should be involved in the social management of projects, were not so involved in all projects.
- The various audits being carried out simultaneously by several different agencies made it difficult for the Regional Directors to carry out their tasks.
- Routine auditing procedures were applied to the emergency process.
- The regional offices were restricted to dealing only with the replacement of damaged infrastructure, which in some cases resulted in a duplication of effort.

5. Organizational Issues

5.1. Monitoring and Evaluation

The most significant breakdown, as a result of FHIS's rapid response, was in the management information system. FHIS's MIS system was designed to monitor results and

manage the project cycle. Prior to the hurricane, the system was considered cutting edge. It was sophisticated, highly centralized, and, at project start-up, fully operational. However, when FHIS reconfigured itself in a decentralized hurricane recovery mode, the MIS was affected.

A number of factors contributed to this problem. The system was not designed for decentralized activities and the baseline targets no longer applied. When FHIS decentralized its staff to nine regional offices, the emergency operating manual did not have enough detail and lacked standardized subproject formats and procedures. As a result, each region prepared and supervised subprojects in its own way. Because of the breakdown in telephone communications and electricity, this information was often handwritten and had to be transported back to FHIS's central office rather than put into the system from a remote location via the Internet. Once a week, each region sent all its paperwork back to the capital, but these data were often in a nonstandardized format and were therefore rejected by the system.

Compounding the problems, many of the key managers from the center, including the manager of the MIS, had been sent out to the field to serve as regional managers, resulting in a shortage of staff and leadership at the center. Nonetheless, throughout the emergency, FHIS managed to capture, on a weekly basis, a reduced set of data deemed to be "essential" on all subprojects. When the worst of the hurricane damage had been repaired and the regional offices reconcentrated, the MIS director was faced with the challenge of entering a backlog of "nonessential" information.

There were also some quality issues regarding information that was entered into the system after the emergency. The output indicators for this component focused on evidence of FHIS's targeting criteria (amount invested by poverty category of municipality; amount invested in rural versus urban) and performance on FHIS's 48 indicators. With a nonfunctional MIS system, FHIS was unable to provide up-to-date information on project indicators for several months during the project implementation period.

5.2. Institutional Dimensions

One of the most important achievements of SIF-IV was FHIS's role in demonstrating to the government and donors its capacity to respond quickly and efficiently to a national disaster. FHIS transformed itself, almost overnight, from a centralized social investment fund into a nimble rehabilitation and reconstruction agency. As a result of this experience, FHIS now has detailed emergency preparedness response guidelines that will orient it the next time the country confronts a serious natural disaster.

FHIS also played an important conflict resolution role during the difficult times after the disaster when there was much opportunism and political agitation. Again, FHIS

played a valuable role in the maintenance of social order and peace during those conflictive times, mainly through its work in the heavily affected *colonias populares* of Tegucigalpa. At the local level, the project also contributed to municipal and community capacity to prepare for and react to emergency situations, and it heightened awareness of the importance of environmental protection.

In order to increase FHIS's operational flexibility, the agency established nine temporary regional offices in less than three days. Responsibilities and resources were delegated to high-level FHIS staff members who acted as regional directors. The regional offices were authorized to approve projects of up to \$100,000 and closely cooperated with the communities and municipal representatives.

5.3. Fiduciary and Safeguard Issues

With respect to the situation after hurricane Mitch, FHIS was a suitable institution for carrying out emergency subprojects since it was able to react quickly. But the speed accentuated the already existing weaknesses of FHIS, especially in the area of securing quality and sustainability. Getting things done quickly took priority over quality, leading to weaknesses in subproject design, contracting, and supervision. In the emergency period FHIS worked mainly with municipalities and mayors to determine priority needs. The involvement of direct beneficiaries in subproject selection and formulation, in execution, and in operation and management was even less than it had been before. Mayors were not always satisfied about contracting procedures and the transparency of FHIS during the emergency period.

After the emergency period, FHIS was not able to return to its previous institutional strength. Although finally, in 2000, a normal subproject cycle was reestablished, it was much shorter than before and ad hoc decision making continued to dominate. Furthermore, the internal administration remained chaotic and the MIS was never fully restored. One reason for these problems is that due to the huge scale of the devastations by Mitch, emergency subprojects were not additional to a "regular FHIS," as FHIS instead became an emergency institution. Even more important, FHIS suffered two changes in its leadership within eight months, with high turnover in other key staff as well. The institutional memory had been completely lost. In addition, the FHIS Minister from March 2000 onward appeared mainly interested in increasing the quantity of subprojects and not so much in restoring orderly procedures and criteria.

The total cost of the project amounted to \$167 million, which was financed by IDA with \$66.7 million and cofinanced by IDB, KfW, OPEC, and SIDA with \$73 million. Government counterparts further committed \$26.2 million. During the appraisal stage,

FHIS operating costs were expected to be at 11 percent of total project cost. These estimates were met by actual operating costs.

When Hurricane Mitch hit the country in late October 1998, all Bank projects in Honduras were approaching their closing dates. No Bank country office was in existence at the time, except for an engineering consultant who was housed in UNDP and who was responsible for completing the remaining projects and helping them close.

The only source of funds available for restructuring was from a “poor-performing” environmental capacity-building project, the environmental development project, that was on the verge of being cancelled. The Honduras team therefore quickly restructured the project and with the available \$12 million financed the first phase of emergency works. The Project Implementation Unit (PIU) was the focal point for Bank support in this effort, with the collaboration of consultants, UNDP, and the US Army Corps of Engineers, who all helped ensure that a transparent and cost-effective bidding process was adopted and that emergency works were implemented within a few months.

Subsequent supplemental financing of \$25 million came from restructuring and amending the development objectives of a parallel project, the Fourth Social Investment Fund, which the Board had recently approved. The SIF-IV became a very effective vehicle for emergency financing.

What creative solutions did the team employ to ensure rapid implementation?

- *Implementation support in the field from regional procurement advisor (RPA) ensured rapid implementation:* Having the RPA himself on the ground for one week during the initial stage of the recovery operation, in addition to an engineering consultant, had a tremendous impact not only in expediting the process within the country but also in gaining internal Bank support for streamlined procedures and processes.
- *A comfort letter was used with the contractor to begin immediate procurement of goods or services:* With support of the Country Director and the RPA, procurement processes and contracting began immediately using a “comfort letter” from the Bank for the contractor, ensuring that funds to pay for goods and works was forthcoming, prior to amending credit agreements and seeking Board approval.
- *Sole source or direct contracting or shopping also ensured rapid implementation, especially for large contracts:* Large-scale contracts using direct contracting or sole source, shopping for goods over an agreed timeframe, and covering specific or immediate emergency operation made rapid implementation possible. Sole source or direct contracting did not depend on the size of the contract but rather was based on the gravity of the emergency situation and the relative necessity

of speed in the immediate response to recovery efforts. For example, sole source was used to purchase goods such as immediately operational military-type Bailey Bridges.

6. Lessons Learned

One lesson learned in the aftermath of responding to Hurricane Mitch was that balance of payment support can be one of the most effective and efficient ways to deal with a natural disaster, at least in the cases where government funds are available to be spent up-front for agreed emergency reconstruction priority goods and works and then reimbursed later.

Yet making revisions in haste can lead to unexpected problems. Although the environmental development project had been restructured and a legal agreement drafted, negotiated, and signed, for instance, the fact that the original project's development objectives were not revised to encompass the new emergency context led the Operations Evaluation Department to later rate the project as unsatisfactory, regardless of the tremendous impact on the emergency reconstruction operation.

Having the right tools is important. The Social Investment Fund, in collaboration with the Unit for Social Indicators within the State Secretariat for Planning, developed a social data mapping system that integrated digitized maps of Honduras with available statistics on access to social services, population characteristics and social indicators, and investments from the Social Fund. This proved to be a useful tool for setting priorities and targeting areas and communities in most need of help.

A final lesson is the importance of having a timeline to revert back to "normal" Bank processing procedures. Clients and borrowers in countries without Bank procurement experience should understand the special nature of emergency procurement arrangements so that reverting to "normal" procedures at a later date is more easily accepted.

7. Other Related Issues

Toward the end of the third IDA credit, FHIS had begun working with municipalities and communities, responding to their demands, providing training to communities, and building capacities in municipalities. In the emergency period after Mitch, FHIS gave an important coordinating role to municipalities and mayors in deciding on priorities for emergency subprojects. The decentralization pilot that was finally carried out

in 2002 involved, in addition to improving participatory micro-planning, the setting up of a decentralized operation of the project cycle, making municipalities responsible for almost the full project cycle.

FHIS was by no means the only institution to strengthen capacities in municipalities and to give them more responsibilities, but its efforts certainly contributed to the decentralization process in the country. During the Maduro administration (2002–06), decentralization was taken more seriously and the Ministry of the Interior built on the experience of FHIS, as well as on other experiences, to develop standards for local participatory planning for elaborating long-term Strategic Municipal Development Plans. These plans have since been elaborated in all municipalities, and their content is no longer limited to the FHIS menu. The Ministry also began to use the FHIS poverty map for the allocation of part of the 5 percent transfer of central tax revenues to municipalities.

Although the project objective did not specifically address gender, it was agreed that FHIS would continue to pay attention to the specific needs of women and ensure that they were an integral part of the community decision-making process. FHIS required that at least one woman represented each community in the open municipal meetings for the prioritization of subprojects. For the community meetings, the group was not considered representative unless there were numerous women present and participating. The evaluation of this process (during preparation and prior to Mitch) showed that this norm was complied with. Although the community and municipal planning process was put on hold during the emergency phase, it did resume during the last year of the project and continues under the SIF-V. The integration of women in these meetings has encouraged their participation in other community activities. Also, the *Nuestras Raíces* program was particularly successful in achieving a gender balance, with women accounting for 45 percent of the project beneficiaries.

The Government of Honduras also embarked on a Natural Disaster Mitigation Project with the World Bank in 2001 to strengthen community disaster management capacity. The project was highly participatory and used community-driven development approaches to develop community disaster committees and mitigation action plans in 60 municipalities. The FHIS was used to implement the priority small-scale disaster mitigation activities identified by the participating communities. An overall vulnerability assessment was conducted at the outset to determine which municipalities were most at risk from natural disasters (Solo et al. 2003).

Appendix A: Socioeconomic Indicators for Honduras

Table A1. Honduras: Socioeconomic Indicators, 2007

Population	7.2 million
Surface area	112.1 thousand square kilometers
Climate	subtropical in lowlands, temperate in mountains
Population growth rate	2.09 percent
GDP (PPP)	\$22.13 billion (2006 est.)
GDP real growth rate	5.2 percent (2006 est.)
Industries	sugar, coffee, textiles, clothing, wood products
Unemployment rate	27.9 percent (2006 est.)
Infant mortality rate	25.21 deaths per 1,000 live births
Literacy	76.2 percent
Life expectancy at birth	68.6 years
Human Development Index ranking	117

Appendix B: The Participatory Approach

Primary Beneficiaries and Other Affected Groups:

Preparation	Focus groups, consultations, and interviews with community representatives
Implementation	Local planning methodologies and practices to emphasize communities' roles in identification and prioritization of subprojects. Special efforts to ensure adequate participation by women and by indigenous communities. Possible transfer (under Local Pilot Program for Local Institutional Strengthening) of subproject cycle responsibilities and resources directly to communities and/or local governments. Capacity building would be provided. Regular beneficiary assessments during project implementation, with feedback to be used for improving FHIS policies and practices.
Operation	Communities would make up-front commitments and contributions, through subproject maintenance plans, to ensure operation and maintenance of subprojects.

Intermediary Organizations, Including NGOs and Private Sector:

Preparation	Interviews and participatory workshops
Implementation	Participation as contractors. For NGOs, provision of technical assistance for local capacity-building, contributions to pre-investment activities (especially for water subprojects), sponsor and implement social assistance programs, participation (as non-voting members) in local planning fora. Membership on Social Assistance Steering Committee and Inter-Institutional Water Forum.
Operation	Some management of completed subprojects (especially social assistance subprojects).

Local Governments:

Preparation	Consultations, especially on design of pilot program for local institutional strengthening
Implementation	Coordination with communities in subproject planning. Would receive capacity-building. Possible transfer (under pilot program for local institutional strengthening) of subproject cycle responsibilities and resources directly to communities and/or local governments.
Operation	Up-front commitments and contributions, through subproject maintenance plans, to ensure operation and maintenance of subprojects.

Central Government Agencies:

Preparation	Interviews and participatory workshops
Implementation	Coordination to ensure subprojects are consistent with sectoral strategies (IS, CCI N).
Operation	Operation of some completed infrastructure subprojects.

Other Donors:

Preparation	Close cooperation, especially with KfW and IDB.
Implementation	Close cooperation, especially with KfW and IDB.

Source: World Bank 1998, p. 14.

Appendix C: Data Tables

Table C1. Summary of Damages and Reconstruction Costs
(million dollars)

Sector	Direct	Indirect/ Loss	Total	Replacement
Social sectors	305.4	719.40	1,024.8	580.5
Housing	259.1	675.30	934.4	484.0
Health	25.6	36.70	62.3	64.5
Education	20.7	7.40	28.1	31.2
Infrastructure	347.6	164.20	511.7	713.2
Roads, bridges	314.1	140.04	54.1	571.4
Water/ sanitation	24.2	31.30	31.3	118.6
Energy	9.3	26.30	26.3	23.2
Productive sectors	1,477.6	577.10	2054.8	3694.0
Agriculture/ livestock	1,387.3	274.10	1,661.5	2990.7
Manufacture	15.8	196.30	212.1	381.8
Trade, hotels	74.5	106.70	181.1	326.2
Environment	46.8	0.44	7.2	n.a
Total	2,177.40	1,461.10	3,638.50	4,987.0

Source: UNDP/ ECLAC, "A Preliminary Assessment of Damages Caused by Hurricane Mitch," 10 December 1997.

Table C2. IDA Financing Original and Revised with Supplemental Credit
(million dollars)

Component	Original	Revised with Supplemental	Difference
Subprojects (Includes Nuestra Raíces and Social Assistance)	37.5	64.4	+26.9
Pilot Program for Local Institutional Strengthening	1.1	0.1	-1.0
Pilot Program to Strengthen Community and Rural Water Systems	3.4	0.0	-3.4
Project Management	3.0	3.0	0
Total	45.0	67.5	+22.5

Source: World Bank 2003.

Table C3. Number of Subprojects

Category	Number of Subprojects (IDA, GOH)	Percent of Subprojects	Number of Subprojects	Total Subprojects during SIF IV	Percent of Subprojects
Hurricane emergency and recovery	2,698	81	1,440	4,138	67
Municipal priorities	322	10	1,199	1,521	25
Ministerial priorities	83	2	24	107	2
Social assistance	238	7	133	371	6
Total projects	3,341	100	2,796	6,137	100
As percent of total	55		45	100	

Source: World Bank 2003.

References

- Solo, T.M., Godinot, M., and Velsaco, O. 2003. Community Participation in Disaster Management: Reflections on Recent Experiences in Honduras and Nicaragua. In *Thinking Out Loud IV*, Spring 2003, No. 1. Washington, DC. World Bank.
- World Bank. 1995. *Third Social Investment Fund Project*, Staff Appraisal Report Honduras.
- . 1996. *Ayuda Temario Mision del IDBBM*, April 17–19.
- . 1997. *Mid-Term Review for the Third Social Investment Fund Project (Cr 2766-HO)*, November 1997.
- . 1998a. *Honduras–Fourth Social Investment Fund Project*, Project Appraisal Document, No. 17778-HO, June 19.
- . 1998b. *Loan Administration Change Initiate (LACI)–Implementation Handbook*, September.
- . 2000. *Honduras–Third Social Investment Fund Project*, Implementation Completion Report, No. 19589, June 29.
- . 2003. *Honduras–Fourth Social Investment Fund Project*, Implementation Completion Report, No. 25481, December 17.
- . 2006. *Third Social Investment Fund Project*, Project Performance Assessment Report, No. 36592, June 28.

Kecamatan Development Program, Indonesia¹

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¹ This Case Study was written by Rajib Shaw (Kyoto University), with input from Victor Bottini (EASIS).

Case Study Summary

The tsunami in the Indian Ocean in 2004 was a low probability, high consequence event that affected a wide region and raised significant awareness among development practitioners about the need to incorporate disaster risk reduction into their operations, as well as to prepare for post-disaster response and recovery. The Kecamatan Development Program (KDP) was one of the few donor programs in Aceh before the disaster. Therefore KDP became the natural vehicle to respond to the disaster quickly, conduct immediate damage and need assessments, and facilitate long-term recovery.

Since KDP's usual operations are based on the principle of community-driven development, the group emphasizes time, quality, and participation in organizing communities, facilitating decision making, and implementing specific activities. In the post-disaster period, KDP had to respond quickly and efficiently, from the rescue to relief phase. The scale of devastation was so large that the initial phase was full of confusion and had several communication problems. After the first few weeks, KDP's management authorities started discussing the post-disaster recovery process. KDP's community facilitation model became the model for the community-based recovery program.

Several valuable lessons were learned during recovery from the 2004 tsunami:

- Human resource management and team composition: A post-disaster scenario needs different skills and expertise, including managerial and technical skills. KDP did not have the proper technical skills, which affected the technical quality of the infrastructure it built after the tsunami. Human resource management after a disaster needs to consider whether appropriate technical persons are available, salary competition among donors, the need for proper technical training, and so on.*
- Decision making and the disbursement process: During the emergency phase, a prompt decision-making and disbursement process needed to be developed, and some of the KDP cycles were shortened. Depending on the nature and scale of a disaster, the decision-making process may be adjusted, which will also include procurement, disbursement, and monitoring and evaluation.*
- Disaster risk reduction: In spite of the devastating damages due to the earthquake and tsunami, some of the infrastructures built afterward did not incorporate disaster reduction elements, such as seismic strengthening of schools and health centers. Risk reduction elements must be included in infrastructure as well as development planning.*

1. Introduction

The Kecamatan Development Program (KDP) is an Indonesian government program aimed at alleviating poverty, strengthening local government and community institutions, and improving local governance. It began at a time of tremendous political upheaval and financial crisis. KDP started as a three-year program in August 1998 through a \$280 million World Bank loan to finance village-level development projects. The program is implemented by the Ministry of Home Affairs, Community Development Office. It is funded through government budget allocations, donor grants, and loans from the World Bank and is currently in its third phase (KDP 2006).

KDP provides block grants of approximately Rp 500 million to 1 billion (\$37,000–75,000) to subdistricts (*kecamatan*), depending on population size. Given the special needs of post-disaster areas (Aceh and Nias islands), KDP has provided additional grants of up to Rp. 7 billion (\$525,000). Villagers engage in a participatory planning and decision-making process prior to receiving block grants to fund their self-defined development.

Poverty in Indonesia is primarily a rural phenomenon, and KDP coverage reflects this. About 85 percent of the people in KDP *kecamatan* live in rural areas, compared with 60 percent nationwide. Several of the smaller, poorer provinces have an especially high density of KDP investments. For example, over 64 percent of the Nusa Tenggara Timur population live in *kecamatan*s that are included in KDP. Southeast Sulawesi, Maluku, and Aceh all have 40 percent or more of their populations living in KDP *kecamatan*. By contrast, only 12–20 percent of the populations in the larger and typically wealthier provinces of Java live in KDP coverage areas. In terms of poverty levels, in 1999 approximately 22 percent of the population in non-KDP *kecamatan* were impoverished, compared with 30 percent for KDP areas. Thus, KDP primarily focuses on Indonesia's rural communities.

Some project team members believe that three factors account for KDPs spectacular growth. First, KDP came at a historically crucial time for Indonesia, with economic, administrative, and political crises creating an urgent need for new ways to reach the suddenly increased numbers of poor. Second, KDP's modular design and reliance on village capacities allow for quick adjustments, without the drawn-out tenders, mobilization, and coordination problems that other programs face. Finally, KDP draws on the private market for its technical and social facilitators instead of using government staff, so skilled people can be recruited and deployed from a much larger pool.

2. Program Components and Procedures

2.1. Goals, Principles, and Strategy

The goals of KDP are:

- To alleviate poverty by raising rural incomes
- To strengthen local government and community institutions
- To improve governance (Ministry of Home Affairs 2002).

KDP aims to allow villagers to participate in decision making. Inter-village groups composed of elected villagers make all the final decisions on the allocation of funds. The program in essence seeks to empower the rural poor and encourage more democratic and participatory forms of local governance. KDP villagers make their own choices about the kinds of projects that they need and want.

The key principles of KDP are:

- *Community participation and empowerment of poor rural communities:* Communities take ownership of all aspects of the project, from planning and decision making to implementation. Community participation is emphasized especially among poor women.
- *Transparency:* KDP emphasizes transparency and information sharing throughout the project cycle. Decision making, procedures, and financial management should be open and shared with the entire community.
- *Sustainability:* Activities should be sustainable, building on community self-reliance and village management of all activities.
- *Simplicity:* KDP strives to keep the program simple. There should be no complex rules or procedures; only simple strategies and methods should be used.
- *Competition for funds:* There should be open, healthy competition between villages for KDP funds.

KDP strategy includes the following:

- Empower the poor to help themselves
- Raise their income through job creation and higher productivity
- Improve local infrastructure
- Use bottom-up decision making
- Institute village financial management
- Draw technical and social facilitation and assistance from the Indonesian private sector and nongovernmental organizations (NGOs).

2.2. Government Counterpart and Implementation Mechanism

The Ministry of Home Affairs, Department of Community Development, manages KDP, and hires teams of facilitators and consultants from village to national levels to provide technical support and training. The program has received minimal foreign technical assistance, accounting for only 0.6 percent of the total program budget.

Village facilitators are elected in a public forum by the community; local consultants are predominantly from the province where they work. Project decisions are made locally, and village committees are responsible for procurement, financial management, and project implementation and oversight. Infrastructure projects use local building materials, suppliers, and labor. Indonesian civil society organizations such as association of journalists and NGOs based in the provinces provide independent monitoring of the program.

KDP aims to maximize community participation throughout the project cycle (see Figure 1):

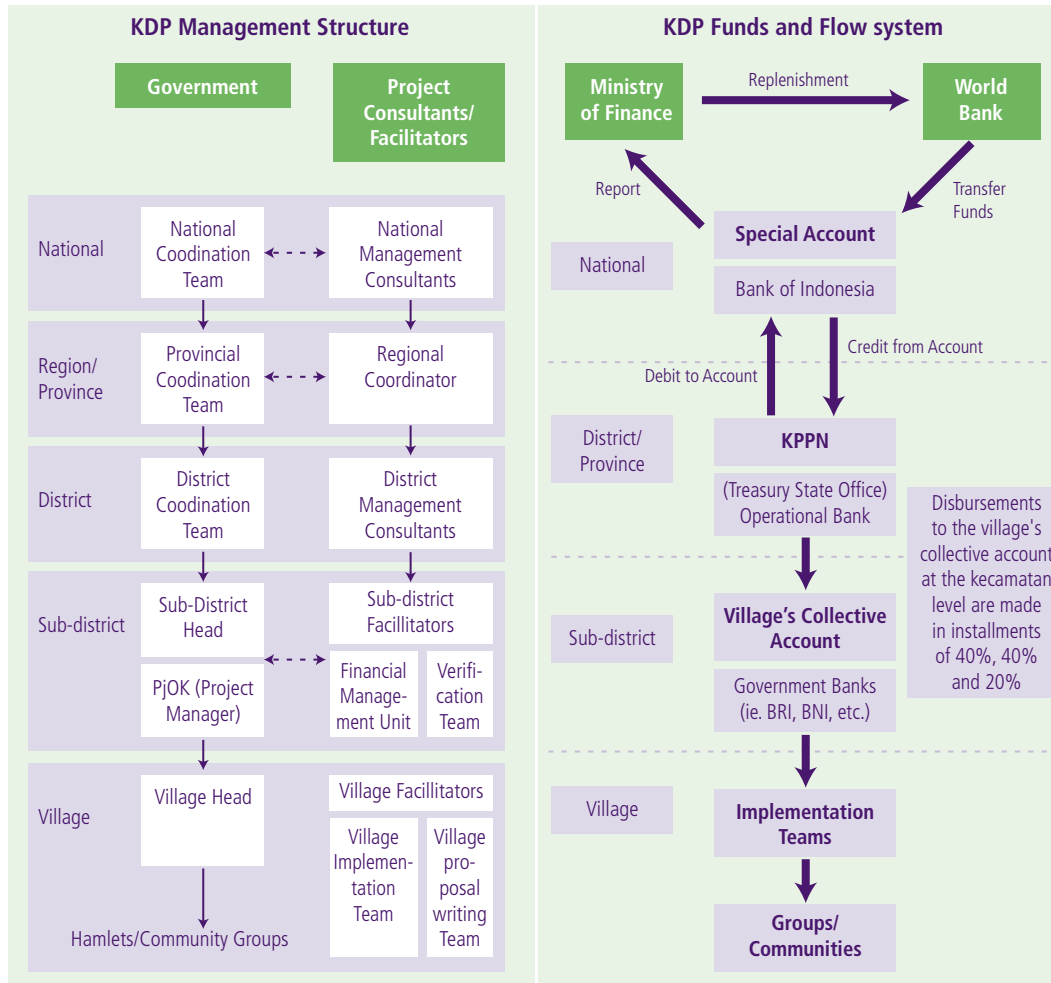
- Information dissemination and socialization about KDP occur in several ways, mainly through participatory workshops.
- The participatory planning process should be organized at the subvillage, village, and subdistrict levels.
- Selection of projects is done at the village and sub-district level.
- Villagers implement their own project through the locally elected implementation team.
- Accountability and reporting on progress is ensured.
- Implementation of KDP in post-disaster areas uses special procedures that are based on the post-disaster rehabilitation guidelines.

3. Impacts of 2004 Indian Ocean Tsunami

3.1. Disaster Overview

On the morning of December 26, 2004, an earthquake of 9.0 on the Richter scale hit the province of Aceh on the island of Sumatra in Indonesia. The seismic movement induced a tsunami that shortly afterwards affected not only the Aceh area but also some coastal areas in Malaysia, Myanmar, and Thailand. Hours later the giant wave reached Bangladesh, India, the Maldives, and Sri Lanka.

Figure 1 KDP Management Structure and Funds Flow System



Following the confusion of the first few hours, reports started documenting the magnitude of this rare disaster. As of January 14, 2005, a total of 110,229 people were listed as dead, 12,132 were still missing, and 703,518 had been displaced. The infrastructure and facilities damaged included houses, boats, ports, hotels, clinics, roads, and railways, small fishing boats, shops, vehicles, and small family businesses. Hundreds of thousands of jobs were lost. The human loss was the true tragedy of this disaster. It was the small local communities that were badly affected. Preventing long-term negative effects would depend on the capacity of governments and the international community to provide relief assistance quickly to those affected and to expedite reconstruction.

3.2. Damage and Needs Assessment

Although the “damage” and “need” are commonly assessed together after a disaster, there is a discrete line of separation between them. In most cases, the estimation and assessment are made on the damage and losses. Needs assessment is another important process, which requires intensive local information collection and is often neglected.

Aceh was no exception to this. A *Preliminary Damage and Loss Assessment* was done by the Indonesian Government and the international community within three weeks of the disaster, and the results were presented to the Consultative Group on Indonesia on January 19–20, 2005. The preliminary damage and loss assessment made an economic evaluation of damages (destruction of public and private assets) and losses (loss of income, revenue, etc.). There are two problems with this process: the initial damage and loss assessment did not consider the replacement cost; it focused only on direct loss and damage. And it did not incorporate needs and instead considered damages as the needs.

The 2004 Indian Ocean earthquakes/tsunami disaster (more commonly referred to as “the tsunami”) primarily affected private, not public, assets and revenues: 78 percent of total damages and losses occurred in private sectors and individual households. This had particular significance for the reconstruction strategy. The key issue was the difference between the damage and loss assessment and the actual needs. The need was overestimated without proper understanding of the local context.

Existing infrastructure was measured (or estimated) and placed into one of four categories: destroyed and needs replacement, heavily damaged but repairable, lightly damaged, or undamaged. The survey form was not explicitly limited to damage from the tsunami, but in retrospect it was treated as a tsunami damage assessment exercise. The form included about 50 types of infrastructure found in villages, including housing and fields. The results were summarized by the *kecamatan* facilitators and the *kabupaten* managers before being sent to Banda Aceh for analysis. Maps stayed in the village or in the *kecamatan* and served as the basis for discussions about repairs and improvements. Information collected by the damage survey and by *kecamatan* facilitators was seen widely as the most reliable source of factual information about conditions in the field.

The damage and loss profile indicated that the priorities for reconstruction must lie in ways to rebuild the livelihoods and social fabric of the devastated communities. The following sectors were identified as needing attention: providing housing and shelter; generating enterprise, commerce, and income creation; rebuilding rural livelihoods (agriculture and fisheries); providing public services; assisting the newly vulnerable; and rebuilding communities.

3.3. Economic, Social, and Environmental Impacts

The total estimate of damages and losses from the disaster was \$4.45 billion (CGI 2005). Of this total, 66 percent were damages while 34 percent were losses in terms of income flows to the economy. The impact of the disaster on the national economy was predicted to be low, but it had significant impact on local economies. While national gross domestic product (GDP) growth was predicted to decrease by 0.1–0.4 percent, the losses amounted to 97 percent of Aceh's GDP.

Aceh's GDP in 2003 was approximately \$4.5 billion, about 2.3 percent of national GDP. The oil and gas industry and agriculture were two sectors that dominated Aceh's economy, contributing respectively 43 percent and 32.2 percent to the regional GDP. In agriculture, livestock (10 percent) and food crops (10 percent) contribute the highest share. The oil and gas industry escaped the tsunami virtually unharmed. The most affected sector was agriculture, particularly fishing, both in terms of the number of casualties and the capital destroyed (Athukorala and Reso-sudarmo 2006).

Although women and men have many common concerns, the disaster affected them differently because of their different gender-defined roles and responsibilities in society and community and their different capacities, needs, and vulnerabilities. The tsunami practically decimated the female population in directly affected coastal areas of Aceh and altered the demographics of a place that was already a man's world to begin with. It may have also paved the way for a harder future for girls compared with the difficulties faced by their mothers and grandmothers.

In many areas, including Aceh, the majority of the missing or dead were women. According to Flower Aceh, a women's group, in five villages in Aceh's Lampuk subdistrict only 40 of the 750 total survivors from a population of 5,500 were women. Similar statistics were noted by other local NGOs and international aid groups. Oxfam reported that in four villages in Aceh Besar district, male survivors outnumbered females by three to one. In four villages in North Aceh, the female death toll accounted for 70 percent of all fatalities, and in Kuala Cangko 80 percent of the dead were women (Sisto 2006).

Experience has shown that many programs and policies fail due to the assumption that large groups of people are homogeneous rather than men, women, young people, and various disadvantaged groups with different needs and interests. The lack of recognition of gender differences can lead to ineffective operations that largely bypass women's needs and their potential to assist in disaster relief and reconstruction activities.

In addition to the economic and social damages and losses, the environmental damage on Sumatra was extensive. Coral reefs, mangroves, coastal areas, wetlands, agricultural fields and forests, aquaculture areas, and so on were badly damaged. BAPPENAS, the State Ministry of National Development Planning, estimated that 20 percent of seagrass beds, 30 percent of coral reefs, 25–35 percent of wetlands, and 50 percent of sandy beaches of the west coast were damaged (BAPPENAS 2005). The most serious threat to coastal water was due to the tsunami debris that was dragged into the ocean by the receding waters.

Considering the critical function that mangroves play as a filter to the waters that flow from the estuaries to the ocean, their damage due to the tsunami was remarkable—an estimated 90 percent of mangroves and coastal forests were damaged. Fragile wetlands and estuaries in the affected areas in Indonesia were also altered. Preliminary analysis of satellite images indicated subsided areas and modified flow of rivers and drainage patterns (Wetlands International, 2005).

While more than 70 streams and rivers in the region can be expected to be flushed clean over time, the contamination of groundwater reservoirs due to saltwater intrusion, sewage, debris, and hazardous materials will be much more difficult to remedy. The Food and Agriculture Organization estimated that 30 percent of farmland was affected on the northeast coast and 70 percent on the west coast—with about 20 percent permanently damaged (FAO n.d.).

Cities and towns in the coastal area were also extensively damaged, including industrial areas and ports. The debris generated by the tsunami not only mixed different types of wastes (bricks, concrete, wood, vegetation, plastics, and metals), but the backwash carried these wastes and deposited them into the ocean. Existing wastes in landfill sites (particularly those near the coasts in Banda Aceh) were also dredged out into the ocean by the tsunami wave (Srinivas and Nakagawa, 2007).

3.4. Government Response and Recovery Strategy

After the disaster, the first priority was to provide immediate humanitarian relief to ease the suffering of survivors and to meet their basic needs. When the priority shifted to longer-term recovery, a coherent, credible, and comprehensive strategy was needed that addressed considerable challenges raised by the scale and scope of the disaster. The five key principles outlined by the government in the National Recovery and Reconstruction Strategy were:

- *A people-centered and participative process, where the administration listens to and understands the feelings and aspirations of the people*

- *A holistic approach*—rebuilding based on a comprehensive strategy
- *Effective coordination* for consistency and effectiveness among sectoral and regional programs at national and local levels
- *Drawing a distinction between rehabilitation* (achieving a minimum standard) *and reconstruction*, with a clear strategy for each
- *Incorporation of fiscal transparency and effective monitoring* into rehabilitation and reconstruction programs (BAPPENAS and International Donor Community 2005).

The recovery plan needed to be effective in coordinating the stakeholders of the recovery process. The reconstruction strategy had different challenges and issues to address. Some of the key challenges were that:

- The disaster struck in an area already affected by long-term conflicts
- The scale of human losses and population displacement radically affected the composition of communities in many locations
- The provincial recovery process needed to take place in the context of relatively new decentralized policy
- The unprecedented outpouring of generosity from private citizens around the world drew a large number of NGOs to the affected areas.

To address these challenges, the comprehensive recovery plan included five basic goals:

- *To restore people's lives*: clean water to drink, roads to take their children to clinics, roofs over their heads, a source of income to support their families
- *To restore the economy*: jobs, markets for people to sell and buy necessities, banks that lend to small-scale enterprises
- *To rebuild communities* to give them social stability, a sense of orientation, and local solidarity
- *To restore the system of local governance*: local governments that represent people's aspirations and guide development toward that goal
- *To re-establish the province* as politically stable and economically vibrant, a growth pole of Indonesia that attracts investment from the whole region and is resilient and protected against new disasters.

3.5. Post-disaster Coordination

Post-disaster coordination after a mega-disaster is a crucial problem in many countries. The key component is a strong yet flexible local government. While different NGOs, development agencies, and donor agencies participated in the immediate rescue and relief process in Indonesia, it was primarily the local government that could make a difference through developing information sharing and a coordination platform.

The United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA), in carrying out its mandate, has taken the lead in overall coordination of the humanitarian community. In Banda Aceh, OCHA developed a Humanitarian Information Center at which NGOs registered and where NGOs, U.N. agencies, and others could indicate where they were intervening or planning to intervene. This resulted in the production of maps that indicated who was working in what areas (sectors when possible) and a list of NGO contacts.

OCHA also conducted biweekly humanitarian meetings and weekly sectoral meetings. “Heads of UN agencies” meetings were conducted on a regular basis as well (Canny 2005). In both Banda Aceh and Jakarta, the government met regularly with the humanitarian community (OCHA, the United Nations, NGOs, and foreign government representatives) and with its own agencies and departments from the outset of the disaster. A “blueprint” for rehabilitation and recovery was published by the government in cooperation with donor agencies and the World Bank, which outlined the priorities and time frames for recovery and rehabilitation. Looking at the vast scale of devastation and needs, the government and the House of Representative agreed that rehabilitation and reconstruction in Aceh would require an independent body (BRR 2005). The special body—the Executing Agency for the Rehabilitation and Reconstruction, or BRR in Indonesian—would have a tenure of four to five years and would be the main window for coordination and execution of reconstruction programs in Aceh and Nias.

4. Post-disaster Issues in KDP

4.1. Overview of Changes and Impacts

In 2005, KDP expanded its network of operations from 111 to 221 subdistricts. The KDP team conducted a comprehensive damage assessment in 87 *kecamatan* from February to March of that year to see how much damage was sustained by all village infrastructure and housing. They found that KDP subdistricts suffered as followed:

- 24 subdistricts were heavily damaged (needed total reconstruction)
- 38 subdistricts were badly damaged (partial reconstruction)
- 25 subdistricts sustained moderate to light damage
- 133 subdistricts were not damaged (KDP 2005b).

To accommodate KDP’s expansion into the entire province, the project increased the number of district and subdistrict consultants and elected village facilitators. By 2005, KDP had mobilized 10,804 consultants and elected village facilitators throughout the province. Several special measures were taken at different levels.

- *Information facilitators:* The additional personnel for the Aceh program included a new innovation for KDP in the form of 49 subdistrict information facilitators. This new type of facilitator could supplement the “technical” and “empowerment” facilitators who had so far been the backbone of KDP. The responsibilities of the information facilitators covered most aspects of data collection, information sharing, and communication with stakeholders and external partners (NGOs, donors, etc.) of the program. They would also be responsible for dissemination of information about the program to local stakeholders. And they would document program activities extensively and interact closely with the media.
- *Level of participation:* The key factor in the success of the KDP method was the level of participation of villagers at all stages of the process. High levels of participation during village and inter-village meetings ensured that transparency was maintained throughout the process. Facilitators carefully recorded the number of men and women who attended the nine main village and inter-village meetings. The highest attendance figures were always recorded for the first and second full village meetings and for the special women’s meetings because crucial decisions about village priorities and project selection were taken at these times. Attendance at subsequent meetings dropped on average to about 8 percent of the attendance of the larger meetings, as those meetings were mainly for reporting and accountability purposes.
- *Assistance for infrastructures, socioeconomic, and emergency relief:* During 2005 KDP communities in Aceh chose to invest 86.2 percent of their block grants in small-scale rural infrastructure such as roads, bridges, clean water supply, irrigation, and

Box 1. KDP Assistance since the 2004 Tsunami

Since the tsunami, KDP has helped the villages build a large amount of infrastructure, has loaned funds locally, and has given scholarships to many students:

- 2,014 roads built, averaging more than a kilometer each
- 825 bridges built
- 392 clean water installations, including 245 kilometers of pipe
- 602 latrines and bathing places
- 251 schools
- 1,211 irrigation units
- 8 markets
- \$3 million in distributed social funds
- \$350,000 in loans
- \$330,000 in scholarships
- 3.64 million days of work provided

Source: World Bank n.d.

canals. (See Box 1.) About 1.6 percent of total funds were allocated to economic activities, including revolving funds for women and soft loans to groups for small businesses and agriculture. For education, KDP communities allocated 5.9 percent of their funds to school construction and renovation, scholarships, and the purchase of school materials. Health facilities such as pre- and post-natal clinics and general village clinics received about 1 percent of the funds allocated.

- *Emergency assistance Social Fund for affected villages:* The tsunami hit 38 operational subdistricts at various stages of project implementation. Many locations were unable to continue, as their groundwork had been destroyed or their entire needs assessment was no longer relevant. Worse still, many faced immediate shortages of basic necessities such as food, blankets, tarpaulins, water containers, household utensils, and cooking equipment. In almost all cases, villages hit by the tsunami still had funds in their communal accounts that had not yet been disbursed. They were permitted to allocate 25 percent of these funds to any pressing social needs they deemed to be urgent and necessary. The items to be purchased were detailed in “procurement packets” for recording purposes and then the funds were distributed to those in need. In addition to the first allocation of Social Funds, the affected villages were also permitted to allocate another 25 percent of the next cycle of KDP funding to their Social Fund if they decided there were still families and individuals in need of assistance. New villages joining KDP for the first time were also entitled to allocate 25 percent of their block grants for social purposes as long as they had been affected by the tsunami.
- *Other NGOs using KDP village meetings:* KDP played a major role in connecting donors and the government. Several programs have been built upon the KDP network of facilitators and relationships with local government. The KDP mechanism was familiar and accepted by the communities. Eventually KDP began to introduce village visioning and planning methods compatible with the regular government planning system. Apart from the NGOs and donors that were actively partnering with KDP for specific projects, a few NGOs had effectively used the KDP village meetings to help them better focus their aid. “UpLink,” the Urban Poor Consortium, started community housing projects in Aceh through the KDP village meetings. Such meetings provide an ideal forum to ensure participation and transparency in the way they offer housing assistance. CARE International had also used the KDP planning cycle to initiate new activities like drinking water, sanitation, and so on.

4.2. Policy-related Issues

Policy or vision-level changes were required to equip the KDP operation with better and quicker response. KDP required a quick response mechanism for the following reasons:

- In most places, the immediate response was provided to the urban areas with visible response operation. KDP was the main vehicle to reach out rural areas.
- Phases of reconstruction and redevelopment were an important aspect. Therefore, the quick-response strategy of KDP was essential.
- People needed to be engaged in reconstruction, not just depend on the aid packages.

4.3. Management-related Issues

During the conflict, KDP was one of the few development projects present in Aceh. Trust building in the conflict area was absolutely important. KDP was acceptable because it operated at the community level, with all the decisions made by villagers and not by government officials. KDP promoted community-centered methodology, and transparency was a key element of its strategy. The facilitators played a key role in the conflict area. KDP's presence then helped in the quick damage and need assessment after the tsunami. The facilitators received training on trauma counseling of the community. The KDP Village Forum was the main coordination mechanism in most of the villages with strong leadership. In some cases, however, other donors bypassed the village forum and worked directly with the community. KDP also acted to strengthen local governments in the conflict area, where the local authorities were very weak. The organization was a model for community-based housing construction for the multi-donor trust fund as well as some other agencies, like UN-HABITAT.

Although, KDP did not attempt to act as an emergency fund, several adjustments were made in the KDP structure. As indicated, information facilitators were provided as an interface for the reconstruction-related information coupled with the regular development projects. In addition, a technical facilitator was also provided to each subdistrict. Additional funding was allocated for the KDP villages; the amount has been increased and it was decided that 25 percent of the block grant could be used for the immediate needs after the disaster (like food and shelter). A special disaster-area version of the KDP cycle was formulated, which shortened the timing of the cycle. Before the tsunami, the time allocated to village consultation in the project cycle was four to five months. In the design of the "disaster-area" version of the project cycle, this time was reduced to one to two months. Based on the local needs, KDP started working with the local NGOs in some places to enhance the reconstruction process.

4.4. Implementation-related Issues

Implementation and action-level changes are the most challenging issues. The control of the cost of human resources after the disaster was a major concern. The community-driven development (CDD) approach targets the lowest wedge in the community. In

the emergency situation, however, there was tremendous competition on wages, especially as the international NGOs and agencies provided higher salaries and thereby the solidarity of the community was destroyed.

While looking at the local infrastructure, it was observed that the one done by KDP through the CDD approach was cheaper than that of the Public Works Department by almost 40 percent. Also, KDP's infrastructure keeps a small budget for maintenance and for monitoring and evaluation (M&E).

The M&E indicators were reformulated as disbursement (central to subdistrict to Project Management Unit in village levels), actual amount of infrastructure building, participation level, and complaint handling. M&E is described further in the next section.

5. Organizational Issues

5.1. Monitoring and Evaluation

The KDP monitoring and evaluation system was designed to systematically collect information about the program's progress and evaluate its effectiveness and impact over time. The uniqueness and magnitude of KDP in the Indonesian context, especially in stressing the importance of community participation, transparency, and institution strengthening, demanded that a solid M&E system be in place to document experience and distill lessons.

In many ways, KDP is a pioneering effort for government programs in Indonesia and offers a potential model for enhanced participation and accountability in development interventions. Therefore, findings from KDP had to be fully monitored, documented, and evaluated. The system also needed to provide effective channels of communication from the field to the national level—and back—to inform management decisions and ensure that corrective action was taken if necessary. Reliable and timely information had to be in the hands of those who could act on it and resolve issues and problems expeditiously. In this context, some opportunities that the KDP M&E system could take advantage of were a more open political climate and greater accountability, the growth of civil society organizations, a skilled pool of consultants, the relative ease of communication, and firm government and World Bank support and commitment to a strong M&E system (Wong 2003). At the same time, some of the challenges include ambitious objectives and a wide variety of activities, geographic scope and logistics, corruption, and political change and conflict.

Several issues are relevant to M&E in KDP schemes: poverty and socioeconomic impacts, the technical quality of infrastructure and social subprojects, economic loan activities, institution strengthening, community empowerment, and project management information. The components of the M&E system can be summarized as follow:

- *Internal Monitoring:*
 - Reporting by government officials and field consultants
 - Community participatory monitoring
 - Case studies and documentation of lessons
 - Financial supervision and training
 - Handling complaints and grievance procedures
- *External Monitoring:*
 - NGO independent monitoring
 - Independent journalists' monitoring
- *Evaluation:*
 - Impact evaluation study
 - Technical infrastructure and economic activity evaluations
 - Audits and financial reviews
 - World Bank supervision missions

Among these, a key issue for the success of quality work is the community-based participatory monitoring. This promotes participant learning about the program and its performance and enhances understanding of other stakeholders' points of view. It also increases the likelihood that evaluation information will be used to improve project performance. Monitoring and evaluation by outside parties often focus on issues important to donors and implementers, but communities may have other issues that they value and wish to monitor. Community participatory monitoring allows the communities to become the question-makers, the collectors of information, and ultimately the end users. This was done by village council or by special community groups and sometimes also facilitated by the NGOs.

No specific changes were made in the M&E system after the disaster. However, the experience confirmed that the M&E mechanism in most disasters should be kept as simple as possible. It was observed that frequent monitoring promoted regular re-payments (KDP 2005a). Facilitators and field consultants played important roles in information sharing and dissemination. The number of problematic *kecamatan* also decreased in number from 69 in 2004 to 66 in 2005. A financial audit was conducted to reduce misuse of funds and to increase transparency.

5.2. Technical Auditing and Incorporation of Disaster Risk Reduction Measures

The KDP 2005 Annual Report claimed that 92.4 percent of infrastructure projects constructed in Cycle-IV were fully functional in Java. Among the problems in infrastructures, the key issue was lack of community commitments for maintenance. In the contrary, a field survey in the affected parts of Aceh pointed out that the crucial infrastructures like schools and kindergartens were built without proper technical quality (seismic elements that are required for the region). This was done even after the devastation of the earthquake and tsunami. Consequently, the key disaster risk reduction measures are not incorporated into the new construction practices. The M&E system of KDP needs a strong focus on technical auditing. A random check of the construction process by a third-party consultant will help in this regard.

5.3. Institutional Dimensions and Disbursement Challenges

The undisbursed government budget for the 2004 financial year and the new budget for the 2005 financial year were both held up by procedural changes to the national budgetary system. The Department of Finance implemented the new procedures in January 2005. These changes affected disbursement at all levels of government. Disbursement delays held up the remaining portion of the KDP 2004 financial year budget, and as a result funds were only received in Aceh in late May or early June of 2005.

The new budgetary procedures also slowed down payments to consultants for salaries, procurements, and field work, further adding to the problems experienced by the villages. Aceh and Nias have received special treatment from the Department of Finance, which allowed the undisbursed portion of the 2005 DIPA for those areas to be carried over to April 2006.

As indicated earlier, in addition to the first allocation of “social funds,” tsunami-affected villages could allocate another 25 percent of the next cycle of KDP funding to their “social/emergency fund” for families and individuals who still needed help. A number of villages have already started to apply for their second tranche of special social funds. Unfortunately, many had difficulties getting their money from local BRI branches and the State Treasury due to confusion about new disbursement procedures for the next allocation of funds. Central government officials from the Department of Home Affairs and the Department of Finance were dispatched to Aceh to resolve these problems.

5.4. Conflict and Decentralization

While KDP was not designed as a conflict reduction or management program, it provides a particularly interesting venue for examining the relationship between develop-

ment projects and local conflict (Barron, Diprose, and Woolcock 2006). Development and conflict go hand in hand. By virtue of introducing new resources into poor communities, development programs inevitably shape local conflict dynamics, not only in areas that have experienced high levels of violent conflict but elsewhere too. Competition over these resources either can lead directly to conflict or can interact with existing tensions, thereby causing them to escalate. Programs such as KDP that aim to reconfigure both inter-group and state-community relations are especially likely to influence local power relations and hence conflict dynamics; the challenge is to ensure that these conflicts are constructively addressed so that they do not become violent but rather become part of a force for progressive social change.

KDP had both positive and negative impacts on local conflict and conflict management. Direct positive impacts related to the introduction of facilitators and forums. First, the introduction of collective decision-making processes, which included involvement from different groups, may have changed inter-group relations. Second, KDP encouraged participation from marginalized groups and collective decision making. This may have led to behavioral changes and, in doing so, reshaped the relationship between citizens and the state and between ordinary villagers and elites. Third, KDP may have changed norms, attitudes, and expectations regarding how disputes should be resolved.

In contrast, there was a possibility that KDP enhanced conflict in the communities, just through introducing new resources. Yet KDP-related conflicts are far less likely to escalate or turn violent than those relating to other programs. Barron, Diprose, and Woolcock (2006) identified three forms of development-related disputes. First, KDP introduced competition within and between villages over which proposals should be funded; this could lead to tensions, in particular when groups felt that the decision-making process was not transparent or fair. However, the research found that over time, groups tended to accept the validity of the competition process and, as a result, the outcomes it generated. Only where the program did not function as intended (for instance, where one group captured the process) did larger problems emerge.

The second form of conflict stemmed from these and other “program malfunctions,” which can be problems of omission or commission. Omission was a result of poor socialization or implementation; commission would be where there has been deliberate and active malfeasance from program staff or local elites, as in cases of corruption. The latter was more serious than the former, with cases of corruption providing a basis for larger community unrest.

A third form, interaction conflict, occurred when development projects (KDP or others) interacted with pre-existing local tensions, power structures, or conflicts, triggering conflict escalation and, in some cases, violence.

Acknowledging the intrinsic linkages between development and conflict had a number of implications for how development processes are conceived and projects are prepared.

5.5. Gender

Essentially, women have a special role and interest in their families and households. Providing women with the opportunity to gain access and control over KDP resources would extend community welfare overall. It was imperative to ensure the women participated in each stage of the KDP cycle while at the same time enjoying the benefits of the project. As proponents, women proposed activities that helped fulfill their priority needs. As decision makers, they would attend KDP meeting and be able to put forward their opinion and have an impact on the decision-making process. As implementing agents, women could be involved in the Project Implementation team or the Financial Management Unit, based on their desires and expertise. As monitors, women could be involved in the evaluation work, actively request financial accountability reports, and take firm action on the files when required. As maintenance agents, they could help maintain the facilities and infrastructure built or become members of the maintenance team. Finally, as beneficiaries, women could obtain the capital required for business ventures or make use of the new infrastructure built using KDP resources (Hasanah 2003).

Perempuan Kepala Keluarga (PEKKA) has worked with widows and female heads-of-households in Aceh since 2001 and originally grew out of KDP work. Prior to the tsunami, Pekka was working with 1,295 women in 53 poor villages in seven subdistricts in Aceh Besar, Pidie, Bireun, Idie Rayuk, and Tangan-Tangan. The program helped organize women into groups and provided microfinance and livelihood skills training. In response to the tsunami, the Pekka womens' groups organized and managed emergency relief in the affected villages by delivering food, medicines, clothing, and cash for survivors.

Pekka received private donations of Rp 600 million from groups in Indonesia and overseas and used these funds to give emergency relief to members and other villagers to restart economic activities. The program also helped rebuild houses for members who lost their houses during the tsunami. They have finished building 9 houses and 15 more are under construction. In November 2005, Pekka received a grant from the Japanese Support Development Fund to expand its work in Aceh to support organizing and advocacy activities, housing and infrastructure development, education, and livelihood activities. This future program will reach 100 villages in the five districts Pekka already worked in and will benefit approximately 5,000 poor families.

5.6. Media and Communications

The overall goal of the KDP communication strategy was to reduce the gap between the program situation and the desired vision of the program's success. It was important to begin with a vision of what success would look like once the communication program was in place and achieved its ultimate objectives.

KDP would be successful in empowering communities to participate in their own community development when:

- *Kecamatan* and village facilitators are committed to the success of KDP and are skilled in communicating them to communities
- *Kecamatan* and village heads and leaders understand the key principles behind KDP, support the program, and actively encourage community participation for the right reasons
- Woman and poor villagers participate in KDP because they understand the benefits of participating and are empowered to participate
- The core principles of KDP in community development are placed in the national agenda and gain wide support from the society at large
- Communities where female participation was once culturally inappropriate now respect and encourage participation among women
- Communities take ownership of KDP and want it to succeed.

A communications strategy framework was formulated for the KDP, which aimed at achieving the vision of success, building on what was already being done under KDP to change knowledge, attitudes, and behaviors (KDP 2001). The strategy document outlined a wide range of program activities. These recommendations should be reviewed carefully to determine how the various suggestions might best be configured and implemented. It is anticipated that discussions on the strategy recommendations will lead to accepting some activities, discarding others, and perhaps stimulating the development of new ideas.

The backdrop for the KDP information and communications program would be a comprehensive national television and radio campaign primarily targeting opinion leaders and KDP implementers at the national, province, district, and *kecamatan* levels. It also has the added benefit of reaching some villages, although television access is quite limited in many cases, and the villagers would best be reached using interpersonal means. The national campaign was designed to increase awareness of KDP and what its key principles mean in practice, along with the benefits at all levels of applying these principles. Television and radio spots would position KDP as a positive, participatory program to help people, particularly women and the poor.

An interesting example of the reach of the KDP information and communications program is the Aceh Reconstruction Radio Network (ARRNet). ARRNet was designed to give communities access to information about reconstruction and rehabilitation efforts by facilitating two-way communication between the affected communities and aid teams, including the government, through the radio network. The network consists of 36 community-run and operated radio stations in tsunami-affected areas in eight districts. There is an interactive Web site in Banda Aceh, which offers various features as a means of supporting an exchange of information. Beside broadcasting information to communities, the network's reporters—mostly young people—also send information to a supporting team in Banda Aceh, who upload it directly to the Web site so it can be received by the aid teams and partner networks, including the Reconstruction and Rehabilitation Agency. The stations provide communities with entertainment as well as public service announcements and programming as part of large-scale information campaigns, together or individually.

6. Major Challenges and Lessons

6.1. Human Resources, Training, and Team Composition

Responding to a post-disaster scenario requires a different kind of team. Strong management skills and high technical know-how are essential. A team of specialist auditors needs to keep track of the various funds giving assistance and to ensure proper documentation of expenditures and receipts. Information facilitators are most important at the beginning of the activity, when interagency communication and cooperation are weakest and when local government cannot hope to coordinate all the activities. Infrastructure specialists need to pay attention to quality, to train and supervise new technical facilitators, and to serve as a resource person on technical matters.

Training in Aceh was always in reaction to vacancies, especially for technical facilitators. The training was always shorter than the standard used in previous training, even though the candidates on average had less experience than in previous training groups. There was little training given in aspects related to the disaster, such as in earthquake-resistant building techniques, and, in general this training was not sufficient or timely.

There was a strong need for additional trained facilitators, consultants, and other support staff to supplement people already on the ground in Aceh. Recruitment of new staff was a slow process for two reasons: scarcity of proper trained staffs and the unavailability of timely funding. To handle the disaster situation, new types of staff were required, like computer operators for data management. KDP also lost staff to other development programs in Aceh.

International agencies that are generally planning a short- to medium-term presence are prepared to pay significantly above pre-tsunami local wage rates to secure key personnel quickly. As might be expected, this caused the local labor market for skilled personnel to heat up. Salaries almost doubled for certain clerical and administrative staff during the first 10 months after the disaster. Wages for construction workers also doubled. This issue has the potential to become a significant threat to program continuity if not addressed by central management after a disaster.

6.2. Project Design

Based on the field observations, interviews, and analysis of documents and report, a few key project design issues need to be considered for effective use of CDD projects like KDP in an emergency:

- *Speed in decision making:* It is essential for the conflict- and disaster-stricken area to develop a rapid decision-making system. In the current system, it takes six months to stop a project and another year to restart it. During an emergency, the key point is to change the modes of operation when necessary within a short time frame and to ensure that the treasury can start the budget mechanism quickly. This is essential for starting the facilitators' work in the field immediately after the disaster.
- *Special emergency manual as a legal document:* An operational manual was developed within one month of the disaster. Legal conditionality includes procurement and disbursement issues. More emergency staffs were deployed to the affected areas.
- *Budget flow:* An alternate budget flow system might be required during the emergency period.
- *Simple monitoring system:* The monitoring and auditing system should be kept as simple as possible in order to produce effective results during the emergency.
- *Flexibility in planning:* This is often not observed in some donors' activities. Demand-driven planning is an important issue in this regard.

6.3. KDP and Risk Reduction

The key issue was lack of risk reduction initiatives in the KDP projects after the disaster. Even after the earthquake and tsunami and its devastation, a day school was built in 2006 without any seismic elements. The facilitators (including the technical facilitators) had little or no idea about seismic safety, and there was no training provided on technical quality control.

There is no risk reduction or hazard assessment process during the community planning, which can and should be introduced for effective contributions toward

disaster-resilient communities. Technical guidelines and third-party technical auditing are absolutely necessary for the risk reduction measures to be undertaken in KDP projects.

6.4. KDP and Development Planning

It has been observed that some KDP projects did not follow the regional or local development plans. There are two aspects to this:

- The information on local and regional planning often did not reach the community level, while KDP was focusing more on community development through inter-village forums.
- KDP comes under the Home Ministry, since it was part of the decentralization process. Planning comes under BAPPENAS, and often there is no inter-ministerial coordination.

There is a strong need for synergy of macro-level planning and micro-level community involvement. This is especially relevant since the government is planning a national program for community empowerment (PMPM in Bhasa) as the main community development vehicle of the country. This program will include KDP and the Urban Poverty Project under the same umbrella.

6.5. Capacity of KDP Villages to Absorb Additional Funds

KDP in Aceh was being asked to channel much greater volumes of direct cash (and non-cash) assistance to its villages than ever before. Its rural network and method of operation were seen as an effective and participatory way for NGOs and donors to rapidly disburse some of the very large aid pledges they made to support reconstruction in Aceh. However, the pressure for KDP to disburse ever greater volumes of cash raised major issues that should have been addressed immediately.

Care needs to be taken to ensure that the CDD method is not compromised in such situations in the interests of more rapid disbursement. The largest projects in KDP villages are usually infrastructure. However, these types of projects are also the most challenging in terms of planning and demands on villagers' time. Implementing multiple infrastructure projects within one KDP cycle places significantly greater demands on the district and subdistrict consultants. The ability of KDP's Aceh program to absorb and channel additional assistance, for instance, was largely determined by the availability of operational funds, additional skilled personnel, and training for new staff and consultants.

References

- Atukorala P.C., and Resosudarmo, B.P. 2006. *The Indian Ocean Tsunami: Economic Impact, Disaster Management and Lessons*. In Asian Economic Papers.
- BAPPENAS (State Ministry of National Development Planning). 2005. *Indonesia: Preliminary Damage and Loss Assessment*. Government of Indonesia.
- BAPPENAS and the International Donor Community. 2005. *Indonesia: Notes on Reconstruction: The December 26, 2004 Natural Disaster: A Technical Report*. January.
- Barron, P., Diprose, R., and Woolcock, M. 2006. *Local Conflict and Community Development in Indonesia: Assessing the Impact of the Kecamatan Development Program*. Working Paper 10, Social Development, World Bank. Jakarta. July.
- BRR (Executing Agency for the Rehabilitation and Reconstruction). 2005. *Laying Down the Foundation for a Better Future: Six-monthly Report*.
- Canny, B. 2005. *A Review of NGO Coordination in Aceh: Post Earthquake/ Tsunami*. International Council of Voluntary Agency.
- CGI (Consultative Group on Indonesia). 2005. *Indonesia: Preliminary Damage and Loss Assessment*. December 26.
- FAO (Food and Agriculture Organization). n.d. *Tsunami Assessment Reports*, at www.fao.org.
- Hasanah, E. 2003. *Enhancing Women's Participation: Learning from Field Experiences*. World Bank Jakarta Office. June.
- Joint UNEP/OCHA Environment Unit. 2005. *UNDAC Indian Ocean Tsunami Disaster of December 2004: Rapid Environmental Assessment of Aceh, Indonesia*. Geneva. February.
- KDP (Kecamatan Development Program). 2001. *Behavior Change Communication Strategy*. August.
- . 2005a. *Annual Report*.
- . 2005b. *Aceh Tsunami Anniversary Report*.
- . 2006. *Information Package*.

Ministry of Home Affairs, Community Development Agency. 2002. *Kecamatan Development Program: Phase I Final Report 1998–2002*. Unpublished report, Jakarta, Indonesia.

Sisto, I. 2006. *Tsunami: One Year After: Socio-economic Impacts in Banda Aceh*. SD Dimensions, Natural Resources Management and Environment Department, Food and Agriculture Organization. Rome. January.

Srinivas, H., and Nakagawa, Y. 2007. Environmental management for disaster preparedness: lessons learnt from the Indian Ocean tsunami. In R. Shaw, ed., *Indian Ocean Tsunami: Environmental Implications*. Special volume in *Journal of Environmental Management*, Elsevier Publication.

Wetlands International. 2005. *Tsunami of Aceh and North Sumatra*.

Wong, S. 2003. *Indonesia Kecamatan Development Program: Building a Monitoring and Evaluation System for a Large-Scale Community-Driven Development Program*. Environment and Social Development Unit, East Asia and Pacific Region, World Bank. Discussion Paper. May.

World Bank. n.d. *Response to the 2004 Tsunami in Aceh in KDP*, Internal Report.

Community Development Project, Madagascar¹

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Case Study Summary

Each year Madagascar is struck by cyclones of varying intensity, accounting for 71 percent of the island's natural disasters and adversely affecting an average of over 220,000 people for each cyclone. In 2004, two major cyclones, Elita and Gafilo, hit Madagascar with economic impacts estimated at \$250 million. The Fonds d'Intervention pour le Développement (FID), the agency in charge of implementation of World Bank Social Fund and Community Development Projects, was instrumental in responding to the 2004 disasters, through two components. A workfare (social protection) component to generate revenue and means of subsistence through cash-for-work projects targeting victims of natural disasters or other shocks. Geographic targeting was combined with self-targeting prin-

¹ This case study was written by Bam HN Razafindrabe (GSGES, Kyoto University) with input from Marc Van Imschoot (ILO EMP/INVEST).

principles (daily salary slightly below minimum wage), and in certain cases, when the demand for work was too high, a rotation system was built in to give everybody willing to work a chance to participate. The response also included infrastructure rehabilitation and reconstruction of community assets damaged or destroyed. New guidelines were developed and operational procedures were simplified to speed up and facilitate rehabilitation and reconstruction, national and international NGOs were contracted to cover specific cyclone-affected areas, procurement rules were simplified, and community counterpart contribution requirements were waived. From 2004 to 2006, over 2,000 school buildings and 300 basic health centers were built in compliance with new anti-cyclone designs.

At an institutional level, the Social Fund contributed to the government's disaster policies to integrate disaster risk reduction into local and regional development plans by working with local governments and communities. Cyclone-proof schools or health centers built by FID and other development partners have become the favorite shelter places during storms. This type of awareness raising at the community level helps build a disaster-resilient community. All these activities are reflected in Communal and Regional Development Plans that are prepared in a participatory way by local authorities and communities.

Key lessons learned include:

- Given the importance of good monitoring during disaster response, mobile support teams of engineers and socio-organizers supervised progress and quality of rehabilitation works.*
- It is important to build in cyclone-resistant standards to reconstruction to mitigate the impact of future natural disasters, particularly where these disasters occur at frequent intervals. Different plans should be allowed, taking into consideration the availability of local materials, the skills of local artisans, and the cost of construction.*
- The Social Fund is an efficient agency for evaluating damages and losses rapidly due to its presence in the field and its cooperation with local government authorities and communities.*
- A longer implementation period for disaster relief and reconstruction needs to be foreseen from the outset due to accessibility problems and capacity bottlenecks from heavy workloads.*

1. Introduction

Over the past 40 years, Madagascar has suffered from more than 50 disasters, with more than 4,000 people killed, 11 million people affected, and economic impacts estimated at beyond \$1.8 billion. The main hazard events experienced in the country are cyclones, which account for 71 percent of natural disasters and an average

of 222,814 people affected per event, followed by flooding and droughts (EM-DAT 2007).

Madagascar is struck by cyclones of varying intensity on an annual basis during the cyclone season in the Indian Ocean, which officially runs from mid-November to mid-April (IFRC 2004). From February to April 2000, three major cyclones (Eline, Gloria, and Hudah) struck the island, causing extensive damage to the northeastern and central east coast areas (FAO 2001) and leaving at least 130 people dead and 736,937 affected (EM-DAT 2007). In 2004, two major cyclones, Elita and Gafilo, hit Madagascar again and greatly increased the pressure on the population, compounding the adversities already facing the country (IFRC 2004) caused by a political crisis in 2002. These cyclones killed 363 people and affected 988,139; the economic impacts were estimated at \$250 million (EM-DAT 2007).

This case study is mainly related to the 2004 cyclone events, which led to some adjustments within the ongoing Social Fund project.

2. Program Components and Procedures

2.1 Overview of the Social Fund/CDD Operation

The Fonds d'Intervention pour le Développement (FID), the agency in charge of implementation of World Bank Social Fund and Community Development Projects, was created in 1993 as a nonprofit association of public interest. It finances construction and rehabilitation of basic infrastructure, income-generating activities, and support to intermediaries such as local nongovernmental organizations (NGOs) and small construction firms to improve the quality of services provided and assets created (FID Web site). The majority of the beneficiaries are poor people living mainly in rural areas. The four phases of FID-implemented projects as well as their respective objectives are shown in Table 1.

The components for FID IV (2001–07) included the transfer of funds to community-based organizations (CBOs) that support local initiatives, to communes financing priority basic infrastructure works, to capacity building activities, and to cover FID operation and management costs (World Bank, 2001). The project objective was not modified under the supplemental credit. However, two components were added. First, a workfare component (social protection) was added in 2002 as part of the project restructuring. It was intended to respond to the 2002 political crisis in Madagascar, which increased the vulnerability of poor people. It has since been used in response to cyclones as well. Second, an Emergency and Disaster relief component was added in 2004 as part of the supplemental credit.

Table 1. FID Projects and Main Objectives

Year	Project name	Amount (million dollars)	Objectives
1993	FID I, funded by Food Security and Nutrition Project	10.0	Reduce poverty and malnutrition
1996	FID II (Social Fund II)	42.2	Reduce poverty, support community development
1999	FID III (Social Fund III)	33.0	<ul style="list-style-type: none"> Improved access of poor rural populations to social and economic infrastructure On a pilot basis, empowerment of poor rural communities and/or communes to identify, organize, and manage funds and to implement sub-projects responsive to community needs Employment creation Increased capacity of the private sector, local small contractors, artisans, skilled labor, and NGOs
2000*	FID III Supplemental credit	18.0	Assist in the post-cyclone (Eline, Gloria, Hudah) reconstruction efforts, targeting communities in the areas stricken by cyclones
2001–07*	FID IV (Community Development Project)	110.0	Improve use of and satisfaction with project-supported social and economic services within poor rural communities
2004–07*	FID IV Additional financing	50.0	Assist the post-cyclone reconstruction efforts, targeting communities in the affected areas, including the extra overhead costs associated with increased number of development targets

* Period covered in this case study.

Source: World Bank n.d.

The main objective of the FID workfare component (in the Procedures Manual, called Réponses aux Chocs/Protection Sociale) was to generate revenues and means of subsistence through cash-for-work projects targeting vulnerable people who have been victims of natural disasters or other shocks, creating at the same time useful community works or services. The Emergency and Disaster relief component, besides some emergency assistance, has as its main activity the rehabilitation or reconstruction of community assets damaged or destroyed by cyclones.

2.2 Structure, Implementation Mechanism, and Target Beneficiaries

The FID operates on a decentralized basis through six inter-regional offices in accordance with the provisions of its Articles of Agreement, By-laws, and the Framework Agreement established between the Malagasy Government and the FID.

The Fund is led by a General Assembly, formed of government representatives, NGOs, socio-professional organizations, mayors, and individuals. The Prime Minister nominates the president of the Governing Body, which nominates the General Director in charge of the daily operations of the Fund. It uses a set of Procedures Manuals that clearly define the project cycle (identification, preparation, screening, selection, and implementation methods for each type of sub-project), targeting methods, and procurement and financing procedures.

The FID is in essence a demand-driven project, funding requests emanating from community-based organizations, local governments (communes), and local NGOs using eligibility and selection criteria specified in the different Procedures Manuals. Implementation is made either directly by the community, local association, or commune or is delegated to the FID, which in turn uses local small- and medium-scale enterprises (SMEs).

Within the workfare component, community schemes that can be implemented using labor-intensive techniques, selected by an association or community, and presented to the FID by a local implementing agency that is accepted by the affected population are eligible for funding. Every project request has to be approved by the following local authorities: Region, District, Commune, Fokontany—village authority—and Local Office of Risk and Disaster Management. The funding by FID per workfare sub-project should not exceed \$20,000, and 80 percent of the funds should be used for workers' salaries (in cash or in food).

Sub-projects funded under the Emergency and Disaster relief component include mainly the rehabilitation or reconstruction of infrastructure facilities destroyed by cyclones. A first assessment is prepared by Local Government authorities in consultation with local actors operating in the areas affected. On the basis of this first-hand information, the areas of intervention are defined by the Comité National de Secours (CNS) as either badly hit, moderately hit, and slightly hit areas. The CNS in charge of disaster aid coordination is composed of lead ministries, agencies such as FID, and key development partners active in emergency relief and reconstruction. An evaluation of damages is prepared by FID, NGOs, and other partners. The result is an initial core list approved by CNS of facilities to be rehabilitated or rebuilt. The work load is distributed by CNS among different government entities, U.N. and other donor agencies, and international and national NGOs, taking into consideration their traditional areas of intervention and the financial resources made available. Finally, this core list is adjusted regularly when areas inaccessible initially due to flooding can be revisited, allowing project officers to verify the exact level of damage.

3. Innovative Features of the Social Fund/CDD Operation Regarding Disaster Risk Management

3.1 Social Fund Response to Natural Disasters

FID's existing Manual of Procedures was updated to reflect lessons learned from responses to previous disasters. Two modules were added to the procedures manual. In 2002, one emergency-related module on workfare/social protection was prepared as a response to the political crisis, although this has since been used in response to natural disasters as well. And in 2004, a module was added to specifically guide the cyclone disasters project component.

Because of the exceptional character of the damages in 2004, new guidelines were developed and operational procedures were simplified to speed up and facilitate rehabilitation and reconstruction efforts, among them:

FID was asked to concentrate its efforts on heavily and moderately hit communes.

- There was a diversification of executing partners directly contracting with the Social Fund, given the exceptional character of the situation. Framework agreements were signed with international and well-structured local NGOs to cover specific cyclone-affected areas and to rehabilitate or reconstruct a series of facilities using force account procedures, as the SME capacity was already overstretched.
- For works contracted out by FID itself to SMEs, procurement rules were simplified: shorter deadlines for bid invitations (changing from open tenders to restricted tenders); SMEs chosen on a smaller bid invitation basis; and the possibility of using sole-source procedures for partners already active in a cyclone-affected area.
- For badly hit communes only, the contribution of beneficiaries was waived. It was lowered for other communes.
- Two technical aspects were underlined: all rehabilitated/reconstructed facilities should be cyclone-proof according to standards set by the Malagasy Government, and if rehabilitation would cost more than 60 percent of reconstruction, the latter would be favored.
- Technical audits were carried out while implementation was taking place so as to allow the reorientation of procedures if needed.

The guidelines described in the module on workfare/social protection, already tested in 2002, were also applied in 2004 to mitigate the effects of cyclones Elita and Gafilo. Temporary work opportunities were provided to vulnerable people living in areas affected by those cyclones. Geographic targeting was combined with self-targeting principles (daily salary slightly below minimum wage), and in certain cases, when the

demand for work was too high, a rotation system was built in to give everybody willing to work a chance to participate.

3.2 Monitoring of Disaster-Related Activities

As with every Social Fund, the FID has a computerized MIS system that allows:

- Management of beneficiary requests from the time of receipt of the request until the completion of works
- Management of follow-up documents related to sub-projects described in the manual of procedures
- Management of the annual work program
- Management of contracts with local consulting firms, SMEs, and NGOs
- Preparation of the monthly reports
- Preparation of quarterly reports required for the Loan Administration Change Initiative
- Monitoring performance indicators (outcome as well as impact).

It is a modular system that links the project data to accounting data. Such a system is of great help to the management when an additional \$50 million is to be spent in nine months for disaster relief. However, the extra workload in 2004 was so huge that special measures had to be taken.

First, as each project officer working in the FID inter-regional offices had too many sub-projects to monitor (between 50 and 100), mobile support teams composed of engineers and socio-organizers were established to supervise progress and quality of rehabilitation works. They travelled, on behalf of the inter-regional offices, to many areas that had become almost inaccessible after the cyclone period due to flooding.

Second, international and local well-structured NGOs, which applied direct implementation procedures, had difficulties in finding skilled laborers in sufficient quantities, as the bulk of the skilled labor force was already employed by the private sector. It became clear that those intermediaries had to be supervised closely in order to achieve proper standards of construction, which put an extra burden on the FID staff.

Finally, to achieve cyclone-proof construction standards, short training courses were conducted for technicians of local consultancy firms, SMEs, NGOs, and FID by a training institution called Centre de Formation HIMO (see cfhimo.idago.net), which specialized in labor-based construction techniques and had vast experience in cyclone-proof constructions. It was set up in the 1990s by the International Labour Organization (ILO) but since 2001 has been completely autonomous.

4. Specific Issues Addressed by FID

4.1. Identifying Vulnerable Groups and Ensuring Beneficiaries' Views Are Heard

Participatory rural appraisal (PRA) methods are conducted during the Communal Development Plan elaboration and are targeted to involve the communities throughout the project cycle. The objective is to ensure that identified projects are real priorities for the community and that they can ensure the use and maintenance of the projects after completion (FID 2002). PRAs organized by FID also aim at identifying the poorest and the most vulnerable communities. Communities that take part in PRA analyses are sampled based on various indicators, including geographic location, poverty level, sex, and age (FID 2002).

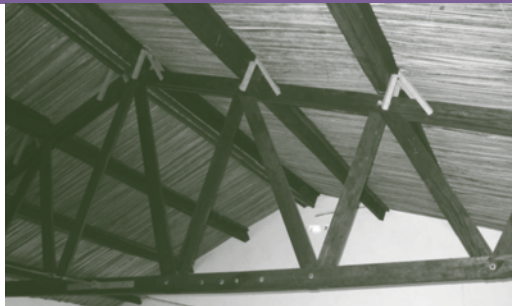
4.2. Disaster Risk Reduction

Starting in mid-2004, FID undertook the construction or rehabilitation of schools and health centers to make them resistant to cyclones with winds of up to 250 kilometers an hour. From 2004 to 2006, a total of 2,041 school buildings and 311 basic health centers were built to comply with these anti-cyclone codes (UNISDR 2006).

In order to make a building cyclone-proof, columns well-anchored in a foundation of stone masonry, a tying ring beam, sloping roof beams, and consoles—all made of reinforced concrete—are properly connected to make a solid skeleton for the building. Special attention is also paid to the roof structure: wooden baulks are firmly fixed to the sloping roof beams (in reinforced concrete) with steel rods or angle irons, on which galvanized iron sheets are placed. Sloping roof beams can also be replaced by wooden



Primary school in the commune of Antombana (Antsiranana Province) with sloping roof beams made of reinforced concrete.



Alternative roof structure with wooden roof trusses and isolation in falafa (stalk-type of protection) of roof made of galvanized iron sheets.

Table 2. Unit Costs in Ariary and in Dollars per Square Meter of Surface
(primary schools, basic health centers, administrative buildings)

Type of Intervention	Sample (number)	Cost/m ² in ariary	Cost/m ² in dollars
Rehabilitation of buildings			
By small-scale contractors	18	149,466	75
By petty contractors or by force account (NGOs)	7	96,485	48
Reconstruction of buildings			
By small-scale contractors	20	363,869	182
By petty contractors or by force account (NGOs)	16	335,249	168

roof trusses in regions where wood is available in sufficient quantities. The wooden roof trusses are also connected to the facades with steel wires.

Average unit costs, which varied according to the level of damage requiring either a rehabilitation or reconstruction and depending on the implementation method (by SME or by force account), remained very acceptable compared with costs for similar buildings in other countries (see Table 2).

As expected, unit costs were highest in the coastal areas, as transport cost of construction materials the center of the country are high particularly in isolated areas that can only be reached by boat.



Completed classroom of Soanonanana primary school reconstructed in the commune of Vohimarina, Fianarantsoa Province



Primary school in Ambalamirary, Fianarantsoa Province. Building provided with gutters, downspouts, drop manhole and curved channel to evacuate rainwater from roof and surrounding area

It was also recommended that each building have an adequate drainage system to evacuate rainwater, guaranteeing its stability and reducing maintenance costs. Local materials (falafa) were used whenever available to improve the isolation of roofs made of GIS (see pictures). Walls of traditional houses are built of falafa, a local material derived from the tree ravinala, called *l'arbre du voyageur* ("the tree of the traveler"), as it also stores water.

5. Role of Government and Partner Organizations

As mentioned, the Comité National de Secours is the main government body in charge of coordinating aid that is provided mainly by the World Bank, the French development agency, the Swiss development agency, German technical cooperation, the European Union, UNICEF, the World Food Programme, and the U.S. Agency for International Development.

The FID and some strategic NGOs are key partners of the government because of their presence in the field and their knowledge of the areas often affected by cyclone or other disasters such as drought (in the South). They are able to make a quick assessment of the situation right after a cyclone has struck.

The Social Fund is also contributing to the government's disaster policies to integrate disaster risk reduction into local and regional development plans by working with local governments and communities. In fact, the Bureau National de Gestion de Risques has trained local authorities of regularly affected regions in preventing or reducing the risks of disasters. This includes measures such as a ban on construction in areas prone to flooding, timely clearing of drainage channels, and construction of public buildings on higher grounds where people can find shelter during storms. In fact, cyclone-proof schools or health centers built by FID and other development partners have become the favorite shelter places during storms. This type of awareness raising at the community level helps build a disaster-resilient community. All these activities are reflected in Communal and Regional Development Plans that are prepared in a participatory way by local authorities and communities. In Phase IV of the project, FID has assisted communes in the development of such plans, taking into account risks caused by cyclones.

6. Lessons Learned and Recommendations

- The Comité National de Secours is an effective government body capable of quickly setting priorities for areas of intervention and coordinating aid received from various development partners. Local Governments also play an essential

role in providing first-hand information. The Social Fund is an efficient agency for evaluating damages and losses rapidly thanks to its presence in the field and its fruitful cooperation with local government authorities and communities.

- Different models of cyclone-proof buildings have been developed over the years in Madagascar by agencies such as FID, ILO, and some major NGOs, all of which have proved to resist cyclones. Instead of imposing one standard plan for disaster relief, different plans should be allowed, taking into consideration the availability of local materials, the skills of local artisans, and the cost of construction.
- Regarding workfare sub-projects, although in principle a minimum of 80 percent of the funds should be used for workers' salaries, this ratio should be decreased for certain types of sub-projects to allow the purchase of some construction materials or the hiring of equipment so that community schemes last longer (for example, to enable the construction of small drainage structures and apply some compaction on rural roads improved by local communities).
- For major funding made available for disaster relief and reconstruction, a longer implementation period needs to be foreseen from the outset (nine months in the case of the IDA supplementary credit of \$50 million), as accessibility is a major bottleneck along with the implementation capacity of NGOs, SMEs, and CBOs—all of which face extra heavy workloads at the same time.

References

BNGRC (Bureau National de Gestion des Risques et des Catastrophes). 2006. *Rapport Annuel 2006 et Plan de Travail Annuel 2007*. Madagascar. (In French).

EM-DAT (Emergency Disasters Database). 2007. *The OFDA/CRED International Disaster Database*, Université Catholique de Louvain-Brussels, Belgium. (www.em-dat.net).

FAO (Food and Agriculture Organization). 2001. *FAO/WFP Mission to Assess the Impact of Cyclones and Drought on the Food Supply Situation in Madagascar*. Special Report. (www.fao.org/docrep/004/x7379e/x7379e00.htm).

FID (Fonds d'Intervention pour le Développement) Web site. At www.fid.mg.

———. 2002. *Manuel de Procédure, Projet de Développement Communautaire*. (In French).

Government of Madagascar. 2006. *Poverty Reduction Strategy Paper*. Annual Implementation Report.

IFRC (International Federation of Red Cross and Red Crescent Societies). 2004. *Final Report. Madagascar Cyclone Gafilo*. (www.ifrc.org/docs/appeals/04/0804ifr.pdf).

IMF (International Monetary Fund). 2004. *Republic of Madagascar: Poverty Reduction Strategy Paper Progress Report First Annual Implementation Report*. IMF Country Report No. 04/402.

UNISDR (United Nations International Strategy for Disaster Reduction). 2006. "2006–2007 Disaster Risk Reduction Begins at School Campaign."

WFP (World Food Programme). 2005. *Madagascar: Analyse de la Securite Alimentaire et de la Vulnerabilite (CFSVA)*. Strengthening Emergency Needs Assessments Capacity (SENAC). (In French).

World Bank. n.d. Madagascar. At www.worldbank.org/madagascar.

———. 2001. *PAD (Project Appraisal Document) FID IV*, Madagascar.

———. 2004. *Supplemental Credit Document P088978*, Madagascar.

———. 2006. *Report No. 36465-MG*, Madagascar.

———. 2007. *Social Funds Team: Responses to Natural Disasters as Risk Management*, FID IV, (ref. Nadine T. Poupart), Summary of documents from Initial credit: *PAD* (March 23, 2001); Supplemental credit: *Program document* (June 16, 2004); Mid-term review *document* (June 6, 2005); three technical audit reports; SP and cyclonic disasters procedures manual.

Malawi Social Action Fund¹

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Case Study Summary

Although it was not an emergency response program, the Malawi Social Action Fund (MASAF) was the natural choice for the government's response to disaster when drought caught the country unprepared in 2005. The organization had credibility in terms of having the capacity to deliver results as well as the systems that ensured transparency and accountability. And its outreach within the communities had led to an accumulation of local knowledge.

Autonomy and flexibility of the setup of MASAF allowed for speedy design of interventions geared toward risk reduction. The disaster response mainly consisted of a conditional cash transfer of MK200 per day (higher than market wages) for 10 days' work on public works

¹ This Case Study was written by Rajib Shaw (Kyoto University) and Paul Chipeta (MASAF).

so that poor people could buy two bags of fertilizer, a bag of maize, and five kilos of maize seed. Fertilizer was to be bought at one-third of the market price against coupons issued to hardcore poor identified with the help of local leaders.

MASAF's disaster response experience yielded some important lessons:

- *Communities had faith in MASAF and were comfortable with it being the delivery mechanism for emergency funds by virtue of the Fund's outreach and track record since 1995.*
- *Targeted information, education, and communication campaigns played a key role in helping to bring different stakeholders to a common platform.*
- *Wherever discretion on beneficiary selection was given to communities, it was judiciously used; choices made from outside communities were abused, in contrast.*
- *Communities appreciated adherence to systems (eligibility criteria, documentation, etc.) and were critical wherever these were violated.*
- *The conditional cash transfer was part of a dual subsidy program.*
- *During MASAF-1 the cost of delivery remained around 5 percent and MASAF remained focused. MASAF-2 saw a broadening of the menu as well as an increase in the cost of delivery to around 10 percent, which then rose to 15 percent in MASAF-3 when local governments became involved.*

1. Introduction and Country Overview

Malawi is a nation with a population estimated at 13.1 million (Government of Malawi 2008). It was ranked at number 166 out of 177 countries in the 2006 Human Development Index of the United Nations Development Program. The population is predominantly rural (83 percent), and the economy is highly dependent on agriculture, mainly smallholder farming and fishing. The per capita gross domestic product in 2006 was \$160, down from \$210 in 2001, and the annual national budget is approximately \$1.3 billion (for 2007/08).

According to the 2007 Welfare Monitoring Survey, 40 percent of Malawians live below the poverty line and 15 percent are ultra-poor. This is an improvement from previous years: according to the 2005 Integrated Household Survey, 52.4 percent lived below the poverty line and 22.5 percent were ultra-poor. Investments in agriculture, education, health, and nutrition, among others, are deemed essential for sustainable poverty reduction. Short-term income transfer schemes can provide off-farm employment and increase incomes for the poor rural communities.

Historically, an overcentralized governance system created severe problems in managing development programs. Before 1994, it was not easy for communities, having

mobilized their own contributions, to obtain timely responses from the government with the financial and technical assistance they required (World Bank 1998). Increasing the participation of communities and civil society in the planning and management of community-level projects and adopting a “bottom-up” approach have been recognized as essential elements of the development process in the new democratic dispensation. Community participation in identification, preparation, and implementation—championed by the birth of the Malawi Social Action Fund (MASAF) in 1995—has improved the setting of priorities and the efficiency with which resources are used.

This case study aims to present issues that underline risk reduction strategies for a drought situation within a social protection framework.

2. The MASAF Program, Components, and Procedures

As client consultations and the implementation experience of the first phase of MASAF showed, communities are capable of and willing to co-finance development activities and implement them within reasonable cost, duration, and quality norms. The Poverty Alleviation Program of the Malawi government provided the conceptual and institutional framework for addressing poverty in the national development strategy. To strengthen the design, a review of similar funds in other countries was also conducted. The MASAF project has been designed to act as a quick disbursing instrument for support to development activities at the community level.

The Malawi Social Action Fund had three phases:

- MASAF-1, in 1995–98, \$56 million: social infrastructure and assistance and economic infrastructure
- MASAF-2, in 1998–2003, \$66 million: designed to build on the success of the first phase by reinforcing the spirit of self-help and continuing to deal with the country’s pervasive poverty
- MASAF-3 APL I, in 2003–07 (the focus of this case study), \$66 million: based on the Malawi Growth and Development Strategy (MGDS). The objective of the MGDS is to create wealth through sustainable economic growth and infrastructure development as a means of achieving poverty reduction.

2.1. Principles, Strategy, and Objectives

MASAF-3 was based on five key frameworks:

- Malawi Poverty Reduction Strategy Paper (MPRSP)
- National Safety Nets Strategy (2001)
- Decentralization policy (1998)

- Millennium Development Goals
- Community-driven development (CDD) approach

Out of these five frameworks, the MPRSP remained the main frame of reference, although a revised policy document, the Malawi Growth and Development Strategy (July 2006 to 2010/2011), has been prepared based on MPRSP implementation experiences.

The guiding principles of MASAF-3 were:

- *Autonomy and flexibility* in project management, procurement, and disbursement procedures but operating in harmony with ongoing decentralization activities to ensure sustainability
- *Demand-driven* following a bottom-up planning and decision-making approach
- *Accountability and transparency* in resource management and service delivery at community, district, and national levels
- *Non-partisan and apolitical*
- *Leveraged use of public resources* in favor of the poor
- *Community empowerment* through direct financing and participatory project management within the District Development Planning System
- *Enhanced capacities* of members of local development structures, facilitators, and service providers (Government of Malawi 2003).

Under this overall framework and strategy, specific objectives of MASAF-3 were:

- To improve access to and use of socioeconomic services by communities in urban and rural areas
- To transfer cash income to poor households and individuals through creation of community assets
- To improve the quality of life for the most vulnerable persons
- To increase poor communities' access to savings and investment opportunities
- To develop and strengthen capacities of communities, local authorities (LAs), and civil society organizations for improved development management and local governance (World Bank 2006).

The MASAF-3 project had five components:

- Community Development Projects to finance subprojects aimed at contributing to improving access to social and economic services
- Social Support Projects to cater to the needs of the critically vulnerable
- Community Savings and Investment Promotion (COMSIP) to promote a savings and investment culture among the poor
- Transparency and Accountability Promotion to promote accountability and capacity development for various participants in the project

- Institutional Development to retain a Management Unit and a support framework for communities and LAs in the implementation of the project.

The project objectives would be realized through the financing of five service packages—on education, health, water and sanitation, transport, and food security—defined by sector ministries, with the community subproject cycle as the key tool for delivering sub-projects.

2.2. Institutional Arrangements and Government Counterparts

The institutional arrangements for MASAF-3 were designed to support the improved development management and local governance of LAs and civil society organizations.

At the national level, a Board was constituted to provide overall policy guidance to MASAF. Two subcommittees provided support to the Board: a National Technical Advisory Committee (NTAC) and a National Advocacy Committee for Community Empowerment and Accountability (NACCEA). The Board contained representatives of the Office of the President, Secretaries of different ministries, the MASAF executive director, representatives of traditional leadership, and independent members. It ensured that MASAF carries out its activities in accordance with the operation manual, and the Board was responsible for the approval of subprojects and annual work plan. NTAC consisted of representatives of relevant ministries and was responsible for reviewing and recommending approval of subprojects, advising on sector devolution action plans, ensuring adherence to sector norms and standards, and ensuring adequate budgetary provision. NACCEA consisted of relevant ministries (Economic Planning, Decentralization), U.N. agencies, and donor representatives (World Bank and the U.K. Department for International Development (DFID) and reviewed adherence to accountability, benchmarks, and monitoring and evaluation (M&E) reports, recommending LAs that can assume full MASAF functions.

MASAF worked with national-level sector departments with respect to policy direction and the enforcement of norms and standards. At the LA level, MASAF worked with the District Executive Committee (DEC), which includes sector representatives. The MASAF Management Unit (MU) was responsible for the day-to-day operation of the Fund, governed by the provisions of the Operational Manual and other appropriate legal instruments agreed to by the government and the funding agencies. It had zones and field offices to provide technical support and management backstopping to the LAs as requested. The zone office worked directly with the LAs through DEC and provided technical support, ensured accountability, and linked districts to the MU on monitoring, evaluation, and reporting.

3. Disaster Occurrences in Malawi

Drought, floods, and earthquakes are the three major natural disasters in Malawi (See Table 1 and the Appendix). The northern part of the country is prone to drought, while the southern part is prone to both drought and flood. Earthquakes occur along the East African Rift Fault system.

The drought of April 1992 was the most severe one in recent years, affecting more than 7 million people (out of a population of 10 million at the time).

Floods, unlike droughts, have affected fewer people. The most severe flood occurred in January 2001, affecting more than 500,000 people, mostly in the southern districts. An earthquake in March 1989 was the most severe one in recent years, affecting more than 50,000 people.

Thus drought is regarded as the most severe disaster in Malawi, affecting mostly rural areas, and hence the focus of this case study. Any developmental activities in the rural areas therefore need to address drought mitigation.

3.1. A Profile of the Drought

Agriculture, which is mainly rainfed, is the most important sector of the economy in Malawi, accounting for about 39 percent of gross domestic product and employing around 85 percent of the workforce. It contributes to more than 90 percent of the

Table 1. Summary of Natural Disasters in Malawi, 1967–2007

	Number of Events	Number Killed	Number Injured	Number Homeless	Number Affected	Total Affected	Damage (thousand dollars)
Drought	3	0	0	0	11,229,267	11,229,267	NA
average per event		0	0	0	3,743,089	3,743,089	NA
Earthquake	1	9	100	50,000	0	50,100	28,000
average per event		9	100	50,000	0	50,100	28,000
Epidemic	11	1,495	0	0	46,280	46,280	NA
average per event		136	0	0	4,207	4,207	NA
Flood	22	581	0	313,000	1,390,090	1,703,090	32,489
average per event		26	0	14,227	63,186	77,413	1,477
Wind Storm	1	11	8	0	0	8	NA
average per event		11	8	0	0	8	NA

Source: EM-DAT, undated.

NA: No data available.

country's foreign exchange earnings. The challenges in drought are to provide immediate relief supplies to the affected population and to design long-term recovery strategies to avert similar situations in the future. The promotion of drought-tolerant crops and crop diversification helps mitigate the impacts of droughts.

In 2005, Malawi faced one of its worst food crises in more than a decade, the result of a combination of factors, including drought, floods, consecutive poor harvests, endemic poverty, and the effects of the HIV/AIDS pandemic. More than 4.2 million people, over a third of the population, were unable to meet their food needs, with 2.8 million estimated to be in severe distress, some of whom were likely to resort to extreme coping mechanisms (such as taking children out of school or selling assets such as land). Production of maize, Malawi's most important staple crop, was estimated at nearly 1.3 million tons in 2005, the lowest in a decade and around 26 percent below production in the previous year, which in turn was also a relatively poor harvest. In November 2004, the Ministry of Agriculture indicated a national food balance of 256,781 tons of maize for Malawi and predicted a food gap of 189,886 tons.

While the shortage of food is a seasonal occurrence in the country, the 2004/2005 farming season saw a number of areas severely hit, with the level of food shortages reaching crisis proportions; many households faced the risk of shortfalls in minimum energy requirements (based on 2,100 kilocalories per person). Among the districts severely affected were Chitipa, Karonga, Kasungu, Dowa, Lilongwe, Dedza, Balaka, Machinga, Mulanje, Phalombe, Mwanza, Neno, Mangochi, Chikwawa, and Nsanje, where household food deficits were estimated at 15 percent or more of their yearly requirements. It is also worth noting that while imports of food through the private sector had improved during the same period, most poor households still had no access to food due to low incomes (Malawi Vulnerability Assessment Committee 2005).

The crucial rainy season in Malawi runs from November to February. In 2005, early and above-average rains raised hopes for a good crop, but the rains failed during the critical period from late January to the end of February, when the maize crop was pollinating and forming cobs. The dry spell also coincided with cassava and sweet potato planting in some areas. In addition, exceptionally heavy rains in December and early January caused flooding and crop losses, especially in the southern and central part of the country. The impacts of the failed harvest were not felt fully until the lean season set in between October and April.

Most of the areas affected by drought or flooding in this year were already facing critical food shortages, and many families lost both their crops in the field and their food stores. These households needed not only food aid but also agricultural inputs, such as seeds and fertilizers for the next planting season, starting in October 2005. Assistance was also

needed to help vulnerable households broaden their economic base. The Food and Agriculture Organization promoted crop diversification (to reduce reliance on maize), small livestock production, small-scale irrigation, and income-generating activities.

Interventions such as the promotion of home gardens and nutrition education for HIV/AIDS-affected households and malnourished children were needed to help improve the health and nutritional status of these most vulnerable groups. Other proposed activities included the promotion of drought-tolerant crops, such as cassava and sweet potatoes, forestation in flood-prone areas to improve soil structure, and establishment of fruit tree nurseries and primary school orchards to improve child nutrition.

3.2. Immediate Response

In response to the crisis, the government of Malawi and stakeholders put in place programs to give individuals and poor families access to food. The programs included targeted food distribution (largely through World Food Program and the Non-Governmental Organization Consortium) and Public Works Programs for cash transfers, as well as programs that combined food and cash transfers. Other programs to address cross-cutting problems included supplementary feeding programs for lactating mothers and malnourished children (below five years old) and school feeding programs.

The January 2005 Malawi Vulnerability Assessment Committee report on Food Security noted the need for the existing major cash transfer operations to be able to adopt a rapid response approach and to have a nationwide reach in order to play an effective role in ameliorating the effects of the drought (USAID 2005). It was against this background, and within this overall framework, that MASAF supported an emergency drought response public works program (PWP) that specifically targeted able-bodied persons.

3.3. International Responses and Coordination

The Regional Office facilitated the preparation of the Inter-Agency Regional Humanitarian Strategic Framework for Southern Africa, launched in April 2005. This framework guided the humanitarian response, identifying actions required to address immediate and longer-term needs. The response to identified emergency needs was also increasingly integrated into longer-term planning and national development plans. The regional office of the U.N. Office for Coordination of Humanitarian Affairs continued to support the Special Envoy for Humanitarian Needs in Southern Africa, who becomes the relief coordinator in case of disasters in Southern African countries. The regional office supported a regional coordinator, with regular missions and the deployment of humanitarian affairs officers to Malawi, Madagascar, and Namibia. In Malawi, the office

helped prepare the Flash Appeal and assisted with monitoring and reporting on progress, as well as a revision in November 2005.

The interagency contingency planning process brought together key regional stakeholders, ensuring that participants were informed of the status of preparedness in their respective countries, and consolidated a comprehensive picture of the support expected. The regional office also developed a matrix that strengthened linkages between early warning and early action in the region, contributing to an International Association for the Study of the Commons (IASC) Early Warning-Early Action.

The Malawi Vulnerability Assessment Committee estimated that the equivalent of some 270,000 tons of maize was required. The estimates represented the minimum humanitarian need through March 2006. The World Food Program planned to provide assistance to 2 million vulnerable people in seven districts in the Southern Region, as well as nutrition support in all districts. The remaining 2.2 million people were to be assisted through government, other food distribution, and voucher schemes and through cash interventions.

The second track of the Flash Appeal was intended to increase local production, thereby minimizing the prospect of another food crisis the following year. Malawi's impoverished farm households face conditions of pervasive soil nutrient deficiencies and lack access to critical farm inputs. The result is that crop yields are chronically low and highly vulnerable to transitory shortfalls in rains during the growing season. The appeal called for immediate support to ensure that the government's plan to sell seed and fertilizer at subsidized rates was bolstered, with seed and fertilizer made available to over 1 million poor farm households who could not afford it even at subsidized rates. The government was already leading a logistical operation to manage the targeted distribution of the subsidized seed and fertilizer; the same mechanism was used to ensure that seed and fertilizer were made available to poorer farming households. To support this program in time for the next growing season, the United Nations sought pledges from the international community by mid-September 2005.

3.4. MASAF Public Works Program—Conditional Cash Transfer Program as Drought Response

The national reach of the MASAF Project management framework presented an opportunity to implement a conditional cash transfer (CCT) operation that would quickly cover the whole country and, in the process, transfer a relatively large volume of cash to individuals and households in distress. Moreover, since the local authority had been managing public works projects under MASAF over the past 10 years, there was the capacity to handle and deliver this drought response operation. A total of

1,849 projects were implemented throughout the country between September and December 2005. An estimated 590,000 beneficiaries received MK200 each per day for working on a PWP subproject over 10 days. This amount would enable a household to buy a 50-kilogram bag of maize and a 50-kilogram bag of fertilizer. The total amount of funds spent on the MASAF-funded program amounted to \$12.1 million.

The objective of the PWP cash transfer program was to support poor able-bodied individuals with cash transfers to get access to food and farm inputs through participation in a public works program for two weeks. (See Box 1.) In the process of transferring the cash, the program also sought to support the creation of economic assets such as short village access roads with earthworks of a maximum 12 kilometers (rehabilitation), soil and water conservation systems such as contour ridges, land reclamation, manure creation, dam rehabilitation, and food security projects. To ensure that transfers were made quickly and in time to assist the affected communities, all funds to finance activities under the program were released to local authority accounts that were managed by the local assemblies.

In a bid to increase transparency and ensure that communities were informed about the MASAF cash transfer operation, an awareness campaign was mounted and

Box 1. Story of a Beneficiary of the PWP-CCT Program

Tamara Binwell lives in area 24. She is a 56-year-old widow who looks after six children. She says that as a female household head, the task of ensuring that basic household needs such as food, medication, and school fees are met is always daunting. She relies on piecework in return for cash to meet household needs, but opportunities are not always there all the time.

In the previous season, she only harvested nine 50-kilogram bags of maize due to the drought conditions. While she faces these problems on a daily basis, she recounts that the hunger period experienced in 2005 imposed particularly difficult problems for her and her household. Food was in short supply, and so was cash for her to purchase farm inputs for the 2005/06 growing season.

She was recruited into the MASAF-funded drought response program in October 2005. She worked for 10 days and received MK2,000. With subsidized fertilizer selling for MK950 per 50 kilogram bag, she could buy two bags of fertilizer for use in her garden. She has since harvested 15 bags of maize and said that as a result she would now feed her family for the whole year instead of only four months, as has been traditionally the case.

She appreciated the support provided, but wondered whether the program would be repeated so that poor people can buy farm inputs to improve yields and to have access to food.

Source: MASAF, PWP-CCT 2006.

covered, among other topics, sensitization on program objectives and outputs, who was eligible to participate, the period of the cash transfer operation (limited to two weeks), the amount of cash per day, expected use of the cash (purchase of food and farm inputs), a comparison with ongoing local authority–managed projects, and stakeholder responsibilities—government, MASAF, district commissioners, district agricultural development officers, etc. This was done largely through radio, posters, and community meetings.

The key features of the program included the following:

- The beneficiaries would be individuals identified locally from vulnerable households through community targeting arrangements. These would either be people working on ongoing local authority projects or people who would be recruited for new projects as part of the PWP-CCT program.
- Implementation of the program was to last two weeks (10 days). For new projects, this meant works had to be completed within the two weeks, while for ongoing regular local authority–managed projects, once the two weeks was over the regular PWP implementation procedures would apply—that is, a return to the original cash transfer rate of MK47 per task for town and city assemblies and MK43 for rural areas.
- PWP-CCT transferred MK200 per person per day for working eight hours task toward creating economic assets that would be beneficial to communities.
- PWP participants were required to use the grant element of the wage for the purchase of subsidized farm inputs provided by government.
- The total unskilled wage transfer would not be less than 80 percent of the total subproject cost.
- The project budget would include a 2.5 percent allocation for administrative expenses and 17.5 percent for works and other costs.
- Projects would be launched with a briefing on objectives and modalities of the cash transfer mitigation. Beneficiaries would be encouraged to form Community Savings and Investment Groups to ensure that savings were made to facilitate negotiations for better prices.

MASAF public works benefits as part of a national social protection instrument are presented in the Quiet Revolution, MASAF 1995–2005. Specific outcomes from the 2006 MASAF cash transfer are detailed in the MASAF 3 APL 1 Impact Evaluation Report. The results show that the CCT assisted households to gain access to 14 percent of the total quantity of subsidized farm inputs supplied in 2005/06. The staple food produce from the participants totaled 487,000 tons, which is equivalent to 22 percent of the national annual staple food requirement.

4. Post-disaster Approaches

MASAF incorporated the lessons from previous public works programs in the design of the 2006 drought response. The lessons have also informed the design of public works interventions included as a subcomponent of the Third Malawi Social Action Fund (MASAF 3) APL II (Local Development Fund Mechanism) for 2008 to 2013. Before the 2006, MASAF had conducted several drought mitigation actions through its programs; these included Relief Cash for Work in 2002–03 and DFID 1 and 2 (both public works projects) and Emergency Drought Recovery Programme of 2003–04, which combined public works activities and social support interventions.

This section describes two specific subprojects that illustrate different dimensions of drought mitigation that benefited from the 2006 Public Works Cash Transfer project and a localized Bua Dwangwa Drought Mitigation Irrigation project. The presentation includes a demonstration of how the formation of sustainable savings and investment groups or federations has assisted in the expansion of revenue among potentially ultra-poor communities. This has been done through facilitation by the Community Savings and Investment Promotion, a baby of the MASAF.

The Nkhokwe Forestation Project is located in Kasungu district. The project is a combination of PWP and a Community Savings and Investment Program. Through the facilitation by the Village Natural Resource Management Committee, the project targeted raising people's awareness of the need to develop forest as an alternative livelihood and also a way to recharge groundwater. The planted forest will be the community's common asset, and the income from the forest will be used to develop a community credit system, with the help of the COMSIP program. COMSIP provided training to the local communities on mobilization of savings and development of an investment culture. The afforestation project also helped local communities generate fertilizers through compost. In the long term, this will help reduce farmers' dependence on the costly fertilizer, which often becomes too expensive. Thus the project is helping the local communities develop a sustainable and resilient system through income-generation activities and through enhancing social and economic capital.

The Manthimba Irrigation Project is located in Thyolo District in southern Malawi. Local farmers started an irrigation system in 2001 with the participation of 15 farmers; with the help of MASAF, this gradually grew to 500 beneficiaries (380 male and 120 female farmers). Through the establishment of the community committee for the irrigation project, the local villagers developed several subcommittees and expanded their work into adjoining areas. The communities decided their own rules for water distribution from the irrigation channel to the cultivated land through mutual understanding. Experience from participation of a MASAF-funded project enabled the communities to submit a proposal

to their assembly for funding of a school project and a community bridge as a part of the PWP program. Community leaders and members report that the yield per hectare doubled after the irrigation project and that the crop cycles increased from one to three after irrigation. However, there are still some problems—like access to the market and storage of grains—that need to be solved in order for the village to have a sustainable livelihood scheme. This is why the group is now registered as a cooperative affiliated to COMSIP.

The goal of the Community Savings and Investment Program is to cultivate a culture of savings among all communities in Malawi to help them save resources to be invested in the productive sectors of the economy. The main objective is to create a favorable environment and incentives for the communities to save through groups and clubs and obtain access to financial services. The operations and management of the COMSIP are based on the following principles:

- Voluntary formation of groups and mobilization into savings clubs to access financial services
- Democratic participation by members in the decision-making process at group/club level
- Capacity enhancement for groups or clubs to ensure adequate return, security, and timely access to financial services
- Mobilization of savings and investments in favor of the group/club members
- Accountability and transparency in resource management and service delivery at group/club levels
- Thus COMSIP helps develop the collective savings culture of the community, which helps diversify livelihoods and can in essence act as a drought mitigation measure. COMSIP is now registered as a body corporate as COMSIP Cooperative Union Limited under the Cooperative Act 1998.

5. Lessons Learned and Recommendations

MASAF was innovative and proactive in its timely response to drought, as well as in bringing the response and recovery lessons to risk reduction, especially for drought mitigation. The following lessons have been linked to the successful operation of MASAF based on this case study. The success of the risk reduction PWP affected the availability of excess food immediately after a disaster; the production was equivalent to a natural surplus declared by the government.

Evolution and Characterization of MASAF:

- The autonomy and flexibility of MASAF was used for fast-track project design in times of disaster.

- Community participation and accountability were the core issues of MASAF, which were enhanced by a performance-driven approach and multiple skills. MASAF had a legacy of performance and speed of response.
- To tap local knowledge in project appraisal, MASAF focused on local authorities and traditional authorities.

Drought Response:

- Prompt decision-making helped in timely interventions for the drought response, which helped communities buy seeds and fertilizers to secure livelihoods through the public works program.
- Community empowerment was at the core of MASAF operations, even during the emergency situation. This was evident in the response to the cash issue through the public works program, followed by infrastructure and capacity-building.
- Drought interventions require coordinated efforts from various stakeholders: the Ministry of Agriculture provided data on farm produce, the Ministry of Economic Planning provided vulnerability data, MASAF provided the resources, Local Assemblies provided implementation support to communities, and communities themselves identified the participants.
- The information, education, and communications campaign of MASAF targeted specific messages for specific groups and also focused on accountability, which contributed to the success of the programs.

Diversification and Innovation in Project Components:

- The Community Savings Program instilled a cooperative culture and links to international financial institutions. There were no direct credits from MASAF, but social capital development from the regular program of MASAF was used. Usually during drought, assets were commonly sold, but this was stopped through COMSIP by encouraging group lending.
- The public works program brought additional assets to communities. These include upgrading of paths to roads, construction of community bridges, the cleaning of rivers, and the introduction of water and soil management, afforestation, and small-scale irrigation.

Drought Preparedness Measures:

- The success from irrigation projects has reduced dependence on rain-fed agriculture and the planting of early-maturing crops that result in high yields on short rainfall.
- The COMSIP database on its affiliates can be used as a basis for weather insurance and a source of information on behaviors of market forces during drought (fluctuation of price, demand-supply chain).
- The forestation projects developed in a situation where a demand for forest products was already high have become a source of community incomes.

Appendix: Natural Disasters in Malawi

The information on natural disasters presented here is taken from EM-DAT: The OFDA/CRED International Disaster Database (events recorded from March 1967 through January 2007). Epidemics include meningitis, diarrhea/enteric, plague, diarrheal/enteric (cholera), and diarrhea/E. In order for a disaster to be entered into the database, at least one of the following criteria has to be met:

- 10 or more people reported killed
- 100 people reported affected
- a call for international assistance
- declaration of a state of emergency

Table A1. Economic Damage from Top 10 Natural Disasters

Disaster Type	Date	Damage (thousand dollars)
Earthquake	9 Mar 1989	28,000
Flood	10 Mar 1991	24,000
Flood	Jan 2001	6,700
Flood	Mar 2000	1,000
Flood	12 Mar 1967	500
Flood	Jan 1969	200
Flood	19 Jan 1998	89
Flood	May 1979	Data not available
Flood	1982	Data not available
Flood	14 Mar 1989	Data not available

References

EM-DAT. Undated. *The OFDA/CRED International Disaster Database*, version v03.07, at www.em-dat.net.

Government of Malawi. 2008. National Statistics Office, Preliminary National Census data November, 2008.

Government of Malawi. 2003. Office of the President and Cabinet. *MASAF III/ CEDP Operational Manual*, December.

Malawi Vulnerability Assessment Committee. 2005. *Food Security Monitoring Report*. January.

Malawi Welfare Monitoring Survey 2007. *Statistical Abstract*. March 2007.

MASAF (Malawi Social Action Fund). *The Quiet Revolution*. MASAF 1995–2005.

———. *MASAF 3 APL 1 Impact Evaluation Report*. March 2008.

MASAF (Malawi Social Action Fund) and PWP-CCT (Public Works Program–Conditional Cash Transfer). 2006. *Citizen Feedback on Performance and Implementation of the Drought Response Program*. October.

UN- CAP. 2005. *Malawi 2005 Flash Appeal, September 2005–March 2006*.

USAID (U.S. Agency for International Development). 2005. *Malawi Food Insecurity Report*. Washington, DC.

World Bank. 1995. *Malawi Human Resources and Poverty: Profile and Priorities for Actions*. Washington, DC.

———. 1998. *MASAF Project Implementation Manual*. Washington, DC. July.

———. 2006. *MASAF Project Implementation Status*. Washington, DC. January.

Pakistan Poverty Alleviation Fund¹

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¹ This Case Study was written by Rajib Shaw and Paul Venton (Kyoto University), and Kamran Akbar (PPAF).

Case Study Summary

The 8 October 2005 South Asian earthquake, measuring 7.6 on the Richter scale, was arguably the most debilitating natural disaster in Pakistan's history. Pakistan-administered Kashmir (Azad Jammu and Kashmir -AJK) and the eastern districts of the North West Frontier Province (NWFP) bore the full force of the earthquake in terms of number of injuries and deaths, and destruction of infrastructure and economic assets. The Pakistan Poverty Alleviation Fund (PPAF), created in 2000 to reduce poverty and empower the rural and urban poor by providing access to much-needed microcredit loans and grants for infrastructure and capacity-building was critical in the response to this natural disaster.

PPAF focused on immediate relief through the provision of shelter, food, medicines, and related items for the affected areas. Field coordination units were set up in the earthquake-affected areas of the NWFP and AJK to monitor relief distribution, provide continuous needs assessment, and report cases of abuse, especially those of vulnerable individuals, to concerned authorities. The mandate of these units also included coordination with PPAF partner organizations as well as international and national relief agencies. In terms of reconstruction of basic infrastructure, PPAF channeled almost \$250 million to rebuild community assets. Significant efforts were made to rebuild housing, with PPAF deploying social mobilization teams to support and monitor the reconstruction program.

Key lessons of this experience were:

- *Earthquake Relief, Rehabilitation and Reconstruction Program financing was considered an integral part of PPAF's ongoing poverty alleviation program and consistent with its development objective of "improving access of poor communities to infrastructure" through participatory development and social mobilization. PPAF did not change its basic principle that development has to be driven by the communities. Rehabilitation and reconstruction were used as an opportunity not only to strengthen existing community organizations but also to establish new ones.*
- *Having an existing local presence was critical for effective disaster assessment and response. By contrast, this was a major disadvantage for outside agencies. The existing community relations aided transparency and accountability*

1. Overview of the Pakistan Poverty Alleviation Fund

1.1. Characteristic Features

The Pakistan Poverty Alleviation Fund (PPAF) was established in 2000 by a \$90-million World Bank credit and an endowment of \$10 million from the government of Pakistan.

It was designed to reduce poverty and empower the rural and urban poor in Pakistan by providing access to much-needed microcredit loans and grants for infrastructure and capacity-building.

PPAF draws its rationale from the growing success and viability of the participatory development paradigm, which seeks to counter poverty by mobilizing communities at the grassroots level. Poverty alleviation strategies based on grassroots microcredit delivery have been the largest operating window of the PPAF, but its efforts in realizing community infrastructure projects and human resource development schemes have also gained momentum over time.

Over the first five years of operation, the PPAF disbursed around \$500 million to communities spread over 96 districts of Pakistan through a network of 68 Partner Organizations (POs). The exponential increase in the volume of funds disbursed through these partners reflects both organizational efficiency and donor confidence.

1.2. Goal, Principles, and Strategy

The PPAF represents an innovative model of public-private partnership. Incorporated under section 42 of the Companies Act 1984, it follows the regulatory requirements of the Securities and Exchange Commission of Pakistan. Sponsored by the government of Pakistan and funded by the World Bank and other leading donors, by the end of February 2007 the PPAF had a resource base of \$826.17 million (PKR –Pakistan Rupees– 49,560.2 million).

As Pakistan's lead institution wholesaling funds to civil society organizations, the PPAF forms partnerships on the basis of rigorous criteria. Before finalizing partnerships, the PPAF ensures that the partners have well-targeted community outreach programs that are committed to enhancing the economic welfare and income of disadvantaged peoples.

The target populations for the project are poor rural and urban communities, with specific emphasis being placed on gender and the empowerment of women. Benefits accrue directly to the vulnerable through income generation, improved physical and social infrastructure, and training and skill development support.

PPAF's vision statement is: "Ending poverty, restoring the hope and securing the future." Its mission statement is as follows:

- Enhancing choices, increasing opportunities
- Improving the quality of life
- Empowering the disadvantaged, especially those of women
- Mainstreaming the vulnerable

The organization's objectives are:

- To empower the poor and increase their incomes, especially women
- To provide credit to partner organizations and help them expand their poverty-targeted microcredit programs
- To provide grants and loans on a cost-sharing basis for development of small-scale community infrastructure
- To enable accessibility of disadvantaged communities to infrastructure, health, and education
- To strengthen the institutional capacity of partner organizations and support them in their capacity-building efforts with communities

PPAF supports organizations that:

- Have well-targeted community outreach programs
- Enhance economic welfare and incomes of the poor and disadvantaged
- Support and nurture community involvement
- Build sustainability and make tangible efforts to secure the future
- Are decentralized and follow democratic decision-making

1.3. Implementation Mechanism

PPAF is an autonomous body, often classified as a civil society organization, working with local partners. These Partner Organizations are nongovernmental organizations (NGOs) working in different districts and provinces of the country. PPAF aims to strengthen partner organizations' institutional capacities and expand their outreach. In this way, it plays a pivotal intermediary role between donors and communities that ensures transparency, efficiency, and sustainability.

1.4. Government Counterpart Departments

PPAF is an implementation arm of the government, which established it as a not-for-profit company with private-sector management. The Chairman of the PPAF Board of Directors and two members are nominated by the government, and eight members are drawn from the private sector. PPAF deals with donors through the Economic Affairs Division, and coordination with the government is carried out through Ministry of Finance.

2. Impacts of Disaster

2.1. Overview of Disaster: Magnitude and Impacts

The 8 October 2005 South Asian earthquake, measuring 7.6 on the Richter scale, was arguably the most debilitating natural disaster in Pakistan's history. Pakistan-administered

Table 1. Examples of Direct Disaster Impacts

Sector	Impact
Housing	600,000 houses destroyed or damaged
Health	796 health facilities destroyed or damaged
Education	6,298 educational facilities destroyed or damaged
Livelihoods	Loss of 324,000 jobs (29 percent of the employed population)
Agriculture, Livestock, and Irrigation	Loss of harvested and standing crops and livestock, disruption of terraces and soil conservation structures, spoilage of stored grains and animal feed, and structural damage and destruction to agricultural buildings
Transport	4,429 kilometers of roads damaged
Water Supply and Sanitation	159,800 households affected by disruptions to partially damaged or destroyed water supply schemes
Energy	Damage to power, petroleum, and gas sectors and to subsistence fuels (wood and dried dung); in addition, 10 hydropower generation stations partially damaged
Governance and Institutions	Widespread damage to buildings and equipment resulting in severe disruption of civil administration, courts, and policing; about 25 percent of revenue records and 85 percent of municipal records lost
Industry and Services	Trade activities, tourism, and handicrafts all seriously disrupted

Source: ADB and World Bank, 2005.

Kashmir, known as Azad Jammu and Kashmir (AJK),² and the eastern districts of the North West Frontier Province (NWFP)³ bore the full force of the earthquake in terms of number of lives lost, injuries sustained, and destruction of infrastructure and economic assets. A total of 73,338 people lost their lives, 69,412 were injured, and 3.5 million people were displaced. Over an area of 30,000 square kilometers, around 600,000 houses, 796 health facilities, and 6,298 educational facilities were either destroyed or damaged, in addition to numerous government buildings and communication infrastructures and lifelines (ADB and World Bank, 2005). Women and children were a large share of the victims, as many women were caught unaware in houses when the earthquake struck, and the unacceptable collapse of school buildings resulted in the deaths of many children⁴ and teachers.

2.2. Damage and Needs Assessment

The UN deployed its Disaster Assessment and Coordination team to provide technical assistance to assess the scale of the disaster and to help manage the international response. After the initial relief and rescue operation, the World Bank and the Asian Development Bank (ADB) undertook a joint damage and needs assessment with

² Affected Districts were Muzaffarabad, Bagh, Neelum, and Rawalkot.

³ Affected Districts were Abbotabad, Mansehra, Battagram, Sangla, and Kohistan.

⁴ Estimated at over 18,000 children and students (ADB and World Bank 2005).

the UN and international agencies (ADB and World Bank, 2005). But the terrain in the affected areas, coupled with the severity and scope of the earthquake, created significant difficulties. The topography of the affected areas of both NWFP and AJK varies from densely populated towns to small, scattered rural settlements in remote and inaccessible mountainous areas. These latter areas are home to 88 percent of the population. Therefore there was a significant logistical challenge to identify the scale of damage and needs, even with the use of helicopters. Early indications of the scale of the disaster were consequently severely underestimated.

2.3. Economic, Social, and Environmental Impact Assessment⁵

2.3.1 Economic Impact

Direct damage due to the earthquake totaled an estimated \$2.3 billion. The largest component of this damage was to private housing (\$1.03 billion), followed by damage to the transport sector (\$340 million) and the education sector (\$335 million). Direct damage to agriculture and livestock was also sizable, totaling \$218 million. The losses to industry and services amounted to \$144 million. Indirect losses resulting from the direct damage have been estimated at a further \$576 million. Furthermore, the cost of reconstruction of lost assets and restoration of public services was estimated to be in the region of \$3.5 billion.

The impact of the earthquake on Pakistan's official gross domestic product (GDP, which excludes GDP from AJK) is expected to be relatively small, on the order of 0.4 percent, however. At the macroeconomic level, the most significant impact is expected to be on the government's fiscal deficit. The earthquake was projected to increase the FY06 deficit by 0.6–1 percent of GDP. The pressures associated with the additional expenditure needs for relief, reconstruction, and rehabilitation could pose difficulties for Pakistan's macroeconomic balances and may undermine the achievement of its long-term development goals.

Prior to the earthquake, agriculture and livestock rearing were the primary sources of employment in rural areas, accounting for 60–70 percent of total household income. However, mounting population pressures and land fragmentation had overburdened subsistence agriculture, spurring widespread seasonal migration to urban centers to work in public administration, small trading and business, construction, and transport, mostly in the informal sector. Remittances from such areas provided an important source of income for rural households, accounting for approximately a quarter of a household's consumption expenditure, even for the poorest.

⁵ The information in this section draws mainly from ADB and World Bank, 2005.

2.3.2 Social Impact

Already coping with a general lack of basic services, clean drinking water, and safe disposal of waste, women and children living in inaccessible mountain areas with low levels of income and service provision bore the brunt of the earthquake's impact.⁶ This was exacerbated by the prevalent social norms that do not encourage widows, single women, and women-headed households to obtain relief and go to the tent camps outside their local area, since they will be among unrelated men. Likewise, medical teams found it difficult to treat injured women unless they had female staff. In the longer term, since women in many of the affected areas customarily relinquish their claims to joint family property, the risk of widows and female orphans losing their rightful inheritance is considerable in the present situation.

2.3.3. Environmental Impact

With a significant proportion of households dependent on agriculture-based livelihoods, there is a particularly important relationship between households and the environment. Despite this, the region is an area of extreme environmental vulnerability, characterized by frequent landslides and unchecked urban development with few environmental safeguards. The earthquake itself had a most profound impact on the built environment, but it also generated many landslides and destabilized slopes. Consequently, dams blocked streams and rivers, and normal water sources were altered.

2.4. Government Response and Reconstruction/Rehabilitation Policy

The government of Pakistan responded quickly to the earthquake emergency. The Prime Minister's office appointed a Federal Relief Commission on 10 October 2005 and a Relief Coordinator, with responsibility for overseeing relief efforts targeting shelter, food, clean water, and immediate medical care. Two military divisions were mobilized to the affected areas. The Pakistan army moved fast to clear roads, evacuate casualties with the use of helicopters, and establish field hospitals to provide emergency medical care to the injured. Military personnel were also stationed to facilitate the distribution of relief goods.

The government appealed to the international community for assistance, resulting in huge inflows of aid. By 11 November 2005, according to government reports, assistance totaling nearly \$2.5 billion had been pledged by 83 bilateral as well as multilateral donors, with many also providing significant in-kind support, including logistical and personnel assistance to the relief efforts (ADB and World Bank, 2005).

⁶ PPAF II Project Information Document (July 2005).

On 24 October 2005 the President established an Earthquake Reconstruction and Rehabilitation Authority (ERRA) to facilitate the rebuilding and repair of damaged infrastructure, including housing, roads, bridges, government buildings, schools, and hospitals. ERRA became the lead government body coordinating reconstruction activities. Initially, though, ERRA encountered a number of organizational and operational challenges. It had to work simultaneously on evolving program strategies in consultation with a large number of stakeholders. There were issues of system development, staffing, establishment of coordination mechanisms, and divisions of responsibilities among federal, provincial/state, and district authorities.

Later the UN/ERRA Early Recovery Plan (ERP) was formulated for bridging the gap between relief and reconstruction. The sectors mentioned in the ERP were education, health, livelihoods, water and sanitation, housing-shelter-camp management, needs of vulnerable groups, governance disaster risk reduction, and common services coordination.

For long-term recovery, ERRA established a three-tiered organizational structure: the Provincial Reconstruction and Rehabilitation Agency and State Reconstruction and Rehabilitation Agencies at province and state levels, respectively, and District Reconstruction Units at the district level. An all-encompassing umbrella program for reconstruction and rehabilitation was formulated for housing, livelihoods, education, health, water-sanitation, governance, power, transportation/roads, communication, social protection, environment, and industry/tourism.

Reconstruction of housing, the most significant need in affected areas, was designed to be achieved through a homeowner rebuild policy, whereby tranches of funding would be released in accordance with progress that adhered to the technical guidelines promoted by implementing partners on the ground. The initial general compensation of PKR 25,000 for all affected households, as ascertained by the army, was geared to bridge the gap between the emergency needs and the restoration of livelihoods. Subsequent to this and to damage assessments, tranches for totally destroyed properties would be distributed to compliant households in three stages: Stage 1 (before construction) – PKR 75,000; Stage 2 (after plinths constructed following ERRA Guidelines) – PKR 50,000; and Stage 3 (walls completed) – PKR 25,000 (total: PKR 150,000). Homeowners with partially damaged homes would receive a single payment of PKR 50,000.

2.5. Local-level Responses

In the first few hours after the earthquake, the whole country focused on a residential tower collapsed in Islamabad. News from the north had started reaching the capital, but because of the breakdown of all communications, the country was not able to

fathom the extent of destruction in NWFP and AJK. By the afternoon, however, the news pouring in started to give the world an idea of what had happened. By the dawn of 9 October 2005, national and international NGOs (INGOs), community groups, and individuals had a fair idea of what people had undergone.

National NGOs and community groups as well as individuals from across the country started moving to earthquake-affected areas, but in most cases roads were either blocked by landslides or were simply wiped out. In Kaghan valley alone, nearly 150 kilometers of road had over 300 landslides. However, civil society as a whole overcame the odds and started reaching the earthquake-affected population with essential relief items.

Local governments as well as civil administration simply became paralyzed as elected representatives and officials either died or suffered losses in their families. Also, administrative infrastructure such as office buildings and machinery and equipment was also lost to the earthquake. Therefore, relief activities remained dependent on external agencies and individuals.

Roads leading to earthquake-affected areas remained clogged for vehicular traffic from all over the country; laden with relief goods, this went far beyond communication infrastructure capacities. The relief goods flooded the area to the extent of oversupply. However, distribution remained well organized where community organizations or self-help groups existed prior to the earthquake. In other areas, a chaotic condition was observed for the first few days until the National Relief Commission started coordinating the relief activities

2.6. Post-disaster Coordination

The National Relief Commission started coordination of relief activities. The army was entrusted with the responsibility of coordination as well as delivery of relief items. Relief base camps were established in Mansehra, Bagh, and Muzaffarbad. Troops were deployed in forward areas to carry out damage assessment, coordinate relief, and provide security to relief agencies.

3. PPAF Response to the Disaster

3.1. Response

3.1.1. Overview

The PPAF was very quick to respond to the disaster, based on a reallocation of \$5 million from existing project sources to fund the relief effort. The World Bank

later made \$100 million of additional funding available (World Bank, 2005). This was for the restoration of infrastructure and rehabilitation and reconstruction activities. Because the number of destroyed and damaged houses greatly exceeded initial estimates, however, a further \$138 million was provided (World Bank, 2007). Importantly, the Earthquake Relief, Rehabilitation and Reconstruction Program (E3RP) component of this financing was considered an integral part of PPAF's ongoing poverty alleviation program and consistent with its development objective of "improving access of poor communities to infrastructure" through participatory development and social mobilization. Of the total of \$238 million, \$198 million was allocated to low-cost seismically appropriate housing, \$16 million to the rehabilitation and reconstruction of village infrastructure, and \$15 million to the restoration and rehabilitation of communities, with the remainder for monitoring, supervision, operating costs, and technical support.

The International Fund for Agricultural Development and Kreditanstalt für Wiederaufbau (German Financial Cooperation, KfW) also provided, respectively, \$26.37 million and \$16.8 million.

In addition to the fact that to date work has started on 80 percent of eligible completely destroyed houses, by mid-January 2007 a total of 194 PO engineers and social organizers had been trained as trainers, 249 craftsmen had been trained as master trainers, over 14,000 craftsmen had skill upgrading training, and more than 75,000 homeowners had received orientation training on ERRA construction guidelines (World Bank/IFAD, 2007).

3.1.2. Establishment of Disaster Relief Center

A Disaster Relief Center was set up in Islamabad, which started functioning by the second day of the crisis. Initially, PPAF focused on immediate relief through the provision of shelter, food, medicines, and related items for the affected areas. To reach out to the remotest areas, cooperation was sought with the US Army to transport corrugated galvanized iron (CGI) sheets and shelter materials to the affected areas by helicopter. The relief center became a core center for volunteers and people to donate their resources for earthquake victims.

3.1.3. Diversion of Funds for Relief Operation

A decision was taken to divert \$5 million to the relief operation from the funding for community physical infrastructure.⁷ This deviated from normal procedures but was considered appropriate due to the scale of the emergency. Endorsement was sub-

⁷ E.g., drinking water and sanitation schemes, access roads.

sequently sought from World Bank management and approval given retrospectively (World Bank, 2005).

3.1.4. Establishment of Field Coordination and RNR Units

In order to ensure effective and targeted interventions, field coordination units were set up in the earthquake-affected areas of the NWFP and AJK to monitor relief distribution, provide continuous needs assessment, and report cases of abuse, especially those of vulnerable individuals, to concerned authorities. The mandate of these units also included coordination with PPAF POs as well as international and national relief agencies. Prior to the earthquake, PPAF operated solely from its central Islamabad office. PPAF also established the RNR (Reconstruction and Rehabilitation) Unit, a special unit dedicated for the reconstruction process.

3.1.5. Responsibility for 34 Union Councils

The extensive grassroots presence in the affected areas, execution of a large-scale relief and shelter operation, and the presentation of a coherent and viable rehabilitation plan made PPAF a natural choice for ERRA to assign dedicated responsibility for undertaking housing reconstruction in 34 union councils (18 in NWFP and 16 in AJK) of the total of 305 union councils affected. The PPAF and the World Bank processed funding requests in two phases, first \$100 million and then an additional \$138 million. Both requests were processed in a significantly shorter time period than usual.

3.1.6. Management Information System

A key challenge in the reconstruction process was the availability of damage assessment data. PPAF therefore developed a comprehensive management information system (MIS). From 4 February to 30 September 2006 the damage assessment was undertaken. The MIS was designed to capture all the issues identified—from house damage to types of buildings, construction processes, delivery of compensation, and compliance criteria for safe construction. The detailed MIS helped identify the housing needs from an initial estimation of 34,000 to a modified estimation of 120,000 households. During the damage assessment survey, PPAF also found nearly 22,000 cases

Table 2. House Damage Assessment in the 34 Union Councils of NWFP and AJK

	Completely destroyed	Partially damaged	Negligible structural damage	Total
NWFP	64,076	7,855	3,318	75,249
AJK	42,987	3,017	1,079	47,083
Total	107,063	10,872	4,397	122,332

Source: World Bank / International Fund for Agricultural Development 2007.

ineligible for further payments on account of having received multiple compensations or simply not being traceable (World Bank, 2006).

3.1.7. Deployment of Social Mobilization Teams

The PPAF deployed social mobilization teams (SMTs) through its partner organizations (47 in AJK and 60 in NWFP). Each team consisted of an engineer and a male and female social organizer and had responsibility for 800–1,000 houses. The SMTs undertook damage assessments and facilitated social mobilization, the training of homeowners and masons, and quality control. Thus, the SMTs were instrumental in the reconstruction process. Training in psychosocial support was provided to help SMTs identify post-traumatic stress so that they could adapt their approach accordingly.

3.2. Key Issues Influencing Response

3.2.1 Personal Relationships

Personal relationships had a significant influence over the relief and rehabilitation work of PPAF. While the dynamic between persons and institutions is likely to be present in most circumstances and contexts, in Pakistan a great deal of emphasis is placed on the relationships between individuals rather than institutions. Therefore if relationships are good, progress can be swift and effective. If they are not, however, then difficulties can appear hard to surmount. The decision to allocate \$5 million to the relief operation was made very rapidly after the disaster, despite the fact that such activities were not part of the normal remit or experience of PPAF. This was possible largely due to the close working relationships that existed, which expedited the possibility to act decisively during the early critical stages as the scale of the disaster unfolded. This was further enhanced by the very high degree of personal commitment based on a general sense of unity and willingness to help.

3.2.2. Community Relations

The key in the effectiveness and speed of the initial response was that PPAF already had a presence in the locations affected. This presence was influential in mobilizing resources in record time as information on the impact of the earthquake quickly filtered up from community organizations through POs and from these to the PPAF field teams and headquarters. This on-the-ground presence was a great strength of PPAF and contrasted with a serious disadvantage for newly arriving INGOs. Prior to the earthquake, the Task Team Leader advocated staying with people in the field for a week or more, so as to “stay in touch with reality.” Trust is also built up this way. Coming from this stance, a strategic decision was made on continuing to work with the local communities instead of providing aid materials as gifts. The involvement of the communities in the shelter preparation was therefore a crucial issue. CGI sheets and the Toolkit were provided to the local communities, and they helped themselves to build temporary

shelters. There seemed to have been a marked difference between organized and non-organized communities. Existing community organizations were a major asset—and something that the earthquake was not able to completely destroy.

3.2.3. Existing Partner Organizations

PPAF was successful in addressing immediate needs of affected communities as six of its partner organizations⁸ were already working in the affected locations and had well-established community organizations. PPAF made the strategic decision not to establish any new partnerships with implementing agencies.

3.2.4. No Change in the Procurement and Disbursement System

One of the characteristic features of the RNR activities of the PPAF was that the existing process of procurement and disbursement was not disturbed. The same system was followed. This helped with quality control.

4. Post-disaster Changes in the SF/CDD Mechanism

4.1. Policy/Vision-level Changes

PPAF did not change its basic principle that development has to be driven by the communities. Rehabilitation and reconstruction were used as an opportunity not only to strengthen existing community organizations but also to establish new ones. Therefore, with fundamentals of CDD intact, PPAF's vision remained unchanged. Though disaster management did not fall in the purview of the Fund, PPAF decided not to remain silent during a national calamity, as it could reach affected populations through its network of community organizations.

4.2. Management/Decision-making Changes

The PPAF Board of Directors approved establishment of the RNR Unit for executing the rehabilitation and reconstruction project. Efficient and effective operations required considerable autonomy while upholding principles of prudence, transparency, and accountability. An RNR Management Committee was constituted, led

Team Leader	1
Administration & Logistics Officer	1
IT Specialist	1
Financial Review Specialist	1
Engineering Specialist	2
Training Specialist	1
MNE Specialist	2
Data & Reporting Officer	2
Junior Professionals	6
Accounts assistant	4

⁸ National Rural Support Program, Islamic Relief Pakistan, Women Welfare Organization Poonch, Omar Asghar Khan Development Foundation, Sarhad Rural Support Program, and Sungi Development Foundation

by the CEO and with the Chief Operating Officer, the Chief Financial Officer, and the General Managers of Community Physical Infrastructure (CPI) and Human & Institutional Development (HID) as its members. The General Manager HID was appointed as the Team Leader RNR. Whereas the Committee was responsible for strategic decisions and general oversight, the newly established unit was given operational autonomy.

4.3. Implementation/Action-related Changes

The four Field Coordination Offices (FCOs) were restructured to establish two regions. The Mansehra and Battagram FCOs were merged to form the NWFP Region while Bagh and Rawlakot FCOs constituted the AJK Region. Based on initial needs assessment, the following structure was approved for both the regions:

NWFP		AJK	
Regional Coordinator	1	Regional Coordinator	1
Field Engineers	5	Field Engineers	4
Associate Engineers	6	Associate Engineers	2
Community Development Specialist (M)	2	Community Development Specialist (M)	2
Community Development Specialist (F)	3	Community Development Specialist (F)	1
Accountants	2	Accountants	2
MNE Officers	1	MNE Officers	1
Field Coordination Officers	1	Field Coordination Officers	2
Field Adm and Log Officers	1	Field Adm and Log Officers	2

The regions were entrusted to monitor and oversee housing subsidy disbursement by POs, provide technical assistance to Pos, and coordinate with ERRA Field Offices, concerned army formations, provincial and district administrations, and other agencies.

5. Other Related Issues

5.1. Monitoring and Evaluation

The evolving nature of the project, especially with respect to changes in policies, lack of experience in disaster management, and the requirement for 100 percent coverage of the allocated 34 union councils tested the monitoring and evaluation (M&E) capabilities of the Fund. The MIS developed by PPAF was the main M&E tool. The nature of the work required generation of multiple reports on a weekly basis. Every social mobilization team was equipped with a laptop, a digital camera, and a GPS. Every SMT sent updated database to regional offices each Friday, which in turn transferred the data to

concerned PPAF Regional Offices either Friday evening or Saturday morning. The concerned PPAF Regional Offices transferred data after necessary checking to PPAF RNR Office Islamabad. A combined report after necessary compilation and checking was issued to all the stakeholders by Saturday afternoon. The weekly reporting required unprecedented efficiency and effectiveness.

The quarterly World Bank/IFAD joint Supervision Missions are an important part of the M&E system. These Missions review progress against a results framework every quarter and develop an agreed actions matrix as well as provide guidelines for improving efficiency and effectiveness

5.2. Gender and Disability

Many social mobilization teams do not include women (despite PPAF guidelines), which makes it difficult for them to work with vulnerable families, many of which are headed by women. Some POs do not appear to have an operational understanding of gender issues, and the numbers of female social organizers employed by some POs has declined over the last year. POs appeared to be unaware of the ERRA-recommended designs for disabled-friendly housing (World Bank/IFAD, 2007).

6. Recommendations

- *Develop a Disaster Management Policy*

Tremendous experiences and expertise have been developed in the RNR group as well as the partner organizations. It is of utmost importance to categorically analyze the organizational learning so as to develop a disaster management policy for the PPAF's operation. This process has begun. A Lessons Learned Workshop for PPAF partner organizations was held on 19 April 2007 (see Box 1).

- *Work on Comparative Advantages*

PPAF is well equipped with its skills and network on community mobilization and organization. However, for natural reasons at the time of the earthquake the organization lacked the appropriate expertise or technical capacity for damage assessment and quality control of housing. Despite this, PPAF wanted to be involved in all stages of the response, including assessment, disbursement of relief and reconstruction items, inspection, and monitoring functions. It can be argued that this was not using PPAFs expertise and comparative advantage for the greatest benefit of affected communities. For instance, one function PPAF was well placed to perform was social awareness training for INGOs unfamiliar with the NWFP and AJK context. This could have helped minimize the undermining of local capacities through any reckless or inappropriate distribution

of aid. Also, full advantage of the POs' comparative advantage was not taken in support of the most vulnerable. For instance, the development objective of PPAF's Earthquake Relief, Rehabilitation and Reconstruction Program clearly states that priority should be given to meeting the needs of women and vulnerable groups. In practice, despite identification there was a lack of special packages for the most vulnerable. Out of a total of approximately 2,000 vulnerable families, only 201 homes are under construction and most of these were started only in January 2007 (World Bank/IFAD, 2007).

- *Improve Interorganizational Linkages in the Bank*

The Bank had two parallel reconstruction projects: one through the PPAF and the other through ERRA. The coordination between these two projects could have been stronger, however, and was a weakness expressed by several organizations. As an example of the implications of this, the policy changes made by ERRA had significant impacts on the progress and compliance rate of the PPAF initiatives. Through increased coordination and communication this could have been avoided. Likewise, PPAF and ERRA (through the army) had different damage assessment methodologies. These created differences in standards and decision-making. While the army's damage assessment was done without proper planning and by non-skilled personnel, PPAF developed a highly detailed and thorough damage assessment form with an equally comprehensive methodology to minimize mistakes.

Also, popular opinion is that the Bank influenced reconstruction policy and decision-making. This led to changes in the guidelines stipulated by ERRA. The changes, and the non-compliance of buildings with earlier guidelines, had major implications for the partner organizations and created confusion and mistrust in the communities. Therefore there was a clear conflict between the SF/CDD operation and the Bank's reconstruction loan operation.

- *Work in Close Cooperation with the Local Government*

NWFP and AJK had different local governance contexts. For AJK, the army was the key stakeholder, while in the NWFP the local governments played a key role in decision-making and implementation of the reconstruction process. While complementing the initiatives of the local government, the reconstruction process is a great opportunity to develop and enhance capacity. Although PPAF has done significant work with the partner organizations, closer cooperation with the local governments has been intentionally avoided by PPAF (and its partner organisations), which choose to maintain maximum operational distance. This is even the case regarding community infrastructure projects. This approach must be set against the backdrop of the governance and institutional sector suffering, as well as the trauma of the disaster and widespread damage to buildings and equipment. Fifty-five provincial office buildings and 90 percent of district offices were destroyed, along with the homes of 249 provincial officers. In affected

municipalities, about 25 percent of the revenue records and 85 percent of municipal records were reported lost, including birth, death, police, and judicial records (ADB and World Bank, 2005). Particularly under such circumstances, the comprehensive damage assessment data acquired by PPAF would have been of extreme value, but PPAF was reluctant to share the data.

- *Enhance Cooperation within PPAF*

Linkages and cooperation within the PPAF have been crucial issues. Maintaining close cooperation between the new, large, short-term post-earthquake RNR team and the long-term pre-earthquake personnel, such as in CPI (which has been seriously disrupted⁹) and the procurement department, would contribute significantly to the speed and efficiency of the recovery.

- *Decentralize Decision-making*

It is often argued that the balance between speed and quality is a crucial issue for reconstruction. Whereas ERRA has moved quickly in collaboration with the army, PPAF remained committed to its developmental philosophy and followed the CDD approach. This needs time and the long-term involvement of local stakeholders, which is hard to balance against the backdrop of emergency needs and the radical shift in people's priorities in the aftermath of a disaster. The government seems to have assessed and disbursed very fast. In contrast, other agencies seem to have had problems keeping pace with the government in providing technical assistance and training. ERRA appears to be rapid but with question marks about quality, and PPAF appears to be slow but without compromising the quality of work. This difference has had ramifications in terms of tensions between neighboring villages where the two organizations are working side-by-side. One method in which PPAF may have been able to move more swiftly, but without compromising the quality achieved through the CDD approach, would have been through the decentralization of some decision-making to the field offices.

- *Focus on Long-term Sustainability of People's Livelihoods*

According to the Sarhad Rural Support Program (SRSP), the psyche of the people has changed as a consequence of the disaster and the way in which assistance has been provided on such a significant scale. Before the disaster, people were willing to participate in social mobilization initiatives, but this has diminished now if there is no material gain. The INGOs might leave but the problems will remain, and it is therefore important to return to the normal operation of the PPAF as early as possible. The Housing Resource Centers can be good outlets for the micro-entrepreneurship activities of

⁹ Currently only 160 CPI schemes of a total of 1,000 planned schemes have been started (World Bank/IFAD, 2007).

the PPAF project, for instance. This would also lead to livelihood support initiatives and enhance sustainability. Innovative approaches are required to provide livelihood support and initiate PPAF's back-to-normal operation in the affected region.

- *Develop Scaling Up and Back-to-Normal Human and Financial Resource Strategies*
Prior to the earthquake, the partner organization SRSP had 65 staff. This rose to 500 staff in the aftermath of the earthquake. During the relief phase teams were pulled from other areas for two to three months. This obviously has implications for the work undertaken elsewhere. The number of staff required was not the only change in terms of personnel. From an original situation where the gender balance was around 50/50, the relief and reconstruction work saw a large increase in male staff numbers. Financially there was also a major scaling up. As an example, SRSP currently has 23 major donors, of which half are new in response to the earthquake. This has major financial management implications and requires significant levels of capacity to be able to absorb such pressures. What is more, a plan is required to downscale as programming returns to more familiar levels.

- *Coordinate with Other Actors*
The UN conducted cluster meetings in the reconstruction process, which established a coordination system and enabled the sharing of issues and problems from the field. However, PPAF's preference to operate as independently as possible (for instance, not connecting with ERRA's implementing partners such as GTZ, SDC, and UN-HABITAT) underplayed the importance of strong coordination in the context of humanitarian aid and large-scale recovery.

Box 1: Lessons Learned Workshop for PPAF Partner Organizations

A half-day Lessons Learned Workshop for PPAF Partner Organizations was held in Islamabad on 19 April 2007. The purpose was to identify what went well in the PPAF response to the earthquake and what gaps in the response emerged.

What Went Well?

There was a very rapid response to the disaster due to the *flexible organizational* culture that characterized the interaction between POs and PPAF. Predominantly this culture manifested itself as being relational and non-formal, but based on an overall agreed framework.

\$5 million was quickly released for emergency relief activities based on a "*bottom-up*" chain reaction from meetings in the field to PPAF headquarters.

Having an *existing local presence* was critical for effective disaster assessment and response. By contrast, this was a major disadvantage for outside agencies.

The existing community relations aided *transparency and accountability*.

There was a very *high degree of personal commitment* based on a general sense of unity and willingness to help.

The *presence of PO "activists"* (for liaison between POs and community members) on the ground was important for effective relief delivery.

The *dignity of the beneficiaries* was maintained on account of an appreciation of conditions prior to the disaster.

High levels of interaction through the disaster assessment process built *trust between POs and affected households*.

What Gaps Emerged?

Within PO Control

Despite their identification through the disaster assessment process, *particularly vulnerable groups did not receive any special assistance*.

There was a lack of coordination with other agencies and a duplication of efforts.

The POs *did not use their comparative advantage* over external agencies, for example through assisting specialist humanitarian INGOs by providing awareness raising regarding the local development context.

The inaccurate initial damage assessment that seriously underestimated the scale of need led to the *overstretch of POs* as they endeavored to respond.

There was a *lack of women's participation* in the Social Mobilization Teams.

Lots of centralized control systems were established with a consequential *lack of authority devolved to local operations*. This was compared with "Having your hands tied, but being asked to go and fight."

Rather than focusing on a very detailed damage assessment, *more attention should have been given to the support of the most vulnerable*. Locally affected people are happier in areas where the army is working because of the speed of the response despite discrepancies in the basis of the delivery of this aid.

More could have been done through advocacy to challenge the perceived lack of equity in the reconstruction policy and to call for an independent evaluation of the government's response.

Outside of PO Control

The inappropriate provision of relief assistance by INGOs led to the *creation of relief dependency* with long-term consequences for PPAFs community-driven development.

The *poaching of PO staff* by INGOs offering higher salaries undermined capacity.

There was a *lack of clarity on reconstruction guidelines* from ERRA and World Bank, which PPAF could have been more proactive in addressing.

PPAF could have provided *more space for POs* to develop their own approach to respond to the disaster.

References

ADB (Asian Development Bank) and World Bank. 2005. *Pakistan 2005 Earthquake: Preliminary Damage and Needs Assessment*. Islamabad: Asian Development Bank and World Bank

World Bank. 2005. *International Development Association Project Paper* for Proposed Additional Financing in the Amount of SDR 68.9 million (US\$100 million equivalent) and Proposed Restructuring with Reallocation of SDR 3.53 million (US\$5 million equivalent) to The Islamic Republic of Pakistan for The Pakistan Poverty Alleviation Fund Project, November 17.

———. 2006. *Aide-Mémoire: Pakistan – PPAF II Earthquake Relief, Rehabilitation and Reconstruction Program* (World Bank Supervision Mission 15 August–22 September).

———. 2007. *International Development Association Project Paper* for a Proposed Additional Financing Credit in the Amount of SDR 91.8 million (US\$138 million equivalent) to The Islamic Republic of Pakistan for The Pakistan Poverty Alleviation Fund Project, January 10.

World Bank/International Fund for Agricultural Development (IFAD). 2007. *Aide-Mémoire: Pakistan – PPAF II Earthquake Relief, Rehabilitation and Reconstruction Program (E3RP)* (World Bank/IFAD Supervision Mission 11 December 2006–20 January 2007).



ANNEXES

Annex 2.1: Tools for Assessing Hazard-Induced Vulnerability

Methods	Application to vulnerability
Secondary data collection and review (official reports, economic surveys, census data, household surveys and other official statistics, research, early warning systems, reports by other agencies, etc.)	Contextual information on a variety of issues including population characteristics, external shocks and stresses (e.g., rainfall and temperature trends), health (morbidity and mortality), previous disasters' impact
Geospatial data (e.g. maps, satellite images, social mapping, transect walks)	Identify physical and environmental features (including hazards), land use, other resources and infrastructure, location of populations and vulnerable sub-groups
Environmental checklists	Questions to gain information about environmental conditions and concerns, revealing the relationship between poor/vulnerable people and their environment (e.g., what role do environmental resources play in resilience?); how do environmental hazards, degradation and changes affect communities and vice versa? (e.g., livelihoods impacts)
Sample surveys	Quantitative data on dimensions of vulnerability (e.g., education, employment, health, nutritional status, household economies)
Interviews (individuals, households, community groups, key informants), focus groups	Information from different perspectives (communities, other local stakeholders, external experts) on events and trends that cause stress, differential vulnerability, and the effectiveness of adaptive behavior
Individual and household case studies; oral history	Data on different experiences of vulnerability, resilience, and abilities to withstand environmental hazards and other shocks
Timelines	Historical occurrence and profiles of longer-term events or trends (e.g., floods, droughts, epidemics, local environmental trends and cycles)
Seasonal calendars	Describe seasonal events and trends, identifying vulnerability context, livelihood assets and strategies (e.g., rainfall, food levels at different times of the year, crop planting and harvesting schedules, food prices, changes in health status)
Preference, matrix, and wealth ranking	Reveal vulnerability of different groups' assets to shocks and stresses and strategies against this
Problem tree	Identifies problems and their causes and indicates possible solutions
Venn diagrams and other institutional appraisal/ mapping methods	Social capital, relations between groups, institutional and policy environment; identify physical and environmental features (including hazards), land use, natural and social resources (assets/capital)

Source: Benson and Twigg, 2007, p. 110.

Annex 3.1: Communication Methods for Risk Awareness Raising

The methods that can be used to raise awareness about risk reduction include:

- Production and distribution of public information leaflets and posters. This is still the commonest method because it is relatively cheap and easy to manage, and in theory reaches large numbers of people. However, it is likely that the impact of many activities of this kind is severely weakened because of inappropriate images or poor presentation.
- Public exhibitions about risks, protective measures, and new preparedness and mitigation initiatives.
- Hazard and risk maps. If presented in a clear, colorful format, these are a good way of explaining threats to communities and stimulating action.
- Demonstrations. Many projects promoting alternative ways of building to withstand hazards erect model houses or community buildings, both to raise awareness and provide an informal forum for discussion with community members. Model houses are sometimes put on shaking tables in public displays to show how they stand up to earth tremors. Demonstrations are also often used in food security work.
- Use of print and broadcast media to promote safety messages and share information about new initiatives. These reach large audiences and can be cost-effective if used well and targeted carefully. Mass media communication is most likely to be successful if linked to other actions on the ground and if the audience can get involved (e.g., through community radio stations, audience feedback, or competitions).
- Disaster professionals have not made much use of the entertainment media, although several agencies have collaborated to produce a radio soap opera called *Tiempos de Huracanes* (Hurricane Season) that provides practical information to rural communities in Central America. Twenty episodes are broadcast annually, before and during the rainy and hurricane season.
- Participatory vulnerability analysis and community action planning events to develop common understanding and mobilize interest and action at the grassroots.
- Community training in technical skills (e.g., improved construction methods, soil and water conservation, or putting up flood protection structures) and disaster preparedness/ response (e.g., evacuation drills).

- Conferences, workshops, roundtables, and training courses (usually for professionals) to debate issues, introduce new ideas and experiences, and determine policies.
- Emergency services' open days make communities familiar with emergency management systems and personnel and are an opportunity to introduce risk and safety issues.
- Art and photography competitions on relevant themes are popular, especially with children. They often culminate in public exhibitions and can generate publicity.
- Marking the anniversaries of major disasters through ceremonies and publicity in the media is a way of reminding people of the hazards in their environment and the damage they can cause. Anniversaries can be potent reminders, as well as having psychological value as rituals of grieving and healing.
- Holding annual events to highlight disaster issues. The UN has designated the second Wednesday in October each year as the international day for natural disaster reduction. Agencies in many countries plan events for this day, which is a good opportunity for them to work together to spread public messages. Other countries may have their own special days annually; Fiji has a national disaster awareness week.
- Simple visual devices in public places give permanent reminders of hazards and disasters and are inexpensive. Warning signs can be put up or painted onto walls. Flood high-water levels are often marked on bridges, telegraph posts, or buildings.
- Exchange visits are often used in agriculture and food security programs. They enable farmers to see alternative farming techniques and methods of drought mitigation (such as soil and water conservation, inter-cropping, and the use of drought-resistant seed varieties) and discuss their strengths and weaknesses with those who are using them.
- Folk media such as plays, songs, story-telling, dance, and festivals. Because they are based on indigenous communications practice and traditions, and use local languages, they can be very effective.
- Community mobilizers and educators are important channels of communication in development projects. Some are project workers; others are community leaders and local people engaged in projects as volunteers. Projects should be aware of how information is normally shared within communities.
- The Internet is becoming rapidly more important.

Annex 3.2: Some Key Elements of Community-Based Disaster Preparedness

Government disaster preparedness and contingency planning framework

National and local government agencies need to adopt emergency management systems that link all levels, including communities. These need to be simple to operate, applicable to all major hazards, and sufficiently resourced. Preparedness and contingency plans need to be developed and implementation practiced. Emergency personnel also need to be provided with the training they need, and information needs to get out to the public (Pusch, 2004).

Community-based early warning systems

Early warning is the “provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response” (UN/ISDR, 2004).

Bringing the right information to the people who need it in a timely fashion is key to saving lives and property. There are three key elements in the success of an early warning system:

Box 3.2.1 Decentralized response systems

Some of the main features of a decentralized response system include the following:

- Identify the location of the municipal crisis center to be used to coordinate municipal response during an emergency.
- Define the roles and functions of each municipal government agency during an emergency.
- Develop plans and procedures for schools and community facilities.
- Develop mechanisms for using the resources of the private sector, NGOs, and community organizations in an emergency.
- Develop policies, procedures, and protocols for accessing and coordinating outside resources during a disaster, including arrangements with neighboring municipalities for mutual support.

Source: Pusch, 2004, p. 24.

1. Forecasts must be accurate in predicting the location, time, and severity of a hazard event.
2. Warnings must be disseminated in time for populations at risk to make themselves safe.
3. Warnings must be communicated to decision-makers and communities in appropriate ways, based on an understanding of their perceptions and needs (Twigg, 2004, p 300).

In most systems, the bulk of effort and expense is put into transmitting information to decision-makers and government emergency management services. Far less effort and funding go into disseminating this information down to individual communities or households through accessible messages that will warn them and help them to make sensible decisions about how to respond (Twigg, 2004) or into feeding community local hazard warning knowledge into government systems.

Social fund/CDD projects can facilitate the linking of technological information with community preparedness by supporting communities and local government to develop community-based early warning systems (CBEWS). CBEWS are developed based on local capacities and technologies and deal primarily with the local incidence of hazards. Communities are closely involved in running them, which makes them more likely to respond to the warnings. CBEWS also can be effectively linked into broader forecasting and warning systems.

CBEWS frequently are more effective than broad public information campaigns, as they are developed based on local knowledge, practices, and context (e.g. many communities monitor nearby rivers during times of heavy rain using simple rain gauges). Many communities draw on their own indicators of impending hazard when deciding how to respond to warnings. A survey on the offshore islands of Bangladesh identified a wide range of local indicators of impending cyclones based on observation of weather patterns, action of the sea and rivers, and animal behavior. Famine early-warning systems benefit from community participation as well, draw-

Box 3.2.2 A critical break in the chain for poor people

In Delhi, a sophisticated forecasting and warning system for floods in the Yamuna River was found to break down at the point of informing poor people living in slums in the riverbed. A cryptic one-line statement ("the water level is expected to rise, make your own arrangements") was all these communities received to warn of floods in September 1995, delivered by local policemen touring the settlement.

Source: Twigg, 2004, p 300.

Box 3.2.3 Linking communities into national early warning systems in Cambodia

In 2003, the Cambodian Red Cross and the American Red Cross set up an early warning system project in Cambodia. Floods affect parts of the country every year. The project aimed at reducing the risk of vulnerable communities to floods that are greater than normal through improved flood warnings. Flood forecasts and warnings from the Mekong River Commission and Cambodian government's Department of Hydrology and Rural Water Supply are circulated to communities, which send back information about water levels to forecasters. Communities identify flood alarm stages and work together to develop response mechanisms.

Source: IFRC, 2006a

ing on local people's sensitivity to socio-economic as well as agricultural indicators of food insecurity.

Working with communities on the development of CEWS provides an opportunity to develop a better understanding of the contextual factors and constraints that generate people's perceptions of risk and to design systems that are appropriate to their circumstances.

Escape routes and asset protection measures

One of the key socio-economic factors affecting response to disaster warnings in many developing countries is the need to protect assets and maintain livelihoods. The poorer and more marginalized a household is, the more important it becomes to hold on to assets and property (such as livestock and household goods) and income. A household may perceive the risk of evacuation, in terms of losing control of its assets and resources, as more devastating than the risk of the hazard, especially where warnings are frequent but do not necessarily lead to disaster.

Poor people may delay evacuation because of this, often with fatal consequences. During the 2007 cyclone in Bangladesh, the families of some of those who perished or lost all of their possessions indicated that they had concerns about lack of space in the cyclone shelters for their valuable animals and possessions. Some women also did not leave their homes and go to cyclone shelters due to cultural reasons and concerns about the safety of the shelters.¹ Others found safety in the nearby hazard-resistant homes of better-off neighbors—a more attractive alternative for those with restricted mobility and those who want to keep an eye on their possessions (Burton-field notes; joint damage, loss and needs assessment mission).

¹ For a good analysis of protection issues in emergency shelters, refer to Save the Children Alliance, *Watermarks: Child Protection During Floods in Bangladesh*. London: SCF, 2006.

Box 3.2.4 Learning from building cyclone shelters

Along low-lying coastal plains, which are particularly subject to tidal surges when tropical storms coincide with high tides, storm shelters have the potential to save thousands of lives. Between 1984 and 2003, Bank-financed projects built 524 cyclone shelters in seven countries (Bangladesh, Dominica, Grenada, India, St Kitts and Nevis, St Lucia, and St Vincent and the Grenadines).

To improve shelter maintenance prospects, the Bank moved from building dedicated cyclone shelters to building multi-use cyclone shelters that were used primarily as schools. When it became apparent that school could not be interrupted for weeks or months on end because those made homeless by a disaster were using it for a shelter, the Bank focused more on creating shelters that were also used as community centers or local government buildings, so as not to interrupt studies for prolonged periods of time. Not being able to send children to school also caused unanticipated child care burdens for the family. Another strategy, which has been discussed but not yet put in practice with Bank financing, is to enable lower-middle- to middle-income families to build multi-story cyclone-resistant homes. In the event of a disaster, these structures could save the lives of poorer neighbors with nowhere to go.

Source: World Bank/IEG, 2006a, p 154–5.

It is important to work out appropriate escape routes and livelihoods' asset protection measures with communities in disaster preparedness planning. For instance, communities vulnerable to frequently occurring hazards such as floods tend to have well-established systems for moving livestock, food, household utensils, and other items. Where this is not possible, possessions can be secured in the home by putting them onto high shelves and platforms, hanging them from the ceiling, or placing them on the roof (Twigg, 2004).

Cyclone shelters can be designed to take livestock and peoples' most precious possessions and to provide privacy and protection for women and children. Simple mitigation measures may also protect the homes of vulnerable people. For example, in Bangladesh a number of homes are built on raised plinths to protect them against flooding. Raised mounds of earth (*killas*) have been built in local communities to protect livestock from floods.

Emergency response capacity

The effective operation of search and rescue requires well-trained personnel and appropriate tools, equipment, and support components. Volunteers are the backbone of most community-level preparedness programs and can play effective roles in both small- and large-scale emergencies, as they usually reside within the vulnerable communities themselves. These can be sourced from local partner organizations. Volunteers may come from different educational backgrounds and have different levels of

commitment. Adequate time and support must be given to building up an appropriate number of volunteers, as well as training and equipping them. They should form part of the multi-level disaster preparedness chain and be included in joint simulations and rehearsals.

Training also should target CBOs likely to provide critical services in a disaster, even if that is not their current mandate. Training a pool of local outreach workers in high-risk areas will help ensure that larger segments of the population have the relevant skills and information to act as immediate response providers prior to or during an emergency (IFRC, 2007a).

Rehearsals

The only way to know if a response or contingency plan will work is to put it into action, evaluate it, and revise it as appropriate. Exercises and simulations provide an opportunity to review the strengths and weaknesses of a plan, as well as to test the coordination and interaction of key response players (IFRC, 2007a). The exercises should test coordination, response, and readiness at all key levels of the emergency response system. They should involve selected regional and local leadership and all the specialized regional teams, emergency medical personnel, and senior civil protection personnel (Pusch, 2004).

Physical resources

When a disaster strikes, a variety of emergency and relief-related goods and services are needed. There are many instances of inappropriate relief goods being provided to communities after disasters by external agencies. This can include, for example, food-stuffs that people do not normally eat, types of clothing they do not normally wear, out-of-date or inappropriate medicines, or imported goods that are available locally at a cheaper cost. The social fund/CDD block grant system could potentially be used to stockpile appropriate, locally purchased emergency relief items within communities (as long as bulk purchases do not push up prices in local markets). A system or set of procedures to do so could be developed, building upon the past post-disaster relief experiences of social fund/CDD operations. Likewise, community relief funds could be incorporated into local savings or micro-credit schemes.

The assets of the disaster preparedness system itself also need to be protected. Control centers, communications systems, warehouses, search and rescue equipment, and relief goods are all vulnerable. Agencies need to protect their own buildings, equipment, and files: preserving records of beneficiary groups, land titles, resources, methods, and experiences is important. In particular, hazard-proofing or the creation of backups of important legal and medical records held in alternate locations should be a priority.

Annex 4.1: Role of Remittances in Natural Disasters

Disaster context	Role of remittances	Implications for aid agencies
Pre-disaster livelihoods	Remittances and migration are often an important component of some people's livelihoods and a source of resilience. Remittances may also create vulnerabilities, for instance for elderly people left behind if many younger people have emigrated.	Aid agencies need to understand remittances as part of pre-disaster livelihoods, as part of disaster preparedness and ongoing development.
Disaster impact	Remittances are likely to be initially disrupted by disasters in context-specific ways.	Aid agencies need to understand how remittances have been disrupted as part of the assessment process.
Quick-onset disasters	Remittances are likely to be disrupted by death and displacement, and damage to communications and transport infrastructure. Those who can afford it may return home to search for missing loved ones and assist in recovery. They may lose their jobs or immigrant status. Once communications are restored, people may send additional remittances. Mechanisms, volume and type of remittances may shift.	A need for family tracing and for assistance earthquakes, floods, volcanoes, hurricanes in restoring communications. Migrants may need assistance to return home and once home to return to jobs overseas. Information for diaspora populations about how to contact people and how to send assistance. Possibility to work with or support remittance companies to waive or reduce fees.
Slow-onset emergencies	Migration may intensify as part of coping drought strategies. Possible greater reliance on remittances as other livelihood strategies become more constrained. If severe drought leads to distress migration and displacement, remittances may be disrupted.	Need to understand patterns of migration and their role in coping strategies as part of livelihoods analysis. Possible need for family tracing and assistance with communications in the event of distress migration.
Remittances and recovery	People who receive remittances may play an important part in the recovery process once channels are re-established. Sharing of remittances within and between communities may increase their impact beyond the immediate receivers. Remittance flows into local communities may have positive multiplier effects on local economies (e.g., demand for local services, construction jobs). They may also contribute to inflationary risks for key goods and services (e.g., building materials, masons).	Agencies should consider how their assistance may be complemented by remittances. For example, some families may be able to invest some of their own resources in shelter rebuilding.

Source: Savage K and Harvey P (2007). Remittances during Crises: Implications for Humanitarian Response, Briefing Paper 26. London: ODI, p. 4. hpgbrief26

Annex 4.2: Sample 48–72 Hour Emergency Assessment Forms

First 24 Hours

Type of disaster:
GPS coordinates:

Urban

Rapid Field Assessment Form (B)

1. Geographic area		Approximate number of inhabitants	
2. Community assessed		Approximate number of inhabitants	
3. Assessment team leader's name:		4. Name of contact person in the community and contact info:	
5. Date	6. Time		
7. Persons	# Injured	# Dead	# Missing
8. Homes affected	# Minor damage	# Moderate damage	# Destroyed
9. # of families (provide % if number is not possible within 4 hours)	Currently known displaced evacuated		Projected displaced evacuated
10. How are people being sheltered? Shelter/host families/camps/other	Describe shelter situation		
Describe damage and access			
11. Status of roads. Best way to access affected area			
12. Conditions/access of: (as applicable)			Concerns for Hazardous materials [] Toxic spills [] Oil spills [] Other: []
<ul style="list-style-type: none"> • Rail • Bridges • Water facilities • Sewage systems • Schools • Health facilities • Electricity • Telephones • Airport • Seaport 			

Peri-Urban

Rural

17. Expected needs:

(OBSERVATION) Describe livelihood losses			
13. Effect on urban settings (if applicable):	Commercial buildings	Business/factories	Government buildings
14. Brief description of livelihood groups and how they are affected (secondary information)			
15. What are the specific physical losses in agriculture? (if applicable)	Crops/gardens	Animals (e.g. livestock, poultry, etc.)	Tools
16. What are the specific physical losses in fishing? (if applicable)	Boats	Nets	Tools
17. a. Is the local government active in the disaster response? Yes [] No [] Don't know [] b. Is the community responding to the disaster? Yes [] No [] Don't know [] c. Are NGOs responding in the disaster area? Yes [] No [] Don't know [] Who? _____			

Minor damage: Building can be safely occupied but needs minor repairs.

Moderate damage: Building cannot be safely occupied and requires major repairs.

Destroyed: Obviously destroyed and requires rebuilding. Note: If necessary, sketch a map to show location.

First 72 Hours

Type of disaster:
GPS coordinates:

Urban

Field Assessment Form (B)

1. Geographic area:		Approximate number of inhabitants	
2. Community assessed:		Approximate number of inhabitants	
3. Assessment team leader's name:		4. Name of contact person in the community & contact info:	
5. Date	6. Time		
7. Persons (Update)	# Injured	# Dead	# Missing
8. Homes affected (Update)	# Minor damage	# Moderate damage	# Destroyed
9. # of families (update) (provide % if number is not possible within the 72 hours)	Currently known displaced evacuated		Projected displaced evacuated
(OBSERVATION) Describe conditions			
10. How are the means of communication functioning? Land line, mobile phone, VHF, HF, etc.			
11. Relief			
What are the climatic factors?		Is the current shelter resistant to rain, wind, sun, cold?	
What is the physical status of existing structures?		How many people lack adequate shelter?	

Peri-Urban

Rural

17. Expected needs:

<p>What is the immediate risk to life?</p> <p>How many are at risk?</p> <p>Which social groups are most at risk and why?</p>	<p>What is the customary provision of clothing, blankets and bedding for women, men, children and infants, pregnant and lactating women and older people?</p>
<p>What did a typical household used to have?</p>	
<p>12. Food and nutrition</p>	
<p>Is food available in the disaster area? Yes <input type="checkbox"/> No <input type="checkbox"/> What kind?</p>	<p>Is there enough for the potential number of people affected? Yes <input type="checkbox"/> No <input type="checkbox"/> Explain:</p>
<p>Is this food accessible to all the affected people, or do only a few have access?</p>	<p>Explain:</p>
<p>Do people have access to cooking facilities? Utensils: None <input type="checkbox"/> Few <input type="checkbox"/> Many <input type="checkbox"/> Fuel: None <input type="checkbox"/> Few <input type="checkbox"/> Many <input type="checkbox"/> Pots: None <input type="checkbox"/> Few <input type="checkbox"/> Many <input type="checkbox"/> Other:</p>	<p>Do people have access to a safe place to prepare and eat? Yes <input type="checkbox"/> No <input type="checkbox"/> Describe:</p>
<p>What are people's dietary habits (main food products they normally consume)?</p>	
<p>Are there specific groups that face difficulties in obtaining food in this site? If so, who and why?</p>	
<p>13. Health</p>	
<p>What was the health and nutritional situation of the people before the disaster? Explain:</p>	<p>Is there a health emergency? What is its nature?</p> <p>How is it likely to evolve?</p>
<p>How many people are experiencing serious trauma or other psychological effects since the disaster?</p>	<p>Describe access and conditions to health facilities:</p>

<p>Is any disaster-related problem affecting health facilities? Equipment: Medicines: Consumables: Vaccines: Number of staff:</p>			
What health activities should the Red Cross Red Crescent engage in to supply needs/resources?		Number and kind of specific health target/vulnerable population	
14. Safety, security & protection			
Have families been separated? Yes <input type="checkbox"/> No <input type="checkbox"/> Approximate number: Has registration of affected people been undertaken? Yes <input type="checkbox"/> No <input type="checkbox"/>		Are there any potential security threats?	
<p>Have families been separated? Numbers: Locations: Details of registration process: Are there unaccompanied minors?</p>		<p>Explain:</p>	
<p>Restoring family links Is there any need for restoring family links? Yes <input type="checkbox"/> No <input type="checkbox"/></p>		<p>Explain:</p>	
<p>Are people subject to: Physical abuse: Sexual abuse: Gender-based or psychological intimidation: Insecurity: Discrimination:</p>		<p>Explain:</p>	
15. Water and sanitation			
Are diarrhoeal diseases above normal? Are they increasing or decreasing?			
<p>Water supply Are people getting enough water for: Drinking Yes <input type="checkbox"/> No <input type="checkbox"/> Bathing Yes <input type="checkbox"/> No <input type="checkbox"/> Cleaning Yes <input type="checkbox"/> No <input type="checkbox"/></p>	Are people using unsafe water sources as alternatives? Why?	How is water carried and in household?	Do people treat water at home by: Filtering Yes <input type="checkbox"/> No <input type="checkbox"/> Boiling Yes <input type="checkbox"/> No <input type="checkbox"/> Chlorinating Yes <input type="checkbox"/> No <input type="checkbox"/>

<p>Excretal disposal Where do people defecate/urinate at present?</p>	
<p>Hand washing Are there adequate hand washing/bathing facilities at key points and are they used? Is soap or an alternative available?</p>	
<p>16. Sheltering</p>	
<p>Impact on people's homes and key services:</p> <p>Houses: low <input type="checkbox"/> medium <input type="checkbox"/> high <input type="checkbox"/> Water: low <input type="checkbox"/> medium <input type="checkbox"/> high <input type="checkbox"/> Sanitation: low <input type="checkbox"/> medium <input type="checkbox"/> high <input type="checkbox"/> Electricity: low <input type="checkbox"/> medium <input type="checkbox"/> high <input type="checkbox"/> Health: low <input type="checkbox"/> medium <input type="checkbox"/> high <input type="checkbox"/> Community centres: low <input type="checkbox"/> medium <input type="checkbox"/> high <input type="checkbox"/></p>	<p>If homes have been severely damaged or destroyed, where are people living?</p> <p>On the site of their former homes? Yes <input type="checkbox"/> No <input type="checkbox"/> Approximated numbers:</p> <p>With friends or family? Yes <input type="checkbox"/> No <input type="checkbox"/> Approximate numbers:</p> <p>In camps? Yes <input type="checkbox"/> No <input type="checkbox"/> Approximate numbers:</p>
<p>Do people use their homes for productive activities? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Have they lost access to this space to produce goods? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Are they unable to run small businesses? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Has the disaster affected their productive activities? Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>Did people use their homes to store: Tools or equipment Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Provide shelter or food for animals? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>How has the disaster affected this use? Explain:</p>
<p>Shelter requirements – climatic factors: Need to resist heavy rain: Yes <input type="checkbox"/> No <input type="checkbox"/> Need to resist heavy wind: Yes <input type="checkbox"/> No <input type="checkbox"/> Need to resist hot weather: Yes <input type="checkbox"/> No <input type="checkbox"/> Need to resist cold weather: Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>Describe the physical status of shelters:</p>
<p>17. Livelihoods</p>	
<p>What are the main types of activities households use to make a living? (e.g. farmer with smallholding, office worker, wage labourer, remittances, a combination of activities, etc.)</p>	<p>What were the main sources of income and food prior to the disaster?</p>

<p>What are the main agricultural activities?</p> <p>Who does what on the land and who owns it?</p>	<p>What has happened to households that run shops?</p> <p>What were the main sources of income and food prior to the disaster?</p>	
<p>Have communities lost key items (assets) that they need for their work (e.g. fishing or farming equipment, means of transport, tools or equipment, etc.)? Explain:</p>		
<p>Have important environmental assets been damaged or destroyed which may affect people’s future ability to make a living?</p>	<p>Briefly explain:</p>	
<p>Update damage and access</p>		
<p>11. Status of roads. Best way to access affected area</p>		
<p>12. Conditions/access of: (as applicable)</p> <ul style="list-style-type: none"> • Rail • Bridges • Water facilities • Sewage systems • Schools • Health facilities • Electricity • Telephones • Airport • Seaport 		<p>Concerns for</p> <p>Hazardous materials []</p> <p>Toxic spills []</p> <p>Oil spills []</p> <p>Other []</p>
<p>17.</p> <p>a. Is the local government active in the disaster response? Yes [] No [] Don’t know []</p> <p>b. Is the community responding to the disaster? Yes [] No [] Don’t know []</p> <p>c. Are NGOs responding in the disaster area? Yes [] No [] Don’t know [] Who? _____</p>		

Minor damage: Building can be safely occupied but needs minor repairs.

Moderate damage: Building cannot be safely occupied and requires major repairs.

Destroyed: Obviously destroyed and requires rebuilding. Note: If necessary

Source: IFRC (2007), Guidelines for emergency assessment (2nd ed). Geneva: IFRC.

Annex 4.3: Global Disaster Response Coordination Mechanisms

The U.N.'s 2005 *Humanitarian Response Review*¹, and the humanitarian reform agenda to which it led, aims to make a more accountable, predictable, and coordinated system for emergency response. Created as an element of the follow-up action to the review, the cluster system aims to ensure sufficient global capacity, predictable leadership, strengthened accountability, and improved strategic field-level coordination and prioritization in response to natural disasters and complex civil emergencies.

The clusters are coordinated through the Inter-Agency Steering Committee (IASC)². The individual clusters are led by designated U.N. agencies and the International Federation of Red Cross and Red Crescent Societies in the case of emergency shelter after natural disasters.

The approach is designed around the concept of partnerships between U.N. agencies, the International Red Cross and Red Crescent Movement, international organizations, and NGOs. Partners work together toward agreed common humanitarian objectives both at the global level (preparedness, standards, tools, stockpiles, and

Global Cluster Groups

- Agriculture
- Camp coordination/management
- Early recovery
- Education
- Emergency shelter
- Emergency telecommunications
- Health
- Logistics
- Nutrition
- Protection
- Water, sanitation, hygiene

¹ <http://www.humanitarianreform.org/humanitarianreform/Default.aspx?tabid=252> 8 October 2007

² The IASC is an inter-agency forum for coordination, policy development, and decision-making involving U.N. and non-U.N. humanitarian partners. The IASC develops humanitarian policies, agrees on a clear division of responsibility for the various aspects of humanitarian assistance, identifies and addresses gaps in response, and advocates for effective application of humanitarian principles. The IASC forms the key strategic coordination mechanism among major humanitarian actors. According to General Assembly Resolution 46/182, the IASC should be composed of "all operational organizations and with a standing invitation to the International Committee of the Red Cross, the International Federation of Red Cross and Red Crescent Societies, and the International Organization for Migration. Relevant non-governmental organizations can be invited to participate on an ad hoc basis." In practice, no distinction is made between "Members" and "Standing Invitees" and the number of participating agencies has expanded since inception of the IASC in 1992. Source: UN/IASC Web site, 2008

capacity-building) and at the field level (assessment, planning, delivery, and monitoring).

A Global Humanitarian Platform (GHP) also was established with these partners. In 2007, the GHP adopted the *Principles of Partnership*, which are intended to form the basis for collaboration and coordination between humanitarian actors (ActionAid, 2007a). They include:

Equality

Equality requires mutual respect between members of the partnership regardless of size and power. The participants must respect each other's mandates, obligations, independence, and brand identity and recognize each other's constraints and commitments. Mutual respect must not preclude organizations from engaging in constructive dissent.

Transparency

Transparency is achieved through dialogue (on an equal footing), with an emphasis on early consultations and early sharing of information. Communications and transparency, including financial transparency, increase the level of trust among organizations.

Result-oriented approach

Effective humanitarian action must be reality-based and action-orientated. This requires result-orientated coordination based on effective capabilities and concrete operational capacities.

Responsibility

Humanitarian organizations have an obligation to each other to accomplish their tasks responsibly, with integrity and in a relevant and appropriate way. They must make sure they commit to activities only when they have the means, competencies, skills, and capacity to deliver on their commitments. Decisive and robust prevention of abuses committed by humanitarians must also be a constant effort.

Complementarity

The diversity of the humanitarian community is an asset if we build on our comparative advantage and complement each other's contributions. Local capacity is one of the main assets to enhance and build on. It must be made an integral part in emergency response. Language and cultural barriers must be overcome.

Annex 5.1: Transitional Settlement and Reconstruction Principles

1. Support the affected community

The first and main effort in responding to an emergency is always made by the affected community. The impact of the disaster on the community must be ascertained and appropriate support provided to local responses when these are appropriate and safe. Support must also be based on an understanding of the different roles and resources of individuals and groups within the community. Assessments (Principle 3) provide an understanding of these factors.

2. Coordinate and promote a strategy for response

Coordination between governmental and international stakeholders must be based on a consensus strategy, developed and maintained with the participation of the affected population and government. A coordinated response strategy aims to support the government, filling gaps where necessary. The strategy should cover the entire response, from the initial crisis through to recovery and to the point at which durable solutions are reached for every member of the affected population. Transitional settlement, reconstruction, and risk reduction should be linked to or compatible with national planning mechanisms and programs for sustainable development. The strategy must be consistent with international and national law and with the standards and principles agreed among stakeholders. This should ensure that assisting groups respond to the needs of the affected population, regardless of whether or not they owned land or property, and include all vulnerable groups.

3. Maintain continuous assessment of risk, damage, needs, and resources

Emergency assessments, followed by ongoing assessments, monitoring, and evaluation, are essential to a successful response. The strategy for response should be reviewed and updated according to the results obtained from this ongoing process.

4. Avoid relocation or resettlement unless it is essential for reasons of safety

Affected communities should not be displaced or resettled unless it is absolutely essential to avoid risks from physical hazards (see Principle 5). Displacement is likely to exacerbate the impacts that a disaster has on property, social connections, and livelihoods in both rural and urban environments. Remaining at home or close to home enables survivors to support themselves and recover their livelihoods, as well as helping

to prevent problems arising over land tenure. Displacement must always be voluntary, and the rights of the affected population must be respected.

5. Minimize duration and distance when displacement is essential

If displacement is essential for reasons of safety (see Principle 4), the displaced population should be supported to minimize the duration of their displacement and the physical distance from their place of origin. This enables people to recover their social connections and livelihoods as quickly as possible.

6. Support settlement and reconstruction for all those affected

Support must be offered to all affected persons, regardless of whether or not they are land or property owners or living in houses or apartment buildings. Families hosting displaced populations must also be included. Assisting groups should identify and monitor major problems facing the response so that the needs of all affected persons can be met, regardless of race, ethnicity, gender, and age. This includes people who settle in a new location. A variety of solutions should be considered.

7. Ensure rights and secure tenure for all those affected

Security of tenure and property rights must be achieved for all those affected, whether they were previously illegal or informal occupants of their homes, tenants, or owners. Support must therefore be provided to the establishment of these rights for all members of the affected population, including those initially without property rights. This support must take place as early as possible, to ensure that displaced persons can return home as quickly as possible. The reconstruction of homes and communities can only begin once such issues are resolved. Displaced persons also require security of tenure while displacement lasts in the place where they are currently living.

8. Support the affected population in making informed choices

The affected population must be presented with a selection of transitional settlement options based upon their initial choices, where appropriate, with enough information to make informed decisions.

9. Ensure that vulnerability to disasters is not rebuilt

It is vital that the opportunity provided by disasters to raise awareness and undertake mitigation and measures that reduce people's vulnerability to future events is taken. Vulnerability must be reduced by incorporating specific risk reduction activities and measures into the transitional settlement and reconstruction response—for example, increasing the hazard resistance of buildings being reconstructed.

10. Undertake contingency planning

Contingency plans must be developed and/or previously existing plans updated in light of experience gained in the disaster. Contingency planning is most effective when it is a participatory process that includes all the actors who will be required to work together in the event of an emergency. It is a forward planning process, in which scenarios and objectives are agreed, managerial and technical actions defined, and potential response systems put in place to respond to an emergency situation.

Source: OCHA/Shelter Centre/DFID, *Transitional settlement and reconstruction after natural disasters*. Geneva: OCHA, 2008.

Annex 5.2: Livelihoods Considerations in Sheltering Assistance

Peoples' housing choices and means of making a living are closely inter-linked. Homes and settlements are usually located where they are accessible to work places, whether these are fields or factories, and may include important storage spaces for crops and shelter for valuable animals. Some livelihood activities such as petty trading, gardening, or production are based in the home. Research on the importance of home-based enterprises suggests that this source of income is enabled through the provision of shelter and is the single most important income source for the populations most affected by disaster (Sheppard and Hill, 2005).

Research conducted by Sheppard and Hill in 2004 of three disaster operations to provide an understanding of the link between changes in household income and the provision of shelter assistance found that:

- Families provided with shelter post-disaster typically attain a significantly higher increase in income than those families who are not provided with shelter.
- Investments in emergency shelter provision provide significant returns, generating a payback conservatively valued at three to eight times the value of the initial investment.
- Even for the programs serving the poorest and most vulnerable, and given only a short time for benefits to emerge, shelter provision appears to return considerably more than the initial investment.
- The benefits of shelter last beyond the emergency assistance period. These include positive effects on increased income and family health.
- The benefits from shelter provision appear to be larger after a year or two has passed to enable forward linkages in the economy (e.g., the use of shelter as a platform for business, investments as a consequence of rent-saving, or inducements for a range of trades serving the investments in the home).
- The role of shelter as capital is particularly important in accelerating development and increasing incomes but is typically unappreciated, particularly among post-disaster program planners.
- Beyond capital, but linked to it, the role of shelter as an overall platform for increasing incomes—with links to key ingredients for income improvement, such as

credit, training, agricultural support, small business development—is underappreciated as well.

Source: Sheppard and Hill (2005), p. 10.

Annex 6.1: Results Framework for Asian Urban Disaster Management Program (AUDMP)

<p>Program Goal: Reduced natural disaster vulnerability of urban populations, infrastructure, lifeline facilities, and shelter in the Asian region.</p> <p>Program Objective: Establishment of sustainable public and private sector mechanisms for disaster mitigation in the Asian region.</p> <p><i>Objective Indicators:</i></p> <ol style="list-style-type: none"> 1. Number of operational plans developed with resources identified by national collaborating institutions to carry out mitigation measures after demonstration activities end. 2. Number of replications or adaptations of mitigation skills and procedures promoted in AUDMP demonstration activities by other organizations, communities or countries in the Asian region. 3. Amount of investment from non-AUDMP funding sources attracted by program and demonstration activities. 4. Number of households potentially benefiting from AUDMP-sponsored activities to reduce disaster vulnerability. 	<p>Results:</p> <ol style="list-style-type: none"> 1. Improved capacity of municipal officials to manage risk, apply mitigation skills and technologies. <p><i>Indicators:</i></p> <ol style="list-style-type: none"> 1.1 Number of new or improved assessment methods and guidelines/standards used for public or private sector development. 1.2 Number of emergency preparedness and response plans written or revised to reflect improved information on hazards and vulnerability. <ol style="list-style-type: none"> 2. Improved access to hazard mitigation information and skills (techniques, methodologies, experience) throughout the region. <p><i>Indicators:</i></p> <ol style="list-style-type: none"> 2.1 Percent[age] of public and private sector professionals with AUDMP-initiated disaster mitigation training who are using the knowledge gained in fields impacting disaster management or urban development. 2.2 Number of institutions where AUDMP-initiated training and professional development course modules are institutionalized. 2.3 Level of participation in the AUDMP regional information and contact network established during the Program. <ol style="list-style-type: none"> 3. Improved policy environment for disaster mitigation <p><i>Indicator:</i></p> <ol style="list-style-type: none"> 3.1 Improved policy environment for disaster mitigation.
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Objective Indicator 2: Number of replications or adaptations of mitigation skills and procedures promoted in AUDMP demonstration activities by other organizations, communities, or countries in the Asian region.

Standard/Target: 25 replications or adaptations. Replication should be initiated during the program period even if not completed until after the program ends. Replications may be of methodologies, sets of skills/procedures, guidelines/standards, or policies. Replications must be attributable to the example of the demonstration projects.

Data Sources: Activity reports; surveys and evaluations; requests for guidelines/models received by ADPC Management Team and national partners.

Critical Activities: Process documentation of demonstration activities and methodologies. Promotion and public awareness efforts with relevant government officials, decision-makers, community groups, and professionals (e.g., promotional materials, training, city-sharing workshops, community meetings, electronic networking).

Result 1: Improved capacity of municipal officials to manage risk, apply mitigation skills and technologies.

Indicator 1.1: Number of new or improved assessment methods and guidelines/ standards used for public or private sector development.

Standard/Target: At least 10 new or improved methods or guidelines/standards adopted and used during the program period. Count ordinances, development regulations, building standards, vulnerability/ risk analyses—and means a community or municipality has for controlling or regulating development, incorporating hazard information. Monitor applications and enforcement of standards/regulations by city officials and private professionals. Target is based on one new or improved assessment method or set of guidelines/standards used per national demonstration project.

Data Sources: Regularly scheduled activity reports; municipal records; published regulations.

Critical Activities: Preparation of hazard, vulnerability maps; identification of elements at risk; recommendations for mitigation strategy; identification of implementation options and priorities.

Source: 'Strategic Objective and Results Framework', undated, Asian Urban Disaster Mitigation Program website in Twigg, 2004, pp 357–360

Annex 6.2: JSDF Thailand Tsunami Project Monitoring and Evaluation Matrix

Key Research Questions	Indicators	Means of Verification/Sources of Data	
		Monitoring Tools	Evaluation Tools
Targeting			
a. Who does JSDF1 reach? Does JSDF1 directly benefit affected communities?	<ol style="list-style-type: none"> 1. religion/nationality 2. income and debt 3. perceived income status 4. extent/nature of tsunami damage 5. amount and sources of assistance received 	Project approval forms PIP progress reports Baseline quantitative survey	Impact evaluation
Socio-economic Impact			
Does JSDF1 deliver quality and sustainable social and economic benefits?			
<i>Quality of small-scale infrastructure</i>			
a. What is the quantity and quality of the infrastructure and related services delivered?	<ol style="list-style-type: none"> 1. #/type/\$/quality of infrastructure built 2. # beneficiaries 3. # work-days generated 4. #/type of training activities and # trained 5. Satisfaction levels of community 	Project approval forms PIP progress reports Mid-term beneficiary assessment	End-of-activity report Impact evaluation WB supervision missions
b. Are the projects being maintained? Are they sustainable?	<ol style="list-style-type: none"> 1. # of members involved in operations and maintenance 2. O&M arrangements, including \$ set aside for maintenance 3. ownership indicators (see <i>Community Capacity</i> below) 	Project approval forms End of activity reports	End-of-activity reports Impact evaluation WB supervision missions
<i>Quality and use of livelihood restoration activities</i>			
a. What types of economic activities are funded? Are the activities profitable? Who benefits from the economic activities?	<ol style="list-style-type: none"> 1. #/type of activities 2. # beneficiaries 3. economic analysis 4. \$ income received 5. \$ debt 	Project approval forms PIP progress reports Mid-term beneficiary assessment	End-of-activity reports Impact evaluation WB supervision missions

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JSDF Thailand Tsunami Project Monitoring and Evaluation Matrix

Key Research Questions	Indicators	Means of Verification/Sources of Data	
		Monitoring Tools	Evaluation Tools
	6. change in income status 7. #/type of new businesses opened 8. Satisfaction levels of community		
b. Are funds repaid? Do the funds revolve? How are repaid funds distributed?	1. Repayment rates 2. #/\$ revolving funds 3. \$/beneficiaries of revolved funds	Project approval forms PIP progress reports Mid-term beneficiary assessment	Impact evaluation WB supervision missions

Alignment of Investments with Community Priorities

Are the voices and preferences of the beneficiaries reflected in the activities that were financed?

a. Are the activities chosen those that the community wants? Do activities respond to expressed needs?	1. Top three community-identified priorities 2. Type of project chosen	Community needs assessment/meeting minutes Project approval forms Mid-term beneficiary assessment	End-of-activity reports Impact evaluation
b. How are needs prioritized?	1. Needs identification process 2. Equity of decision-making process	PIP progress reports Mid-term beneficiary assessment	Impact evaluation
c. Does the community feel they benefit from the project? Who benefits most and how?	1. # community-identified beneficiaries 2. Community perceptions of beneficiaries/non-beneficiaries	Mid-term beneficiary assessment	End-of-activity reports Impact evaluation
d. Are activities implemented aligned with long-term community development plans?	1. Is there a community development plan? 2. Are JSDF activities included?	Project approval forms PIP progress reports	End-of-activity reports Impact evaluation WB supervision missions

Community Capacity Building

Do the block grants and sub-grant processes strengthen community capacity for managing their own development?

<i>General</i>			
a. How do communities feel about the project and PIP? Is there a sense of ownership of activities and processes?	1. Community perceptions 2. #/type of complaints 3. Level of community contribution	PIP progress reports Mid-term beneficiary assessment	Impact Evaluation WB supervision missions
b. Have there been problems with subproject identification and implementation? How are they addressed?	1. Community perceptions 2. #/type of complaints	PIP progress reports Mid-term beneficiary assessment	Impact Evaluation WB supervision missions

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Key Research Questions	Indicators	Means of Verification/Sources of Data	
		Monitoring Tools	Evaluation Tools
<i>Social Capital Stocks</i>			
a. Have the levels of solidarity and trust among households and community members increased?	1. Solidarity indicators 2. Trust indicators	Quantitative baseline survey	Impact Evaluation
b. Has the strength and level of membership and leadership increased?	1. Inclusion of diversified groups 2. Membership contributions	Quantitative baseline survey Mid-term beneficiary assessment	End-of-activity reports Impact evaluation
c. Has participation in decision-making increased? Who participates in community decision-making and who does not?	1. # consultation meetings 2. # community members attending meetings 3. # women/disadvantaged participating 4. community perceptions	Quantitative baseline survey PIP progress reports Mid-term beneficiary assessment	End-of-activity reports Impact evaluation
d. Has the organizational capacity of the community increased?	1. Effectiveness, learning ability, sustainability	Quantitative baseline survey Mid-term beneficiary assessment	Impact evaluation
e. Have the linkages within and outside households and communities increased? Do they benefit?	1. Strength of horizontal and vertical linkages 2. Benefits	Quantitative baseline survey Mid-term beneficiary assessment	Impact evaluation
<i>Social Capital Channels</i>			
a. Have cooperation and collective action increased? Do communities and households benefit?	1. # people involved 2. degree of cooperation 3. benefits	Quantitative baseline survey Mid-term beneficiary assessment	Impact evaluation
b. Is information about JSDF1 shared within and outside the community?	1. Amount of information shared within community 2. Amount of information shared outside community	Quantitative baseline survey Mid-term beneficiary assessment	Impact evaluation
<i>Social Capital Outcomes</i>			
a. Has social cohesion increased? Are differences tolerated and marginalized groups included? Is their hope for a better future for the community?	1. Tolerance of differences 2. Social inclusion 3. Conflict management ability 4. Hope	Quantitative baseline survey Mid-term beneficiary assessment	Impact evaluation

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JSDF Thailand Tsunami Project Monitoring and Evaluation Matrix

Key Research Questions	Indicators	Means of Verification/Sources of Data	
		Monitoring Tools	Evaluation Tools
b. Has community management capacity and transparency been strengthened?	1. Community perceptions (including ability to manage future crises).	Quantitative baseline survey Mid-term beneficiary assessment	Impact evaluation
Project Management Information			
Is the project being managed effectively?			
a. Are PIPs implementing the project in a timely manner?	1. time between project submission and approval 2. time between approval and first disbursement	Project approval reports PIP progress reports	WB supervision missions
b. Are the main project outputs being achieved?	1. # communities participating 2. #/\$ disbursed by type of activity 3. # beneficiaries 4. # and type of training provided 5. # networks participating	Project approval reports PIP progress reports	End-of-activity reports WB supervision missions
c. Is adequate information on inputs and outputs being collected and reported regularly?	1. # indicators tracked 2. quality and consistency of indicators tracked 3. # facilitator visits 4. # WB supervision missions	PIP progress reports	End-of-activity reports WB supervision missions
d. Are the project's procurement procedures and finances being managed properly?	1. # procurement/financial training courses held 2. familiarity of facilitators with WB procurement procedures 3. #/type of complaints about mishandling of funds 4. availability and quality of procurement documentation	PIP progress reports	WB supervision missions, including ex-post procurement and financial audits
e. Are monitoring results influencing decisions regarding project implementation?	1. Changes made based on experiences	PIP progress reports	End-of-activity reports WB supervision missions
f. Are experiences being shared across PIPs?	1. # of PIP Coordinating Committee Meetings 2. # of Advisory Committee Meetings	PIP progress reports	WB supervision missions

All relevant indicators are gender-disaggregated where possible.

Annex 6.3: TRIAMS: Tsunami Disaster Recovery Outputs and Performance Indicators

Vital needs

- % of population with access to water from an improved source, by administrative level
- % of population without basic sanitation facilities, by administrative level
- Household food consumption (24 hr recall)
- Proportion of tsunami-affected population with housing damaged/destroyed living in emergency shelter/temporary houses/permanent houses, by sub-district, by time period
- Measles immunization coverage, by administrative level
- # of titles to land issued, by economic status and by gender, by district

Basic social services

- # of primary school children per school, by sub-district
- # of primary school children per teacher, by sub-district
- # of hospital beds per 10,000 population (inpatient & maternity), by sub-district/district
- # of outpatient consultations per person per year, by administrative level
- % of children of 12–23 months who are fully immunized against all antigens, by administrative level
- # of health facilities with emergency obstetric care per 10,000 population, by sub-district/district
- adequate antenatal coverage (at least 4 visits during a pregnancy), by sub-district
- % of sub-districts covered by mobile psychological support workers, by district

Infrastructure

- # of km of repaired/new road, by type of road, by district
- # of bridges repaired, by district
- # of harbors/jetties rehabilitated by type, by district
- % of destroyed/damaged schools rebuilt or rehabilitated by category, by sub-district
- % of destroyed/damaged health facilities rebuilt or rehabilitated, by category, by sub-district

- # of sq km of natural habitat restored, by type
- # of km of coastal protection by type (biofencing, seawalls, quay walls, breakwaters) constructed/repared, by district

Livelihoods

- # of sq km of land returned to crops, by district
- % of tsunami-affected population who have received loans, by administrative level, by gender
- % of tsunami-affected population enrolled in social protection programmes, by gender, by sub-district
- # of people employed, by different sector, by district, by gender
- % of damaged/destroyed boats repaired/replaced, by use (fishing, tourism, ferrying and other income generating activities) and by district

Disaster Risk Reduction: Comprehensive List of Suggested Indicators

Building Safety

- % districts that have adopted building standards appropriate for coastal zone hazards
- Plan check and inspection - % districts that have effective land use and building regulatory agencies
- Standards for reconstruction - % of reconstruction projects specifically implementing standards of siting and design for future risk reduction

Hazards assessment

- Exposure to future natural hazards - % of people living in zones where they are now exposed to further hazards
- Stronger institutional capacities for risk identification and dissemination
- Forecasting of hazards and vulnerabilities, and early warning systems for multiple hazards are strengthened through:
 - level of investment in equipment and technology
 - national and regional cooperation agreements to exchange information and experience
 - increase in the number of public information dissemination campaigns via media and schools for measurable change in public understanding of acting on early warning
 - % of districts that have prepared a formal, comprehensive hazard assessment with emphasis on coastal flooding and inundation
 - % of districts that have developed hazard zonation maps defining permitted land uses

Institutional capacities—planning and legislation

- Number of preparedness and response plans (national and provincial) written or revised to reflect improved information on multiple risks in the tsunami-affected provinces as well as in other high-risk areas of the country
- Enabling policy framework: number of policies and legislations drafted or revised to facilitate action, regulation, enforcement and/or incentives (including insurance and other risk transfer mechanisms)
- % districts and municipalities that have included hazard management annexes in their regional and urban development master plans

Livelihood sustainability

- Scale of area directly or indirectly affected by the tsunami in which community-based watershed management plans have been established and/or reassessed
- Stability of employment rates after the discontinuation of food and cash for work programs
- Number of homeless families and homeless street children and youth

Diversity of livelihood and economic activities

- Reestablishment of trade and transport links between disaster-affected rural areas and markets for products, labor, and services
- Number of different activities by gender and age in the household
- Index of diversity of livelihood activities
- Remittance flows return to normal after tsunami-related disruption

Local resilience systems

- Percentage of population in affected areas that are judged as chronically poor and that have access to social protection measures (comparison before and after the tsunami)
- Reestablishment (or increase) in flows of resources through pre-existing social protection schemes
- Social capital: number of citizen groups and other interest groups (among small business owners, fishermen, women, etc.) that have been formed or restarted since the tsunami
- Exposure to violence and abuse: incidence of domestic violence and crimes against persons

Safety of schools, hospitals, and other critical infrastructure

- Number and % of schools and hospitals rebuilt, relocated, or retrofitted to take into account their exposure to future hazards and conforming with building regulations; level of transfer of this practice to other high-risk areas outside the tsunami-affected municipalities

- # of infrastructure systems including the energy, transportation, communications, water, and solid waste sectors that have carried out hazard and vulnerability assessments with specific reference to coastal hazards
- % of hospitals and other critical facilities that have sufficient backup water, power, and communications

Annex 8.1: Mainstreaming of Disability into Pakistan Poverty Alleviation Rehabilitation and Reconstruction Project

[Excerpts from Implementation Guidelines]

1. Objectives

Following are the two key objectives of housing reconstruction program:

1. Assist people to re-build their lives by providing safer housing and restoring basic infrastructure services through a community and owner driven approach.
2. Build capacities of earthquake affected households to take control of their lives.

2. Policy

PPAF housing Rehabilitation and Reconstruction policy is supplementary to the policy of Earthquake Reconstruction and Rehabilitation Authority (ERRA) and therefore all the decisions and actions of the PPAF staff and its Partner Organizations (POs) must conform to the policies of ERRA. However, for the areas falling beyond the scope of ERRA PPAF's employees and partner organizations carry out their responsibilities within the parameters as defined by the Fund.

2.1 Salient Features of the ERRA Policy on Housing Reconstruction

The Earthquake Reconstruction and Rehabilitation Authority (ERRA) is mandated by the Government of the Islamic Republic of Pakistan as the regulatory and coordinating agency for the reconstruction and rehabilitation of the earthquake devastated areas in the Azad Jammu Kashmir and NWFP. The overall objective of the rural housing reconstruction policy is to ensure that an estimated 600,000 houses that were either destroyed or damaged, will be rebuilt by using earthquake resistant building techniques.

2.1.1 Principles for Housing Reconstruction

- Establish building standards and designs that are earthquake resistant.
- Rebuild in situ, means the reconstruction should be taken place at the same location/ land unless endangered by land slide, and adjacent cracked buildings. Minimum population and settlement relocation should take place. Communities will only be relocated if sites are severely geo-hazardous.
- Rebuilding will be owner-driven. Owners need to understand earthquake resistant building techniques as they will rebuild themselves or hire labor to re-build their homes.
- Familiar construction methods and easily accessible materials will be used in rebuilding. Earthquake resistant elements need to be introduced in the existing traditional building techniques.
- Uniform financial assistance package for rebuilding will be disbursed to all beneficiaries.
- Coordination is necessary to ensure full spatial coverage to avoid duplication of service provision

3. Institutional Framework of ERRA

The salient features of ERRA Institutional framework as outlined by the authority are as follows:

- The implementation of rural housing reconstruction is decentralized. ERRA headquarters is responsible for setting standards for the overall coordination and monitoring and provides a support structure for the rural housing reconstruction from Federal to District levels.
- In coordination with Province/State, ERRA manages a consolidated training programme to provide unified training guidelines and training curriculum for the training of training coordinators.
- The Provincial Earthquake Reconstruction Authority (PERA) acts as the secretariat of the Provincial Steering Committee. The ERRA Regional Housing Coordinator will be posted in the PERA to supervise and coordinate provincial housing reconstruction activities and will report to both PERA and ERRA. The District Reconstruction Unit (DRU) acts as the secretariat of the District Reconstruction Advisory Committee (DRAC). It acts as the lead agency for all housing reconstruction. It oversees these points (a) needs identifications, (b) annual planning, (c) coordination, (d) financial management and lastly (e) monitoring of all housing reconstruction activities assigned to the districts.
- The ERRA's District Housing Coordinator is posted in the District Reconstruction Unit to supervise and coordinate district housing reconstruction activities and reports to the Regional Housing Coordinator. Eleven Housing Reconstruction

Centers (HRC) have been established on the District or sub-District levels at locations, Bagh, Rawalakot, Dhirkot, Hattian, Muzaffarabad, Patika, Balakot, Battal, Batagram, Bana and Besham.

- The Housing Reconstruction Centers are primarily responsible for training, technical assistance and coordination of activities and are under the supervision of the District Reconstruction Unit through the District Housing Coordinator (DHC). All PPAF's POs and their Regional Offices, Social Mobilization Teams and others are required to remain in contact with departments and officials designated by the Competent Authority for regular exchanges of information and learning.

4. Institutional Framework of PPAF

4.1 Disaster Management Centre

The Disaster Management Centre (DMC) based in Islamabad is headed by a Team Leader.

The DMC is facilitated by two separate provincial teams who are responsible for managing the program in the NWFP and AJK regions.

5. Role of PPAF and its POs

PPAF has been assigned 18 Union Councils in NWFP and 16 in AJK to act as an extension of ERRA for housing reconstruction. PPAF being the executing agency has mandated its POs to carry out damage assessment conduct training and facilitate the beneficiaries to reconstruct their houses in accordance with the construction guidelines provided by ERRA from time to time. PPAF POs are also mandated to rehabilitate Community Physical Infrastructure (CPI) schemes.

6. POs Implementation Structure

PPAF supports its POs to establish a Social Mobilization Team (SMT), responsible for providing social mobilization and technical assistance by inspecting progress at every stage of the reconstruction process. On average each SMT will be responsible for looking after 1000-1200 households. Below mentioned is the strength of each SMT:

1. Engineer/ sub-engineer 1
2. Social Organizer (F) 1
3. Social Organizer (M) 1
4. Security Guard 1
5. Driver 1

A Supervisory Structure is responsible for five to ten SMTs, depending on topography of the area. Composition of a typical Supervisory Structure is as follows:

1. Program Coordinator 1
2. Senior Engineer 1
3. Senior Social Organizer 1
4. MER Officers 2
5. Accountant 1
6. Security Guard 1
7. Attendant 1

The above structure is indicative only and POs have flexibility to revise their Implementation Plans in consultation with PPAF.

7. Eligibility Criteria

The earthquake has indiscriminately affected both villages and towns. However, keeping in view PPAF's mandate, the area of its focus is the rural earthquake affected districts of AJK and NWFP. The criteria set by PPAF for its partner organizations are described below:

7.1 Partner Organizations

Only those organizations are eligible for RNR who are/were:

- Present in the affected area on the eve of October 7, 2005.
- Presence means having mobilized communities in one or more union council before October 8, 2005.
- Partner organizations means civil societies/ private sector organizations eligible for PPAF's partnership as mentioned in paragraph 6.1.1 of PPAF's Operations and Procedure Manual.

7.2 Beneficiaries

- Home owners appearing on the list of individuals provided to PPAF by 37 Division of Pakistan Army for NWFP and by 19 Division of Pakistan Army for AJK, having received Rs. 25,000 as the first installment of compensation by the Government of Pakistan and found eligible through a damage assessment survey.
- Owners of homes not found on the list provided by concerned army divisions but found Partially Damaged or Completely Destroyed during damage assessment survey and endorsed by ERRA for inclusion in the list of beneficiaries.

8. Operations

8.1 Social Organization

Disasters do have the capacity to collapse the social value systems; this collapse can create chaos and conflict, thereby blocking efforts for effective reconstruction and rehabilitation.

Therefore, before any rehabilitation and reconstruction work should be undertaken an effective and well targeted policy is required. Thus, it is imperative to mobilize villagers into well knit and cohesive communities, so decisions can be taken on sites, beneficiaries, designs, materials and security through a fully consultative and participatory process. In recognition of this, PPAF social mobilization strategy is based on three important principles:

1. Inclusiveness
2. Cohesiveness
3. Accountability

This Social Mobilization process will lead to the development of community based institutions in the affected areas with these characteristics: (i) democratic in nature by being representative and inclusive; (ii) collectively make informed decisions on who is most affected in order to prioritize access to benefits; (iii) training in basic book keeping and accounting so transparency and good governance be maintained; (iv) capacitated to supervise and monitor reconstruction and rehabilitation; (v) capacitated to mobilize resources, both local and outside to sustain the rehabilitation processes in the long run; and (vi) synergize and partner with other institutions, organizations and agencies to attain economies of scale in the delivery of service to the beneficiaries.

8.1.1 Priority to Vulnerable

Vulnerability is defined as “the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard. It involves a combination of factors that determines the degree to which someone’s life, livelihood, property and other assets are put at risk by a discrete and identifiable event in nature and society.”

PPAF and its POs are committed to give priority to the vulnerable segments of the society in all the areas of operations. This priority gets further higher in ranking in the earthquake affected areas. The vulnerable segments include:

1. Widows having no male child over the age of 18

2. Women with disabled husbands
3. Divorced/abandoned women/unmarried women who have crossed marriageable age and dependent on others
4. Disabled (physically or mentally)
5. Unaccompanied minors i.e. orphans
6. Unaccompanied elders, over the age of 60
7. Landless due to land sliding / red zones / fault line area

People falling under the category of vulnerable and eligible have already been defined under the 'Definitions'. PPAF and its POs support the vulnerable and do not distinguish between pre and post earthquake vulnerability.

In order to identify and document support to the vulnerable SMT's are required to facilitate COs (Community Organizations). They should categorize individuals according to their vulnerability. In this regard a form for recording 'Identification of Vulnerable Individuals' is given in the end of this Annex. This form contains identification of PO, SMT ID, UC, District, Village and the CO. The form have columns to record total number of members, column heading 'Signed by' gives number of members signing the format. At the end of form provision is made for listing names, signatures or thumb impressions of the identifiers such as CO members/villagers. In order to make the process more cohesive and inclusive, provision has also been made for names and signature/ thumb impressions of the vulnerable individuals themselves.

A Community Action Plan for Vulnerable Individuals focuses on housing reconstruction for the time being. The idea is to motivate communities to facilitate housing reconstruction of vulnerable on the priority basis. Field tests of the Action Plan formats have revealed that the process can be divided into four critical stages: i) Rubble removal; ii) arrangement of labour; iii) purchase of material; and, iv) reconstruction of homes. Communities will be facilitated to assign the above mentioned responsibilities to one or more individuals with clearly laid down time frames for each stage.

During damage assessment a vulnerability census was also carried out and each identified vulnerable was checked on whether she/ he had capacity to rebuild her/his own house or not. The capacity to rebuild should be considered to have existed if vulnerable individual had family members or relatives or community members available and willing to help in reconstructing her/ his (vulnerable) house. During re-construction phase it becomes imperative that SMTs carry a re-check on vulnerable whether they need any help in reconstructing their houses or not. PPAF's training strategy is also one of the instruments to help the vulnerable individuals. All the PPAF POs are required to build vulnerable individuals houses as demonstration units.

8.1.1.1 Orphans

PPAF attached especial importance to protection of children in a way that their assets, inherited or acquired by any other means, remain protected until the time they reach an age of maturity and can take informed decisions. Therefore, in case of payment of subsidy to orphans it shall be binding upon PPAF POs to ensure that such individuals are in safe custody of their legal guardians appointed by competent courts and verifiable through a guardianship certificate. In case an orphan has a guardian not appointed by a competent court, the PO shall facilitate such orphans and their de-facto guardians by guiding them on proper procedures, and wherever possible, linking them to appropriate authorities. Under any circumstance payments shall not be transferred to de-facto guardians unless authorized by competent courts.

8.1.2 Revitalization of Communities through Intensive Social Mobilization

The earthquake has left a devastating effect on the institutional structures, capacity of partner organizations and village based community organizations. This component will address the immediate resource constraints for intensive revitalization of Social Mobilization processes, the back bone of effective community driven development scheme. It will focus on trainings (communities as well as POs' staff) to develop skills for management of disaster and rehabilitation operations as well as vocational skills for reconstruction. PPAF's POs have already demonstrated their outreach capacity and comparative advantage (quick and effective response) over site provision of relief supplies. The associated costs of social mobilization will increase in winters.

8.1.3 Disaster Management and Post Trauma Stress Management (PTSM)

This component will focus on the training of POs' social mobilization teams with special emphasis on Disaster Management and Post Trauma Stress Management (PTSM) at two levels: (a) Training of master trainers (PO's staff) by PPAF or any of its collaborating agencies and (b) Training of community members in community management skills by PO staff.

9. Damage Assessment

The PPAF's POs are required to carry out damage assessment on ERRA/ NADRA provided damage assessment forms, each with unique number and with two copies of MoU attached with the Damage Assessment Forms having the same number which appears on the damage assessment form. PPAF's POs are required to take engineering decisions and barring grievance cases, on site in front of the communities. Any information additional to ERRA supplied forms is for PPAF's internal records. Carrying out damage assessment after July 28, 2006 is not permissible unless duly authorized by ERRA. On treatment of Damage Assessment Forms and various columns see 'Data and Reporting'.

9.1 Guidelines for Social Mobilization Teams (SMT):

The SMTs must follow the guidelines stated below:

- All engineering decisions should be taken in front of house owners and in the presence of as many community members as possible.
- PPAF's POs will transfer the due payments directly into the bank/ post office accounts of the beneficiaries unless or otherwise specified in writing by the PPAF's Disaster Management Center to the concerned PO head office.
- Beneficiaries are required open bank accounts at bank branches that suit them. SMTs are required to facilitate them in whatever manner possible.
- MOU between the SMTs and beneficiaries must be signed on the formats provided by ERRA. It is SMT's responsibility to ensure that the formats are sequentially numbered. Blank MOUs must be returned to the nearest PPAF's FCO. ERRA's guidelines must be to each MOU.
- Every CO must be provided with two sets of ERRA's guidelines.
- MoU must be read to beneficiaries so that it is clearly understood.
- The SMTs must ensure that MOUs include beneficiaries' bank account number.



PAKISTAN POVERTY ALLIVIATION FUND (PPAF)

Rehabilitation and Reconstruction Project

Identification of Vulnerable Individuals

PO	SMT ID				UC		District					
Village	CO Name				CO Type	Total Members	Signed by					
Date:												
S.no.	DA Form Number	Name/ parentage	CNIC/ NIC #	Relation	Age	CO Memb? Y/N	Vulnerability on or after 8/10/2005	Type of Vulnerability				
								Mental Disability	Physical Disability	Widow	Orphan	Elderly

Name & Signature of Vulnerable Individuals					
Name	Signature	Name	Signature	Name	Signature

Name & Signature of CO members/ Name & Signature of Villagers					
Name	Signature	Name	Signature	Name	Signature



PAKISTAN POVERTY ALLIVIATION FUND (PPAF)

Rehabilitation and Reconstruction Project

Community Action Plan for Construction of Houses of Vulnerable Individuals

PO	SMT ID			UC		District			
Village	CO			Total Members		Signed by			
Number of Vulnerable Individuals	CO Vulnerable Members			Date					
No.	Name of Vulnerable Individual	Type of Vulnerability	# MOU	Damage Category		Activity	Responsible person of the community	Time Frame	
				PD	CD			From	To
						1. Rubble Removal 2. Arrangement of Labor 3. Purchase of Material 4. Construction of House			
						1. Rubble Removal 2. Arrangement of Labor 3. Purchase of Material 4. Construction of House			
						1. Rubble Removal 2. Arrangement of Labor 3. Purchase of Material 4. Construction of House			



GLOSSARY

Glossary of Terms

Biological hazard	Processes of organic origin or those conveyed by biological vectors, including exposure to pathogenic micro-organisms, toxins, and bioactive substances, which may cause the loss of life or injury, property damage, social and economic disruption, or environmental degradation. Examples of biological hazards: outbreaks of epidemic diseases, plant or animal contagion, insect plagues, and extensive infestations.
Building codes	Ordinances and regulations controlling the design, construction, materials, alteration, and occupancy of any structure to ensure human safety and welfare. Building codes include both technical and functional standards.
Capacity	A combination of all the strengths and resources available within a community, society, or organization that can reduce the level of risk or the effects of a disaster. Capacity may include physical, institutional, social, or economic means as well as skilled personal or collective attributes such as leadership and management. Capacity may also be described as capability.
Capacity building	Efforts to develop human skills or societal infrastructures within a community or organization needed to reduce the level of risk. In extended understanding, capacity building also includes development of institutional, financial, political, and other resources, such as technology at different levels and sectors of the society.
Climate change	The climate of a place or region is changed if over an extended period (typically decades or longer) there is a statistically significant change in measurements of either the mean state or variability of the climate for that place or region.
Community-driven development	Community-driven development is a development approach that transfers control over resources and decision-making from central agencies to communities. The approach focuses on improving people's livelihoods through improved delivery of public goods and services and more

sustainable community assets. It also emphasizes transparency and accountability in local decision-making to create more responsive government (particularly local government) and empowering the citizenry, as lack of empowerment is another form of poverty.

Coping capacity	The means by which people or organizations use available resources and abilities to face adverse consequences that could lead to a disaster. In general, this involves managing resources, both in normal times as well as during crises or adverse conditions. The strengthening of coping capacities usually builds resilience to withstand the effects of natural and human-induced hazards.
Disaster	A serious disruption of the functioning of a community or a society causing widespread human, material, economic, or environmental losses that exceed the ability of the affected community or society to cope using its own resources. A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability, and insufficient capacity or measures to reduce the potential negative consequences of risk.
Disaster management	Disaster management refers to all aspects of planning for and responding to disasters, including both pre- and post-disaster activities.
Disaster risk management	Disaster risk management refers to the systematic process of using administrative decisions, organization, operational skills, and capacities to implement policies, strategies, and coping capacities of the society and communities to lessen the impacts of natural hazards and related environmental and technological disasters. This covers all forms of activities, including structural and non-structural measures to avoid (prevention) or to limit (mitigation, preparedness, and response) adverse effects of hazards.
Disaster risk reduction (or disaster reduction)	The conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.

Early warning	The provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response. Early warning systems include a chain of concerns, that is understanding and mapping the hazard; monitoring and forecasting impending events; processing and disseminating understandable warnings to political authorities and the population; and undertaking appropriate and timely actions in response to warnings.
El Niño	A complex interaction of the tropical Pacific Ocean and the global atmosphere that results in irregularly occurring episodes of changed ocean and weather patterns in many parts of the world, often with significant impacts, such as altered marine habitats, rainfall changes, floods, droughts, and changes in storm patterns.
Emergency management	The organization and management of resources and responsibilities for dealing with all aspects of emergencies, in particularly preparedness, response, and rehabilitation. Emergency management involves plans, structures, and arrangements established to engage government and voluntary and private agencies in a comprehensive and coordinated way to respond to the whole spectrum of emergency needs.
Environmental Impact Assessment	Studies undertaken in order to assess the effect on a specified environment of the introduction of any new factor, which may upset the current ecological balance.
Geological hazard	Natural earth processes or phenomena that may cause the loss of life or injury, property damage, social and economic disruption, or environmental degradation. Geological hazard includes internal earth processes of tectonic origin, such as earthquakes, geological fault activity, tsunamis, volcanic activity, and emissions as well as external processes such as mass movements: landslides, rockslides, rock falls or avalanches, surfaces collapses, expansive soils and debris, or mud flows.
Geographic information systems	Analysis that combine relational databases with spatial interpretation and outputs often in form of maps. This can include computer programs for capturing, storing, checking, integrating, analyzing, and displaying spatially referenced data about Earth.

Hazard	A potentially damaging physical event, phenomenon, or human activity that may cause loss of life or injury, property damage, social and economic disruption, or environmental degradation.
Hazard analysis	Identification, studies, and monitoring of any hazard to determine its potential, origin, characteristics, and behavior.
Hydro-meteorological hazards	Natural processes or phenomena of atmospheric, hydrological, or oceanographic nature that may cause the loss of life or injury, property damage, social and economic disruption, or environmental degradation. Hydrometeorological hazards include floods, debris, and mud floods; tropical cyclones, storm surges, thunder/hailstorms, rain and wind storms, blizzards, and other severe storms; drought, desertification, wild-land fires, temperature extremes, sand or dust storms; and permafrost and snow or ice avalanches.
Land use planning	Branch of physical and socio-economic planning that determines the means and assesses the values or limitations of various options in which land is to be utilized, with the corresponding effects on different segments of the population or interests of a community taken into account in resulting decisions. Land use planning involves studies and mapping, analysis of environmental and hazard data, formulation of alternative land use decisions and design of a long-range plan for different geographical and administrative scales. Land use planning can help to mitigate disasters and reduce risks by discouraging high-density settlements and construction of key installations in hazard-prone areas, controlling population density and expansion, and setting carefully service routes for transport, power, water, sewage, and other critical facilities.
Mitigation	Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation, and technological hazards.
Natural hazards	Natural processes or phenomena occurring in the biosphere that may constitute a damaging event.
Preparedness	Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.

Prevention	Activities to provide outright avoidance of the adverse impact of hazards and means to minimize related environmental, technological, and biological disasters.
Public awareness	The processes of informing the general population, to increase levels of consciousness about risks and how people can act to reduce their exposure to hazards. This is particularly important for public officials in fulfilling their responsibilities to save lives and property in the event of a disaster. Public awareness activities foster changes in behavior leading toward a culture of risk reduction. This involves public information, dissemination, education, radio or television broadcasts, use of printed media, as well as the establishment of information centers and networks and community and participation actions.
Public information	Information, facts, and knowledge provided or learned as a result of research or study, available to be disseminated to the public.
Recovery	Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk. Recovery (rehabilitation and reconstruction) affords an opportunity to develop and apply disaster risk reduction measures.
Relief/ response	The provision of assistance or intervention during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration.
Resilience/ resilient	The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure. This is determined by the degree to which the social system is capable of organizing itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.
Retrofitting (or upgrading)	Reinforcement of structures to become more resistant and resilient to the forces of natural hazards. Retrofitting involves consideration of changes in the mass, stiffness, damping, load path and ductility of materials, as well as radical changes such as the introduction of energy absorbing dampers and base isolation systems. Examples of retrofitting include the consideration of wind loading to strengthen and minimize the wind force, or in earthquake prone areas, the strengthening of structures.

- Risk** The probability of harmful consequences, or expected losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between natural or human induced hazards and vulnerable conditions. Beyond expressing a possibility of physical harm, it is crucial to recognize that risks are inherent or can be created or exist within social systems. It is important to consider the social contexts in which risks occur and that people therefore do not necessarily share the same perceptions of risk and their underlying causes.
- Risk assessment/ analysis** A methodology to determine the nature and extent of risk by analyzing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to people, property, livelihoods, and the environment on which they depend.
- Social funds** Social funds are government agencies or programs that channel grants to communities for small-scale development projects. They are typically used to finance a mixture of socio-economic infrastructure, productive investments, social services, and capacity-building programs. Support is usually focused on the poorest and most vulnerable communities.
- Social protection** Social protection encompasses all public interventions that help individuals, households, and communities to manage risk or that provide support to the critically poor. The concept of social risk management asserts that individuals, households, and communities are exposed to multiple risks from different sources, both natural and human-made. A clear assessment of a risk management system for any population is possible by examining the available risk management instruments in a risk management framework.
- Structural/ non-structural measures** Structural measures refer to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure. Non-structural measures refer to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, that can reduce risk and related impacts

Sustainable development Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of “needs,” in particular the essential needs of the world’s poor, to which overriding priority should be given, and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and the future needs (Brundtland Commission, 1987).

Vulnerability The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards.



REFERENCES

References

- Aceh Community Assistance Research Project. 2007. *The Acehese Gampong Three Years On: Assessing Local Capacity and Reconstruction Assistance in Post-tsunami Aceh*. ACARP: city of publication unknown. www.indo.usaid.gov.au/featurestories/acarpreport.pdf
- ActionAid. 2006. *Climate Change, Urban Flooding and the Rights of the Urban Poor in Africa: Key Findings from Six African Cities*. London/Johannesburg: AA International. urban poor
- . 2007a. *The Cluster Approach in Mozambique 2007: Is It improving emergency response? An NGO perspective*. Johannesburg/London: AA International.
- . 2007b. *We Know What We Need: South Asian Women Speak Out on Climate Change Adaptation*. London: AA International/Institute of Development Studies. SA Report
- ActionAid Nepal. 2006. *School Safety Approach and the Scaling Up Strategy*. Kathmandu: AA Nepal. www.riskred.org/schools/actionaidnepal.pdf
- Adams, L., and P. Harvey. 2006. "Issue Paper No 4: Cash and Shelter," Learning from Cash Responses to the Tsunami. London: Overseas Development Institute/Humanitarian Practice Network. <http://www.odi.org.uk/hpg/papers/cashissue4.pdf>
- Alam, K., M. Herson and I. O'Donnell. 2008. *Flood Disasters: Learning from Previous Relief and Recovery Operations*. Geneva/London: ProVention/ALNAP. Flood lessons
- Albert, W. 2005. *Lessons from the Disability Knowledge and Research Programme*. London: Healthlink Worldwide.
- Alderman, H., and T. Haque. 2007. *Insurance Against Covariate Shocks: The Role of Index-Based Insurance in Social Protection in Low-Income Countries of Africa*, Working Paper No 95. Washington, DC: World Bank. <http://library.wur.nl/WebQuery/catalog/lang/1863459>

- ALNAP (Active Learning Network for Accountability and Performance in Humanitarian Action). 2003. *Participation by Crisis-Affected Populations in Humanitarian Action: A Handbook for Practitioners*. London: Overseas Development Institute. handbook
- . 2005. ALNAP 2004-05 Annual Report. London: ALNAP. ALNAP Report
- Anderson, C. 2001. *Warning systems and "slow-onset" disasters*. Message posted on 11 October 2001 to the United Nations Division for the Advancement of Women online forum on "Gender equality, environmental management and natural disaster mitigation." Accessed on 15 Feb. 2007, http://www.un.org/womenwatch/daw/csw/env_manage/reports/week03.html
- Anderson, A., G. Martone, J. Perlman Robinson, E. Rognerud, and J. Sullivan-Owomoyela. 2006. *Standards Put to the test: Implementing the INEE Minimum Standards for Education in Emergencies, Chronic Crisis and Early Reconstruction*, Network Paper No 57. London: Overseas Development Institute/Humanitarian Practice Network.
- Asian Development Bank and World Bank. 2005. *Pakistan 2005 Earthquake: Preliminary Damage and Needs Assessment*. Islamabad: ADB/World Bank.
- Asian Disaster Preparedness Centre. 2004. *Building Disaster Risk Reduction in Asia: A Way Forward, ADPC Looks Ahead to 2015*. Bangkok: ADPC.
- . 2006. *Guidebook on Advocacy: Integrating CBDRM into Local Government Policy and Programming*. Bangkok: ADPC. <http://www.adpc.net/v2007/Programs/CBDRM/Publications/Downloads/Publications/>
- Awasthi, P. 2006. *Whose Family, Whose Land?* India Together, Friday 9 March. <http://www.indiatogether.org/2006/jun/wom-myland.htm>
- Bainbridge, D., E. Tuck, and K. Bowen. 2008. *Beneficiary Accountability: Disaster Management Team Good Practice Guidelines*. London: Tearfund. Guidelines
- Bannon, V., and D. Fisher. 2006. "Legal Lessons in Disaster Relief from the Tsunami, the Pakistan Earthquake and Hurricane Katrina," *American Society of International Law*, Vol. 10, Issue 6. <http://www.asil.org/inisghts/2006/03/insights060315.html>
- Barakat, S. 2003. *Housing Reconstruction after Conflict and Disaster*, Network Paper No 43. London: Overseas Development Institute/Humanitarian Practice Network. <http://www.odihpn.org/documents%5Cnetworkpaper043.pdf>

- Beck, T. 2005a. *Learning Lessons from Disaster Recovery: The Case of Bangladesh*. Disaster Risk Management Working Paper Series 11. Washington, DC: World Bank. Bangladesh paper
- . 2005b. *South Asia Earthquake 2005: Learning from Previous Earthquake Relief Operations*. Geneva/London: ProVention/ALNAP. Earthquake lessons
- Benson, C., and J. Twigg. 2007. *Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations*. Geneva: ProVention Consortium. DRR Toolkit
- Bhattamishra, R., and C. B. Barrett. 2008. *Community-based Risk Management Arrangements: An Overview and Implications for Social Fund Program Design*, Social Protection Discussion Paper No 0830. Washington DC: World Bank
- Boyce, W. 2000. "Adaptation of Community Based Rehabilitation in Areas of Armed Conflict." *Asia Pacific Disability Rehabilitation Journal*, Vol. 11, No. 1, pp.17–20.
- Bredholt, N., and M. Wingate. 2007. "Preparedness for Community-driven Responses to Disasters in Kenya: Lessons from a Mixed Response to Drought in 2006," *Humanitarian Exchange Magazine*, June 2007. London: Overseas Development Institute/Humanitarian Practice Network. Paper
- Brookings Institution–University of Bern Project on Internal Displacement. 2007a. *When Displacement Ends: A Framework for Durable Solutions*. Washington, DC: Brookings Institution–University of Bern. <http://www.brookings.edu/reports/2007/09displacementends.aspx>
- . 2007b. *Human Rights and Natural Disasters: Operational Guidelines and Field Manual on Human Rights Protection in Situations of Natural Disaster*. Washington, DC: Brookings Institution–University of Bern. Paper
- Bryne, B., and S. Baden. 1995. *Gender, Emergencies and Humanitarian Assistance*. BRIDGE (development-gender), Report no. 33, commissioned by the WID desk, European Commission, Directorate General for Development.
- Buchanan-Smith, M., and I. Christoplos. 2004. *Natural Disasters in Complex Political Emergencies*. London: British Red Cross.
- Burton, C. 2008. "Field Notes: Joint Damage, Loss and Needs Assessment Mission: Cyclone Sidr." unpublished.

Burton, I., and M. Van Aalst. 2004. *Look Before You Leap: A Risk Management Approach for Incorporating Climate Change Adaptation in World Bank Operations* (draft). Washington, DC: World Bank/Climate Change Team.

Calvi-Pariseti, P., and A. Pasche. 2005. *Learning and Using Lessons: Environmental Impacts during the Indian Ocean Tsunami Disaster: Commissioned Study*. Geneva: GIGNOS/OCHA/ISDR. <http://www.gignos.ch/refs/tsunami.pdf>

Carter, M. R., P. D. Little, T. Mogues, and W. Negatu. 2004. *Shocks, Sensitivity and Resilience: Tracking the Economic Impacts of Environmental Disaster on Assets in Ethiopia and Honduras*. Economics Working Paper Archive EconWPA. <http://econwpa.wustl.edu:80/eps/dev/papers/0511/0511029.pdf>

CDA Collaborative Learning Projects and ProVention. 2005. *Report on Listening Project Aceh, Indonesia*. http://www.alnap.org/tec/pdf/listening_project%20aceh_nov_2005.pdf

Chambers, R., and L. Mayoux. 2004. *Reversing the Paradigm: Quantification and Participatory Methods*. Manchester: University of Manchester. Paper

Chawla, L., and V. Johnson. 2004. "Not for Children Only: Lessons Learnt from Young People's Participation," in *Participatory Learning and Action*, pp. 63–72. New York: Plan International. www.iied.org/NR/agbioliv/pla_notes/documents/plan_05007.pdf

Chew, L., and K. Ramdas. 2005. *Caught in the Storm: The Impact of Natural Disasters on Women*. New York: Global Fund for Women.

Christoplos, I. 2006a. "The Elusive 'Window of Opportunity' for Risk Reduction in Post Disaster Recovery," ProVention Consortium Forum, Bangkok 2–3 February 2006. http://www.proventionconsortium.org/files/forum/Session3_Recovery.pdf

———. 2006b. *Links between Relief, Rehabilitation and Development in the Tsunami Response*. London: Tsunami Evaluation Coalition.

Consultative Group to Assist the Poor. 2005. "Sustaining Microfinance in Post-Disaster Asia." *Microfinance Matters*, Issue 9/February 2005. UN Capital Development Fund. CGAP Article

Corsellis, T., and A. Vitale. 2005. *Transitional Settlement: Displaced Populations*. Cambridge: Oxfam GB and the University of Cambridge Shelter Centre Project. Transitional Settlement

- Cosgrave, J. 2008. *Responding to Earthquakes: Learning from Earthquake Relief and Recovery Operations*. Geneva/London: ProVention/ALNAP. <http://www.odi.org.uk/alnap/publications/lessons.htm>
- Creti, P., and S. Jaspars, eds. 2006. *Cash-Transfer Programming in Emergencies*, Oxfam GB, Oxford. <http://www.oxfam.org.uk/search?q=cash+transfer+programming&x=19&y=16>
- CT Council on Development Disabilities, *Guide for Including Persons with Disabilities in Disaster Preparedness Planning*, Office of Protection and Advocacy, UCONN Center on Disabilities, University of Connecticut.
- D’Cunha, J. 1997. *Engendering Disaster Preparedness and Management*. Asian Disaster Management News, 3:3. Accessed on 20 February 2007. <http://www.adpc.net/IRC06/Newsletter/1997/theme-3.html>
- Department for International Development. 2004a. *Disaster Risk Reduction: A Development Concern*. London: DFID.
- . 2004b. *The Impact of Climate Change on the Vulnerability of the Poor*. London: DFID. <http://www.dfid.gov.uk/pubs/files/climatechange/keysheetsindex.asp>
- . n.d. *Sustainable Livelihoods Approach Guidance Sheets*. London: DFID. http://www.livelihoods.org/info/info_guidancesheets.html
- de Ville de Goyet, C & L Morinière (2006) *The role of needs assessment in the tsunami response*. London: Tsunami Evaluation Coalition.
- de Silva, S. 2008. “Role of Social Funds and Community Driven Programs in Natural Disaster Management,” Presentation to Trust Fund for Environmentally and Socially Sustainable Development Meeting on Adaptation to Climate Change, Helsinki, May. Washington, DC: World Bank (unpublished).
- de Silva, S., and J. Sum. 2008. *Social Funds as an Instrument of Social Protection: An Analysis of Lending Trends, FY 2000-2007*. Washington, DC: World Bank/HDNSP.
- Dimitrijevic, A. n.d. *Mainstreaming Gender into Disaster Recovery and Reconstruction*. Washington, DC: World Bank Institute.
- Duyne Barenstein, J. 2006. *Housing Reconstruction in Post-earthquake Gujarat: A Comparative Analysis*, Network Paper No 54. London: Overseas Development Institute/ Humanitarian Practice Network. <http://www.odihpn.org/report.asp?id=2782>

Dilley, M., R. S. Chen, U. Deichmann, A. L. Lerner-Lam, and M. Arnold. 2005. *Natural Disaster Hotspots: A Global Risk Analysis*. Washington, DC: World Bank/Hazard Management Unit. Hotspots

Disabled Peoples' International Asia and Pacific Region. 2007. *Disasters and Disability, Pakistan Earthquake*. http://www.dpiap.org/our_focus/disaster/pakistan_dst.html

Economic Commission for Latin America and the Caribbean. 2003. *Handbook for Estimating the Socioeconomic and Environmental Effects of Disasters*. LC/MEX/G5. http://www.undp.org/bcpr/disred/documents/publications/eclac_handbook.pdf

Elasha, B, M. Medany, I. Niang-Diop, T. Nyong, R. Tabo, and C. Vogel. 2006. *Background paper on impacts, vulnerability and adaptation to climate change in Africa for the African Workshop on Adaptation Implementation of Decision 1/CP.10 of the UNFCCC Convention*, Accra, 21–23 September 2006. Accra: UN Framework Convention on Climate Change Secretariat.

Emergency Capacity Building Project (ECBP). 2007. *Impact Measurement and Accountability in Emergencies: The Good Enough Guide*. Oxford: Oxfam GB for the ECBP, Oxford. Guide

Enarson, E. n.d. *Gender Equality, Work, and Disaster Reduction: Making the Connections*. Accessed on 28 March 2007, http://www.gdnonline.org/wot_latest_additions.htm
Estrella, M., ed. 2000. "Chapter 1," in *Learning From Change: Issues and Experiences in Participatory Monitoring and Evaluation*. Ottawa: International Development Research Centre. Book

Federal Emergency Management Agency. (FEMA) 2007. *Accommodating Individuals with Disabilities in the Provision of Disaster Mass Care, Housing, and Human Services*. Washington, DC: Department of Homeland Security.

Food and Agriculture Organization and World Food Programme. 2005. *Socio-Economic and Gender Analysis (SEAGA) for Emergency and Rehabilitation Programs*. Rome: FAO and WFP.

Good Humanitarian Donorship Initiative. 2003. *International Meeting on Good Humanitarian Donorship (Stockholm, 16–17 June 2003): Meeting Conclusions/Principles and Good Practice of Humanitarian Donorship/Implementation Plan*. Stockholm: GHD. GHD Principles & Plan

- Gross, A. and de Silva. 2002. *Social Fund Support of Microfinance: A Review of Implementation Experience*. Washington, DC: World Bank.
- Guernsey, K., M.Nicoli, and A. Ninio. 2007a. *Convention on the Rights of Persons with Disabilities: Its Implementation & Relevance for the World Bank*. Washington, DC, World Bank. Rights Paper
- Guernsey, K., M.Nicoli, and A. Ninio. 2007b. *Making Inclusion Operational. Legal and Institutional Resources for World Bank Staff on the Inclusion of Disability Issues in Investment Projects*. Washington, DC, World Bank. MF Review
- Guha-Sapir, D., L. V. Parry, O. Degomme, P. C. Joshi, and J. P. Saulina Arnold. 2006. *Risk Factors for Mortality and Injury: Post-tsunami Epidemiological Findings from Tamil Nadu*. Centre for Research on the Epidemiology of Disasters (CRED) School of Public Health, Catholic University of Louvain.
- Handicap International. 2004. *How to Include Disability Issues in Disaster Management, Following Floods in Bangladesh 2004*. http://www.handicap-international.fr/bibliographie-handicap/5CooperationInternationale/contextes_urgence/HIDisaster.pdf
- Handicap International and Christian Blind Mission, *Making PRSP Inclusive*, <http://www.making-prsp-inclusive.org/en/6-disability/61-what-is-disability/611-the-four-models.html> (accessed July 25, 2008)
- Harvey, P. 2005. *Cash and Vouchers in Emergencies*. London: Overseas Development Institute/Humanitarian Policy Group. Harvey paper
- Hayati, O., and A. Nurain. 2005. *Exploring Private Sector Involvement in Flood Disaster Risk Reduction in Sudan*. Geneva: ProVention Consortium.
- Hedlund, K. 2008. *Slow-onset Disasters: Drought and Food and Livelihoods Insecurity: Learning from Previous Relief and Recovery Responses*. Geneva/London: ProVention/ALNAP. article
- Heltberg, R., S. Jorgensen, and P. Bennett Siegel. 2008. *Climate Change, Human Vulnerability and Social Risk Management*. Washington, DC: World Bank/Social Development Group. Paper
- Inter-Agency Standing Committee (IASC), 2008, *Operational Guidelines and Field Manual on Human Rights Protection in Situations of Natural Disaster* Brookings-Bern Project on Internal Displacement, Washington DC

- Inter-Agency Task Force on Disaster Reduction. 2002. *Sixth Meeting, Improving the Quality, Coverage and Accuracy of Disaster Data: A Comparative Analysis of Global and National Datasets*. Geneva: UN/ISDR.
- Intergovernmental Panel for Climate Change. 2007. *Fourth Assessment Report: Climate Change 2007*. Geneva: IPCC. <http://www.ipcc.ch>
- International Committee of the Red Cross. 2005a. *Emergency Items Catalogue*. Geneva: ICRC. www.icrc.org/web/eng/siteeng0.nsf/html/emergency-items-catalogue
- . 2005b. *Operational Guidelines for the Application of the ICRC Assistance Policy (D49) to Economic Security Programmes*. Geneva: ICRC.
- International Development Association. 2007. *Community Driven Development: Delivering the Results People Need*. Washington, DC: World Bank/IDA. <http://www.worldbank.org/ida>
- International Disability Rights Monitor (IDRM), 2004. *Regional Report of the Americas*; Chicago, Center for International Rehabilitation
- . 2005. *Regional Report of Asia*. Washington, DC: Center for International Rehabilitation
- International Federation of Red Cross and Red Crescent Societies. 2001. *2001 World Disasters Report: Focus on Recovery*. Geneva: IFRC. <http://www.ifrc.org/publicat/wdr2001/>
- . 2004. *Reducing Risk in Nepal's Disaster-prone Communities*. Geneva: IFRC.
- . 2006a. *Red Cross Red Crescent Good Practices in Early Warning*. Geneva: IFRC. <http://www.ifrc.org/docs/news/05/05102101/>
- . 2006b. *Vulnerability and Capacity Assessment: Lessons Learned and Recommendations*. Geneva: IFRC. VCA lessons learned
- . 2006c. *What is VCA? An Introduction to Vulnerability and Capacity Assessment*. Geneva: IFRC. What-is-VCA
- . 2007a. *Disaster Response and Contingency Planning Guide*. Geneva: IFRC. IFRC contingency
- . 2007b. *The Global Alliance for Disaster Risk Reduction*. Geneva: IFRC.

- . 2007c. *Guidelines for Emergency Assessment*. Geneva: IFRC. emergency guidelines
- . 2007d. *How to Do VCA*. Geneva: IFRC. how-to-do-VCA
- . 2007e. *Red Cross/Red Crescent Climate Guide*. The Hague: IFRC Climate Change Centre. www.climatecentre.org/downloads/File/reports/RCRC_climateguide.pdf
- . 2007f. *VCA Toolbox with Reference Sheets*. Geneva: IFRC. VCA-toolbox
- . 2007g. *2007 World Disasters Report: Focus on Discrimination*. Geneva: IFRC. <http://www.ifrc.org/what/disasters/resources/publications.asp>
- International Labour Organization. 2003. *People with Disabilities in Crisis Response*. Geneva: ILO.
- International Organization for Migration. 2006. *Migration, Development and Natural Disasters: Insights from the Indian Ocean Tsunami*. Migration Research Series No. 30. Geneva: IOM. <http://www.iom.int/jahia/Jahia/cache/offonce/pid/1674?entryId=14556>
- . 2008. *Migration and Climate Change*. Migration Research Series No. 31. Geneva: IOM.
- Kabir, F. 2008. *Mainstreaming Disability Issues in Disaster Risk Reduction*. Dakha, 3rd APDF General Assembly http://www.nfowd.com/APDF_Papers.html
- Kelly, C. 2005a. *Checklist-Based Guide to Identifying Critical Environmental Considerations in Emergency Shelter Site Selection, Construction, Management and Decommissioning*. London: Benfield Hazard Research Centre, University College/CARE International. Shelter env checklist
- . 2005b. *Quick Guide: Rapid Environmental Impact Assessment in Disasters*. London: Benfield Hazard Research Centre, University College/CARE International. Rapid EIA
- Kent, R. 1994. *Disaster Preparedness*. New York/Geneva: UNDP/DHA Disaster Training Programme. http://undmtp.org/english/disaster_preparedness/disaster_preparedness.pdf.
- Kett, Maria et al. 2005. *Disability and Conflict and Emergency Situations: Focus on Tsunami-affected areas, Disability Kar*, http://www.tsunami-evaluation.org/NR/rdonlyres/E5B2F467-A956-4135-95A4-69C1D2A8F04B/0/handicap_international_disability_conflict_feb06.pdf (accessed July 25, 2008).

Lansdown, G. 2005. *A New Human Rights Treaty for People with Disabilities*, CRIN <http://www.crin.org/resources/infoDetail.asp?ID=6161>

Longley, C., I. Christoplos, and T. Slaymaker. 2006. *Agricultural Rehabilitation: Mapping the Linkages between Humanitarian Relief, Social Protection and Development*. Report 21. London: Overseas Development Institute/Humanitarian Policy Group. <http://www.odi.org.uk/hpg/papers/hpgreport22.pdf>

Mathison, S. 2003. *Microfinance and Disaster Management*. Brisbane: Foundation for Development Cooperation. Article

Mechler, R. and J. Linnerooth-Bayer, with D. Peppiatt. 2006. *Disaster Insurance for the Poor? A Review of Microinsurance for Natural Disaster Risks in Developing Countries*. Geneva/Laxenburg: ProVention/IIASA. <http://www.proventionconsortium.org/?pageid=37&publicationid=126#126>

Miamidian, E., M. Arnold, K. Burritt, and M. Jacquand. 2005. *Surviving Disasters and Supporting Recovery: A Guidebook for Microfinance Institutions*, Working Paper Series No. 10. Washington, DC: World Bank.

Ministry of Women and Child Development, India. 2006. *Report of the Working Group on Empowerment of Women for the XI Plan*. New Delhi.

Mont, D. 2007. *Measuring Disability Prevalence*. Washington, DC: Disability and Development Team, HDNSP, World Bank.

Moss, S. 2008. "Christian Aid and Disaster Risk Reduction." Christian Aid. article

National Council on Disability (NCD). 2006a. *Saving Lives: Including People with Disabilities in Emergency Planning*. Washington, DC: NCD.

———. 2006b. *The Needs of People with Psychiatric Disabilities During and After Hurricanes Katrina and Rita: Position Paper and Recommendations*. Washington, DC: NCD. <http://www.power2u.org/katrina/needs.html>

National Institute of Disaster Management. 2005. *District Disaster Management Plan (DDMP) Model Template*. Delhi: Ministry of Home Affairs, Government of India.

O'Callaghan, S., and S. Pantuliano. 2007. *Protective Action: Incorporating Civilian Protection into Humanitarian Response*. Humanitarian Policy Brief 29. London: Overseas Development Institute/Humanitarian Policy Group.

- Oosters, B. 2005. *Looking with a Disability Lens at the Disaster Caused by the Tsunami in South-East Asia*. Christian Blind Mission.
- Overseas Development Institute. 2005. *Aftershocks: Natural Disaster Risk and Economic Development Policy*. Briefing Paper. London: ODI.
- . 2005. *Tsunami Cash Learning Sri Lanka Workshop Report*. Colombo: Overseas Development Institute. http://www.odi.org.uk/hpg/meetings/ODI_cash_workshop_s_lanka.pdf
- Oxfam. 1999. *Managing Water Supply and Sanitation in Emergencies*. Oxford: Oxfam Publishing www.amazon.com/Managing-Supply-Sanitation-Emergencies-Practice/dp/0855983787
- Pantoja, E. 2002. *Microfinance and Disaster Risk Management: Experiences and Lessons Learned*. Geneva: ProVention Consortium. Article
- Pervaiz, A., B. Dey, D. Trebucq, G. Padmanabhan, I. Stephen, K. Mohapatra, R. Sengupta, and S. Chaudhury. n.d. *Local Level Risk Management: Indian Experience*. New Delhi: Government of India, Ministry of Home Affairs, National Disaster Management Division.
- ProVention Consortium. 2006. *Tsunami Recovery Impact Assessment and Monitoring System, Workshop, 3-5 May 2006, Bangkok*. Geneva: ProVention. www.ifrc.org/docs/pubs/disasters/triams-bangkok-en.pdf
- Pusch, C. 2004. *Preventable Losses: Saving Lives and Property Through Hazard Risk Management*, Working Paper Series No 9. Washington, DC: World Bank/Hazards Management Unit.
- Ramalingam, B., and S. Pavanello. 2008. *Cyclone Nargis: Lessons for Operational Agencies*. London: ALNAP.
- Remington, T., J. Maroko, S. Walsh, P. Omanga, and E. Charles. 2002. "Getting off the Seeds and Tools Treadmill with CRS Seed Vouchers and Fairs." *Disasters*, Vol. 26, No. 4, pp. 316–328.
- Rozan. 2006. Checklist to Facilitate Gender Sensitivity of Relief and Reconstruction efforts for Survivors of the Earthquake in Pakistan. Geneva: World Health Organization. http://www.who.int/hac/techguidance/pht/womenshealth/Pakistan_Checklist_for_assessing_gender_sensitivity.pdf

- Salagrama, V. 2006. *Trends in Poverty and Livelihoods in Coastal Fishing Communities in Orissa State, India*. Food and Agriculture Organization of the United Nations. <http://www.fao.org/docrep/009/a0692e/a0692e00.htm#Contents>
- Savage, K., and P. Harvey. 2007. *Remittances during Crises: Implications for Humanitarian Response*. Briefing Paper 26. London: Overseas Development Institute. hpgbrief26
- Save the Children Alliance. 2006. *Watermarks: Child Protection During Floods in Bangladesh*. London: SCF/UK. https://www.savethechildren.org.uk/en/54_5218.htm
- . 2007. *Child-Led Disaster Risk Reduction: A Practical Guide*. London: SCF Alliance. www.rb.se/bookshop
- . 2008. *In the Face of Disaster: Children and Climate Change*. London: SCF Alliance. www.savethechildren.net/media/publications/2008/IntheFaceofDisaster.pdf
- Shanta Memorial Rehabilitation Centre. 2005. *Training Manual for Inclusion of Disability in Disaster Response*. Bhubaneswar, Orissa. <http://www.smr.orissa.org/TRAINING%20MANUAL.pdf>
- Sheppard, S., and R. Hill. 2005. *The Economic Impact of Shelter Assistance in Post-Disaster Settings*. Washington, DC: CHF International/USAID. <http://www.sheltercentre.org/shelterlibrary/publications/513.htm>
- Siri, G. 2000. *Targeting Assistance toward Those Most Affected by Disasters: The Role of Social Investment Funds*. Washington, DC: World Bank/Disaster Management Facility.
- Solomon Islands Red Cross. 2008. *Preparedness for Climate Change: Background Document*. Honiara: SIRC.
- Sphere Project. *Humanitarian Charter and Minimum Standards in Disaster Response*. Geneva. Sphere standards
- Step Pakistan. 2005. *Disability Checklist for Emergency Response Per Cluster*
- Stoddard, A., A. Harmer, and K. Haver. 2006. *Providing Aid in Insecure Environments: Trends in Policy and Operations*. Report 23. London: Overseas Development Institute/Humanitarian Policy Group.

Tata Institute of Social Sciences. 2005. *The State and Civil Society in Disaster Response. An Analysis of the Tamil Nadu Tsunami Experience*. <http://www.un.org.in/untrs/reports/care2005rep.pdf>

Tearfund (2007). *Turning Practice into Policy: Linking Good Practice CBDRM with Government Policy and Practice*. Teddington, U.K.: Tearfund, p. 24.

Telford, J., M. Arnold, and A. Harth. 2004. *Learning Lessons from Disaster Recovery: The Case of Honduras*. Washington, DC: World Bank, Disaster Risk Management, Working Paper Series No. 8 Honduras paper

Telford, J., J. Cosgrave, and R. Houghton. 2006. *Joint Evaluation of the International Response to the Indian Ocean Tsunami: Synthesis Report*. London: Tsunami Evaluation Coalition. TEC Synthesis

Twigg, J. 2002/2006. *Disaster Studies Working Paper No 15: Technology, Post-Disaster Housing Reconstruction and Livelihood Security*. London: Benfield Hazard Research Centre. Paper 15

———. 2004. *Disaster Risk Reduction: Mitigation and Preparedness in Development and Emergency Programming*. Good Practice Review No 9. London: Overseas Development Institute/Humanitarian Practice Network. Twigg Paper

———. 2007. *Characteristics of a Disaster-resilient Community : A Guidance Note*. London: DFID. <http://www.odi.org.uk/hpg/papers/hpgreport22.pdf>

United Nations. 2006a. *Convention on the Rights of Persons with Disabilities, Article 11, Situations of Risk and Humanitarian Emergencies*. <http://www.un.org/esa/socdev/enable/rights/convtexte.htm>

———. 2006b. *Global Survey of Early Warning Systems*, Bonn, Pre-print version released at the Third International Conference on Early Warning http://portal.etsi.org/docbox/workshop/gsc11/GSC11_RT_Joint_Session/gsc11_joint_47%20UN-ISDR%20Global-Survey-of-Early-Warning-Systems.pdf

UN Development Program (2004). *Reducing Disaster Risk: A Challenge for Development*. New York: UNDP/Bureau for Crisis Prevention and Recovery.

United Nations Disaster Relief Organisation (UNDRO), 1982. *Disaster and the Disabled*. New York: UNDRO

- UNDP/IUCN. 2007. *Mangroves for the Future: A Strategy for Promoting Investment in Coastal Ecosystem Conservation 2007–2012*. Bangkok: United Nations Development Programme/International Union for Conservation of Nature.
- United Nations Economic Commission for Latin America and the Caribbean. 2005. *Handbook for Estimating the Socio-Economic and Environmental Effects of Disasters: Volume 1 – Methodological and Conceptual Aspects and Social Sectors*. ECLAC Methodology
- UNESCO. 2001. *Guidelines on Non-Structural Measures in Urban Flood Management*. Paris: UNESCO.
- United Nations Environment Programme. 2008a. *Environment and Vulnerability: Emerging Perspectives*. UN/ISDR. Geneva.
- . 2008b. *Environmental Needs Assessment in Post-Disaster Situations: A Practical Guide for Implementation*. Geneva: UNEP. [Guidelines](#)
- . 2008c. *Indigenous Knowledge in Disaster Management in Africa*. Nairobi: UNEP.
- . 2008d. *UNEP Yearbook 2008: An Overview of Our Changing Environment*. Geneva: UNEP. <http://www.unep.org/geo/yearbook/yb2008/>
- UNHCR. 2006. *The UNHCR Tool for Participatory Assessment in Operations*. United Nations High Commissioner for Refugees, Geneva. UNHCR guidelines
- . 2007. *Handbook for Emergencies*, United Nations High Commissioner for Refugees, Geneva. (www.unhcr.org)
- UNHCR/HelpAge International. 2004. *Older People in Disasters and Humanitarian Crises: Guidelines for Best Practice*. London: HelpAge International. www.helpage.org/Resources/Manuals/main_content/1118336526-0-10/bpg.pdf
- UN/Inter-Agency Standing Committee. 2006a. *Protecting Persons Affected by Natural Disasters: IASC Operational Guidelines on Human Rights and Natural Disaster*. Geneva: UN/IASC. Guidelines
- . 2006b. *Women, Girls, Boys and Men: Different Needs – Equal Opportunities: Gender Handbook in Humanitarian Action*. Geneva: IASC. Gender Handbook

- . 2007. *Guidelines on Mental Health and Psychosocial Support in Emergency Settings*. Geneva: UN/IASC. Mental Health
- . 2008. *Initial Rapid Assessment Tool: Guidance Notes*. Geneva: UN/IASC Health/Nutrition/WASH Clusters. WASH/Nutrition guidelines
- United Nations Inter-Agency Secretariat for the International Strategy for Disaster Risk Reduction. n.d. *World Conference on Disaster Reduction 18–22 January 2005, Kobe, Hyogo, Japan: Proceedings of the Conference*. Geneva: UN/ISDR. Hyogo-framework-for-action
- . 2004. *Living with Risk: A global review of disaster reduction initiatives*. Geneva: UN/ISDR. http://www.unisdr.org/eng/about_isdr/bd-lwr-2004-eng.htm
- . 2005. *Hyogo Framework for Action, 2005–2015*. Geneva: UN/ISDR. <http://www.unisdr.org/hfa>
- . 2007a. *Building Disaster Resilient Communities: Good Practice and Lessons Learned*. Geneva: UN/ISDR.
- . 2007b. *Disaster Risk Reduction: 2007 Global Review*. Geneva: UN/ISDR. <http://www.preventionweb.net/english/hyogo/gar/global-review/>
- UN-OCHA/IASC. 1999. *Manual on Field Practice in Internal Displacement*. Geneva: Office for the Coordination of Humanitarian Affairs.
- UN-OCHA/Shelter Centre/DFID. 2008. *Transitional Settlement and Reconstruction After Natural Disasters*. Geneva: Office for the Coordination of Humanitarian Affairs. Transitional Settlement
- USAID. 2007. *Adapting to Climate Variability and Change: A Guidance Manual for Development Planning*. Washington, DC: U.S. Agency for International Development. www.usaid.gov/our_work/environment/climate/docs/reports/cc_vamannual.pdf
- Vakis, R. 2006. *Complementing Natural Disasters Management: The Role of Social Protection*. Social Protection Discussion Paper No 0543. Washington, DC: World Bank. social protection
- Vakis, R., D. Kruger, and A. Mason. 2004. *Shocks and Coffee: Lessons from Nicaragua*. Social Protection Discussion Paper No. 0415. Washington, DC: World Bank.

Van Domelen, J. 2007. *Reaching the Poor and Vulnerable: Targeting Strategies for Social Funds and other Community-Driven Programs*. World Bank/HDN. Targeting strategies

Vianen, I. 2006. *Working Paper: Women, Gender and Work in Nanggroe Aceh Darussalam Province*. Banda Aceh: International Labour Organization.

Wall, I., with UN-OCHA. 2005. "Where's My House?" *Improving Communication with Beneficiaries: An Analysis of Information Flow to Tsunami Affected Populations in Aceh Province*. <http://www.humanitarianinfo.org/sumatra/reference/assessments/doc/other/UNDP-WhereMyHouseFinal.pdf>

Wamsler, C. 2002. "Managing Urban Risk: Perceptions of Housing and Planning as a Tool for Reducing Disaster Risk," *Global Business and Economic Review*, Vol. 4, No. 2, pp. 11–28.

Wiman R., E. Helander, and J. Westland. 2002. *Meeting the Needs of People with Disabilities—New Approaches in the Health Sector*. World Bank Technical Notes for the Poverty Reduction Strategy Sourcebook, June 2002. Washington DC: World Bank. <http://siteresources.worldbank.org/DISABILITY/Resources/280658-1172610662358/MeetingNeedsWiman.pdf>

World Economic Forum/World Bank, UN-ISDR (2008). *Building Resilience to Natural Disasters: A Framework for Private Sector Engagement*. Geneva: WEF. <http://www.unisdr.org/eng/partner-netw/wb-isdr/docs/Disasters-RepFINCopyright.pdf>

Wiles, P., K. Selvester, and L. Fidalgo. 2005. *Learning Lessons from Disaster Recovery: The Case of Mozambique*. Disaster Risk Management Working Paper Series 12. Washington, DC: World Bank. Mozambique paper

World Bank. 2001. *Fostering Community Rehabilitation: Ecuador El Nino Emergency Recovery Project*. Social Development Note 27455. Washington, DC: World Bank/Social Development Publications.

———. 2002. *Integrating gender into the World Bank's work: a strategy for action*. Washington DC: The World Bank Group. <http://siteresources.worldbank.org/INTGENDER/Resources/strategypaper.pdf>

———. 2004. *Poverty Reduction Strategies: Their Importance for Disability*. <http://siteresources.worldbank.org/DISABILITY/Resources/280658-1172608138489/PovertyReductionBonnell.pdf>

- . 2005a. *Food Aid and Food Security in the Short- and Long Run: Country Experience from Asia and sub-Saharan Africa*. Washington, DC: World Bank.
- . 2005b. *Examining Inclusion: Disability and Community Driven Development*. Social Development Note 33013, May 2005. Washington DC: World Bank. <http://siteresources.worldbank.org/DISABILITY/Resources/280658-1172671461088/ExaminingInclusion.pdf>
- . 2006a. *Hazards of Nature, Risks to Development: An IEG Evaluation of World Bank Assistance for Natural Disasters*. Washington, DC: World Bank. IEG natural_disasters_evaluation
- . 2006b. *Report of the Online Forum on Disabled and other Vulnerable People in Natural Disasters*, Washington, DC.
- . 2007a (updated). BP 13.20, Additional Financing for Investment Lending. *World Bank Operational Manual*. Washington, DC: World Bank. <http://wbln0018.worldbank.org/institutional/manuals/opmanual.nsf/8d1a4edd930ec366852567fa00106d34/a139505c130970f08525672c007d07b1?OpenDocument>
- . 2007b. *Community Driven Development and Disability*. World Bank's Web Site. Accessed 21 June 2007. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTCDD/0,,contentMDK:20323280~menuPK:608265~pagePK:148956~piPK:216618~theSitePK:430161,00.html>
- . 2007c. *Disasters, Climate Change, and Economic Development in Sub-Saharan Africa: Lessons and Future Directions*. Washington, DC: World Bank/IEG. climate change
- . 2007d. OP/BP 8.0, Rapid Response to Crises and Emergencies. *World Bank Operational Manual*. Washington, DC: World Bank. OP/BP 8.00
- . 2007e. *Social Analysis and Disability: A Guidance Note, Incorporating Disability-Inclusive Development into Bank-Supported Projects*, Social Analysis Guidance Note Series, Washington, DC: Social Development Department.
- . 2008a. *Project Paper on a Proposed Additional Financing (Grant) in the Amount of SDR 4.7 Million (US\$7.4 Million Equivalent) to the Republic of Haiti for an Emergency Recovery and Disaster Management Project*. Washington, DC.
- . 2008b. *Toward a New Framework for Rapid Bank Response to Crises and Emergencies*. Washington, DC: World Bank (unpublished).

———. 2008c. Gender and Crises: Implications for Agriculture. Module 11 in *Gender in Agriculture Sourcebook*. Washington, DC: World Bank.

World Bank GFDRR/UN-ISDR. 2008. *Climate Resilient Cities: A Primer on Reducing Vulnerabilities to Climate Change Impacts and Strengthening Disaster Risk Management in East Asian Cities*. Washington: World Bank

World Food Programme. 2007. *Cash and Food Transfers: A Primer*. Rome: WFP. WFP Cash and Food

World Health Organization. 2005. *Disability Disasters and Rehabilitation*, Department of Injuries and Violence Prevention, Geneva: WHO. http://www.who.int/violence_injury_prevention/other_injury/en/disaster_disability.pdf

Yodmani, S. 2001. *Disaster Risk Management and Vulnerability Reduction: Protecting the Poor*, Paper Presented at Asia Pacific Forum on Poverty. Bangkok: ADPC. <http://www.adb.org/poverty/forum/pdf/Yodmani.pdf>

Yonder, A., S. Akcar, and P. Gopalan. 2005. *Women's Participation in Disaster Relief and Recovery*. Seeds Series. New York: Population Council.

Zahirovic, S. 2005. *The Importance of Universal Design*. Tuzla: Handicap International.