

Microfinance in the Wake of Natural Disasters: Challenges and Opportunities



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Microfinance in the Wake of Natural Disasters: Challenges and Opportunities

by

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LIST OF ACRONYMS

AAC/MIC:	Americas Association of Cooperatives/Mutual Insurance Companies
ASA:	Association for Social Advancement, Bangladesh
BRAC:	Bangladesh Rural Advancement Committee, Bangladesh
CIDA:	Canadian International Development Agency
CNCA:	Caisse Nationale de Credit Agricole, Morocco
DHA:	Department of Humanitarian Affairs
DNP:	Daridrya Nirashan Prochesta (Poverty Eradication Program), Bangladesh
FONADES:	The National Foundation for Development and Solidarity, Burkina Faso
GB:	Grameen Bank, Bangladesh
IGA:	income-generating activities
MAHITI:	An NGO-MFO in Gujarat, India
MFOs:	microfinance organizations
MYRADA:	Mysore Resettlement and Development Agency
PCRDP:	Post Cyclone Rehabilitation and Development Program
PPPCR:	Le Projet de Promotion du Petit Credit Rural, Burkina Faso
PRADHAN:	Professional Assistance for Development Action, India
RDP:	rural development program
SDI:	subsidy dependency index
SEF:	Small Enterprise Foundation, South Africa
SEWA:	Self Employed Women's Association, India
SOS, Sahel:	Save Our Soul, Sahel, Ethiopia
UNDO:	United Nations Development Programme
USAID:	United States Agency for International Development
VVK, Nidi:	Vaigai Vattara Kalangiyam, Nidi (Vaigai Financial Federation), India

EXECUTIVE SUMMARY

THE PURPOSE OF THIS REVIEW

Many microfinance organizations (MFOs) now working in disaster-prone countries have been caught up in natural disasters as they have occurred and have become active players in post-disaster situations. This paper documents the experiences and experiments of MFOs that have found themselves on the front line in natural disaster situations. The author synthesizes the lessons learned from such situations and makes recommendations for donors, policy makers, and MFOs.

The information presented in this paper was collected through an extensive review of the literature and targeted discussions with representatives of existing programs. The review placed special focus on Bangladesh, India, Burkina Faso, and South Africa.

LESSONS LEARNED

This paper gives particular emphasis to the following questions:

- What conditions are required for MFOs to function effectively in post-disaster situations?
- What services can an MFO successfully provide in a post-disaster setting?
- What is the experience of new MFOs with post-disaster relief and reconstruction?
- What do we know about the costs of MFO operations in a post-disaster setting?
- What lessons can we learn about successful program design for post-disaster settings?
- What role can an MFO play in protecting a community against natural disasters?
- How successful are MFOs at protecting their portfolio against disaster?

Conditions Required For MFOs to Function Effectively in Post-Disaster Situations

In order for an MFO to succeed and protect its clients in the event of a natural disaster, it must be able to operate under the following minimum conditions:

- Governments or donors must be able to undertake relief activities;
- The local economy must be at least partially monetized;
- The MFO should be able to access information for client preparedness and portfolio protection from early warning systems that help predict slow-onset disasters;

- The MFO must have the abilities necessary to develop and implement risk-management strategies;
- A cohesive and trusting community must exist so that peer pressure can be used effectively; and
- The country should have diversified environmental conditions and be reasonably sized so that crop insurance and disaster insurance can diversify risk effectively.

Successful MFO Services in Post-Disaster Settings

The success of an MFO's services following a disaster depends on a number of factors, most particularly the timeliness of the intervention, the length of time the MFO offers various services, the types of financial products the MFO provides, coordination with other relief organizations, and loan terms and conditions. (For example, to maintain its viability, an MFO should never pardon loans at any stage of a post-disaster situation. In some cases, however, loan write-offs can occur, such as when a client is killed or unable to be located.)

Established MFOs can provide relief activities immediately after disasters, but the period in which they offer such assistance should be brief and followed by unsubsidized loans in the rehabilitation and reconstruction phases. Any MFO activities during the relief stage require coordination with other relief organizations to ensure the quick and accurate flow of information and services from all players.

Successful MFO activities during the rehabilitation and reconstruction stages depend on timely intervention. During these stages, emergency loans, allowances for withdrawal of client savings, and rescheduling of debt may be more important than providing clients with new loans for housing or asset replacement. New loans can most successfully be made about six months after the disaster to clients who have proved they can manage the disaster through other means.

Experience of New MFOs Established for Post-Disaster Relief

Institutions created in response to disasters provide social services, technical assistance, training, and limited financial services on a grant or soft-loan basis to affected populations; they are unable to recover operational costs during the period in which they offer these services. Such organizations can, however, successfully transform themselves into cost-recovering MFOs once donors shift their focus to the development role of finance. To do so, they require significant seed capital from donors.

New MFOs should be created after the relief and early rehabilitation stages are over, so that they can better screen applicants and make higher-quality loans.

MFO Operations Costs in Post-Disaster Settings

Providing services in post-disaster settings entails both high direct and indirect costs: high direct costs because of poor logistics; high indirect costs because of reduced savings levels and lower repayment rates.

New MFOs encounter more difficulty than established organizations when serving the same disaster-affected population, as it takes longer for new MFOs to reach financial sustainability than it does existing MFOs. The initial costs of servicing loans in post-disaster areas are very high for new MFOs but can be reduced somewhat by involving the community in making new loans.

For established MFOs, the costs of operations are lower when the client base serviced during the post-disaster period largely consists of repeat borrowers. Among repeat borrowers, the more experienced are most likely to avoid defaulting after disaster strikes. Most important, established MFOs that have previously experienced natural disasters find that their costs of operations in post-disaster situations drop considerably as their preparedness increases.

In terms of the cost of specific financial products, housing and asset-replacement loans for rehabilitation and reconstruction are likely to be cost-recovering only if provided in a timely way. Meanwhile, insurance services to protect clients or portfolios from chronic disasters require subsidization, either by donors or through cross-subsidization with the MFO's other financial services.

Successful Program Design for Post-Disaster Settings

Successful program design for post-disaster settings requires careful risk management that minimizes loan defaults and other financial losses. Geographically concentrated MFOs with a limited client base cannot manage risks on their own through mechanisms such as loan rescheduling or new loans. Rather, such organizations must delegate risk management to their clients through enterprise-diversification schemes or group-level contingency funds that insure against the groups' risk of disaster.

Diversification to minimize risks also demands careful examination of group lending practices. Group lending with joint liability may suffer from covariance effects and domino defaults, whereby one defaulter can pull the entire group into default. In addition, group-based programs with equal loan sizes and joint liability are unattractive to clients during the rehabilitation and reconstruction phases. This argues for individual lending in drought-prone areas.

Successful program design also demands that governance structures be stable. Cohesive groups headed by strong leaders tend to repay loans better in a disaster setting than groups headed by weak leaders. Likewise, MFOs with strong executive committees are best able to cope with natural disasters, avoiding both political influence and mismanagement of funds.

Lastly, sound program design requires an understanding of the nature of the disaster in order to provide effective services.

Role of the MFO in Protecting Communities Against Natural Disasters

MFOs provide emergency services to clients (such as food, clothing, shelter, and medicine) until other relief agencies arrive. Sometimes such services are provided to all individuals in the affected communities, but only on a limited basis.

Established MFOs have developed disaster-management funds to help clients cope with emergencies. In addition, an MFO's promise of post-disaster loans for reconstruction or asset replacement is viewed as a form of "disaster insurance" to the MFO's members.

Despite their role in protecting clients in times of disaster, MFOs cannot serve as a social safety net for the entire vulnerable population in its service area. MFOs may provide temporary relief services on a nonexclusionary basis, but rehabilitation and reconstruction services are available only to previous clients of established organizations and selected clients of new organizations.

Successfully Protecting MFO Portfolios Against Natural Disasters

As noted earlier, experience improves an MFO's chances for success, as established organizations have more tools available to them to ensure their stability. New and small MFOs have fewer mechanisms available to protect their portfolio than do large and established organizations. This is because, in addition to lacking experience, small and new MFOs have a small clientele, limited geographic coverage, lower levels of capitalization, and less experienced or less desirable clients.

Development of disaster-contingency plans and client-preparedness training during normal times is one of the most important instruments to protect a portfolio in post-disaster times. Staff training in disaster-management exercises and early warning systems is effective in quickly assessing disaster situations, anticipating portfolio risk, and preparing for disasters.

Portfolio protection requires exact post-disaster accounting procedures. Absence of such procedures can obscure an MFO's ability to measure damage to its portfolio. This is particularly true for programs that allow withdrawals and subsequent repayment of savings in addition to loan acquisition and repayment.

Some strategies are ineffective in protecting portfolios during a disaster. For example, loan rescheduling, as noted above, is an ineffective mechanism for recovering old loans not backed by tangible collateral. Similarly, simple state-contingency contracts undermine the credible threat available to MFO collectors, thereby reducing the institution's ability to protect its portfolio from high post-disaster defaults. State-contingent contracts can protect portfolios only if they include compensating incentives.

RECOMMENDATIONS FOR DONORS, POLICY MAKERS, AND MFOs

Donors

It is not desirable to start a new MFO during the early stages of a disaster, especially if the MFO is expected to provide social services during the early stages of disaster. Established MFOs are better equipped to deal with early stages of disasters, especially if they have a dense network of branches.

To avoid burdening long-term MFO operations with the costs of relief operations, it is appropriate for donors to provide grant funds for relief operations. If the donor arrives after MFO relief activities have commenced, the donor may compensate MFOs for relief expenditures so that the MFO is fully capitalized to begin rehabilitation and reconstruction loans in the later phases of disaster recovery. In no case should donors encourage MFOs to make financial grants to clients or wipe out previous debts.

Clear exit dates should be specified for any disaster-related grant facility. No activity aimed at disaster relief should extend into the later part of the reconstruction stage.

Donors can provide seed capital to established MFOs during normal periods to form disaster-management funds. Such funds can sustain operations immediately after disasters before fresh donor funds arrive. Donor funding can also be used for training MFO staff and clients in disaster preparedness.

Donors may encourage research on disaster-proof products within the financial technology, the costs and timing of post-disaster activities, risk-balancing mechanisms for MFOs, and insurance programs to improve the coping capacities of victims. Donors are also well positioned to disseminate information on MFO disaster-management and disaster-mitigation strategies.

Policy Makers

Even well-established MFOs play a very limited role in providing safety-net services to disaster victims, and even then, services are primarily targeted to the MFOs' clientele. Government grants can be channeled through MFO networks only if the MFOs can effectively manage the provision of relief grants along with their credit programs. In any case, the grant operation should not undermine the reputation of the MFO as a prudent financial intermediary. In addition, coordination among the several agents active in the post-disaster situations should be encouraged and actively supported.

Policies such as loan wipe-outs should never be used, as they hinder MFO viability and do not benefit nonborrowing victims.

MFOs

Any MFO relief activity should be brief and should not involve loans or financial grants. When MFOs play a role in disaster relief, they should announce to their clients that the services are only short term. The community needs to understand that (1) the relief services are funded by the government or donors, and the MFO is functioning only as a short-term agent to deliver those services; and (2) relief activities are not the MFO's main line of business.

MFOs should use separate windows and special names for disaster-management financial products and programs to distinguish clearly disaster activities from regular activities. The special windows and special products should be used for only a specified time.

MFOs may play an important role as transfer agents to facilitate money transfers from dispersed family members to their disaster-affected clients.

A comprehensive disaster-preparedness program, implemented during normal times, may be one of the most effective tools to help MFOs deal with disasters in a systematic and sustainable way. As noted earlier, another effective tool for portfolio and client protection is diversification of member enterprises and the MFO portfolio.

In no case should MFOs compromise institutional viability and staff morale during post-disaster periods.

CHAPTER ONE

INTRODUCTION

UNDERSTANDING NATURAL DISASTERS

Natural disasters occur in two forms: slow-onset disasters, such as droughts and famines, and rapid-onset disasters, such as earthquakes, floods, hurricanes, landslides, and volcanic eruptions. Rapid-onset disasters are severe and difficult to predict well in advance but usually are temporary. Slow-onset disasters develop slowly, can be predicted, and last longer than rapid-onset events. Regardless of type of disaster, the effects on the stricken populations are devastating.

Natural disasters are common in the developing world. In the first six months of 1997 alone, 25 major natural disasters occurred in the world, 18 of which occurred in developing countries, with 11 resulting from floods. In 1995, there were 123 major natural disasters, 84 of which occurred in Asia.¹ On average, injuries and the loss of human lives from natural disasters involved approximately 129.5 million people per year from 1970 to 1994. The cost of natural disasters can also be measured in terms of economic damage. From 1990 to 1994, disasters resulted in damages estimated at US\$443 billion worldwide. Of this, Asia incurred the greatest damages, primarily as a result of floods.

In addition to the extent of human and financial damage, the speed at which rapid-onset disasters can strike is astounding. The great 1995 Hanshin Earthquake in Japan, for example, killed more than 6,000 people within 20 seconds and caused financial losses worth US\$96 billion.²

Developing countries hit by natural disasters are faced with devising multistage recovery strategies for their populations, as well as developing active disaster-mitigation programs to reduce the effects of future natural disasters. Kirkby et al.'s "disaster cycle" framework highlights the overlapping stages of disaster recovery, starting with predisaster planning and prevention through post-disaster relief, rehabilitation, reconstruction, and development. This framework identifies the appropriate types of programming that can assist with the challenges of each stage. Programmers confronting a repetitive disaster cycle can plan disaster-mitigation and disaster-management programs for the following general stages (Kirkby, et al., 1997):

1. Investments in prediction, preparation, and risk-proofing mechanisms during *the predisaster phase*;
2. Delivery of humanitarian assistance to avoid mass starvation and epidemic diseases during *the relief stage*;
3. Inputs to restore livelihoods on a sustainable basis during *the rehabilitation phase*;
4. Investments in replacement of destroyed infrastructure during *the reconstruction phase*; and

¹"Emergencies," 1997: Relief Website, Internet.

²Department of Humanitarian Affairs, 1997: "Focus: Tools for Disaster Response."

5. Support of opportunities for economic growth during *the development stage* (at the end of the disaster cycle).

Another framework, the “linking relief to development” framework, also provides important guidance for responding to natural disasters by highlighting the need to link relief measures to long-term development activities. Under this framework, capacity-building activities would be a central part of relief activities in a post-disaster setting, and disaster-mitigation strategies would be part of development assistance programs at the development stage (Herbinger, 1994; Longhurst, 1994). Such connections between relief and development are designed to reduce vulnerability to disasters and improve the capabilities of disaster-affected communities to protect themselves against future crises (Anderson and Woodrow, 1989).

Within this complex process, microfinance programs are but one mechanism of disaster recovery. They have a role to play in all disaster-recovery stages, from relief to development, as discussed below.

THE ROLE OF MICROFINANCE IN DISASTER SETTINGS³

Many microfinance organizations (MFOs) now working in disaster-prone countries have been caught up in natural disasters as they have occurred and have become active players in post-disaster situations. In other cases, programs originally developed as disaster-relief programs have evolved into well-known microfinance organizations, such as the Bangladesh Rural Advancement Committee (BRAC) in Bangladesh. Increasingly, new organizations that arrive following disasters are taking a microfinance focus, designed to put poor and rural populations back on their feet.

Why is microfinance seen as a logical mechanism for disaster relief as well as reconstruction and development? The answer lies in the flexibility inherent in microfinance: It can provide appropriate and important services to those hit by disasters throughout the stages of relief, rehabilitation, reconstruction, and development. Furthermore, microfinance has the potential to play a strategic role in risk management before disasters strike, a characteristic particularly valuable in disaster-prone areas. Disaster-oriented microfinance services range from new and temporary services to those MFOs may undertake on an ongoing basis. Temporary services include:

- Emergency loans (relief stage);
- Remittance services (relief stage);
- Loan rescheduling/restructuring (relief/rehabilitation stage);
- Loans to restore capital assets lost in disasters (rehabilitation stage);
- Loans to rebuild housing and other infrastructure (reconstruction stage); and
- Loans to start new economic activities (development stage).

³“Disasters” as used in this paper hereafter refer only to natural disasters.

Loans for new activities may also be part of an MFO's ongoing services, as would be loans for diversification of economic activities. Other long-term financial services that are particularly relevant for disaster-prone areas include:

- Insurance instruments to protect vulnerable populations against future disasters (disaster mitigation); and
- Savings services to provide a personal safety net against future disasters (disaster mitigation).

Unfortunately, although MFOs are increasingly being considered as vehicles to jump-start a post-disaster economy, the challenges they face in disaster situations are enormous and not well understood. In fact, MFOs that predate a disaster are typically victims of the event along with the residents of the disaster site. Disasters exact the following immediate tolls on MFOs:

- Their clients are severely physically affected, whether injured, killed, or displaced;
- Their clientele's livelihoods are lost;
- MFOs' normal operating conditions are disrupted (communications, transportation, destroyed files, and so on);
- Clients cannot meet previous repayment commitments;
- Large numbers of clients may demand immediate access to savings, which may cause liquidity shortages; and
- New services are demanded of MFOs with no or little time for product development (including financial services, such as remittance services and asset- and housing-replacement loans, and nonfinancial services, such as shelter, food, and medicine).

Clearly, existing MFOs operating in a disaster context are both organizations in distress as well as potential instruments of recovery. New MFOs entering a post-disaster situation face a different set of opportunities and constraints than existing MFOs but are also seriously challenged by the same environmental conditions.

In responding to both the opportunities and the challenges posed by natural disasters, most MFOs follow ad hoc mechanisms to protect their clientele and their portfolio. A few organizations are experimenting with ways to incorporate disaster-management and disaster-mitigation mechanisms into regular MFO technologies so that they can deal with natural disasters in a systematic and cost-effective way.

THE PURPOSE OF THIS REVIEW

Although the provision of microfinance services in post-disaster settings is growing, to date there has been little attempt to synthesize the lessons of those who have found themselves on the front line in disaster situations. This paper examines MFOs' experiences and experiments and documents the challenges they confront in post-disaster (disaster-management) and predisaster (disaster-mitigation) settings. The paper gives particular emphasis to the following questions:

- (I) What stages of the disaster-to-normalcy transition process provide the appropriate conditions under which an MFO, whether existing or newly established, can operate?
- (ii) Is there room for new MFOs in post-disaster settings, or should emphasis instead be placed on enabling established MFOs to provide post-disaster services?
- (iii) Can MFOs effectively provide social services immediately after disasters but provide only financial services after normalcy returns?
- (iv) What products or programs do MFOs use to manage and mitigate natural disaster conditions to protect their clients and their portfolios?
- (v) What are the implications for MFO performance, especially for loan repayments, of choosing different products and programs during post-disaster situations?
- (vi) To what extent can an MFO's program serve as a social safety net for a community struck by disaster?

The information presented in this paper was collected through an extensive review of the literature and targeted discussions with representatives of existing programs. The review placed special focus on Bangladesh, India, Burkina Faso, and South Africa. The author collected information through e-mail, faxes, and phone conversations with organizations and knowledgeable people and conducted field visits to Bangladesh and India.

CHAPTER TWO

OPPORTUNITIES AND CHALLENGES FOR MFOs IN DISASTER SITUATIONS

Disasters generate a plethora of challenges for existing and new microfinance organizations, but they also present opportunities that should not go unnoticed. This chapter identifies the unique opportunities, followed by the challenges, that MFOs encounter in countries either recovering from natural disasters or experiencing chronic disasters.

OPPORTUNITIES

Disasters open up several opportunities for MFOs at the macro, institutional, and client levels that are not present during normal times. They arise from both the supply side (program funders or sources within the program itself) and the demand side (MFO clients and the larger community of disaster victims).

Supply-Side Opportunities

At the macro level, existing MFOs are often approached by international donors and governments to channel money — either loans or grants — to the affected populations for relief and rehabilitation. This flow of external funds, often as grants, increases the capital available to MFOs during the disaster period and improves their image in their areas of operation.⁴ The opportunity to coordinate with governments and international donors can also provide a forum for lobbying for microfinance-related issues so that these external agencies do not undermine financial markets, especially during disaster times.⁵

At the institutional level, when disasters strike, MFOs have a unique opportunity to assess their vulnerability to disaster conditions and their ability to manage under them. Although such learning occurs under duress, the resulting lessons can pay off in future disaster situations.

At the micro level, disasters provide an opportunity to examine MFO clients' vulnerable areas and capacities. This information can be used to develop new financial products or to work with client groups to develop risk-mitigation strategies for the future.

Demand-Side Opportunities

⁴However, the MFO's program management has to be shifted from portfolio management to management of these funds. Accordingly, new methodologies must be used to track the flow of these funds. This raises the opportunity costs of these funds to MFOs (private correspondence with Annica Jansen, USAID, 1998).

⁵The example of BRAC in Bangladesh shows that MFOs can lobby effectively with governments to coordinate financial and relief activities in post-disaster settings (private conversations with BRAC officials, 1997).

Demand-side opportunities emerge from MFO clientele as they respond to a disaster situation. The loss of or damage to income-generating assets and workplaces creates an increased demand for credit, especially for replacing assets and reconstructing buildings. Natural disasters also generate an increased flow of remittances from overseas or unaffected regions, leading to a demand for fast and efficient services to transfer money. These demands may be placed on MFOs by existing clients or by others in the community who find themselves in need of a financial institution.

CHALLENGES

Listing challenges in post-disaster situations is a longer exercise than listing opportunities, as MFOs face several challenges in providing financial services under such conditions. Although many of these challenges are similar during normal and disaster times, they may be amplified by disaster conditions. Table 1 compares the challenges MFOs face during post-disaster periods with the challenges they face under normal conditions. The escalated challenges require special strategies to protect an MFO's portfolio and clients. This section identifies six of the most difficult of these challenges:

1. Managing funds;
2. Performing staff administration duties;
3. Maintaining or changing program objectives;
4. Finding successful methodologies;
5. Meeting changing demand for services; and
6. Coordinating with other agencies and programs.

Some of these issues are common to both established and newly created MFOs during disaster times. Others apply specifically to established MFOs that continue to function when their steady state is disrupted. The discussion below provides additional details on the scope of the challenges for MFOs. In Chapter Four, the author examines MFOs' responses to these challenges to determine their effect on MFO operations and sustainability.

Fund Management Challenges

In normal times, MFOs are responsible for accounting for money received from their creditors (whether donors, governments, or depositors). They are challenged to service loans and depositors efficiently, whereby the demand for loans and deposit services can be predicted with some certainty. In contrast, disaster times generate an outpouring of grant and loan funds from donors and governments that require quick disbursement to provide relief and rehabilitation services.

TABLE 1
 NORMAL AND NATURAL DISASTER PERIODS: POTENTIAL CHALLENGES FACING MICROFINANCE ORGANIZATIONS

Item	Normal Periods	Natural Disaster Periods
Fund management	Account for money; serve depositors and loans that can be predicted to an extent.	Make grants and loans that pour in from donors and governments for relief and rehabilitation services; account for costs and socioeconomic impact; service the increased and highly synchronized depositor demand to withdraw funds without causing bank runs; and cope with reduced funds from new public deposits.
Administration: Program staff	Recruit, train, and maintain efficient staff who can screen, sort, monitor, enforce, and collect on loans so that program objectives in terms of target clients are met and loan default remains low to ensure sustainability.	Prepare staff to predict and deal with disasters; encourage staff to work in disaster areas during relief and rehabilitation stages, which involves more time and effort to collect on old loans and make and collect on new loans; train staff to sensitize clients to understand the difference between grant and loan activity during emergency and disaster times so that the regular loan program is not undermined; train staff to work under conditions with less logistical support and damaged client records and collateral; and minimize mismanagement of grants and leakage in terms of servicing nontargeted clients.
Methodology/design	Choose between group or individual, credit-dominated or savings-dominated, and collateral-based or character-based lending programs.	Choose between group or individual lending programs when the demand for loans in terms of size, terms, and purposes varies among members because of differences in the extent of damages. Determine how to implement collateral-based lending when most collateralizable assets are damaged or lost and lives of people who could guarantee loans are lost. Determine how to depend on deposits to issue more loans when demand for withdrawal for deposits is high. Determine whether to have state-contingent contracts.
Program objectives	Reach targeted population and/or achieve financial, organizational sustainability.	Reach vulnerable populations and protect the portfolio of the institution in a way that avoids losses; address conflicts of interest in terms of social and financial objectives (donors may insist on relaxed terms and conditions based on humanitarian considerations, which can undermine the program).
Sustainability	Reach financial and organizational sustainability through steady growth and a strong portfolio.	Determine how to protect the portfolio, minimize losses, and maintain staff integrity so that at least the status quo is maintained and the MFO remains viable.
Outreach	Target creditworthy clients.	Reach vulnerable clients, who may be less creditworthy than usual clients, with less leakage and undercoverage.

Item	Normal Periods	Natural Disaster Periods
Client selection	Screen applicants using different indicators, and select clients who serve the program objectives. Provide these clients with the required services.	Determine how to select clients when the indicators normally used for screening are not very useful, many applicants are in similar situations, and opportunities for immediate income-generating activities are dismal.
Contract enforcement	Address information problems; manage idiosyncratic shocks affecting repayment; and address collateral foreclosing problems resulting from legal and social barriers that increase transaction costs.	Manage aggregate shock, widespread collateral damage/loss, and client death or migration.
Demand for financial services	Meet demand for income-generating activities and some consumption loans.	Meet the increased demand for consumption loans and loans for replenishment of assets lost or damaged. Meet the demand for several social services that affect the ability to generate income.
Coordination with other agencies	Avoid duplication of efforts by other financial service providers and undermining of the program by negative externalities.	Avoid duplication of efforts and undermining of relief and rehabilitation efforts by several heterogeneous, short-time, inexperienced actors to provide finance and other services for the overall development of the disaster area. Avoid undermining financial programs through doles and by creating a dependency syndrome. Coordinate with insurance and credit guarantee programs to cover losses.
Products and programs	Develop programs and products for a viable, competitive operation.	Develop special products and programs to protect the clientele and portfolio; quickly learn by doing and find products and programs developed for normal periods that can be adopted/adapted for disaster situations.
Demand assessment and rapidness in response	Predict demand.	Assess the magnitude of the damage and demand for services in a short time so that programs will be effective and timely.

For established MFOs that choose to avail themselves of disaster-time funds, these resources come in addition to the regular funds available for MFO operations, and they require additional management in terms of accounting for costs and socioeconomic impact. A clear separation of accounts is necessary to protect the MFO's reputation as a serious provider of financial services and to properly track the costs of the different services. Maintaining separate accounts, however, increases the cost of the MFO's operations and increases the duties of its trained staff.

For MFOs that mobilize savings, disasters cause other types of disruption to fund management. Established MFOs are expected to service the increased and highly synchronized demand by depositors to withdraw funds, which can cause bank runs if not handled carefully. MFOs also face difficulties in mobilizing new savings from the public until normalcy returns, thus leaving them increasingly dependent on the availability of donor and/or government funds and internal funds.

Staff Administration Challenges

In normal times, MFOs encounter problems in recruiting, training, and maintaining efficient staff who can screen, sort, monitor, enforce, and collect on loans so that program objectives in terms of target clients can be met and loan defaults can be reduced to ensure sustainability. During disaster times, MFOs are further required to do the following:

- Prepare their staff to predict and deal with disasters;
- Encourage staff to work in disaster areas during relief and rehabilitation stages, which involve more time and effort to collect on old loans or make and collect on new loans;
- Train staff to sensitize clients to the difference between one-time grants and loans so that the regular loan program is not undermined by relief efforts;
- Prepare staff to work under conditions with less logistical support and damaged client records and collateral; and
- Train staff to minimize mismanagement of grants and servicing of nontargeted clients.

Changes in Program Objectives

Program objectives of long-term outreach and sustainability are heavily challenged during disaster times, when existing MFOs may be encouraged by donor agencies to provide the affected population with new financial and social services. Part of the donor pressure may be to service a new clientele, one at greater risk than the usual clientele. In addition, donors may insist on relaxed loan terms and conditions because of humanitarian considerations. Though some MFOs may be independent of public funding, these requirements are significant for the majority that depend on public funding. For these institutions, such mandates lead to new challenges to protect their portfolio, minimize losses, and maintain staff integrity so that at least the MFOs maintain the status quo should they choose to serve the vulnerable population according to donor mandate. The challenge is whether these MFOs can resist donor pressure or alter their objectives during disasters, then revert back to their original mandate once normal conditions return, without undermining their long-term objectives.

Newly established MFOs are challenged to find the appropriate balance between financial and social objectives. The question remains, Can new MFOs that begin operation during disaster times with social objectives later move on to become financial organizations pursuing economic goals?

Methodological Challenges

Microfinance methodologies are challenged continuously under disaster conditions. Four methodological issues bear specific mention here: financial technology, client selection, programs and products and their terms and conditions, and contract enforcement.

Financial technology: In normal times, MFOs tend to make well-justified choices between group or individual lending, collateral-based or character-based lending, and credit-dominated or savings-dominated programs. During disasters, however, such choices may have unexpected side effects.

After a disaster occurs, group lending programs that require equal loan sizes may be difficult to sustain when demand varies among members in terms of loan size, terms, and purpose. Such variability can occur because of differences in extent of damages, insurance availability, and vulnerability to disasters. Even if groups permit unequal loan sizes, members of the group may be reluctant to provide joint liability, or they may have less time to perform monitoring activities or to meet regularly.

Individual lending programs also face problems during disasters: They involve high transaction costs for the institution that become even higher when logistical support is disrupted.

In post-disaster situations, collateral-based lending programs may be undermined when most of the collateralizable assets are damaged or lost. In character-based lending, the lives of individuals who provided personal guarantees for loans may be lost. Even if the individuals survive, their income-generating activities may be so badly damaged that they cannot pay back their loans.

For savings-based programs, crises arise when depositors generate a sudden demand to withdraw deposits to cope with disasters, undermining the institution's ability to maintain the liquidity necessary to issue new loans.

All in all, following a disaster, established MFOs are challenged to meet new circumstances by adapting technologies they chose prior to the disaster. New MFOs, on the other hand, are challenged to choose the appropriate technology to provide services that not only operate immediately after disasters but can continue to operate successfully in normal times. This leaves MFOs with the dilemma of whether to develop dual methodologies, one each for post-disaster and normal times, which are called "state-contingent methodologies."

Client selection: Client selection is a challenge in normal times as well as disaster times. However, during disaster times, MFOs face the dilemma of whether to expand services to the vulnerable population to respond to obvious pressing needs, or to service only creditworthy clients. If the MFO decides to extend services to the vulnerable population, the institution may have to develop indicators that allow it both to serve the program's objectives and effectively screen and select the targeted population.

Products and programs and contract terms and conditions: In normal times, MFOs design their programs and products and related terms and conditions for viable and competitive operation. In disaster times, MFOs must adapt products and programs developed for normal periods to disaster

situations, but in ways that do not conflict with their long-term objective of sustainability. The important challenge is to establish clear guidelines and cutoff dates for special products and programs used during post-disaster stages.

Contract enforcement: Given the incomplete information inherent in financial markets, MFOs are always challenged by problems related to contract enforcement. In normal times, MFOs' main contract enforcement issues deal with repayment and collateral foreclosure on an individual or group borrower basis. Disaster times exacerbate the situation, requiring MFOs to manage widespread collateral damage or loss; widespread default resulting from client injury, death, or migration; and losses to guarantors. The challenge is especially intense for established MFOs that have minimal geographic and enterprise diversification and for new MFOs, which may have a less diversified clientele than established organizations. Even when transactions are not based on collateral, contract enforcement becomes difficult during disaster times because group pressure cannot be used effectively; members may have less time and inclination to insist on timely repayments.

Changing Demand for Services

During normal periods, MFOs lend primarily for income-generating activities and secondarily for consumption. During disaster periods, demand increases for loans for consumption purposes, loans to replenish assets lost or damaged, and social services (such as emergency food or shelter) that precede income generation. Although social services usually are outside the realm of microfinance services, MFOs recognize that access to them affects households' ability to return to productive activities and generate income in the future.

Demand may be both short and medium term in nature. Once MFOs decide what services they are prepared to offer, they are challenged to predict accurately the demand for those services by assessing the magnitude of the damage so that programs will be effective, timely, and of the appropriate duration.

Coordination with Changing Suppliers

In normal times, MFOs are expected to coordinate with other financial and developmental agencies to avoid duplication and ensure compatibility of efforts. Disaster times make such coordination both more necessary and more difficult.

Several suppliers of social and financial services enter the market simultaneously during the post-disaster relief and rehabilitation stages. Many of these actors tend to enter quickly with diverse experience and objectives. Those deciding to provide financial services (often on a grant or soft-loan basis) may have little experience in microfinance, expect to stay only a short time, and be unaware of the dangers of creating a "dependency syndrome." It is challenging for existing MFOs to educate and coordinate with such new suppliers in post-disaster settings. In addition, new MFOs may have to coordinate with established MFOs to learn from their experiences and avoid duplication of efforts. On a different level, MFOs also need to coordinate with insurance and credit guarantee programs (if they exist) to cover losses to their portfolio and clientele.

A Road Forward

The challenges posed above (and distilled in Table 1) only begin to indicate the complexity of providing microfinance services in post-disaster contexts. The remainder of this paper examines the experience of MFOs in responding to these challenges. In so doing, it alerts readers and the MFO community to recognize and exploit advantages and identify and mitigate disadvantages posed by post-disaster situations so that MFO portfolios and clients can be protected.

CHAPTER THREE

PROTECTING MFO CLIENTS AND PORTFOLIOS WITH DISASTER-MANAGEMENT AND DISASTER-MITIGATION STRATEGIES

Following a natural disaster, MFOs use certain risk-management mechanisms to minimize losses to their portfolio while meeting the pressing post-disaster needs of their clients. This chapter reviews the many mechanisms used by MFOs, first to support disaster-affected clients, and second to safeguard their portfolio. A summary of these strategies is provided in Table 2.

CLIENT PROTECTION

Financial Programs and Methodologies for Disaster Management

MFOs use various mechanisms to protect their clients, including allowing immediate withdrawal of both compulsory and voluntary savings, rescheduling the compulsory savings component, and forgiving loans (principal, interest, or both).

Loan forgiveness during disasters is primarily used by public banks and cooperatives under a governmental mandate. Although debt forgiveness may benefit borrowers who have outstanding loans at the time of the disaster, it creates apathy among other clients and increases losses to the MFO. In fact, the effects of loan forgiveness have been well documented as undercutting the long-term objectives of MFOs and their clients (see “Lessons in Post-Disaster Loan Forgiveness: A Case Study” in box).⁶ Indeed, more experienced nongovernmental organizations (NGOs) report that they rarely use debt wipe-off as a mechanism to protect their clients in a post-disaster situation.

What options have been more successful? MFOs that mobilize voluntary and/or compulsory deposits in Bangladesh and India allow clients to withdraw their savings during disasters and reschedule regular mandatory contributions until normalcy returns. Some MFOs in India have also allowed withdrawals from emergency/contingency funds built from members’ compulsory regular contributions to reconstruct damaged public infrastructure, or they have divided the emergency funds equally among members to meet medical expenses. The Small Enterprise Foundation (SEF) in South Africa also makes compulsory savings available for immediate withdrawal without any penalty, but the institution expects members to repay the funds after a specified time. In addition, SEF pays no interest on deposits until the withdrawn money is repaid.

⁶“Disaster-Management Strategies by PROSHIKA, Bangladesh” (in box) provides another example, in which PROSHIKA experimented with debt forgiveness for flood victims in Bangladesh in 1988. The approach resulted in the erosion of reserve funds.

TABLE 2
MFO CLIENT AND PORTFOLIO PROTECTION: SUMMARY OF FINANCIAL PROGRAMS, METHODS,
AND PRODUCTS USED AND THEIR IMPLICATIONS

Item	Client Protection			Portfolio Protection		
	Mechanisms Used	Observed Results	Implications	Mechanisms Used	Observed Results	Implications
I. Disaster Management						
A. Financial programs and methods	a. Withdrawal of individual compulsory/voluntary savings (or from group contingency funds)	Smooths consumption; increases loan repayment; functions as partial safety net.	Effective when allowed immediately after disasters for a specified time only. Replenishes withdrawn funds if no interest is paid until withdrawn savings are paid back.	a. Rescheduled loan payments	Mixed repayment results; long-term clients repay better than new clients.	Need to use immediately after disasters and only for a specified time for specified loans; effective only for established MFOs with long-term clients.
	b. Rescheduled compulsory savings	Protects against defaulting on commitments.	Effective during emergency periods and with short intervention periods.	b. Loan-term conversion	Mixed repayment results; long-term clients repay better than new clients.	Need to use immediately after disasters and only for a specified time for specified loans; effective only for established MFOs with long-term clients.
	c. Loan forgiveness	Protects only those with outstanding loans.	Costly; reduces repayment ethics; hurts MFO portfolios.			
	d. State-contingent contracts	Results in low repayments; reduces value of credible threat in noncollateral-based loans; makes it difficult to resume usual terms after normalcy returns.	Difficult to implement; does not protect clients if not implemented properly and on time; does not protect portfolio if length of intervention is not specified.			

Item	Client Protection			Portfolio Protection		
	Mechanisms Used	Observed Results	Implications	Mechanisms Used	Observed Results	Implications
B. Financial products	a. Emergency loans	Increases client loyalty. Good repayment recorded only with existing clients.	Effective only during relief stages; partial safety net for existing clients.	a. Housing loans	Poor repayments because of late and small loans; repayments are good if followed by asset-replenishment loans to generate income to repay housing loans.	Good during rehabilitation and reconstruction stages but may require additional loans to ensure repayments.
	b. Housing loans	Moderate repayment. Timely loans based on demand and flexible terms and conditions are rare. Made only to those who owned houses prior to disaster.	Effective only when issued quickly during rehabilitation and reconstruction stages based on demand.	b. In-kind or cash loans for asset-replenishment	Mixed repayment records; does not increase repayments on existing loans in short run; better repayments with long-term clients than with new borrowers.	Good during rehabilitation and reconstruction stages but may require several consecutive replenishment loans to ensure income generation and a return to normalcy; good only for established MFOs with long-term clients.
	c. Cereal banks	Used for smoothing consumption during droughts; good repayments when indigenous societies are used for distribution; good only for short-term, mild droughts; monetized banks sustain better than in-kind banks.	Effective only during relief stage for mild droughts; needs augmentation by other mechanisms during severe droughts; use of indigenous societies recommended; monetization of banks necessary.			
	d. Remittance services	Eases cash-flow problems of clients and increases repayments; increases client loyalty to MFO.	Required immediately after disaster up to reconstruction stages; quicker return to normalcy facilitated; should be demand based.			

Item	Client Protection			Portfolio Protection		
	Mechanisms Used	Observed Results	Implications	Mechanisms Used	Observed Results	Implications
C. Other options	a. Coordination with relief agencies	Reduces duplication of efforts and helps in fast and effective services.	Cost-effective during relief stages.	a. Cross-subsidization through geographic diversification and activities	Effective only for short periods.	Possible only for established MFOs with wide networks.
	b. Social services	Provision of food, medicine, and shelter increases client loyalty and respect in the community.	Effective only when provided immediately after disasters as a one-time stopgap grant until other relief agencies arrive; may require inclusion of nonclients; should be provided through a separate window.	b. Social services	Provides business advice; increases client loyalty through help with insurance claims and remittances; facilitates quicker return to normalcy, thereby increasing repayment.	Effective only when provided immediately after disasters; cannot be cost-covering; may be provided only for a specified time under a separate window.
				c. Coordination with insurance/guaranteeing agencies	Helps in timely settlement of claims, and reduces transactions costs.	Important because several claims need to be processed by insurers at the same time.

Item	Client Protection			Portfolio Protection		
	Mechanisms Used	Observed Results	Implications	Mechanisms Used	Observed Results	Implications
II. Disaster Mitigation						
A. Programs and products	a. Training programs	Increases disaster coping capacity only when it complements financial programs; cost-covering difficult.	Requires subsidization; cost-effective only for MFOs with an ongoing training program.	a. Contingency plans	Reduces defaults in slow-onset disaster situations.	Ineffective for unpredictable rapid-onset disasters.
	b. Irrigation projects (e.g., rainwater catchments)	Smooths consumption during early stages of severe droughts or during very mild droughts; requires subsidization for construction.	Long-term plans to build sustainable irrigation systems is necessary for coping with severe droughts; may require coordination with other agencies.	b. Vulnerability-assessment mapping	Helps predict slow-onset disasters, such as droughts, so that MFOs can prepare their clients and staff.	Not good for rapid-onset disasters.
	c. Subsistence loans for disaster preparedness	Requires loans for buying and storing subsistence goods during emergency stages; results in good repayments; increases client loyalty.	Partial safety net for clients; effective only with good long-term clients.	c. Guarantee programs	Not very effective in settling claims; low outreach; not very sustainable.	Requires high subsidization.
	d. Housing construction in safe places	Reduces vulnerability; results in moderate repayment.	Expensive.	d. Staff training	Effective in preparing staff for disaster management with less logistical support, and in predicting demand for various services during disasters.	Needs to be an ongoing learning program.

Item	Client Protection			Portfolio Protection		
	Mechanisms Used	Observed Results	Implications	Mechanisms Used	Observed Results	Implications
A. Programs and products, continued	e. Insurance (crop insurance; enterprise insurance; life insurance)	Crop insurance requires subsidization and is difficult to implement; microenterprise insurance under pilot stage; payments not timely; involves high client transactions costs.	Costly and requires subsidization; few private insurers.	e. Loans to diversify income-generating activities	Reduces risks from covariance in incomes and increases repayments.	Diversified activities should have less covariance.
	f. Group insurance funds/group disaster funds	Effective only if used for emergency purposes; poor accounting may lead to decapitalization of funds.	Loans should be demand based and eligibility decided by the group.	f. Borrower group contingency funds	Increases repayments.	Groups may require training in maintaining transparent accounts to avoid mismanagement.
				g. MFO disaster reserve funds	Helps manage shortfalls and programs immediately after the disaster.	May require seed capital from donors.
				h. Current accounts	Reduces pressures on MFOs to release term deposits to meet cash-flow problems after a disaster; increases flexibility to clients.	Preserves liquidity for MFOs and provides time to adjust.
				i. Insurance for MFOs	In pilot stage.	Few private insurers.

Lessons in Post-Disaster Loan Forgiveness: A Case Study

After the cyclone of 1984, the government of Bangladesh announced a “rural credit forgiveness program.” Under the program, old loans were rescheduled for longer terms with no additional interest, new loans were extended to affected farmers even though they might have defaulted on earlier loans, and a total loan forgiveness of all loans taken for the season was granted. The program was announced without consulting with banks or assessing farmers’ requirements. As a result, losses were heavy for the banks. Even those farmers who began paying arrears and who were able to pay their dues withheld payment. In addition, several loans were made without proper evaluation in order to meet the government mandate to make loans to all farmers in the affected area who demanded them. Some unaffected areas were also included under the program because it was not cost-efficient to separate the two categories, which led to debt forgiveness for farmers unaffected by the cyclone.

During the forgiveness program, banks lost principal and interest payments and suffered from disrupted financial discipline, which affected future loan repayments.

A subsequent study of the Bangladesh farmers shows that they had demanded immediate cash or in-kind relief loans rather than interest/principal wipe-off on earlier loans. It was later determined that banks should not be required to perform social welfare functions in times of disaster and that a clear cutoff date should be specified for interest rate exemptions. (Source: USAID, 1986.)

Another methodology used by some programs is to implement “state-contingent contracts” whereby MFOs temporarily vary their financial design in post-disaster situations to protect their clients. For example, SEF protects its clients during droughts by switching from group to individual liability for group loans.⁷ It is expected that this will reduce a domino effect created through collective loan default by all members of a group once a few members default on their loans. The downside of state-contingent contracts, however, is that they remove one of the MFO’s most important contract enforcement tools when the MFO is most vulnerable. Should state-contingent contracts include alternative incentives that retain the MFO’s ability to collect on loans (such as developing a contingency account during nondisaster times), they could become a useful tool for client protection.

Financial Products for Disaster Management

In addition to special methodologies or programs for post-disaster periods, specific financial products are particularly helpful to clients in these settings. Most of these products will be offered temporarily, and some may reach a broader population than simply the MFO’s ongoing clientele. Products include housing loans, in-kind and emergency loans for food and medicine, and remittance services. Additionally, cereal banks have been established to provide food and cereal loans in post-disaster situations.

⁷The defaulting member is dealt with separately; thus, some members’ arrears do not become a liability for others.

Disaster-related loans are generally found to be effective if they are provided immediately after a disaster.⁸ The timing and flexibility of housing loans in particular are very important features that affect the ability of such products to protect clients. This point is exemplified by the results of housing loans made in response to heavy flooding in Tunisia in November 1982. Project funds from the United States were released in 1983, but the services were not available until June 1987. The time lag led several victims to relocate to other regions and repair their houses by themselves. After project implementation in 1987, uniform amounts were issued as loans with uniform terms and conditions to all borrowers. Their impact would have been greater, however, had the loans been made on flexible terms and been issued according to demand rather than having been restricted to people who previously owned houses in the area. Only 659 loans were made, even though 1,000 were budgeted, and only about 35 percent of the loans were considered sound after three years of program implementation (USAID, 1987a).

Cereal banks are another financial product that, if used ineffectively, can fail to respond adequately to user needs. The Burkina Faso-based National Foundation for Development and Solidarity (FONADES), a French NGO, established cereal banks in 1974 (see “Cereal Banks in Burkina Faso” in box). During the country’s 1985 drought, villagers were able to take loans from the banks and in turn provide loans to nearby villages, which they successfully collected on after the drought ended. In some villages, however, grain stocks were inadequate to meet the high demand during the drought. Thus, although cereal banks are effective in dealing with seasonal food shortfalls, they seem to be inadequate during severe droughts unless augmented by external assistance. Also, cereal banks that are not monetized and deal with only in-kind loans appear to be more vulnerable to financial losses during severe droughts than do monetized banks (Woodrow, 1989).

Cereal Banks in Burkina Faso

Cereal banks were initiated in Burkina Faso in 1974 by FONADES, a French-based NGO. By 1986, 15 NGOs and about 13 government entities were working with the cereal banks.

Cereal banks can be defined as self-managed, village-based organizations that store and trade cereals. The objective of cereal banks is to ensure food security to rural communities during lean agricultural seasons by safely storing members’ grains. Some banks also purchase grains from members at prices slightly above market prices during postharvest seasons; the members can then buy back the grains at a lower price than the prevailing market price during lean seasons. Several banks allow members to borrow cereals on member-determined terms and conditions to smooth consumption. The operational funds are provided as grants by NGOs.

The basic elements of a cereal bank include the following: (1) a storage facility; (2) a rotating fund, either in grain or in cash, that capitalizes the cereal bank, allowing it to sell/buy grains or lend grains to members; and (3) a managing committee, elected or selected from among villagers, that governs the bank. (Source: Woodrow, 1989.)

Several MFOs have recognized the need for remittance services to facilitate the inflow of funds from within and outside the country. After disasters, remittance services protect clients from cash-flow problems and return them to normalcy. Several MFOs in Bangladesh and the Philippines report offering quick remittance services at a subsidized price to transfer funds to their clients either through checks, cash,

⁸In the empirical work of Todd, 1996, the Grameen Bank’s promise of loans to its clients immediately after a disaster was found to be an effective safety net for those clients who had maintained a good repayment record.

or wire transfers. Remittance services may also be demanded in nondisaster times, though on a more individualized scale.

Other Options for Client Protection after Disasters

In addition to the above financial programs, methodologies, and products, MFOs use other means to meet client demand following natural disasters. For example, some MFOs work in partnership with development agencies to protect their clientele. BRAC is linking up with the Disaster Victims Program initiated by the Bangladesh Government by providing training for income-generating activities and loans to clients after they have received free food and shelter from the government. Similarly, the Mysore Resettlement and Development Agency (MYRADA) in India provides new loans to eligible participants in a food-for-work program initiated by the government in drought-affected areas. Under the arrangement, participants use their employment in the program as collateral. Such coordination between MFOs and development agencies has ensured more comprehensive protection of potential and existing MFO clients.

MFOs have also found coordination with indigenous organizations to be effective in providing fast and effective financial services after a disaster. For example, Save Our Soul, Sahel (SOS, Sahel) in Ethiopia used indigenous organizations such as burial societies during the 1995 drought to identify clients and distribute and collect on relief loans to drought-affected populations.⁹ The on-time repayment rate was about 68 percent, which was significantly better than the 1-percent on-time recovery rate among government-formed peasant cooperatives that did not utilize local organizations.¹⁰ Indeed, burial societies with strong leadership recorded repayment rates of up to 98 percent.

Special Programs to Assist Clients with Disaster Preparedness

Established MFOs operating in areas subject to chronic disasters are increasingly developing mechanisms to prepare their clients for such events. Disaster-preparedness programs are now implemented as part of several MFOs' ongoing activities during normal times.¹¹ Although several of these programs are financed through special reserve funds, they are increasingly being financed through regular funds allocated for normal MFO activities.¹²

⁹These loans were made in-kind because the indigenous societies were not experienced in handling cash loans; the interest rates for the loans were fixed by the indigenous societies themselves, and the repayments were made in-kind (Pratten, 1997).

¹⁰Payments made up to 30 days past due dates were considered as loans recovered on time.

¹¹Examples include the Post Cyclone Rehabilitation and Development Program (PCRDP) implemented by BRAC in 1991, the Disaster Management Program by the Association for Social Advancement (Bangladesh), and the Natural Disaster Management for Sustainable Development Program started in 1991 by PROSHIKA.

¹²For example, BRAC has marked about Tk. 8 million (US\$0.19 million) in its regular budgetary allocations from its profits to finance some activities in disaster-preparedness programs (BRAC, 1997).

In Bangladesh, OXFAM provides subsidized loans for buying food and emergency products and storing them under the earth as a reserve during the relief/emergency stage after a disaster.¹³ Housing loans are also provided in normal times by MFOs such as BRAC, PROSHIKA, the Grameen Bank, and MYRADA for clients to build houses in safe places.

Group-based insurance companies in Latin America are now providing loan and savings protection to microentrepreneurs. BURO-Tangail, an NGO in Bangladesh, has introduced enterprise insurance for members on a pilot basis. Similarly, the Self Employed Women's Association (SEWA) in India, a private, client-owned bank, has in conjunction with the state insurance company developed a deposit-linked insurance scheme for its clients to compensate for business losses and deaths caused by fire and floods. Members are required to maintain minimum deposits to cover the premium. It has been reported, however, that it has been difficult to collect insurance payouts from the state insurance agency, and SEWA has employed special staff to arrange for timely payments during disasters.

Some MFOs also encourage their clients to form insurance funds to manage widespread and hard-to-predict risks (such as floods or other natural disasters). For example, a federation of self-help groups in India, called Vaigai Vattara Kalangiyam (VVK), encouraged by an MFO called PRADHAN, operates a welfare/disaster fund and links the insurance fund to the insurance scheme operated by the state insurance company.¹⁴

MFOs in Bangladesh provide several training programs to improve the entrepreneurial ability of their clients to diversify into income-generating activities that are disaster-proof. Also, several MFO training programs are in place for vulnerable groups helped by the government in previous disasters. However, these programs may be cost-effective only for established MFOs that provide training programs as part of their regular services.

In addition, shelters have been built in safe places to protect clients affected by floods, and irrigation projects have been implemented to protect against droughts. Some MFOs in Mali and Burkina Faso arrange for their clients to rent space in seed and grain banks to store cereals as a reserve to use during droughts and famine.

Rainwater-harvesting programs, jointly sponsored by the government and NGO-MFOs, are being used in several parts of north India and Sri Lanka as a disaster-preparedness strategy to protect clients during droughts (Ariyabandu and Dharmalingam, 1997). Participants in the programs use rooftops as catchments for rainwater.¹⁵ In addition, some MFOs construct community watersheds to catch

¹³Examples of types of products included in disaster kits are matchboxes, dry twigs, water bottles, water purification tablets, rehydration tablets, sugar, and bottles of kerosene.

¹⁴Every member is required to pay Rs. 50 per year (US\$1.50) into the fund. During disasters, in the event of the death of the member, the immediate family gets compensated by a payment of Rs. 10,000 (US\$300); damages/losses from disasters are compensated through a payment up to four times the premium paid. The insurance payout can be utilized only once for every five years of continuous membership. Payments can be demanded for the death of either the member or one of the member's immediate family members. Only members below 45 are accepted into the program. Those who do not claim any payout from their insurance can claim the premiums paid with a small interest at the end of the fifth year and can start the cycle all over again.

¹⁵The government, through the NGO, initially provides a grant that covers up to 40 percent of the costs of installation to households that install the rooftop water-harvesting mechanism. The NGO provides a loan that can cover up to another 40 percent of the installation costs. The household is expected to raise the remaining 20 percent from its own

rainwater.¹⁶ Interviews in Gujarat with users of rooftop water-harvesting mechanisms and community watersheds, however, suggest that although these mechanisms have been effective in coping with mild droughts that occur every two to three years, they may not be effective during severe droughts that occur every five to six years.

Disaster-Management Strategies by PROSHIKA, Bangladesh

PROSHIKA, an NGO, began as a relief agency in 1971 but soon realized that relief services provided as grants that are not linked to any reconstruction and income-generating activities lead to a dependency syndrome among victims. Therefore, it started providing subsidized and easy credit to disaster victims as a development strategy. PROSHIKA soon learned, however, that subsidized loans drain an NGO-MFO's institutional resources unless they are supported by donor grants. A loan wipe-out for flood victims in 1988 also proved to be a loss to reserve funds. In addition, dependence on donor resources for disaster relief was limiting PROSHIKA's timely intervention after disasters.

In response, in 1991, a program for natural disaster management for sustainable development was created. Also that year, a disaster-management fund for US\$0.19 million, capitalized by donors, was formed. The fund is used to provide relief services to disaster victims until fresh donor funds arrive.

Methods PROSHIKA uses to provide disaster-related services include the following:

i. Relief stage: A small, one-time, instant-relief grant including food, medicine, and cash is provided during the relief stage. It is expected to provide a limited safety net through additional cash flow to victims (clients and nonclients) who suffer from loss of employment that follows immediately after a disaster. The members are also allowed to withdraw from their compulsory deposits. As a penalty, interest on remaining savings is withheld until the withdrawn savings are replenished.

ii. Rehabilitation/reconstruction stage: Interest-free, collateral-free new loans are made to established clients so they can revive their income-generating activities. These loans are provided for asset replenishment and for reconstruction of houses damaged or lost. The loans are to be repaid in monthly installments, but borrowers can choose to make a smaller repayment every month and then pay a bigger amount at a later date once income starts accruing. A total of 32,973 new loans (housing and asset replenishment) worth US\$3.89 million were made in 1997 for flood disaster victims; the on-time recovery rate has been around 68.4 percent.

resources. The NGO also provides technical assistance in the installation.

¹⁶In Gujarat and Rajasthan, India, these watersheds are built using government subsidies, loans from NGOs to the primary users, and the community's own resources. The primary users pay a user fee by selling water to nearby villages and are collectively responsible for the repayment of loans. Interviews with MAHITI, a Gujarat NGO-MFO, suggest that it has provided more than 100 such loans at an annual interest rate of 12 percent (with inflation about 9 percent and bank rates about 18 percent per annum) and has recorded a repayment rate of about 82 percent.

Disaster-Management Strategies by BRAC, Bangladesh

BRAC, the Bangladesh Rural Advancement Committee, was created in 1971 with donor funds to provide relief services to victims of the war that led to the country's independence and of the cyclone that hit Bangladesh soon after independence.

In 1991, BRAC developed a disaster-response mechanism called the Post Cyclone Rehabilitation and Development Program (PCRDP). BRAC based the program on the organization's two decades of experience in working in disaster-prone areas. Under PCRDP, BRAC managed the May 1997 disaster that hit the coastal regions of Bangladesh, killing more than 4,500 livestock and damaging more than 580,000 houses and 215,000 acres of paddy. The program worked as follows:

i. Relief stage: In the first days after the disaster, BRAC used permanent cyclone shelters to house and provide health care to victims. It also supplied emergency food, water, and medicine to all victims (members and nonmembers) in the project area.

ii. Early rehabilitation stage: After two days, victims were moved back to their villages. Members were allowed to withdraw their compulsory savings (essentially borrowing from their savings) in order to secure some means of cash flow to manage emergency requirements. The members were expected to repay the withdrawn amount at an interest rate of 6 percent.

BRAC officials, with the help of the local community, immediately assessed their members' damages and considered housing reconstruction loans based on the extent of the damages. The loan committee consisted of one BRAC official and one local person. The members, usually females, were provided with a reimbursement slip and were directed to collect the loan from the area office after two weeks.

iii. Late rehabilitation stage: A total of 26,000 households were provided with loans amounting to US\$0.32 million under the housing reconstruction programs. These loans, after a one-month grace period, were to be repaid in weekly installments over one year at 15 percent interest. In addition, old loans were rescheduled with a grace period for interest payments.

The funds for rehabilitation services are usually obtained from donors, with a limited amount coming from a centrally placed reserve fund (about US\$0.1 million, created from the profits generated from the handicrafts shop operated by BRAC). Experiments with village-level rehabilitation funds created after the 1992 floods were found to be difficult to manage and were therefore discontinued.

iv. Early reconstruction stage: BRAC helped repair schools, roads, tubewells, and water pumps and also assisted in desalinating ponds and opening wells in the first four weeks after the disaster.

v. Late reconstruction stage: This commenced after the fourth week of the disaster. On a grant basis, BRAC supplied fresh seeds, fishlings, and poultry to group members whose vegetable/fish/poultry farms were destroyed during the cyclone. BRAC also provided working capital loans from its resources. The government reimbursed BRAC for grants and loans in the amount of US\$11,800.

In total, relief and rehabilitation activities cost BRAC about US\$390,000. Funds were obtained from fresh donor grants (US\$240,000 from OXFAM, NOVIB, and CIDA) and from BRAC's internal resources allocated for disaster management (US\$150,000).

BRAC suggests that housing loans are essential for effective use of grants and loans provided for asset replenishment and income-generating activities. Of the housing loans made in 1995 to flood victims (amounting to US\$650,000), 59 percent were repaid within 30 days past due, and 14 percent were considered unrecoverable (BRAC, 1995).

PORTFOLIO PROTECTION

Protecting clients from disasters is a central concern of MFOs operating in disaster-prone areas, both from a humanitarian and a business perspective. In its endeavor to remain a viable financial organization, the MFO has a second major concern when disasters strike: how to protect its portfolio from the effects of disasters.

Financial Programs and Methodologies for Disaster Management

Mechanisms used for portfolio protection include loan rescheduling, with or without interest, and credit guarantee programs designed to compensate MFOs for losses incurred on risky loans.

The effectiveness of loan rescheduling in protecting an MFO's portfolio depends on the credibility of threat attached to defaults and the institution's long-term relationship with its clients. An MFO client who places importance on his or her long-term relationship with the MFO or who faces a credible threat of losing collateral benefits from the additional time provided to repay loans. In turn, the increased likelihood of repayment of such rescheduled loans protects the MFO's portfolio. Evidence suggests, however, that only established MFOs with long-term client relationships tend to reduce defaults on rescheduled loans.¹⁷ Even so, both new and established MFOs can protect their portfolio using collection of collateral or severance of future transactions as credible threats.

MFOs' experience with using credit guarantee programs to protect their portfolio has been less encouraging, as several guarantee programs have not been viable and liquid enough to meet the huge demand for insurance payments that occurs after a disaster.

Financial Products for Disaster Management

The financial products MFOs use to protect their portfolio in post-disaster situations include new loans for asset replacement (to generate income) and housing and in-kind (seed) loans. The rationale behind issuing new asset-replacement and housing loans to protect MFO portfolios is as follows: By replacing as soon as possible after a disaster the nonland assets the household uses for its main source of livelihood, and providing cash loans to tide the client over during the initial post-disaster period, the MFO enables the client to repay future loans and rescheduled old loans normally. Furthermore, from a long-term perspective, new loans to old clients can help an MFO retain good clients and protect its future portfolio.

In relationship lending, an MFO incurs a sunk cost in gathering information about its clients. It is important for the MFO to maximize its use of that information by making consecutive new loans to good borrowers. In addition, new loans made in times of disaster based on long-term relationships with borrowers can enhance borrower loyalty, as well as protect the MFO's portfolio through regular repayments.

¹⁷Established MFOs that the author researched report that they are unable to predict the default behavior of clients who join their program just prior to a disaster, because of a lack of client history.

BRAC used such a strategy after a cyclone hit Bangladesh in May 1997 (see “Disaster-Management Strategies by BRAC, Bangladesh,” in box). BRAC provided relief assistance within two days of the disaster, followed by housing loans and either in-kind asset replacement or cash compensation within a week to replace damaged or lost assets. In all, BRAC provided 26,000 housing loans amounting to Tk. 13.5 million (US\$320,000) under the housing reconstruction programs. In addition, under the economic rehabilitation program that commenced after the fourth week of the disaster, BRAC gave grants and working capital loans for fresh seeds, fish, and poultry to those of its group members whose vegetable, fish, or poultry farms were destroyed during the cyclone.

BRAC’s experience with housing loans for disaster victims suggests that borrowers need housing loans in order to use effectively the loans and grants they receive for asset replenishment and income-generating activities. The experience also suggests that disaster victims may require more than one loan at a time to facilitate a quicker return to normalcy, a lesson that provides a counterpoint to the conventional wisdom that MFOs should not make more than one loan per client at a time.

Repayment of new loans made for housing and asset replacement have shown mixed results. In South Africa, after the severe drought and famine of 1988, SEF implemented a credit program modeled after the Grameen Bank’s group lending program and provided new loans to disaster victims to restart income-generating activities. These activities included livestock raising, small trade, and crafts that could be established easily after a major drought. The repayment rates were near perfect.

In Bangladesh, social acceptance of MFOs improved with timely housing loans and asset-replacement loans (even though they were provided with no subsidy), but late repayments were more likely on such loans than on loans made in normal periods. Indeed, the Grameen Bank had difficulty recovering loans when it first issued housing loans to disaster victims in 1995. Similarly, BRAC and PROSHIKA report they had some problems in 1995 but say repayment rates have improved for asset-replenishment loans made in 1997.

Do new loans in fact protect against default on existing loans? Evidence from the Association for Social Advancement (ASA) in Bangladesh shows that new loans for asset replenishment do not protect an MFO’s portfolio in the short run as intended. Rather, it was observed that it takes about three or four consecutive new loans to generate enough income to service the rescheduled old debt completely.

ASA points to an alternative financial product in lieu of asset-replacement or housing loans. Specifically, ASA has found that small emergency loans to a few clients, permission to withdraw from savings, and small advances against savings are more effective than new loans in protecting both the portfolio and clients. Members tend to repay advances against their savings and small emergency loans more quickly and in full compared with new loans and rescheduled old loans. Such members also avoid debt-dependency syndrome at the client level.

Other Options for Disaster Management

The coordination of MFO activities with those of other agents active in post-disaster situations, including governments, private individuals, and donors, is now recognized as a mechanism to reduce the undermining of regular MFO activities and thus protect MFO portfolios. Furthermore, MFOs may be required to coordinate closely with guaranteeing agencies to collect on indemnities. Some MFOs also cross-subsidize their operations through geographic diversification and manage temporary shortfalls in cash flow.

Special Programs and Products for Disaster Preparedness

Established MFOs operating in areas subject to chronic disasters are increasingly developing mechanisms to prepare their clients for disasters. For example, since the drought of 1990, some MFOs in Burkina Faso have insisted that their members develop a contingency plan to deal with disasters. Such contingency plans reportedly reduced arrears rates by about 30 percent during the 1995 drought. Some MFOs are also encouraging clients to arrange for third-party guarantors from a drought-resistant area to protect their portfolio from the risk of covariance (Paxton, 1997). Several MFOs in Burkina Faso are also using USAID's vulnerability-assessment maps to locate drought-prone areas to diversify their portfolio and protect it during disasters (Woodrow, 1989).

Other disaster-preparedness products include loans to clients for starting disaster-resistant income-generating projects and enterprise diversification to "shock-proof" households so that loan repayments are not affected by natural disasters. Insurance mechanisms such as group contingency funds and private/indigenous insurance have also been developed (examples include credit unions in Latin America that insure their portfolio with private insurers; loan guarantee programs; and group contingency funds formed by the Grameen Bank and SEF). Some MFOs in Bangladesh, such as ASA and BRAC, are now experimenting with non-interest-bearing current accounts for members so that they can withdraw their deposits immediately during disasters without any penalty, while reducing the pressure on the MFO to release term deposits. These products have been developed as a result of opportunities created by disasters.

Credit unions in Guatemala own an insurance company that protects both their portfolio and their clients. The clients are indemnified for business losses once loans unpaid to the credit union are repaid. The Americas Association of Cooperatives/Mutual Insurance Companies (AAC/MIC) has initiated a pilot project that insures microenterprises against natural calamities and selected manmade disasters, and in some cases also provides insurance services to enable NGOs to protect their portfolio. Additionally, according to the association, Sequros la Equidad in Colombia has designed a pilot insurance product that provides integrated insurance for microenterprises and MFOs. These pilot activities merit ongoing examination to understand their risks and potential.

Another preparedness mechanism, crop insurance programs are operating in several developing countries but are recording a checkered performance (Hazel, et al., 1987). For example, Caisse Nationale de Credit Agricole in Morocco had an insurance mechanism designed to safeguard the bank's portfolio against the risk of drought in rain-fed areas. Anecdotal evidence suggests the program led the bank to move into very risky farming areas without properly assessing them. Premiums collected were unable to cover all the indemnity costs, which led to the program's collapse. Such insurance programs have, therefore, been inadequate in protecting either organizations or their clients.

CHAPTER FOUR

STRATEGIES FOR DEALING WITH MFO OPERATIONS IN POST-DISASTER SETTINGS

This chapter builds upon the MFO experiences outlined in Chapter Three to reexamine the challenges laid out earlier in the paper. For each of the challenges, MFOs have designed mechanisms to safeguard their reputation and operations following a natural disaster.

FUND MANAGEMENT

Grants that pour in from donors immediately after a disaster have been the major source of funds for several MFOs engaged in providing financial services in post-disaster times. For several established MFOs, this has created an additional responsibility to manage these funds along with their regular portfolio.

Anecdotal evidence suggests that the large MFOs in Bangladesh maintain separate accounts for new funds allocated for disaster management, while several small MFOs merge such funds with their regular portfolio (their funds are highly fungible).¹⁸ Although new funds from donors are provided essentially to protect clients in post-disaster situations, MFOs have also used them for the following: to manage cash-flow problems created by delays in loan repayments; to meet the demand for deposit withdrawals; and to provide new loans, especially to good clients. Indeed, new funds have been used to stabilize an MFO. Furthermore, several donors do not insist on accountability for use of the funds provided for disaster relief.

STAFF MANAGEMENT

During the disaster-preparedness stage, the staff of established MFOs in Bangladesh are made aware of the linkages between relief and development; the ways transitions from relief to normalcy can be facilitated at a minimum cost and loss to the institution's reputation; and cooperative ways to coordinate with other relief and emergency workers. The established MFOs in Bangladesh also train their staff to respond quickly to disasters. Field staff in disaster-prone areas are regularly briefed on disaster-response methods and warn the public of forthcoming disasters.

¹⁸For example, a special fund/endowment was created at BRAC to handle the new funds marked for disaster management. BRAC estimates that relief and rehabilitation activities during the 1997 cyclone cost about Tk. 16.5 million. The funds were obtained from new donor grants (Tk. 10 million from OXFAM, NOVIB, and the Canadian International Development Agency) and government resources (Tk. 508,000), which were directly deposited into the special disaster endowment. A total of Tk. 6 million also came from BRAC's internal resources allocated for disaster management (BRAC, May 1997). Exchange rates: US\$1 = Tk. 43 in 1997.

According to ASA, they also suggest shelter locations to help minimize injuries to individuals and livestock and damage to movable assets.¹⁹

It has been a challenge, however, to motivate staff during post-disaster situations to collect on old loans and make new loans without misappropriating funds. In response, some established MFOs have developed motivational tools such as special allowances to field officers posted in disaster-prone areas and additional salary or vacation time to staff who have worked in disaster areas (BRAC, May 1997; Bornstein, 1996).

LOGISTICS AND RECORD MANAGEMENT

Transportation, communication facilities, and records of previous financial transactions are very important for the effective functioning of MFOs, especially established ones, during post-disaster situations. Anecdotal evidence suggests that, in one case, a cooperative in Jamaica suffered a significant loss of records of housing loans it made after a major hurricane. The cooperative responded by asking borrowers to bring their documents to its offices to help rebuild the records. Fortunately, the majority of borrowers brought in their records, and the organization's loan officers remembered several contracts.²⁰ Some MFOs are not so fortunate; several small MFOs have reported losing valuable records during disasters and being unable to reconstruct them.

In Bangladesh, commercial banks and established MFOs have centralized all of their records in large safes. Several MFOs have also computerized all transactions to minimize damages to records. Additionally, many established MFOs have made alternative communication arrangements (such as wireless radios) to resume communication with their head office during post-disaster times to convey damage and loan demand assessments with minimal delays.²¹

¹⁹For example, it was reported that Grameen Bank officers were the first to arrive at several disaster sites after the worst cyclones in 1991 and 1995 to move people to shelters and provide emergency food and medicine, even before government and international rescue/relief officers arrived (Bornstein, 1996). The quick response to disasters with limited relief/emergency services appears to have improved the reputation of the MFO with its clients and also with the general public. Indeed, in Bangladesh, BRAC reports that additional new groups were easy to form in villages that were provided with immediate relief/emergency assistance by BRAC health workers during the 1995 cyclone.

²⁰Personal correspondence with Mike Gudger, consultant.

²¹Evidence from Armenia suggests that loss of communications delayed rescue operations considerably during the recent earthquake (World Disasters, 1997).

CLIENT SELECTION

Established MFOs report that it is a challenge to identify which clients require rescheduling of loan principal and interest and/or new loans in post-disaster times. Anecdotal evidence from Bangladesh and Burkina Faso suggests that loans there generally have been rescheduled on a broad basis and that all clients with an outstanding balance at times of disaster have benefited from this policy. In such cases, it has been more cost-effective for the MFO to reschedule the entire portfolio than to deal with individual clients.

When group lending is used, MFO clients are less able to participate in rituals such as group meetings and regular savings programs immediately after a disaster. This makes the screening process for new loans difficult for those MFOs accustomed to having such loans approved in group meetings. Therefore, established MFOs such as the Grameen Bank, BRAC, PROSHIKA, and ASA create a loan committee during the relief stage (consisting of the MFO loan officer, a local leader, and the group leader) to assess damages and the demand for new loans. While the committee's recommendations are being conveyed to the head office in Dhaka, local offices are allowed to make small rehabilitation loans from reserve funds until further funds arrive from headquarters.

The loan committee uses several indicators to screen clients for new loans, including number of deaths in a member's family and among a member's livestock; damage to roofs, walls, and latrines; and health problems, in addition to the usual poverty indicators based on housing, gender, assets, and income.

Under the Trickle-Up microenterprise grant program in the Philippines, at times of disaster, previous clients are provided with a second grant of US\$50 to US\$100, without the requirement of a successful business report, to rebuild their business.²² Loan officers use the clients' history to assess their inclusion in the program. Such grants have been issued in the past as a safety net for clients in dealing with typhoons, the major earthquake of 1990, and the eruption of Mount Pinotubo in 1992.

OUTREACH AND SUSTAINABILITY

To ensure sustainability, several MFOs use group lending to increase both their outreach and loan repayment rates. However, Bratton (1986) found that in Zimbabwe, group lending operations with joint liability, because of a domino effect, had higher repayment problems during drought and famine years than did individual lending programs. Le Projet de Promotion du Petit Credit Rural (PPPCR) reported a similar experience in Burkina Faso eight years ago, when its arrears rose during

²²Under its normal program, Trickle-Up provides US\$100 as a grant in two equal installments through its coordinating NGOs, which offer development services to the poor such as those addressing literacy, nutrition, community organizing, and microenterprise development. The entrepreneurs are disbursed the first US\$50 upon receipt of a business plan and the second US\$50 upon receipt of a successful business report on the enterprise's activity after three months of operation.

the drought of 1990, again because of a domino effect (Paxton, 1997).²³ This has led some MFOs to alter their financial terms and conditions during post-disaster times, with some shifting from group to individual liability to avoid widespread defaults. Doing so, however, can undermine the credible threat available to MFOs to collect on loans and ensure sustainability. Ideally, such policies should include a countervailing repayment incentive to compensate for the loss of peer pressure.

The issues of outreach and sustainability may be especially important for small MFOs and new MFOs established following disasters. New MFOs face a tradeoff between outreach and sustainability, especially in Bangladesh and India, where there are several large established MFOs. New organizations are forced to compete with existing MFOs for good clients and are often left to serve risky clientele. Covering risky clientele can increase an MFO's outreach but can also compromise the institution's ability to become sustainable in a short time.

Also important to sustainability is interest income. Several MFOs report that their interest income does not cover even administrative costs during disasters, because of low repayments, new loans, rescheduling of loans, the additional cost of administering donor funds, and higher transaction costs. For example, PPPCR in Burkina Faso budgeted for 10,000 loans for a volume of CFA 154 million during the drought of 1995; however, the institution could make only 6,000 of these, for a volume of CFA 95 million, because of high administrative and transaction costs.

In order to cover the annual salary of a starting PPPCR officer, nearly 900 loans must be made and collected successfully during disaster times. If transaction costs are added to the total cost, that number increases, exceeding the capability of loan officers and hindering loan collection efficiency. Indeed, the number of loans per credit officer increased from 375 in normal periods to 860 during the 1995 Burkina Faso disaster. Although the ratio of interest income to operating expenses increased from 15 percent to 43 percent, it was inadequate to cover all costs completely, and the subsidy dependency index worked out to 126 percent (Paxton, 1997).

In contrast, BRAC in Bangladesh claims that its costs during disasters have been only a little higher than in normal periods because regular staff trained in disaster management have administered services during disaster times. BRAC also reports that indirect costs resulting from defaults have been low when the organization has promised (and actually made) new loans for reconstruction and rehabilitation.

Despite the above constraints, some MFOs, such as BRAC, report that new loans for asset replenishment and reestablishment of lost/damaged income-generating activities can be provided on a large scale during the rehabilitation stage on a cost-covering basis.²⁴ Interviews with ASA officials, however, suggest that repayment rates are only high enough to pay the transaction and

²³Once one member was unable to repay, the entire group went into default, despite the fact that the women involved depended on the group for emergency and working capital funds compared with other sources. Group members demanded different sizes of loans for various consumption purposes, and members were reluctant to apply group liability for such loans when issued during the rehabilitation/reconstruction stages (Paxton, 1997).

²⁴That is, costs incurred in administering the loan and transaction costs.

administrative costs on new loans made to good clients on a demand basis at least six months after a disaster.

SOCIAL SERVICES TO ENHANCE FINANCIAL SERVICES

As a public service, several MFOs provide limited social services, at least during the emergency stage immediately after a disaster, on a nonexclusionary basis (that is, they provide such services to victims regardless of whether they are clients). These services include supplying emergency food, shelter, clothing, and medicine and are often provided as in-kind grants. However, MFOs such as the Grameen Bank and BRAC in Bangladesh and MYRADA in India say such services should be provided as grants only for the first few days of a disaster and on a limited basis, in order to avoid building a dependency syndrome and compromising the reputation of the institution as a meticulous MFO. The MFOs do suggest, however, that relief grants tend to improve the ability of clients to assimilate loans made at the reconstruction stage and also create MFO loyalty among members, thereby reducing willful defaults.

CHAPTER FIVE

IMPORTANT LESSONS LEARNED

The preceding review points to the lack of adequate information about MFO activities in disaster settings: There is much anecdotal information that is not well documented, and very scant quantitative data exist. Even based on the limited information available for and the limited time spent conducting this review, this paper is able to provide important insight into several key questions about microfinance in a post-disaster context.

The discussion below draws on Chapters Three and Four and brings in additional information gathered during the author's investigation that is summarized in footnote form. Lessons learned can be categorized around the following questions:

- What conditions are required for MFOs to function effectively in post-disaster situations?
- What services can an MFO successfully provide in a post-disaster setting?
- What is the experience of new MFOs with post-disaster relief and reconstruction?
- What do we know about the costs of MFO operations in a post-disaster setting?
- What lessons can we learn about successful program design for post-disaster settings?
- What role can an MFO play in protecting a community against natural disasters?
- How successful are MFOs at protecting their portfolio against disaster?

CONDITIONS REQUIRED FOR MFOs TO FUNCTION EFFECTIVELY IN POST-DISASTER SITUATIONS

Operating in a post-disaster context is difficult and poses risks to MFOs in all cases. Some conditions, however, can lessen the effects of disasters on both MFOs and their clients. At the very least are certain minimum conditions necessary for MFOs to perform effectively. Beyond these, certain ideal conditions can better ensure the success of an MFO's programs.

In order for an MFO to succeed and protect its clients in the event of a natural disaster, the institution must be able to operate under the following minimum conditions:

- Governments or donors must be able to undertake relief activities;
- The local economy must be at least partially monetized;

- The MFO should be able to access information for client preparedness and portfolio protection from early warning systems that help predict slow-onset disasters;
- The MFO must have the abilities necessary to develop and implement risk-management strategies;
- A cohesive and trusting community must exist so that peer pressure can be used effectively; and
- The country must have diversified environmental conditions and be reasonably sized so that crop insurance and disaster insurance can diversify risk effectively.

The ideal conditions that can enable an MFO to function most effectively occur on three levels: macro, institutional, and community. Ideal conditions at the macro level comprise the following:

- Governments and donors are committed to providing only emergency social services (not financial services);
- Insurance and guarantee markets are credible and have large and varied client bases;
- Early warning systems and vulnerability assessments are in place;
- The local economy is fully monetized; and
- The government provides some form of social safety net as a public good.

The following conditions are ideal at the institutional level:

- Established MFOs are in place that have the potential to develop and effectively implement risk-management strategies;
- A large client base exists for MFO services;
- The established MFOs nurture and value long-term client relationships; and
- The established MFOs implement disaster-preparedness training programs during normal times for their clients and staff.

At the community level, the following conditions are ideal for effective MFO performance:

- There exists a cohesive and trusting community that can provide social insurance;
- Individuals can exert effective peer pressure over each other; and

- The community's population is minimally displaced by the disaster, allowing groups to be restored and group lending technology to be used.

SUCCESSFUL MFO SERVICES IN POST-DISASTER SETTINGS

The success of an MFO's services following a disaster depends on a number of factors, most particularly the timeliness of the intervention, the length of time the MFO offers various services, the types of financial products the institution provides, coordination with other relief organizations, and loan terms and conditions. (For example, to maintain its viability, an MFO should never pardon loans at any stage of a post-disaster situation. In some cases, however, loan write-offs can occur, such as when a client is killed or unable to be located.)

Established MFOs can provide relief services immediately after disasters, but the period in which they offer such assistance should be brief and followed by unsubsidized loans in the rehabilitation and reconstruction phases. Any MFO activities during the relief stage require coordination with other relief organizations to ensure the quick and accurate flow of information and services between all players.

Successful MFO activities during the rehabilitation and reconstruction stages depend upon timely intervention. During these stages, emergency loans, allowances for withdrawal of client savings, and rescheduling of debt may be more important than providing clients with new loans for housing or asset replacement. New loans can most successfully be made about six months after the disaster to clients who have proved they can manage the disaster through other means.

In any case, an MFO must understand fully the type of disaster it is facing in order to provide the proper array of financial products. For example, clients hit by rapid-onset disasters, such as floods, need different financial products and terms from those in areas struck by slow-onset disasters, such as droughts.²⁵

EXPERIENCE OF NEW MFOs ESTABLISHED FOR POST-DISASTER RELIEF

Institutions created in response to disasters provide social services, technical assistance, training, and limited financial services on a grant or soft-loan basis to affected populations; they are unable to recover operational costs during the period in which they offer these services. Such organizations can, however, successfully transform themselves into cost-recovering MFOs once donors shift their focus to the development role of finance. To do so, the organizations may require significant seed capital from donors. Examples of organizations that have made such a transition include BRAC, PROSHIKA, ASA, PPPCR, and SEF.

²⁵Droughts are predictable and may require food relief aid as well as financing for drought-proof economic activities, as farming activities may take time to restore. In flooded areas, farming can be restored once the waters recede. In earthquake areas, the demand is for medical aid; the lava in fact fertilizes the land and can be used for farming.

From a cost-recovery perspective, new MFOs perform better if they are created after the relief and early rehabilitation stages are over, so that they can better screen applicants and make higher-quality loans.²⁶

MFO OPERATIONS COSTS IN POST-DISASTER SETTINGS

Providing services in post-disaster settings entails both high direct and indirect costs: high direct costs because of poor logistics, high indirect costs because of reduced savings levels and lower repayment rates.

Not surprisingly, new MFOs encounter more difficulty than established organizations when serving the same disaster-affected population, as it takes longer for new MFOs to reach financial sustainability than it does existing MFOs. The initial costs of servicing loans in post-disaster areas are very high for new MFOs, but they can be reduced somewhat by involving the community in making new loans.

For established MFOs, the costs of operations are lower when the client base serviced in the post-disaster context largely consists of repeat borrowers. Among repeat borrowers, the more experienced clients are most likely to avoid default after disaster strikes. Similarly, established MFOs that have previously experienced natural disasters and learn by doing find that their costs of operations in post-disaster areas drop considerably as preparedness increases.

In terms of the cost of specific financial products, housing and asset-replacement loans for rehabilitation and reconstruction are likely to be cost-recovering only if provided in a timely way. Meanwhile, insurance services to protect clients or portfolios from chronic disasters require subsidization, either by donors or through cross-subsidization with an MFO's other financial services.

SUCCESSFUL PROGRAM DESIGN FOR POST-DISASTER SETTINGS

Successful program design for post-disaster settings requires careful risk management that minimizes loan defaults and other financial losses. Geographically concentrated MFOs with a limited client base cannot manage risks on their own through mechanisms such as loan rescheduling or new loans. Such organizations must delegate risk management to their clients through enterprise-

²⁶For instance, Daridrya Nirashan Prochesta (DNP), an NGO in Bangladesh, experienced problems after starting financial services during the relief stages of 1994. DNP's relatively inexperienced officers were ill-equipped to screen clients in a short time under disaster conditions. This was reflected in the organization's low recovery rate of less than 50 percent. In addition, loan officers in the flood-affected areas mismanaged funds because supervision was difficult with suspended communication lines.

diversification schemes or group-level contingency funds that insure against the groups' risk after a disaster.²⁷

Diversification to minimize risks also demands careful examination of group lending practices. Group lending with joint liability may suffer from covariance effects and domino defaults whereby one defaulter can pull the entire group into default. In addition, group-based programs with equal loan sizes and joint liability are unattractive to clients during the rehabilitation and reconstruction phases. This may argue for individual lending in drought-prone areas.

Governance structures must be stable to ensure successful program design. Cohesive groups headed by strong leaders tend to repay loans better in a disaster setting than those headed by weak leaders. Likewise, MFOs with strong executive committees are best able to cope with natural disasters, avoiding both political influence and mismanagement of funds.²⁸

Successful program design also requires an understanding of the nature of a disaster in order to provide effective services. For example, monetized cereal banks, although they can be successful in dealing with seasonal food shortfalls, are not appropriate for large-scale droughts unless they are heavily supported by donors. In-kind cereal banks are particularly vulnerable to large financial losses.

ROLE OF MFOs IN PROTECTING COMMUNITIES AGAINST NATURAL DISASTERS

MFOs can play only a limited role in protecting communities against natural disasters, although they can provide emergency services to clients, and sometimes to entire communities, until other relief agencies arrive. Often, in fact, MFOs are the only development agencies present when disaster strikes.

In addition to providing emergency services, established MFOs can develop disaster-management funds to cope with emergencies. These funds are used primarily to protect clients, usually to provide relief services until new donor funds arrive (see "Disaster-Management Funds," in box).

²⁷Evidence from small NGO-MFOs in India and Bangladesh that have a limited client base and little geographic diversification shows the organizations have suffered significant losses to their portfolio when they have tried to manage risks on their own using loan rescheduling and new loans.

²⁸Evidence from Ethiopia and India shows that cohesive groups headed by strong leaders tend to repay loans better than groups headed by weak leaders. The strong group leaders are able to assist the MFOs in Bangladesh in screening clients in post-disaster situations so that costs can be reduced. Similarly, evidence from India suggests that MFOs need to be headed by strong and honest executive committees that are immune to political influences and can avoid mismanagement of funds.

Disaster-Management Funds

Several established MFOs operating in chronic disaster areas have developed special reserve funds at both the MFO and the borrower-group levels to manage disasters. For example, until new donor funds arrive, BRAC and PROSHIKA often use their disaster-reserve funds for emergency services for rehabilitation and reconstruction. Such funds are primarily created through donor grants and secondarily from internal profits. Some MFOs (such as the Grameen Bank) also encourage their members to form group-level contingency/guarantee funds to manage members' aggregate and idiosyncratic risks and protect the portfolio. However, the experience of some group-level contingency funds in Burkina Faso raises questions of mismanagement surrounding such funds.

The promise of post-disaster loans for reconstruction or asset replacement enhances an MFO's value to its clients in that the institution is viewed as providing a form of "disaster insurance" to members. Access to such forms of assistance can also enhance the standing of female MFO members within their household.

MFOs also help protect communities through longevity. Long-time clients of MFO programs are better able to cope with disasters when they strike than are nonmembers or new members. Specifically, the evidence points to greater post-disaster food security within longtime-borrower households (see "MFO Participation and Disaster Coping Ability," in box).

MFO Participation and Disaster Coping Ability

Longtime participation in MFO programs suggests that members' ability to cope with disasters exceeds that of nonmembers. An ASA study shows that female members who have been in the association's credit program for a long period have been significantly better able than nonmembers to cope with disasters in terms of food security. Similarly, a BRAC study suggests that BRAC members have better coping capacities than nonmembers and that such capacities increase with the length of membership and amounts of loans received. Longtime BRAC members have been better able to repay loans than new members in post-disaster situations (Mustafa et al., 1996). Although questions remain regarding causality (whether those in the program began with greater food security than nonmembers), the study nonetheless raises important issues.

Despite their potential to protect clients in times of disaster, MFOs cannot serve as a social safety net for the entire vulnerable population in their service area. As noted above, MFOs may provide some relief services on a nonexclusionary basis, but rehabilitation and reconstruction services are available only to previous clients of established organizations and selected clients of new organizations.²⁹

²⁹Some exclusion of clients affected by disasters has been necessary to run a cost-effective MFO program in post-disaster situations, as evidenced with BRAC's Income Generation for Vulnerable Group Development Program. Anecdotal evidence suggests that even established and well-diversified MFOs, such as the Grameen Bank, intend to reduce their operations in high flood-prone areas. Therefore, MFOs tend to offer services to disaster victims on a nonexclusionary basis only to a limited extent.

SUCCESSFULLY PROTECTING MFO PORTFOLIOS AGAINST NATURAL DISASTERS

Experience improves an MFO's chances for success, as established organizations have more tools available than new MFOs to ensure their stability. New and small MFOs have fewer mechanisms available to protect their portfolio than do large and established organizations. This is because, in addition to lacking experience, small and new MFOs have a small clientele, limited geographic coverage, lower levels of capitalization, and less experienced or less desirable clients.

Development of disaster-contingency plans and client-preparedness training during normal times is one of the most important instruments for protecting a portfolio in post-disaster times. Likewise, staff training in disaster-management exercises and early warning systems is effective in enabling personnel to prepare for disasters, quickly assess disaster situations, and anticipate portfolio risk.

Portfolio protection also requires exact post-disaster accounting procedures. The absence of such procedures can obscure the institution's ability to measure damage to its portfolio. This is particularly true for programs that allow withdrawals and subsequent repayment of savings in addition to loan acquisition and repayment.³⁰

Some strategies are ineffective in protecting portfolios during a disaster. Loan rescheduling, for example, is not an effective mechanism for recovering old loans not backed by tangible collateral. Evidence from ASA suggests that an MFO requires three consecutive new loans following a disaster to recover at least 85 percent of rescheduled old loans.

State-contingent contracts, another portfolio-protection device, can safeguard portfolios only if they are incentive compatible. Ad hoc state-contingency contracts may undermine the credible threat available to an MFO's collectors, thereby reducing the institution's ability to protect its portfolio from high post-disaster defaults.

³⁰For example, some groups in Burkina Faso have paid off old debts with their contingency/savings funds and therefore have been unable to accurately record the repayment performance for rescheduled loans and new loans made in post-disaster situations (Paxton, 1997).

CHAPTER SIX

RECOMMENDATIONS

This paper has documented the strategies used by MFOs in natural disaster settings to protect clients and portfolios. This chapter provides recommendations for donors, policy makers, and MFOs that actively participate in post-disaster situations.

DONORS

The crucial issues that challenge donors in post-disaster times include the following:

1. Which type of MFO should the donor use to provide financial services to affected populations: an established MFO or a new one?
2. If the donor decides to start a new MFO, at what stage of the post-disaster phase should the donor do so and with what limits to the organization's support?
3. If the donor decides to support an established MFO, how should it do so and when should it stop that support?

Based on the research presented in this paper, the following seven broad recommendations can be made to donors that grapple with the above challenges.

1. It is undesirable to start a new MFO during the early stages of a disaster, especially if the MFO is expected to provide social services during that time. Established MFOs are better equipped to deal with early stages of disasters, especially if they have a dense network of branches. To avoid burdening long-term MFO operations with the costs of relief operations, it is appropriate for donors to provide grant funds for relief operations. If the donor arrives after MFO relief activities have commenced, the donor may compensate the MFO for relief expenditures so that the MFO is fully capitalized to begin rehabilitation and reconstruction loans in the later phases of disaster recovery.
2. In no case should donors encourage MFOs to make financial grants to clients or wipe out previous debts. In addition, donors should allow MFOs to be active, rather than reactive to donor pressures, in post-disaster situations.
3. Clear exit dates should be specified for any disaster-related grant facility. No activity aimed at disaster relief should extend into the later part of the reconstruction stage.
4. New MFOs that focus on financial activities can become sustainable operations if they are established during the rehabilitation/reconstruction stages, when demand for financial

services is high. In such cases, donor grants may be required for capacity building and for seed capital to make loans.

5. Donors can provide seed capital to established MFOs during normal periods to form disaster-management funds. Such funds can sustain operations immediately after disasters, before fresh donor funds arrive. Donor funding can also be used for training MFO staff and clients in disaster preparedness.
6. Donors may be well served by encouraging research in the development of disaster-proof products within the financial technology. High-priority research areas could include the costs and timing of post-disaster activities; risk-balancing mechanisms for MFOs; and insurance programs to improve the coping capacities of victims.
7. Donors are well positioned to disseminate information from recent conferences on disaster management and mitigation.³¹

POLICY MAKERS

Policy makers presume that MFOs have the capacity to function as a safety net to populations in post-disaster situations, and that they can jump-start an economy affected by a disaster. Based on the findings presented above, this is clearly not the case. Therefore, post-disaster recommendations for policy makers include the following four points:

- Even well-established MFOs play a very limited role in providing safety-net services, and even then, services are primarily targeted to the MFOs' clientele.
- Government grants can be channeled through MFO networks only if the MFOs can effectively manage the provision of relief grants along with managing their own credit programs. In any case, the grant operation should not undermine the MFO's reputation as a prudent financial intermediary.
- Policies such as loan wipe-outs should never be used, as they compromise MFO viability and do not benefit nonborrowing victims.
- Coordination among the several agents active in post-disaster situations should be encouraged and actively supported.

³¹Recent conferences include a 1996 conference in Uzbekistan to prepare the government and NGOs to deal with natural disasters, especially based on lessons learned from the recent Armenian earthquake; the recent South Asian Disaster Mitigation Forum meetings on disaster preparedness and mitigation, held in Bangladesh and based on lessons from the 1997 cyclone in India and Bangladesh; USAID's recently funded disaster-mitigation research project in north India to study ways to reduce losses from disasters; subregional workshops organized through United Nations (UN) efforts and international donor efforts in Africa, Latin America, and Asia in disaster management; study of UN agencies related to the establishment of disaster insurance and its role in the generation of funds for disaster reduction and mitigation in the CIS countries and Russia.

MFOs

MFOs, especially established MFOs, are drawn into disaster management at least to protect their portfolio. In most cases, client protection is also required in order to maintain client loyalty, which helps indirectly in protecting the portfolio. As a result, MFOs are challenged by the choice of strategies to manage and mitigate the economic effects of disasters. Recommendations for MFOs include the following:

- MFO relief activities should be very brief and should not involve loans or financial grants.
- When MFOs play a role in disaster relief, they should announce to their clients that the services are only short term. The community needs to understand that the relief services are funded by the government or donors and that the MFO is functioning only as a short-term agent to deliver the services. The community should also be made to recognize that relief activities are not the MFO's main line of business.
- Use of separate windows and special names for disaster-management financial products and programs may be essential to distinguish disaster-related activities from regular activities. The special windows and special products should only be used for a specified time.
- State-contingent contracts may be essential for dealing with disasters temporarily, but they should not reduce the credible threat mechanisms MFOs use to enforce contracts.
- A comprehensive disaster-preparedness program during normal times may be considered an effective tool for increasing an MFO's capacity to deal with disasters in a systematic and sustainable way.
- Diversification of member enterprises and the MFO portfolio should be considered to reduce the risks of disasters to the portfolio and to clients.
- MFOs may play an important role as agents in facilitating money transfers from dispersed family members to their disaster-affected clients.
- In no situation should MFOs compromise their institutional viability and staff morale during post-disaster times.

CONCLUSIONS

If MFOs confronting natural disasters can learn from the experiments and lessons provided in this paper to create a disaster plan, resources will be better used, clients better served, and portfolios made more resilient to shocks. Additionally, those involved in disasters need to be better informed as to the limits of microfinance as a risk-reduction strategy, and should be simultaneously encouraged to communicate with MFOs in disaster-affected regions in the process of planning for and responding to natural disasters.

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