

Bangladeshi Experience in Adapting Financial Services to Cope with Floods:

Implications for the Microfinance Industry



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Implications for the Microfinance Industry

by

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EXECUTIVE SUMMARY

Every year, a growing number of microfinance institutions (MFIs) and their clients experience losses and unexpected income declines because of natural disasters such as floods, earthquakes, or typhoons. Bangladeshi MFIs in particular have faced a series of natural disasters. In 1998, the country had its the worst flood in a century. Through these experiences, MFIs such as the Association for Social Advancement (ASA), the Bangladeshi Rural Advancement Committee (BRAC), BURO Tangail, SafeSave, and Grameen Bank have seen how such emergencies can affect existing financial products. They also have experimented with different products to help both their clients and their own organizations cope with the impact of a disaster.

To learn more about these MFI experiences and experiments, two researchers from the USAID-funded Microenterprise Best Practices (MBP) Project traveled to Bangladesh in March 2000. This paper summarizes what they learned from a range of MFIs and focuses on three topics: (1) MFI products and product adaptations (including savings, credit, and insurance products), (2) the resulting issues and implications for both clients and MFIs in Bangladesh, and (3) how MFIs in other countries might use the Bangladeshi experience to help inform their own efforts to create and adapt products¹ to protect themselves and their clients against disasters.

The lessons and experiences presented in this report focus on five areas: (1) contextual issues, (2) savings products, (3) credit products, (4) insurance products, and (5) product delivery.

Contextual Issues

The experiences of Bangladeshi MFIs highlight two contextual issues to keep in mind in considering the products and product adaptations to be developed for disasters:

- *Product Design Is Not the Only Element.* Even the best designed products can fail to live up to their potential without the support, commitment, and efforts of the institution and individuals responsible for implementation. This is particularly true for products designed to be offered in the chaotic period immediately following a disaster. Although this report focuses solely on products and their design, MFIs should not forget about the human element and the institutional context, both of which determine the ultimate success of any product.
- *Impact of Disasters Is Seldom Uniform.* The damage caused by a disaster is seldom, if ever, uniform across households, even within a small community, and varies greatly between disasters. During the 1998 floods in Bangladesh, some households were severely

¹ The exclusive focus on products in this paper is not intended to downplay the importance of the wide range of non-financial initiatives that MFIs and other organizations undertake in dealing with disasters.

affected, others only moderately, some not at all, and still others actually benefited from the floods (those who ferried passengers by boat, for example). In response to this diversity, the products offered by an MFI in a disaster should be flexible enough to provide different households with different options depending on their circumstances. For example, rather than a single, blanket policy rescheduling the outstanding loans of all clients in an affected community, most Bangladeshi MFIs determined the terms and conditions of loan rescheduling on a client-by-client basis.

Savings Products

Based on the Bangladeshi experience in 1998, savings products in general appear to have the potential to play a significant role in helping clients manage the impact of disasters. However, the compulsory savings products offered by most Bangladeshi MFIs appear to provide only limited benefit for two reasons:

- *Difficulties in Accumulating Meaningful Balances.* Most compulsory savings accounts in Bangladesh require a weekly or monthly contribution of 2 to 10 taka.² Given the small size of these contributions (clients have no incentive to contribute more than the required amount), clients have to be contributing for at least several years before they have accumulated a balance large enough to offset flood-related losses. (In 1998, average losses per affected household were approximately 10,000 taka.³) Consequently, even when MFIs open access to compulsory savings in a disaster, the amounts that clients can withdraw are, in many cases, limited relative to their need.
- *Difficult to Meet Substantial Demand for Withdrawals.* Despite the, in many cases, small accumulated balances, client demand to have access to their compulsory savings was substantial. Grameen Bank, for example, reported that 95 percent of affected clients' compulsory savings had been withdrawn. Given this strong demand, many Bangladeshi MFIs found it difficult to open access to clients' compulsory savings—which generally can be withdrawn only when a client leaves the program. Having lent out the funds collected as savings, these organizations struggled to find sufficient liquidity to meet the demand for withdrawals in affected areas. Smaller MFIs often had to limit withdrawals to 50 to 75 percent of client balances because of insufficient liquidity, thereby further reducing the benefit to affected clients.

In contrast, a few MFIs, such as BURO Tangail, ASA, and SafeSave, were offering open access, voluntary savings accounts to their clients before the floods. By creating products with easy deposit and withdrawal access and positive incentives to encourage clients to build their savings, these organizations were able to increase client accumulated balances rapidly (in the first year that BURO Tangail gave clients open access to withdraw their savings, it experienced a 52 percent *increase* in average savings balances per client, from 389 taka to 592 taka per person). Although these products were not specifically designed as disaster protection, increased accumulated balances do appear to have the potential to serve this

² 50 taka = US\$1.

³ Huda and Barua (1999).

purpose. In general, factors that appear to promote households' ability and willingness to accumulate larger balances include:

- *Voluntary Withdrawal Access.* Clients are able to determine when and how much to withdraw from their accounts.
- *Unbundling Savings from Loans.* If households are allowed to save and withdraw, regardless of their loan balances, they not only are more willing to accumulate larger balances, but MFIs also can reach a segment of the market that they couldn't reach with their standard loan products. BURO Tangail, for example, offers "associate member" accounts to clients who only save and do not take out loans. In just two years, BURO has attracted almost 4,500 members with this product (compared with 67,400 regular members in 1999), members who were not being reached by BURO's loan products and who are maintaining balances three to four times the average balances in BURO's other savings accounts.
- *Frequency and Location of Collection.* Greater frequency and convenience of collections seem to increase the ability of clients to accumulate larger balances faster. For example, some MFIs in Bangladesh collect deposits daily on clients' doorsteps.

In addition to the potential for increased protection for clients, MFIs that offer voluntary savings were less likely to experience the severe liquidity crises experienced by MFIs trying to release compulsory savings in disasters. The reserves maintained by MFIs offering open-access savings allowed them to meet the demand for withdrawals more easily than their peers.

Although the experiences of Bangladeshi MFIs indicate that voluntary savings products offered as part of an MFI's portfolio can provide an important measure of disaster protection, there are several issues and questions that remain to be resolved. Foremost for most MFIs are the regulatory restrictions that prevent nongovernmental organizations from taking deposits. In addition, because current evidence is difficult to interpret, there is a need to understand better both the potential demand for and the actual costs of providing voluntary savings. Clients of ASA, BURO Tangail, and SafeSave had access to their funds during 1998, but many chose not to withdraw them, relying instead on apparently "higher cost" coping mechanisms instead. Likewise, it has not yet been clearly established how much it costs for an MFI to switch from compulsory to voluntary savings.

Credit Products

Loans certainly can play an important role in reducing the negative effects of disasters. Disaster-related loans and loan adaptations made by the Bangladeshi MFIs interviewed fall into three categories, (1) pre-disaster or preventative, (2) emergency relief, and (3) reconstruction or asset replacement.

Pre-Disaster or Preventative. Before a disaster, MFIs may be able to either adapt existing loan products or develop new ones to reduce the exposure of clients to disaster-related losses. In Bangladesh, where the timing of the flood season is well known, several MFIs have experimented with adjusting their loan repayment schedules to reduce required repayments during the flood season. In this way, when a severe flood occurs, clients' obligations to the MFI are already at a minimum. Other MFIs used new loans in advance of the flood to encourage clients to construct stronger, more protected houses or to purchase small boats—assets that help reduce losses when the floodwaters rise. These products can be highly effective for MFIs in a country like Bangladesh that have greater certainty regarding when and if a disaster will occur. Preventative loans may be less applicable for MFIs in less disaster-prone environments.

Emergency Relief. Immediately after a disaster, MFIs may be able to reschedule existing loans to reduce the burden on affected households and provide new, quick disbursal emergency loans to replace income sources temporarily lost because of the disaster.

- *Loan Rescheduling.* In 1998, many Bangladeshi MFIs discovered that loan rescheduling—permitting clients to delay several repayments on their existing loans—allowed them to avoid substantial losses and defaults on their existing portfolio. In almost all cases, rescheduling was conducted on a case-by-case basis rather than using a “blanket” approach for all affected households in a community. In this way, individual clients or groups of clients had their loans rescheduled for different periods of time (ranging from as few as 3 weeks to as many as 10) and were allowed to make up the missed payments in different ways. Rescheduling was not, however, without its costs. Many MFIs, particularly smaller ones, that did not maintain internal reserves suffered temporary cash flow crises as their anticipated income streams dried up.
- *Emergency Relief Loans.* In addition to rescheduling, many MFIs provided quick disbursal loans to help their clients survive through the relief period of the disaster. These loans were generally smaller than average in size and for shorter terms than normal. Interest rates varied from 0 percent to full market rates. Reported repayment rates were similar or better than normal MFI rates. From a client perspective, strong demand for the loans seems to indicate that they provided a valued influx of much-needed cash, although some complained of the loans being too small and the repayments starting too quickly after disbursal. For MFIs, the major difficulty was locating the funds needed to make loans. Larger MFIs were able to transfer funds within their own internal network and rely on long-standing relationships with donors for additional funds. Smaller MFIs had greater difficulties, which in some cases prevented them from offering any loan assistance at all. For this reason, several MFIs developed disaster loan funds to provide an easily accessible source of liquidity in case of a disaster. For further information on these funds, see the MBP paper on this topic (Brown and Nagarajan, (forthcoming); also available on www.mip.org).

Reconstruction Loans. Once the disaster has passed and clients have begun to rebuild, MFIs can use new loans to help clients repair and replace damaged or destroyed assets. The size, terms, and conditions of these loans vary depending on the asset in question. There are two

significant challenges to offering this type of loans. First, clients may not have the capacity to take on more debt if they are already committed to repaying pre-disaster or relief loans. This is particularly problematic for reconstruction loans used to finance assets, such as latrines or houses, which typically do not directly generate income. Second, MFIs that had difficulty sourcing funds for relief loans also struggled to find funds for reconstruction loans. BRAC, for example, has only recently been able to provide reconstruction loans planned as a response to the 1998 floods because donor funds were unavailable.

In contrast, several other MFIs chose not to offer any asset replacement reconstruction loans above and beyond their normal loans, citing repayment difficulties experienced on reconstruction loans offered after previous floods and new evidence suggesting that many clients change income-generating activities after a disaster as rationale for their decision to not offer reconstruction loans.

Although the experiences of Bangladeshi MFIs do provide evidence that loans can play a role in disaster management, they also highlight several outstanding questions including:

- What factors influence clients to decide whether to use loans or other financial or non-financial coping mechanisms in disasters?
- To what extent do preventative loans reduce households' potential losses in a disaster? Is there potential for preventative loans to play a role in environments not faced by the regular threat of disasters?
- How can an MFI judge whether clients can absorb the costs of taking on an additional loan, especially after a disaster?

Insurance Products

None of the MFIs in Bangladesh provides insurance against disaster-related losses. Given the covariant nature of this risk and the difficulties in achieving sufficient scale, maintaining affordable premiums, and controlling moral hazard, this is hardly surprising. In fact, some insurance products in Bangladesh exclude disaster-related losses in order to prevent an unaffordable increase in claims. (For a detailed discussion of this topic, see the MBP series on microfinance insurance, including Brown and Churchill 1999 and 2000; also available on www.mip.org.)

Product Delivery

Generalizing across the experiences of Bangladeshi MFIs, several potential lessons emerge on delivering products in disasters:

- *Customize Solutions According to Clients' Situation.* Despite the temptation to quickly adopt blanket policies for all affected households in an area, these MFIs have found it

worthwhile for both clients and themselves to take some extra time to understand how clients have been affected and, where possible, to customize product terms and conditions to better meet their needs.

- *Empower Local Staff.* To accomplish customization in an efficient and timely manner, local staff need to have the authority and training to assess the situation and, within limits, determine an appropriate solution. For example, loan officers at ASA had discretion to determine the timing, duration, and terms of loan rescheduling in consultation with their groups.
- *Give Clients Options.* Different clients may prefer different methods for coping with disaster-related losses. Allowing clients to choose between different financial services—for example, withdrawing from savings or taking an emergency relief loan—gives them the ability to customize a solution for themselves.
- *Protect Client Records and Information.* If client information is destroyed or substantially damaged in a disaster, MFIs are largely unable to undertake most of the post-disaster initiatives described above.

Conclusions

The experiences of Bangladeshi MFIs in 1998 do not provide a clear model of how MFIs can use products to reduce disaster-related losses. In fact, the range of products and product adaptations used by Bangladeshi MFIs to manage flood situations makes clear that there is no one product or set of products that all MFIs can use to fully cope with disasters.

Although there may be no universal answers for all MFIs, the experiences described in this report do serve as a basis on which other MFIs can begin to develop their own product strategies for dealing with disasters. In addition, the Bangladeshi experiences highlight that client preferences, the degree of disaster exposure, and the size of an MFI will all likely influence which products or product adaptations are most appropriate in a given situation.

CHAPTER ONE INTRODUCTION

Each year, rapid-onset natural disasters⁴ affect hundreds of thousands of poor households in developing countries. As microfinance continues to expand its outreach, a growing number of these households are clients of microfinance institutions (MFIs). When a disaster affects an MFI's clients, the consequences can be devastating for both clients and the MFI. In light of the losses suffered by MFIs and their clients in recent years, this research was designed to observe and document the experiences of Bangladeshi MFIs in adapting existing and creating new products to minimize the deleterious effects of rapid-onset disasters on their clients and their portfolios.

The purpose of this report is to describe our current understanding of the products and product adaptations employed by these MFIs before, during, and after the massive 1998 floods. Although certain aspects of these products are specific to Bangladesh, this report can serve as a reference for MFIs in other areas, encouraging them to consider where the Bangladeshi experiences are appropriate for their circumstances and where further adaptation or innovation is needed to fit the local context.

This report's exclusive focus on the role of MFI products—savings, loans, and insurance—in mitigating the impact of disasters is not intended to downplay the importance of non-product-related disaster management activities⁵ that MFIs and others can and do undertake. Rather, this focus reflects a desire to understand first how MFIs can contribute toward disaster management within the scope of their core activities—that is, providing financial services to the poor.

When a disaster strikes, MFIs have to make hard decisions on whether and how to reschedule existing loans, release compulsory savings, or offer relief loans. In addition, before a disaster, MFIs can accept open-access savings, offer insurance policies, or make disaster-proofing loans to reduce their and their clients' exposure to disaster-related losses. This report attempts to describe in detail different product options—a few of which have been developed specifically for disasters, while others have not—and to clarify some of the implications of offering these products for both clients and MFIs in disasters. With this information, MFIs both inside and outside Bangladesh should be better equipped to assess which products at different stages in a disaster (pre-disaster, relief, and post-disaster reconstruction⁶) are relevant to their countries and their disaster scenarios.

⁴ Such as floods, fire, earthquakes, hurricanes, typhoons, etc.

⁵ For example, distribution of relief goods, construction of flood shelters, disaster education programs, etc.

⁶ For the purposes of this report, the three stages are defined as follows. The pre-disaster stage, as the name implies, includes MFI activities and decisions undertaken before a disaster occurs. The relief phase includes activities and decisions made between when a disaster occurs or while it is occurring (e.g., floods) until affected households are able to begin earning an income again. The reconstruction phase follows and includes any efforts to help households restore themselves to their pre-disaster condition that are beyond the normal range of an MFI's activities. The exact timing of the transition between relief and reconstruction will vary from household to household, from MFI to MFI, and from disaster to disaster.

The information presented here is drawn primarily from field interviews with 17 MFIs and other related organizations in Bangladesh during March 2000.⁷ Based on interviews with senior managers of these institutions and a review of materials available regarding the 1998 flood, the paper is divided into seven chapters. Chapter Two describes the important contextual elements that must be kept in mind in reading through the product descriptions that follow in the subsequent sections. Chapters Three through Five look at three product types—savings, loans, and insurance—describing the new and adapted products that have been developed. In addition to the descriptions, each section uses the experiences in Bangladesh to suggest and highlight issues and implications for both clients and MFIs offering the product.⁸ Chapter Six identifies several lessons or guidelines for MFIs on the delivery of disaster-management products. The final chapter highlights three factors that affect the products or product adaptations that MFIs will want to develop to cope with disasters. It also opens the discussion as to the potential applicability of the experiences documented in the preceding sections for MFIs in other situations and contexts.

IMPACT OF DISASTERS ON POOR HOUSEHOLDS AND MFIS

Disaster-managing financial services, whether savings, credit, or insurance, are designed to reduce the negative financial consequences of disasters on MFI clients and, subsequently, on MFIs themselves. In order to understand these products, it is helpful to clarify first the negative financial consequences they are intended to protect against.

Disasters can affect a poor household's finances in four different ways:

1. *Temporary Inability to Earn Income.* Rapid-onset disasters, particularly floods, can prevent poor households from engaging in the activities that traditionally act as sources of income. During the 1998 flood, surveys indicated that severely affected households lost their ability to generate income for up to 90 days⁹ as floodwaters prevented them from working (rickshaw pullers could not operate, brick-breakers had no place to work, etc.).
2. *Increased Basic Expenditures.* Transporting belongings from the family home to a shelter, increased health risks, and rising prices for basic foodstuffs and fuel all temporarily increase the amount needed for a household to simply survive. As one flood-affected slum dweller in Bangladesh reported, "We buy cow dung [for fuel], which costs 15 taka a stick; before [the floods] it used to cost 10 taka."¹⁰

⁷ See Annex A for a list of the institutions and persons interviewed.

⁸ Because very little systematic work has been done to understand the specific client-related implications of the products offered by Bangladeshi MFIs during the 1998 floods, the focus of the client sections in this report is on highlighting issues for further exploration. Those interested in more detail on studies done to understand how clients cope with disasters should refer to Cohen, Monique, and Sebstad, Jennifer. (1999). *Microfinance and Risk Management: A Client Perspective*. AIMS Paper. Washington, D.C. USAID.

⁹ Huda and Barua (1999).

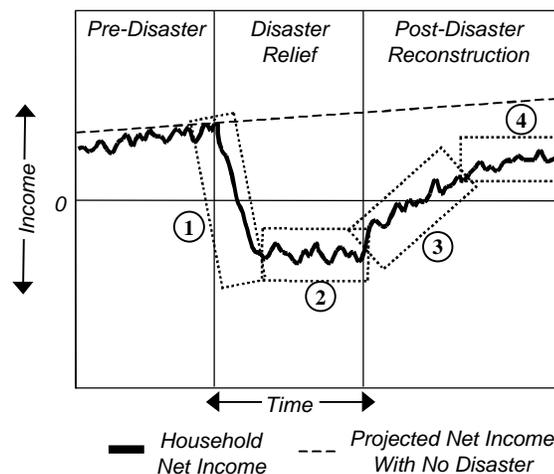
¹⁰ Ahmed and Ahmed (1999).

3. *Damage to or Destruction of Income-Generating Assets.* Separate from their temporary inability to earn income, households' income-generating assets—for example, crops, livestock, or brick-making kilns—may be damaged, destroyed, or lost as a result of the disaster. On average, the long duration of the 1998 flood resulted in a loss of asset value of almost 50 percent for affected households.¹¹
4. *Damage to or Destruction of Household Assets.* Similarly, disasters can damage or destroy household assets including the home itself. These assets are often used for both household and income earning purposes.

Figure 1 provides an illustrative picture of how these four factors can affect a typical household's net income (revenues less expenditures). The continuously upward-sloping trend line shows an expected income trajectory for a household that is not struck by a disaster. It can be compared to the jagged lower line of a household hit by a disaster.

When a disaster hits, factors one and two above generate a rapid decline in net income, the size and duration of which depend largely on the scale of the disaster and the severity with which a household is affected. For larger scale disasters and more severely affected households, the magnitude of the decline (the height of the rectangle 1) and the duration of the negative income period (the length of rectangle 2) are likely to be greater. Factors three and four above tend to have more of an impact in the post-disaster reconstruction phase, affecting the speed of a household's income recovery (the length and upward slope rectangle 3) and their ultimate ability to return to pre-disaster income levels (the vertical positioning of rectangle 4).

Figure 1: Illustrative Model of Household Net Income in Disasters



The impact of a disaster is, however, never uniform. Different households will be more or less affected by each of these losses. Severely affected households may experience all of these losses; others may experience limited asset damage, while, as the example in Box 1 indicates, still others may in fact experience increased incomes during disaster times. Hence,

¹¹ Huda and Barua (1999).

the type of product or product adaptation that is likely to be most helpful in any given situation will vary based on how the disaster has affected a household.

Because households are affected in some or all of these ways, their ability to conduct regular transactions with their MFI is affected. In Bangladesh, typical MFIs—those offering one-year term loans with weekly or monthly repayments and requiring compulsory savings deposits—found that the floods affected their portfolio in three ways:

1. *Temporary Decline in Inflows from Affected Clients.* As clients are temporarily cut off from income sources and experience an increase in expenditures, loan repayments and mandatory savings contributions decline and may even cease for a time if the disaster is particularly severe.
2. *Temporary Increase in Outflows to Affected Clients.* Some affected clients expect the MFI to provide some of the cash to cover their temporary consumption needs, either by releasing savings or by providing new loans.
3. *Medium-Term Decline in Repayment Rates and/or New Loan Demand.* Clients who have suffered damage to or destruction of income-generating assets may have difficulty maintaining repayments on a pre-disaster schedule. In addition, they may be unable or unwilling to manage the burden of a further increase in loan size once their existing loan is paid off.

Box 1: Unequal Impact of Disasters

While the 1998 floods caused significant destruction and losses for many poor households, a portion of households actually benefited from the disaster.

Ahmed is a poor fisherman who lives in a village perched precariously on the banks of the Jamuna River. As the floodwaters rose in 1998, all land access to his village was cut off. During the floods, Ahmed was kept very busy, ferrying people from the village to high ground and bringing in supplies. Ahmed's income from his "ferry service" was several times greater than his normal weekly earnings.

Latifa Begum lives in the slums of Dhaka. During the floods, her small jute shack was partially inundated with water. Although her home was damaged and she was forced to live in a flood shelter for several weeks, Latifa was able to continue making all of her loan repayments to her MFI. She received five saris from relief agencies. Since her own sari was still in good shape, Latifa sold the "relief" saris to provide enough money to buy food for her family and make her loan repayment.

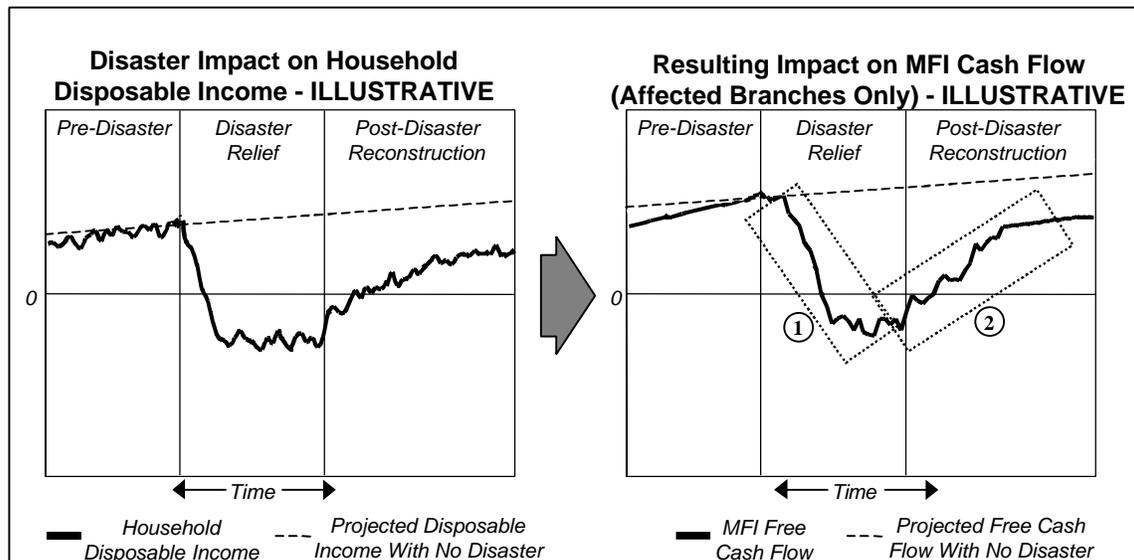
The net effect of these three factors on the MFI is illustrated graphically in Figure 2. This figure relates the changes at the individual household level discussed above (and shown in the box on the left) to the aggregate impact of those changes on the MFI's cash flow (shown in the box on the right). Again, the upward sloping trend line on both boxes represents expected income for households and MFIs in the absence of a disaster.

Aggregated household effects have two potential effects on the MFI: first, a liquidity crisis, and second, a reduction in the MFI's growth trajectory. Each are examined in turn. First, MFIs may experience a short-term liquidity crisis (illustrated as rectangle 1 in the right-hand graph of Figure 2) as clients' demand for funds increase just as MFIs' repayments (their source of funds) dry up. In 1998, this effect was particularly acute for smaller MFIs that had a substantial portion of their client base affected by the disaster and for those MFIs that did

not maintain any liquid reserves. Second, in the medium term a disaster also can reduce some MFIs' growth trajectories (see rectangle 2 in the right-hand graph of Figure 2). The slower the recovery at the household level, the slower will be the MFI's return to its pre-disaster rate of growth, since households will not be able to return to borrowing until their income-earning ability has been restored.

It is worth noting that neither effect necessarily results in substantial financial losses or de-capitalization for the MFI. If borrowers miss several installments but eventually repay their loans in full, the MFI experiences only a small loss in interest income on the missed installments and no reduction in its capital base. Substantial financial losses and de-capitalization occur when borrowers default on (cannot repay) their loans or savers make permanent withdrawals from their accounts.

Figure 2: Illustrative Model of the Impact of a Disaster on MFI Cash Flow



In addition to these two important effects on an MFI's finances, disasters also can destroy an MFI's records, equipment, or buildings and harm staff members. Both of these realities can severely limit an MFI's ability to respond quickly and effectively to the needs of its clients.

In the briefest form, Figure 2 illustrates the effects of a disaster at both the household and MFI levels. The remainder of this document examines how, by adapting existing products and developing new ones, Bangladeshi MFIs attempted to reduce or mitigate these effects and suggests implications and lessons for MFIs elsewhere.

CHAPTER TWO

UNDERSTANDING THE CONTEXT: THE ROLE OF INSTITUTIONS AND THEIR PEOPLE

Although this report focuses on describing and understanding the design of financial products offered by Bangladeshi MFIs before, during, and after the 1998 floods, it must be made clear that product design is only one of several factors that contributed to the results achieved by the products described in this report. Even the most well-designed products can fail to live up to their potential without the support, commitment, and efforts of the institutions and individuals responsible for implementation. This is particularly true for products that are designed to be offered in the chaotic period immediately following a disaster. The loan rescheduling policies adopted by many Bangladeshi MFIs during the 1998 flood (discussed in more detail in Chapter Four) provide an excellent example of the importance of this “human element.”

Later in this report we will discuss how many MFIs adopted policies to reschedule loan payments that were due during the flood period until after the waters had receded. While the terms and conditions of these rescheduling policies played a key role in determining the impact of this product adaptation on affected households, the dedication and efforts of staff at all levels of these organizations were instrumental. Loan officers braved floodwaters to maintain contact with clients, visiting them more frequently to test when and whether they needed to reschedule and even reached clients who had moved from their homes into flood shelters. Branch staff worked overtime to keep track of the customized terms and conditions adopted for different clients, while protecting the branch itself against the rising waters. And head office staff worked to transfer funds and resources within the organization to ensure that the most affected areas received the required support. Without this “human element,” the effect of these rescheduling policies would have been significantly reduced.

Moreover, Bangladesh has an infrastructure of institutions focused on disaster preparedness and response, spreading from early warning systems to post-disaster emergency services. MFIs are one player within this much larger system, which forms a basis of support that gives protection and post-disaster assistance to microfinance clients. Access to this system inevitably affects the types of services clients need from the MFI when disaster strikes. As a hypothetical example, if relief grants are available immediately after a disaster, clients may not be compelled to withdraw MFI-based savings or take emergency loans to feed their families or buy clean water.

In sum, it is important to keep in mind that the technical and design elements of the products discussed in this report are one of several key factors that MFIs interested in learning from the Bangladeshi experience should consider in adapting these lessons to their own unique situations.

CHAPTER THREE SAVINGS

In principal, savings products can assist clients in dealing with disasters during all three disaster stages: pre-disaster, relief, and reconstruction.

Preventative Role of Savings

Before a disaster occurs, a client's use of savings products may reduce his or her exposure to disaster-related losses in one of two ways:

- *Physical Assets Converted to Safer, Liquid Savings.* To the extent that clients maintain excess income in a savings account rather than purchasing physical assets (e.g., livestock, productive equipment, shelter), their exposure to loss from a flood or other disaster is reduced. Clearly, clients will not keep all of their assets in savings. Some physical assets, such as shelter, are necessary and more productive uses of resources. However, access to safe, liquid savings may allow them, at the margin, to reduce their risk of asset loss or damage, especially against disasters such as floods and typhoons, which occur during a reasonably predictable period of the year.
- *Savings Used to Invest in Risk-Reducing Measures.* Clients may be able to accumulate sufficient savings to invest in risk-reducing measures, such as raising land in flood-prone areas, using cement and tin in housing construction, or purchasing a boat.

Coping Role of Savings

In addition to this preventative role, savings can, in principle, play a substantial role for clients immediately following a disaster, filling in as a source of funds until clients are able to reestablish their income-generating activities. If a client's savings are sufficiently large, they also may contribute toward reconstruction and re-purchase of assets in the post-disaster reconstruction phase.

In practice, the evidence from Bangladesh suggests that some clients will immediately draw on savings in response to a disaster, while others will only do so as a last resort. Regardless of whether they chose to use their accumulated savings, however, clients with larger savings balances before a disaster have access to more protection than those with smaller balances, should the need arise (provided, of course, that the funds are accessible when needed).¹²

MFIs in Bangladesh have experience with three different savings products in disasters: (1) compulsory savings, (2) disaster-related deposits, and (3) ongoing voluntary savings.

¹² In short, clients with access to relief resources or strong family networks may choose not to withdraw their savings during a disaster, however their savings still provide a measure of protection.

Both releasing compulsory savings and accepting disaster-related deposits are relief responses that MFIs undertake after a disaster occurs. Ongoing voluntary savings, on the other hand, require MFIs to be proactive and offer these products well before a disaster occurs. This chapter describes these different approaches and considers their implications for both clients and MFIs.

COMPULSORY SAVINGS AS DISASTER RELIEF

In 1998, Grameen, the Bangladeshi Rural Advancement Committee (BRAC), and many other, smaller Bangladeshi MFIs opened access to compulsory savings accounts in an attempt to reduce the precipitous decline many households experienced in their incomes. In non-disaster times, clients of these institutions did not have access to these funds unless they had fully repaid any outstanding loans and decided to leave the program. As a result, these MFIs relied heavily on these savings balances as both collateral and capital for their lending programs, often treating withdrawals as loans or advances against savings that had to be repaid. To encourage re-contribution of these released savings, many MFIs either charge interest on the withdrawals, stop paying interest on the clients' remaining savings, or restrict access to future loans until the funds have been returned.

Client Issues

Affected Grameen members withdrew 95 percent of their compulsory savings balances during the four months that access was provided.¹³ Similarly, two-thirds of affected BRAC members withdrew more than half of their compulsory savings. Clearly, these funds assisted households in replacing lost income to cover the increased expenditures resulting from the floods. Given the small size of regular contributions (2 to 10 taka per week or month), however, only clients with a long history with the MFI had accumulated sufficient balances to offset a meaningful portion of the flood-associated losses. For clients of many other MFIs, the benefits from accessing their savings were further limited as these MFIs had fully invested clients' compulsory savings into their revolving loan funds and only had sufficient cash available to release 25 percent or 50 percent of clients' savings.

¹³ Barua, Dipal C. "The Grameen Strategy to Cope with the 1998 Floods." Presented at the SEEP annual network meeting, Washington D.C., October 1998.

Impact on MFIs

While the dire situation of their affected clients led many Bangladeshi MFIs to open access to compulsory savings, the impact of this action on the financial health of MFIs was decidedly negative. Because standard withdrawal procedures were so restrictive, compulsory savings had, in most cases, been treated as an additional source of capital to be used in an MFI's loan fund rather than as an outstanding liability to its clients. In disasters such as the 1998 floods, clients are quick to remind MFIs of this liability. Having fully loaned out client savings, MFIs were forced to scramble to meet their obligations to clients at a time when cash inflows had declined or stopped altogether (recall Figure 2 earlier). The magnitude of this crisis was exacerbated by the fact that clients had an incentive to withdraw as much as possible and to re-contribute as slowly as possible because disasters are the only time when they can access these savings without incurring a substantial cost.

In addition to the temporary liquidity issues, opening access to compulsory savings may result in an overall reduction in an MFI's pool of available loan capital. Of the 660,000 BRAC members who withdrew some or all of their compulsory savings in 1998, only half had re-deposited these funds as of January 2000. MFIs can apply various penalties to encourage replenishment of these funds; however, these may place an additional burden on clients struggling to recover from the impact of the disaster.

DISASTER-RELATED DEPOSITS

In the case of disasters where clients have some forewarning of the impending event, such as the steadily rising waters of Bangladeshi floods, increasing evidence suggests that MFIs which only offer compulsory savings can play a role in reducing the potential losses of clients by accepting voluntary deposits as a disaster approaches. Clients storing savings in their homes or having sold assets in advance of a disaster have need for a safe location to store these funds until the disaster has passed. In 1998, as the floodwaters were rising, BRAC, in response to client demand, began opening no interest savings accounts to allow clients to keep their assets safe from loss or damage due to the floods.

For clients, access to these types of accounts presumably allowed them to reduce their exposure to losses, giving them a source of funds to draw on either to sustain themselves if the relief phase of the disaster extended for a long time or to assist in repairing or purchasing new assets in the reconstruction phase. For MFIs, offering these sorts of products on short notice creates an administrative burden in ensuring that deposits are accurately recorded and documented and leaves open the temptation for fraud or abuse. In addition, stories from the field indicate that clients may want to deposit non-cash assets such as jewelry or animals, creating potential logistical headaches for MFIs as well.

ONGOING VOLUNTARY SAVINGS

As an alternative to the two relief-phase savings products discussed above, MFIs can consider the experiences of MFIs such as BURO Tangail, the Association for Social Advancement (ASA), SafeSave, and others in proactively developing voluntary savings products. Although not specifically developed for disaster management, these products may provide clients with more assistance in disasters than either of the previous options with less negative financial consequences for the MFI.

MFIs in Bangladesh introduced three basic types of voluntary savings products that can play a disaster management role: general savings, contractual savings, and time deposits. Table 1 summarizes the major features and differences between these three products.

Table 1: Key Features of Voluntary Savings Products in Bangladesh

	General Savings	Contractual Savings	Time Deposits
Annual interest rate	0-8%	9-15%, depending on length of contract	9-15%, depending on length of contract
Interest paid	Monthly or annually	At end of contract	At end of contract
Deposit policies	Client determines size and frequency of deposits	Client commits to contribute a fixed amount per month/week for an agreed upon period of time	Client deposits initial lump sum (greater than 5,000 Tk) until end of contract
Withdrawal policies	Client determines size and frequency of withdrawals	Withdrawals not allowed until end of contracted period (3, 5, or 10 years)	Withdrawals not allowed until end of contracted period (from 3 months to 5 years)
Restrictions	Minimum balances may be required; withdrawals may be limited to maintain a certain balance relative to outstanding loans	If more than 3-5 contributions are missed or client wants to withdraw, funds are available at a reduced interest rate	Funds can be withdrawn if needed, with interest paid at the general savings rate

Within these basic parameters, MFIs have developed different variations on these basic product types. Box 2 provides a more detailed description of some of these variations.

Client Issues

The impact of these products in disasters is largely dependent on (1) how effectively they allow clients to accumulate larger savings balances; and (2) how accessible these funds are when needed. The larger the balances that clients accumulate before a disaster and the more accessible these funds are both before and after a disaster, the greater the potential benefits for the client.

Box 2: Examples of Voluntary Savings Products

Contractual Term Savings—Version I

In 1996, BURO Tangail, a medium-sized MFI operating three to four hours north of Dhaka, introduced a contractual savings scheme to provide greater opportunities for clients to save. Under this scheme, clients agree to make a regular savings deposit of a fixed amount, the size of which is determined by the client, for a fixed period of time, either 3, 5, or 10 years. Interest is paid at the end of the term at an annual compound rate of 9 percent, 12 percent, or 14 percent, depending on the term. Deposits are made on a weekly or monthly basis. In the event of a disaster, savers can withdraw up to 75 percent of the funds accumulated without penalty. Clients who miss more than five contributions have their balance transferred to their general savings account, including interest paid at the normal rate—currently 7.5 percent. BRAC and ASA have recently introduced similar products.

Contractual Term Savings—Version II

SafeSave, a small MFI operating in the slums of Dhaka, recently introduced a different variation of contractual term savings in its Geneva camp operations. As with the BURO scheme, clients agree to make a regular monthly deposit of a fixed amount for five years. However, instead of paying a fixed rate of interest, at the end of the five years SafeSave agrees to make the client's contributions for them. For example, if a client has been contributing 50 taka (about US\$1) a month for the past five years, the client stops contributing to the account, and SafeSave begins crediting an additional 50 taka per month to their account so long as the funds remain on deposit. By offering clients the opportunity to save daily, SafeSave allows clients to build up the required amount over the course of the month.

General Savings

In April 1997, ASA made two important changes to its traditional compulsory savings products. First, ASA gave clients open access to withdraw from their savings accounts at any time. Second, it began allowing clients to contribute more than just the standard 5 taka per week. Interest is paid annually on funds held in savings, and clients can make deposits or withdrawals at any weekly group meeting. Clients are, however, required to maintain a minimum savings balance equal to 10 percent of any loan balance outstanding.

In January 2000, BRAC introduced a variation of this product by allowing clients to make deposits in excess of their regular compulsory contributions into a separate current account earning 4 to 5 percent annual interest with open withdrawal access. A 50-taka minimum balance is required. At around the same time, ASA adjusted its general savings product to have similar conditions (a locked-in minimum contribution with flexibility to save and withdraw any amount above the minimum).

Encouraging Savings Accumulation

As indicated in Table 2, clients saving in these voluntary accounts have been able to accumulate reasonably significant¹⁴ balances in a relatively short time. In the context of disaster management, affected households experienced an average income loss of approximately 8,000 to 10,000 taka in 1998. Households with access to the savings balances described in Table 2 would have been able to cover at least a portion of this income loss with their savings. Given more time to accumulate funds—few of these products have been available for more than two to three years—it seems likely that this percentage might rise even higher.

¹⁴ For comparison, a compulsory savings product that mandates a 5-taka weekly contribution (high among Bangladeshi MFIs) would require almost two and a half years to achieve the same average balance as a voluntary savings product.

Table 2: Savings Balances in Various Voluntary Savings Products¹⁵

	BURO Tangail General Savings	BURO Tangail Contractual Savings	SafeSave Contractual Savings
Average balance	320 Tk	540 Tk	638 Tk
Average age of account	N/A	N/A	11 months

The disaster-specific, compulsory savings funds operated by Grameen and others in Bangladesh also allow clients to save up funds to be used in disasters. However, the limited withdrawal capability and the fixed size and imposed schedule of these contributions may reduce the willingness of clients to contribute to these funds. In addition, the Bangladeshi experience seems to indicate that clients are more likely to withdraw the full amount held in these accounts during a disaster, whether they need it or not, because it is the only time they have access to these funds.

Generalizing from these and other experiences,¹⁶ MFIs interested in encouraging clients to accumulate larger amounts in their savings accounts can consider adopting some or all of the following product characteristics:

- *Unbundling Savings from Loan Products.* If an MFI opens savings accounts to households that are not currently borrowers, it can tap into an additional source of capital neglected by traditional savings accounts tied to loans. In 1998, BURO Tangail's associate members (savers who do not desire loans) had average savings balances of 1,400 taka relative to the 320 taka balances for general savers indicated above.
- *Length of Savings Relationship.* The longer clients have to accumulate funds in their savings accounts before a disaster, the more likely they are to have a larger amount of funds available if a disaster strikes. Contractual savings products such as those offered by SafeSave, BURO Tangail and ASA encourage clients to maintain long-term savings relationships by providing financial incentives for clients to complete the full term of the savings contract.
- *Frequency and Location of Collections.* Increasing the frequency and convenience of the collection of savings deposits also seems to encourage savings accumulation. SafeSave's collectors visit each customer daily, at their home, to collect deposits. Interviews with clients suggest that frequent, convenient collection allows them to save funds that would otherwise be spent on extraneous items. Morning Star, a small MFI operating in Dhaka, Bangladesh, also has successfully used daily collections to encourage savings accumulation.

¹⁵ BURO Tangail data is as of year-end 1999. SafeSave data run from March 1999 through March 2000 and reflect average ending balances in contractual savings accounts. Some clients also have accumulated additional balances in separate accounts.

¹⁶ Including a participatory rural appraisal conducted with ASA clients in May 2000. Christen, Matin, and Wright (unpublished).

- *Opportunity versus Obligation to Save.* Allowing clients to contribute as much or as little as they like at each collection period rather than mandating a fixed amount of compulsory savings may increase the opportunities for clients with highly irregular income flows to accumulate savings balances. Instead of penalizing clients for not making arbitrary, fixed savings amounts, the products of BURO Tangail and SafeSave allow clients to choose the amount they think they can save regularly and then provide positive incentives, in the form of higher interest rates, for clients to meet their regular savings commitment.
- *Withdrawals.* The evidence from several Bangladeshi MFIs contradicts the traditional belief that clients given free access to withdraw their savings will never be able to accumulate meaningful balances. Clients' increased willingness to deposit into an account with withdrawal capabilities seems to more than compensate for outflows due to withdrawals. For example, in 1997, the year in which BURO Tangail gave clients open access to withdraw their savings, they experienced a 52 percent *increase* in average savings balances per client, from 389 taka per person to 592 taka.
- *Interest Rates and Payment of Interest.* Paying interest on deposited funds or increasing the interest rate paid may encourage increased savings. In addition, adjusting the timing of when interest is paid may influence savings behavior. For example, some clients may be more interested in a savings product that pays interest annually in cash, while others may prefer receiving their interest in a single lump sum at the end of the savings contract.

Accessibility

One of the traditional arguments in favor of compulsory savings makes the case that limiting client access to their savings actually helps them accumulate larger balances. With full withdrawal access, the argument continues, clients will make frequent withdrawals for daily needs and thus will be unable to accumulate balances of a sufficient size to offer any protection in a disaster. With this in mind, several MFIs have proposed creating disaster-savings accounts, only accessible when a disaster occurs. Although existing evidence is still preliminary, as described above, limiting access to clients' savings seems to have a negative impact on their willingness to deposit into an account, which suggests that MFIs would have difficulty convincing clients to accumulate significant balances in such accounts. Based on current evidence, savings accounts with open withdrawal access and positive incentives, such as higher interest rates or pay outs to encourage clients to keep their funds in the account, appear to have the most potential in terms of their disaster management benefit for clients.

Impact on MFIs

Evidence from Bangladesh suggests that, in addition to providing clients with greater benefits (easier access to larger accumulations of savings) in disasters, voluntary savings products may be better able to weather the two negative financial consequences common in disasters—short-term liquidity shortages and medium-term reductions in the capital base.

However, national financial regulations still pose a very real constraint for most MFIs considering offering savings products. In addition, there is still a greater need to understand the costs involved in developing and implementing these savings products. Each theme is discussed in detail below.

Reducing Liquidity Shortages

MFIs offering voluntary savings products face a similar potential exposure to a liquidity crisis (massive outflows of clients' savings at the same time as they delay repaying outstanding loans) as those that choose to open access to compulsory savings. However, evidence from BURO Tangail's and ASA's experiences during the 1998 flood suggest that two factors may make this crisis less severe for MFIs offering ongoing open access to their savings accounts:

- *Client Preferences.* In a disaster, clients with ongoing access to their savings may be less likely to withdraw funds than those clients whose only access to their compulsory savings comes in emergencies. As the example in Box 3 illustrates, even when alternative sources of funds are more expensive, some clients may choose to access their savings only as a last resort. To the extent that fewer clients choose to withdraw less, the temporary pressure on the MFI's liquidity will be reduced.
- *Established Reserves.* To provide clients open withdrawal access to their savings, MFIs must maintain reserves that can be easily accessed by local field staff (see Table 3 for a summary of the reserve policies of these three organizations). Although funds held in reserves are unavailable to be loaned out, they ensure that the MFI can withstand an unexpected rush of withdrawals. For larger MFIs, local reserves also can be more easily transferred from one neighboring district to another more severely affected by a disaster. By drawing on its established reserves and reserves transferred from nearby districts, ASA's severely affected Narsingji branch was able to meet all client requests for savings withdrawals through the flood period, even though withdrawal volumes were two to three times normal levels.

Box 3: Savings Withdrawals at ASA's Narsingji Branch

During the 1998 flood, the Narsingji District of Bangladesh was severely affected. Floodwaters left the jute-walled houses of ASA group members from the Mukti ASA Bhumihin Shamity nearly submerged for several weeks. During the flood, ASA's credit officer in the area, Kamrunnahar, visited her members every two days offering them the opportunity to withdraw their savings or take a consumption loan. Of the women in one of her groups, 10 chose to withdraw their savings. Ten others chose to take ASA's 1,000 taka consumption loan at 15 percent (flat rate) interest instead of withdrawing savings. Three others both withdrew from their savings and took the loan. The women who chose to take the loans rather than withdraw their savings recognized that the loan was more "expensive" than their savings but expressed a strong desire to leave their savings untouched unless absolutely necessary.

Table 3: Reserve Policies of Selected MFIs

	Reserve Policies	Location of Reserves
ASA	<i>Cash reserves:</i> Two months of forecasted cash outflows (disbursements, withdrawals, operating expenses)	Bank account held by divisional office
BURO Tangail	<i>Cash reserves:</i> 5% of savings balances, one-quarter of monthly disbursements and one month's operating costs <i>Liquid reserves:</i> 10% of savings deposits	4,000 taka in each branch as cash; remainder in local bank account
BRAC	<i>Cash reserves:</i> 20% of savings balances, 2% of monthly disbursements, three month's operating expenses	District office

In addition to experiencing fewer problems meeting clients' increased demand for withdrawals during a disaster, MFIs with open-access savings accounts seem better able to recoup withdrawn savings more quickly. In ASA's Narsingji branch, where one-third of its clients were severely affected by the floods, total savings declined during the worst months of the flood and into November. However, in December, total savings at the Narsingji branch jumped up by more than 8 percent, reaching a balance of 2.7 million taka, almost as high as the total balances at the branch before the flood. Similarly, one year after the flood, BURO Tangail's average savings balances per client were more than 13 percent above pre-flood levels.

Regulatory Challenges

Perhaps the biggest obstacle preventing most MFIs from realizing the disaster-management potential of open-access savings products is that, operating as nongovernmental organizations (NGOs)—as most MFIs do—MFIs can not legally provide any of the voluntary savings products described above. Accepting voluntary deposits shifts the role of MFIs to one of a financial intermediary, a function that in most countries is regulated and supervised by the central bank. Although the range of issues in the debate over whether and how to allow MFIs to accept deposits is beyond the scope of this report, experiences in Bangladesh suggest two possible ways to overcome this obstacle.

Several larger NGO-MFIs in Bangladesh, including BURO Tangail, BRAC, and ASA, have chosen to make the most of ambiguities in existing, formal regulations and offer voluntary savings anyway. They are assuming that so long as they continue to serve their social mission and manage their savings portfolio in a conservative fashion, regulators will look the other way. In Bangladesh, this may be a reasonable assumption because the government has a history of adjusting regulations to reflect what MFIs have already done. However, for MFIs in other countries with stricter regulatory standards, this may not be an option. As a more legally acceptable alternative, MFIs can consider how SafeSave has chosen to deal with this challenge. Rather than establish itself as an NGO, SafeSave is registered in Bangladesh as a cooperative with the ability to collect deposits and make loans to non-members written into its bylaws.

Cost of Voluntary Savings

MFI's with existing compulsory savings products, particularly those not in highly disaster-prone areas, often resist giving clients access to their savings on the grounds that accepting voluntary deposits and allowing withdrawals will be too costly. The evidence from Bangladesh is mixed. The cost of keeping a portion of an MFI's capital base idle as reserves, for example, can be offset if voluntary savings result in a sufficiently large increase in average balances. The apparent administrative costs of recording and monitoring withdrawals as well as deposits have, in contrast, recently led ASA to reduce some of the ability of its clients to access their savings.

- *Cost of Reserves.* As Table 3 indicates, MFIs offering voluntary savings maintain between 20 and 50 percent of client savings in liquid reserves. Establishing these reserves requires a reduction in an MFI's capital base available for lending and a corresponding reduction in revenue earned on these funds. The specter of incurring these costs discourages many MFIs from considering offering open-access savings. However, as described above, both ASA and BURO Tangail experienced a sharp increase in deposits after giving clients' access to their savings. As savings balances increase, the portion of this increase not held in reserves increases the MFIs' capital available to lend, offsetting the initial reduction caused by establishing the reserves. Table 4 presents the percentage increase in clients' savings balances needed for an MFI's capital base to remain stable for different levels of reserves. For example, if an MFI decides to hold 30 percent of clients' savings as liquid reserves, it will experience no change in its capital available to lend if opening access to savings results in a 43 percent increase in average savings balances. After fully opening access to savings accounts, BURO Tangail experienced a 53 percent increase in average savings balances within one year.

Table 4: Equilibrium Savings Increases for Various Reserve Levels¹⁷

% of Clients' Savings Held as Reserves	Required Increase in Average Savings Balances to Maintain Revolving Loan Fund
15%	18%
20%	25%
30%	43%
40%	67%
50%	100%

- *Administrative Costs.* More detailed study is required to fully appreciate the costs and benefits of offering open access savings; however, ASA's experiences suggest that the up-front costs of designing appropriate procedures and conducting required training (especially in an organization, like ASA, with limited existing staff training), in particular, should not be underestimated.

¹⁷ Equilibrium savings increase is the percentage increase in average savings balances required as an MFI moves from compulsory to voluntary savings accounts to leave it with the same amount of funds available for lending after allocating a given percentage of voluntary savings toward reserves. Estimates assume reserves earn 0 percent return; actual required increases would be lower as even reserves held in a local bank account will earn some return.

SUMMARY ON SAVINGS PRODUCTS

Savings products have the potential to play a significant role in helping clients manage the impact of disasters. However, the savings products currently offered by most Bangladeshi MFIs are of limited benefit to clients in disasters because they are either inaccessible or only encourage clients to accumulate minimal balances. In addition, releasing funds from compulsory savings accounts in disasters tends to cause financial difficulties for MFIs.

In contrast, voluntary savings accounts seem to encourage clients to accumulate larger balances—thereby providing greater protection in future disasters. By creating products with easy deposit and withdrawal access and positive incentives to encourage clients to keep building their savings, institutions like BURO Tangail and SafeSave have been able to generate average growth in clients’ savings balances of greater than 50 percent in a single year. From an MFI perspective, the reserves required to offer open-access savings products appear to improve their ability to survive the liquidity crisis that commonly occurs immediately following a disaster.

The experiences of Bangladeshi MFIs highlight several outstanding questions regarding savings as a disaster product, including:

- What factors influence clients to decide whether to use savings or other financial or non-financial coping mechanisms in disasters?
- Which of the many factors listed earlier (unbundling, frequency of collection, etc.) have a greater or lesser influence on households’ willingness and ability to accumulate larger balances?
- What is the full cost, both one time and ongoing, that an MFI can expect to incur in switching from compulsory to voluntary savings?
- To what extent can savings products extend the potential outreach of an MFI by providing households without access to loans (such as BURO Tangail’s associate members) with a potential disaster-coping mechanism?¹⁸

¹⁸ As Professor Claudio Gonzalez Vega stated at the “Mobilizing Deposits in Microfinance Institutions” conference in Santa Cruz, Bolivia, April 2000, “All households can be depositors; a much smaller number make good borrowers.”

CHAPTER FOUR LOANS

Like savings, loans can play a role in assisting clients in dealing with disasters. Loans disbursed before a disaster can be designed to reduce the potential exposure of clients to disaster-related losses. Immediately following a disaster, loans can be used as a relief tool, to improve the ability of clients to survive until they can start earning an income again. In addition, loans may be used to finance clients' recovery from the damage done by a disaster. In each of these cases, existing loan products can be adapted to achieve these purposes. The key differences between these products and adaptations are timing, and terms and conditions of the loan itself. This chapter provides examples of how various MFIs in Bangladesh either adjusted these factors on existing loan products or developed new combinations for disasters. It also looks at how different variations of these terms and conditions may affect the benefits provided to clients and the impact of a disaster on an MFI.

ADAPTING EXISTING LOAN PRODUCTS FOR DISASTERS

The motivation behind adapting existing loan products for disasters is to reduce the demands on clients' already stretched resources in a disaster. As affected clients find it difficult or impossible to make principal, interest, and fee (including compulsory savings) payments, they temporarily reduce MFIs' anticipated cash flows and can potentially cause losses if they end up defaulting on loans.

Preventative Adaptations

For disasters that occur during a specific period of the year, such as floods, cyclones, and hurricanes, prevention-minded MFIs can adapt their existing loan products before a disaster to reduce both their own and their clients' exposure to potential losses. For example, instead of using a standardized loan repayment schedule with equal weekly or monthly loan repayments over the course of the year, Bangladeshi MFIs working in or very near the river valley have considered adapting the repayment schedule on their basic loan product to reduce the impact of frequent floods. Two possible adaptations include adjusting the loan term from 12 months to 8 or 9 months, and rescheduling payments so that no principal payments are due during flood season. Table 5 compares these adaptations to a standard product for a hypothetical 1,000 taka loan.

Table 5: Adjusting Repayment Schedules to Guard against Flood Losses in Bangladesh¹⁹

Repayment Schedules	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Standard	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Nine month	133	133	133	133	133	133	133	0	0	0	133	133	1,200
Interest only during flood season	128	128	128	128	128	128	128	17	17	17	128	128	1,200
Principal Amount: 1,000 Tk						Total Interest Charge: 200 Tk							

Client Issues

For clients in highly flood-prone areas, either of these adapted repayment schedules gives them greater security when taking a loan that they will not have to risk defaulting on their loan payments if a bad flood temporarily prevents them from earning income. Even in years with relatively limited flooding, these adjusted repayment schedules should benefit clients because the period between August and November is typically a low one for many households' incomes. The downside for clients of these schedules is that the monthly payments during non-flood times are larger than with the standard repayment schedule.

Impact on MFIs

For MFIs, adapting their repayment schedules in this way does not decrease total revenue but forces them to arrange their finances in such a way that they are able to continue operations for the three flood-prone months on little or no income. To accomplish this, they may (1) set aside a portion of the higher monthly repayments from December to August so that they have funds available for disbursements and operating costs from August to November; and (2) minimize required expenditures during flood-prone months.

In a disaster, these measures, developed to ensure the financial stability of the MFI during normal conditions, should also reduce the MFI's exposure to a liquidity crisis. As the institution enters the flood period, it has a pool of available cash and is already expecting to receive little or no income from loan repayments in the ensuing three months. The challenge for these MFIs is to ensure that clients regain their repayment discipline after three months of either reduced or no payments.

Rescheduling Flood-Affected Loans

Apart from implementing risk-reducing measures like the repayment schedules discussed above, MFIs can also take action to adapt their existing loan products after a disaster occurs. Historical experience in Bangladesh suggests that writing off loans held by disaster-affected clients not only serves to decapitalize the MFI but also tends to cause repayment difficulties for the MFI on future loans, potentially jeopardizing the long-term health of the program. As

¹⁹ Interview with Nayeem, Action Aid.

an alternative, most Bangladeshi MFIs rescheduled clients' loans during the flood of 1998. The details of these rescheduling policies varied by institution; however, the basic questions addressed by all of the policies are as follows:

- *Whose Loans to Reschedule?* In the past, standardized policies were applied for all clients in an affected branch or district. In 1998, all of the MFIs interviewed assessed the need for rescheduling on a case-by-case basis, either for individual clients or for their loan groups.
- *What to Reschedule?* Most MFIs allowed clients to temporarily stop making all payments (principal, interest, compulsory savings) to them and did not charge interest on the loan while the collections were stopped. Others continued to collect only the interest on the loan, allowing clients to stop making principal and savings payments. A few MFIs continued to charge interest on outstanding loans but did not begin to collect this interest until after full collection of repayments was restarted.
- *For How Long?* The length of the rescheduling varied substantially by MFI and by how severely an area was affected by the flood, ranging from 3 to 10 weeks. All of the MFIs interviewed allowed local staff to assess the extent of the damage and, based on this assessment, to determine how long collections should be halted.
- *How to Make up Missed Payments?* Several different schedules were adopted in order to make up the missed payments:
 - Extend the term of the loan—the missed payments are added to the end of the original term of the loan;
 - Increase the regular repayments—divide the total principal and interest payments rescheduled by the number of repayments remaining on the original loan; and
 - Allow bulk repayments—several clients at different MFIs expressed a desire to repay their outstanding loan in a single large payment either just as the floodwaters were rising or just after they had abated.

It is important to note that in areas where loan terms are shorter (four to six months) and the affect of a disaster is more severe, as in the recent case of flooding in Mozambique, rescheduling loans is likely not an option for MFIs. A one- or two-month reschedule on a short-term loan will likely create unsupportable increases in the remaining payments and, in cases where clients have lost everything, rescheduling may not be enough to help them survive and re-establish themselves.

Client Issues

Rescheduling does reduce the financial burden on clients at a time when funds are extremely scarce; however, it also creates a greater financial burden for clients during the post-disaster reconstruction phase. Based on the evidence from the 1998 floods, there does not appear to be a single “best option” for clients in terms of how to reschedule their loans in a disaster.

Many MFIs allowed clients to determine how long the rescheduling period should last and how they would make up missed payments, with different clients choosing different combinations of the options described above. Interviews conducted with MFI clients during the floods suggest that, despite these efforts, loan rescheduling might have been offered to more clients or been made available sooner to reduce the pressure on them to take costly measures to continue repaying even after losing access to their income-generating activities (see Box 4).

Impact on MFIs

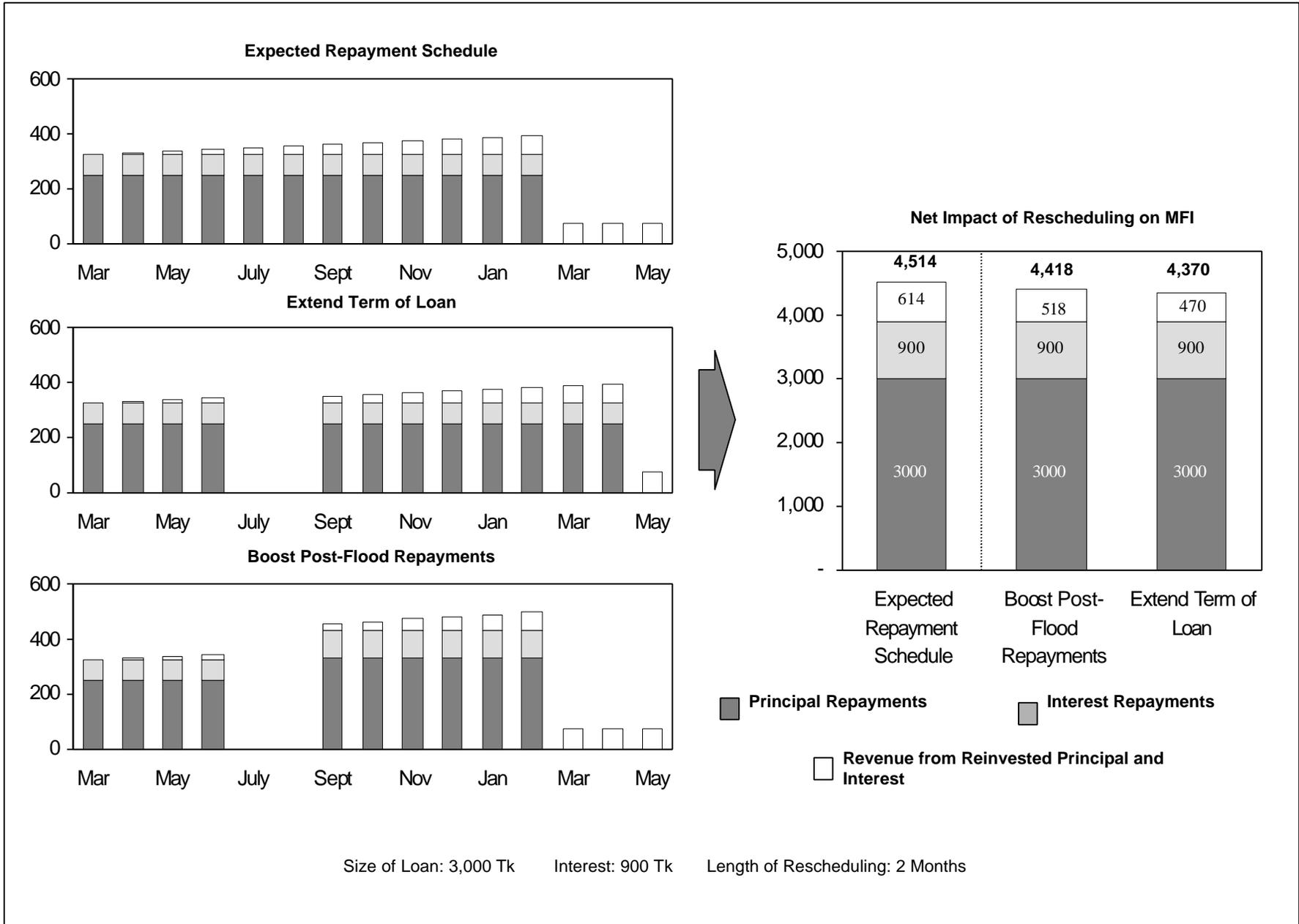
From the MFI's perspective, loan rescheduling appears to be a very positive strategy for coping during the relief phase of a disaster. A study done by CARE Bangladesh on the impact of the flood on its affiliated MFIs indicated that by February 1999, half had seen loan repayments and savings inflows return to normal or near-normal levels. In interviews conducted for this report, institutions claimed to have fully recovered all rescheduled loan repayments by November or December 1999. Similarly, all of the institutions interviewed claimed that post-flood repayment rates remained as high as those before the flooding. As the example in Figure 3 indicates, to the extent that rescheduled loans are repaid, the medium-term financial impact on the MFI is limited. For a 3,000 taka (\$60) loan disbursed in March 1998 and rescheduled for two months during the flood, the only financial impact on the MFI by May 1999 is a slight reduction (\$2 to \$3) in revenue that would have been earned by reinvesting the loan repayments expected in July and August 1998. Only if clients defaulted on rescheduled loans did MFIs experience significant medium-term losses on their loan portfolios. This is a significant improvement on the losses that MFIs would have sustained if they had written off the debts.

Box 4: Finding Cash to Make Loan Repayments during the Flood—BRAC Clients²⁰

Flood-affected BRAC clients who had either not yet had their loans rescheduled or were not given the opportunity to reschedule were forced to look to other income sources to continue making loan repayments during the flood. In September 1998, interviews conducted with more than 500 of these clients. Less than 20 percent of the clients were able to make loan repayments from the proceeds of any income-generating activity, such as wage labor, trade, fishing, or rickshaw driving. Almost half of the interviewees relied on loans from relatives or from moneylenders (at 120 to 140 percent interest rates) to keep their payments current and ensure future access to BRAC's services. Another 15 to 20 percent sold assets or relief materials, withdrew savings, or reduced food intake so that they could make loan repayments.

²⁰ Ahmed and Ahmed (1999).

Figure 3: Example of Financial Impact of Loan Rescheduling on an MFI



DEVELOPING NEW LOAN PRODUCTS

In addition to adapting the terms and conditions of existing loans, MFIs can develop new loan products for disasters. These products can be developed for implementation before a disaster as preventative or risk-reducing measures, during the relief phase to assist clients' survival efforts, or during the reconstruction phase to support clients in reestablishing themselves once the crisis has passed.

Risk Reducing/Preparedness Loan Products

All three of the pre-disaster loan products uncovered in Bangladesh provide loan capital to clients to purchase or construct assets that reduce the exposure of clients to disaster-related losses. The Bangladesh Bank, through its network of government-sponsored MFIs, provides long-term (10 year) loans for clients in flood-prone areas to construct highly flood-resistant cement and tin houses (see Box 5 for more detail). Similarly, SKS and MMS, two small MFIs working with clients in or near the river valley, have developed two different pre-disaster asset purchase loan products.

The first is offered to individual clients to purchase a small boat. During normal times, the client uses the boat for their own productive purposes (fishing, transporting people); however, as a condition of the loan, during a disaster, the client agrees to use the boat to transport fellow community members and their belongings to higher ground. In this way, by simply ensuring that flood-exposed communities have access to several boats in disaster times, SKS and MMS have been able to reduce some of the community's exposure to loss due to floods.

The second pre-disaster loan product offered by these institutions requires more active involvement of the MFI. Using a portion of funds accumulated in client savings, SKS and MMS made a loan to all clients in a flood-exposed community to construct a community flood-shelter area that, during non-disaster times, provides income-generating activities for several members of the community (see Box 6 for further detail).

Box 5: The Bangladesh Bank's Flood-Resistant Housing Loans

In response to the damage caused by the 1998 flood, the Bangladesh Bank has initiated a loan fund to allow a pre-selected group of 60 to 70 MFIs supported by the government to offer long-term loans for the construction of flood-resistant cement and tin housing. The Bangladesh Bank forwards a tranche of funds to the MFIs at the subsidized rate of 1 percent per year. The MFIs agree to use these funds to pay for the construction of houses (following design specifications established by the Bangladesh Bank) given to clients who are then responsible for repaying the cost of construction over the ensuing 10 years. The principal amount (cost of construction) to be repaid is 20,000 taka (US\$400) at 5 percent annual interest, requiring 225 taka (US\$4.50) repayments each month for 10 years. Given the size of the required monthly repayments, loans are issued only to clients deemed to have sufficient capacity to repay by the MFI.

As the initial round of loans is repaid, the funds will be recycled to issue further housing loans. After a little more than a year in operation, repayment from both the new homeowners and the MFIs has been 99 percent.

Client Issues

For clients, the long-term benefits of these products are truly realized only when a disaster strikes and the assets (house, boat, or shelter) improve the ability of clients to survive through the relief phase and reduce the reconstruction needed to restore clients to their pre-flood condition. Loans for assets that can be used immediately to generate income, such as boat and shelter loans, also may improve the financial situation of clients in the short term. Because most of these loans would be issued in addition to clients' regular working capital loans from the MFI, there must be some effort to ensure that repayments on multiple loans do not overwhelm clients' limited capacity to repay. Many of these products have only recently been introduced; further tracking of the products' results will be needed to better assess their impact on clients.

Impact on MFIs

Similarly for MFIs, to the extent that assets purchased with pre-disaster loans reduce clients' losses and need for post-disaster reconstruction, the MFI will benefit from reduced pressure on their portfolio during and after the disaster. There is some question as to how MFIs can or should obtain the funding to offer loan products in addition to their basic loan portfolio. SKS and MMS obtained the agreement of their clients to divert a portion of their savings to fund the construction of the emergency shelters, while the government-sponsored housing loans rely on subsidized funds from the central bank.

Box 6: Economically Viable Flood-Shelter Loans

In communities highly exposed to flooding, SKS and MMS have developed a "community-loan" product to construct flood-shelters that, during normal times, also serve as sources of income-generating opportunities. Under this program, the MFI uses a portion of clients' accumulated savings to (1) buy a section of land near the community; (2) employ clients to raise the land above the level of flood waters; and (3) build several income-generating activities on the land (fish ponds, agriculture) in addition to shelters, a tube well, and a sanitary latrine. During floods, this land serves as a safety zone where the community can take their families, livestock, and other household assets. The tube well and the agricultural products grown on the raised land provide food and water during these times. During normal times, all of the MFI clients in the community repay a portion of the loan as an extra levy on their regular loans. Clients who operate the fishponds and other ongoing income-generating activities repay a larger portion of the loan. Further investigation is required to understand the terms and conditions of these loans and the repayment experience to date.

New Loan Products during the Relief Phase of Disasters

The focus during the relief phase of a disaster is on ensuring that affected households can survive until the disaster has passed and they are able to begin to return to their daily lives. Although many MFIs provide food, clothing, medicine, or other relief goods (for a brief look at some of the issues surrounding this topic, see Box 7), this chapter focuses only on their role as providers of financial services, and specifically loans.

Box 7: The Debate over the Role of MFIs in Relief Operations

There is considerable debate over what role MFIs can and should play in disaster-relief operations. One side of this debate argues that since MFIs have an existing network with significant local outreach, they should be heavily involved in distributing food, clothing, and medicine because they will be more efficient in doing so than other alternatives. Proponents of this argument also claim that if MFIs do not provide relief, they will lose clients following the disaster and that participation in relief efforts may improve good will for MFIs in the community. Proponents of the opposite argument submit that MFIs are financial services providers first and foremost, and thus they do not need to get involved in relief activities beyond ensuring that their financial services are as supportive as possible in disasters. Some MFIs in this camp argue that providing relief grants will undermine the repayment discipline required to maintain the financial health of their programs

Evidence from MFIs pursuing each approach during the 1998 floods suggests that either approach can be feasible. ASA and SafeSave focused on ensuring that clients had full access to their financial services—ability to withdraw savings and access to consumption loans—during the floods and did not get involved in any significant relief activities. Although some clients did ask why they were not receiving relief goods, they were satisfied with ASA's and SafeSave's response that their role is to provide financial services not relief.

BURO Tangail, and BRAC, on the other hand, offered extensive relief programs using funds from foreign donors. Despite disbursing more than 5 million taka (US\$100,000) and 27 million taka (US\$540,000) worth of food, clothing, and medicine respectively, neither of these institutions seems to have suffered significant declines in post-flood portfolio performance.

Disaster relief loans are intended to act as a replacement source of income for affected clients to help them meet basic consumption needs until they are able to restart their income-generating activities. The Bangladeshi experience suggests that disaster relief loans should be available to clients as soon as possible after a disaster occurs (or as the floodwaters are still high in the case of a flood) with repayment starting once the client moves into the post-disaster reconstruction phase. The exact size, terms, and conditions of these loans will vary depending on the availability of funds and MFI priorities. For example, ASA offered loans in 1998 for 1,000 or 2,000 taka over 12 months with a market rate of interest. In contrast, BRAC chose to offer smaller, shorter term loans at a 0 percent rate of interest. Table 6 summarizes the key characteristics of the relief loans provided by several Bangladeshi MFIs in 1998.

Table 6: Key Features of Relief Loans Provided by Bangladeshi MFIs in 1998

	ASA	CARE Affiliates	BURO Tangail	BRAC
Size of loan	2,000 Tk/1,000 Tk	500 Tk/1,000 Tk	2,000 Tk	500 Tk
Term of loan	12 months	3-12 months	24 months	6 months
Interest rate	15% flat rate	6-12% flat rate	5% annual	0%
Repayment begins	Month immediately following disbursement	Two months after disbursement	Two months after disbursement	Month immediately following disbursement

Client Issues

Disaster-relief loans seem to be a valuable injection of cash at a particularly needy time for the clients of MFIs. If clients receive funds in cash, they have the flexibility to set their own priorities for using the funds (although in areas where food and medicine supplies may be insufficient during a disaster or where prices of basic necessities have increased dramatically, in-kind loans may be of value). Based on feedback from clients who received relief loans in 1998, the key measures of client benefit seem to be the size of the loan, when repayment begins, and the interest rate on the loan. It is important to note that not all affected clients in Bangladesh wanted to take out loans at the same time. For some, loans were their first line of defense, while others relied on other sources and did not request a relief loan for several weeks or even months in some cases.

Impact on MFIs

In terms of repayment rates and impact on the existing loan portfolios of MFIs, the results for the disaster loans disbursed in Bangladesh in 1998 have been quite positive. All of the institutions interviewed reported near perfect repayment rates and, given the smaller size of the loans, no difficulties with client over-indebtedness. In addition, the cost of implementing these loans, once funds were available for disbursement, was minimal because field staff were able to disburse and collect loans as part of their regular operations. As mentioned in Chapter Two, many loan officers showed extra dedication in fording floodwaters and tracking clients down in flood shelters to ensure that clients had access to these loans.

The major challenge from the MFI perspective was in securing the capital needed to make loans. Most MFIs had to rely on additional contributions from donors to provide the funds for these loans because their existing capital base was fully invested. In many cases, delays in obtaining donor funding and limitations on the amount of funds available forced MFIs to delay disbursement until well into the flood period and limited the size of the loans they could provide. MFIs that maintained reserves, for bad debts or otherwise, were in a somewhat better position because they could use these resources to begin to fund relief loans until donor funding could be arranged. Larger MFIs also were able to transfer funds from relatively unaffected areas to highly affected areas. On the other hand, small MFIs with their capital base fully invested in their revolving loan fund had no additional funds of their own to lend out and, in many cases, lacked access to donors to ask for their support.

In response to the difficulties faced by smaller MFIs, several apex organizations developed the idea of disaster loan funds (DLF) to improve MFI access to loanable funds during future disasters. Disaster loan funds involve the development of a pool of funds, through some combination of donor, MFI, and client contributions, that MFIs can draw on to make relief loans to clients affected by a disaster. In this way, these funds can help alleviate the liquidity

constraint MFIs face in disasters and increase the availability of funds to affected clients in times of need.²¹

New Loan Products during the Disaster Reconstruction Phase

Once the initial crisis or relief phase of a disaster has passed (the duration of which will vary substantially depending on the type of disaster), MFIs restart disbursement and collections of their regular loan products. At this point, some Bangladeshi MFIs developed new loan products to assist clients in post-disaster recovery. These loans were made with the objective of restoring the household and their assets to their pre-flood condition. The amount of the loaned funds and the interest rate and term of the loans varied from MFI to MFI and depended on the type of asset being financed. In general, the terms and conditions of these loans should be set to reflect the income-generation potential of the asset being financed (loans for household repairs, for example, might have more lenient terms than a loan for chickens that will immediately begin producing additional income) and a households' capacity to repay, given the damage done by the disaster. BRAC's reconstruction loan program, for example, provides loans only for income-generating assets. Consequently, the terms are set at one year with a flat interest rate of 15 percent. Loan disbursement is in-kind as BRAC provides borrowers with replacement assets such as seeds, poultry, livestock, or saplings.

It is important to note that although some MFIs choose to provide additional loans to assist clients in disaster recovery, others do not. The Bangladeshi evidence suggests that MFIs can maintain and grow their post-flood portfolio without offering products beyond their standard loan products. Neither ASA nor SafeSave provided any new or add-on loans, beyond their standard products, after the flood, and both have maintained solid repayment rates and continued to grow their respective client bases. In ASA's case, it decided not to offer asset replacement loans because of its experience with loans of this type. After previous floods, ASA clients who received asset replacement loans had required three or four "top-up" loans so that they could finally repay the initial post-disaster asset replacement loan. In addition, the Grameen Bank has found that, in many cases, clients change their income-generating activity after a flood, suggesting that replacing assets used in the activity pursued before a disaster may be of little use to the client post-disaster, although asset purchases may still be required for the new venture.

Client Issues

Because clients are already making repayments on their pre-flood loans and may be repaying relief loans taken during the disaster, there is some question as to whether many clients will be able to take on the burden of an additional loan. MFIs choosing to offer asset-replacement loans must be cautious in selecting potential borrowers to guard against overwhelming clients

²¹ For further detail on the workings of disaster loan funds, please see the MBP paper "Disaster Loan Funds for Microfinance Institutions: A Look at Emerging Experience." Geetha Nagarajan and Warren Brown. (Forthcoming)

with debt just as they are struggling to recover from a disaster. One example of an MFI guarding against this is BURO Tangail, which limits the amount of recovery loans made available based on clients' current debt levels. Clients with only a few payments remaining on their current loan are eligible for a new loan, while those with more than half of their current loan outstanding may only be eligible to receive a top-up loan to the original disbursement amount.

Impact on MFIs

As with relief loans, few MFIs have extra capital available to fund recovery loans. BRAC, for example, delayed implementation of its reconstruction loan program until April 2000, nearly two years after the flood, because it was waiting to receive approval for a new grant from a foreign donor. In addition, if MFIs provide in-kind loans, their loan delivery costs will increase because they will need to coordinate the purchase, transport, and delivery of the new assets to the client. For smaller MFIs, adding new loan products with potentially different terms and conditions also may increase administrative and tracking costs.

SUMMARY ON LOAN PRODUCTS

Loans certainly can play an important role in reducing the negative effects of disasters. Their impact, however, is limited by the ability of clients to make repayments on an increasing number of loans and the ability of MFIs to source the funds required to make the loans.

In countries like Bangladesh, where the type and approximate timing of disasters are reasonably well known, MFIs can adapt the terms of existing loans or offer loss-prevention loans like the boat and shelter loans described earlier. Investing in these pre-disaster loans can reduce the magnitude of MFI's disaster-induced liquidity crises and reduce the time required for post-flood reconstruction.

The terms and conditions on which relief loans are offered will depend largely on the availability of funds and the objectives of each MFI. The experiences of Bangladeshi MFIs in 1998 suggest that the interest rate charged on relief loans may not have as strong an impact on repayment rates as is often claimed. MFIs offered relief loans interest-free (e.g., BRAC) or at fully commercial rates (e.g., ASA), yet both experienced strong repayment rates on the relief loans and little negative impact on their regular loan portfolio.

The value of reconstruction loans depends significantly on the extent to which clients and MFIs have relied on loans to cope with prior disaster stages. If clients are already burdened with significant debts from the relief phase, they may not be able to repay an additional loan.

The experiences of Bangladeshi MFIs also highlight several questions regarding loans as a disaster product, including:

- What factors influence whether clients decide to use loans or other financial or non-financial coping mechanisms in disasters?
- How successful have MMS's and SKS's preventative community loans been? What is the potential for applying this principle more broadly?
- To what extent do preventative loans reduce a household's potential losses in a disaster? Is there potential for preventative loans to play a role in environments not faced by the regular threat of a known disaster?

CHAPTER FIVE INSURANCE PRODUCTS

In addition to their portfolio of credit and savings products, a growing number of MFIs are experimenting with a variety of insurance products for their clients. As the number of MFIs entering this new product area grows, two questions come to the fore:

- Can insurance products be designed to protect clients against disaster-related losses?
- How will disasters affect the insurance schemes that are being developed by many MFIs but that are not intended for disaster conditions?

This chapter tries to address these questions from a theoretical perspective with a few examples from the experiences of the few Bangladeshi MFIs that were offering insurance during the 1998 floods.

INSURANCE PROTECTION AGAINST DISASTER-RELATED LOSSES

None of the MFIs interviewed for this report has developed or is considering developing insurance products to protect clients specifically against disaster-related losses. Although insurance against property damage or death caused by a disaster can technically be designed—as evinced by the availability of these products in many developed countries—there are several reasons why disaster insurance is beyond the capacity of most MFIs to provide:

- *Achieving Scale.* For any insurance product to be sustainable, the likelihood that a large portion of policyholders will be affected at the same time needs to be near zero. For smaller MFIs whose clients are mostly located within a relatively small geographic area, the likelihood that a single disaster might affect a significant portion of their clients is quite high. Larger MFIs with a national presence will be less affected by this limitation.
- *Controlling Moral Hazard.* Insurance providers need to be able to limit policyholders' ability to influence whether a loss occurs. Especially for disaster-related property insurance, MFIs would have little or no ability to verify whether disaster-related losses are legitimate or whether, for example, policyholders could have tried harder to prevent an insured cow from being swept away in the flood.
- *Providing Affordable Premiums.* As the likelihood that a risk will occur increases, the premiums required to insure against losses related to that risk increase. Premiums on insurance coverage against floods in Bangladesh, for example, would likely have to be much greater than most MFI clients could afford because of the frequency of serious flooding. For MFIs in less disaster-prone areas, the required premiums would be lower,

but clients' need for protection and willingness to allocate a portion of hard-earned income to insurance premiums also would decrease.

- *Premium Setting Process.* The calculations required to determine adequate premiums for a disaster-related insurance product would likely require greater technical skill than most MFIs have available. Calculation of reasonable "likelihoods", "frequencies," or "severities" of disasters typically requires actuarial knowledge not usually accessible by MFIs.

For all of these reasons, developing disaster-specific insurance is likely beyond the capacity of most MFIs.

IMPACT OF DISASTERS ON EXISTING INSURANCE SCHEMES

Several Bangladeshi MFIs had established either a life, health, or property insurance scheme for some portion of their clients before the 1998 flood. These products were not specifically designed to protect against flood-related losses, but the flood would have had an impact on the financial health of these programs. The life insurance programs were not severely affected because, thanks to a collaborative education and relief effort, only 918 people died during the floods. Among the providers of health insurance, an assessment of the impact of the flood was not possible because either their area of operations was only mildly affected by the floods (Gonoshasthya Kendra) or the data were unavailable (Grameen Bank). Grameen's livestock insurance program was not affected because coverage is regularly stopped during the rainy season.

In general, MFIs offering insurance to clients in highly disaster-prone areas might consider either (1) using increased premiums to generate larger reserves against disaster-induced increases in claims or (2) excluding disaster-related losses from the risks covered under their insurance policy. However, further experience is needed to understand how these microinsurance schemes will be affected by disasters and how best MFIs can deal with this impact, keeping in mind both their own needs and those of their clients.

CHAPTER SIX PRODUCT DELIVERY

Separate from the products themselves, MFIs need to consider how they will provide access to their products in a disaster. Although there is no single best approach, the experiences of Bangladeshi MFIs in coping with frequent floods, cyclones, and other disasters do suggest several guiding principles or lessons for delivering products in disasters:

- *Customize Responses.* Historically, many Bangladeshi MFIs responded to disasters by adopting a single, “blanket” policy (on loan rescheduling or access to savings, for example) for all clients in a disaster-affected area. Despite the relative administrative simplicity of this response, evidence from the 1998 floods suggests that both clients and MFIs may be better off if MFIs take the time to customize their response to individual clients and groups. As the floodwaters rose, some clients wanted to make a lump-sum repayment to liquidate their outstanding loan, others asked for loans to be rescheduled, and still others wanted to continue making regular repayments. Clients’ needs vary from individual to individual and at different points in time during the disaster. If MFIs develop a customized response, they can ensure that their limited supply of funds goes to those who most need it.
- *Empower Local Staff.* MFI local field staff play a crucial role in developing and implementing customized responses quickly. Virtually all of the MFIs interviewed relied on local staff to (1) conduct rapid assessments of the extent of damages, (2) determine where and when loan rescheduling was required, and (3) identify recipients for relief loans. To ensure that field staff are better able to perform these tasks in future disasters, many MFIs—including BRAC, BURO Tangail, and Proshika—are developing disaster-specific training programs for their organizers and collectors.
- *Maintain Regular Contact with Clients.* Even in areas where MFIs stopped operations during the flood, field workers continued to visit clients on a regular basis. Some ASA field workers increased the frequency of their visits to highly flood-affected groups from weekly to every other day. Where field workers were able to disburse relief loans, provide savings withdrawals, or provide relief goods, regular visits allowed clients to more appropriately match withdrawals and borrowings with their changing needs. Even when field workers could not provide any loans, withdrawals, or goods, clients seemed to appreciate the sense of security provided by regular visits.
- *Give Clients Options.* The effect of a disaster on clients is not consistent. Different clients have different preferences regarding how to deal with the situation. Recognizing this fact, several MFIs gave clients different options for coping with the situation. ASA allowed group members to decide when to suspend operations. Throughout the flood period, it gave them the option to take a relief loan or withdraw from their savings if they needed cash. As Table 7 indicates, clients chose different options at different times during the flood.

Table 7: Savings Withdrawals and Flood Loan Disbursals at ASA's Narsingji Branch during the Flood

	Savings Withdrawals		Relief Loans Disbursed	
	Number	Total Amount	Number	Total Amount
Sept. 1998	193	US\$2,340	0	0
Oct. 1998	108	US\$2,100	180	US\$3,600
Nov. 1998	108	US\$2,490	228	US\$4,900
Dec. 1998	53	US\$1,090	179	US\$3,900
Total Affected Clients: 554				

- Protect Client Records and Information.* Unexpected disaster-related damage to or loss of client files, account balances, or other important information can severely limit an MFI's ability to provide any of the products discussed in this report. Without accurate information on savings balances, how can an MFI allow withdrawals? Without information on loans outstanding, how can an MFI consider rescheduling or offering new loans? Keeping computerized records and safely stored back-up copies of these records can reduce the risk of this occurring.

CHAPTER SEVEN CONCLUSIONS

The range of products and product adaptations used by Bangladeshi MFIs to manage flood situations makes clear that there is no one product or set of products that all MFIs can use to fully cope with disasters. From a client perspective, the examples presented illustrate that disasters affect different clients in different ways and even those who suffer similar losses may have different priorities in how they choose to cope with these losses. From the MFI perspective, voluntary savings, pre-disaster asset loans, relief loans, and other products seem to provide some benefit to both clients and MFIs themselves. This plurality of possible approaches raises questions of how MFIs can determine which products to offer? Are they better off to focus on developing pre-disaster, preparedness products or to wait until disaster strikes and have products ready to offer for relief and reconstruction? And, how do the appropriate products and services change depending on the type of disaster and specific situation of a given MFI?

Although there may be no universal answers to these questions, the experiences described in this report do highlight at least three factors that MFIs can consider in determining how to adjust their product portfolios to cope with rapid-onset disasters.

- *Client Preferences.* The experiences of MFIs like ASA and BURO Tangail that gave their clients options in how they coped through the relief phase of the floods clarify that client preferences will vary—and not always in the most intuitive fashion. In addition, the involvement of clients in suggesting and developing the shelter-loans provided by SKS and MMS suggest that, in many cases, clients themselves can be an important source of ideas for potential disaster-management products. Involving clients in the product-development process should help MFIs in defining which products to develop and in refining the details of both new and existing products.
- *Degree of Disaster Exposure.* The extent to which MFIs operate in highly disaster-prone areas also affects the types of disaster-management products they develop. MFIs in such areas have strong motivations to adjust their existing products to reduce clients' potential disaster-related losses and to develop risk-reducing products, such as the boat and shelter loans described earlier. MFIs that do not take some preventative action within their product portfolio are virtually guaranteeing the need for donor assistance when disaster strikes. In contrast, MFIs operating in areas less exposed to frequent disasters or exposed to less predictable disasters, such as earthquakes, likely have little justification for taking many pre-disaster product initiatives.
- *Size of Institution.* In general, smaller MFIs are more likely to be severely affected by a disaster. Larger institutions can transfer funds internally, as ASA did in 1998, from unaffected areas to affected areas to help reduce the liquidity crises experienced by these branches. Smaller MFIs do not have a similar safety mechanism. If a substantial portion of their clients is affected by a disaster, these MFIs have little ability to internally

generate the additional funds needed to offer products such as relief or reconstruction loans. It is this difficulty that, at least in part, has motivated the call for the creation of disaster loan funds that can loan MFIs additional funds when they are affected by a disaster.

Regardless of the size of the MFI or their relative exposure to disasters, evidence from Bangladesh strongly suggests that it is in the best interests of both clients and MFIs to investigate ways to overcome the regulatory and operational barriers to offering voluntary savings. Voluntary savings allow clients to protect themselves, at least in part, against disasters and, at the same time, may have a positive financial impact on MFI operations.

OUTSTANDING ISSUES

The experiences described in this report provide new insights into the range of options available to MFIs in adapting their portfolio of products to manage rapid-onset disasters and provide an indication of the impact of various options on both clients and MFIs. However, there are many issues and questions that require further investigation and experimentation. In particular, it is worth highlighting the following questions:

- What basic disaster preparedness measures should all MFIs undertake? How does this vary for MFIs in highly disaster-prone areas, like Bangladesh, versus those in low risk areas?
- How much emphasis should MFIs place on preparedness versus relief versus reconstruction products in different situations? Clearly, greater emphasis on the former reduces the need for the latter two, but how do the location of an MFI and the type of disaster affect their ability to economically justify investments in preparedness?
- What combination of savings, loans, and insurance will offer the most appropriate and most complete protection against different disasters?
- To what extent can clients with access to an appropriate range of savings products use savings to protect themselves against disaster-related losses?
- What role can disaster loan funds play in expanding the options available to MFIs when disaster strikes?
- How do changes in the terms of relief and reconstruction loans affect the ability of clients to survive and recover from disasters?
- For larger MFIs, can economically feasible insurance coverage be designed to protect clients against specific disaster-related losses? Is this how clients would prefer to protect against these losses?

- To what extent can MFIs offer disaster products to non-clients as well as clients following a disaster? What types of products are most appropriate? What are the risks and benefits involved?

It is inevitable that MFIs and their clients will continue to be severely affected by disasters. Consequently, practitioners and especially donors should be aware of the relative exposure to disaster of their MFIs and consider how MFI product portfolios can be adapted or broadened to minimize the potential losses associated with catastrophic events.

ANNEX A
LIST OF INTERVIEWS

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1. **Actionaid Bangladesh.** Nayeem, *Disaster Management Forum*. nayeem@aab.agni.com
2. **Association of Development Agencies in Bangladesh (ADAB).** Syed Mosaddeque Hossain. *Sr. Program Officer Disaster Preparedness and Management Program*. 1/3 Block F, Lalmatia, Dhaka, Bangladesh 1207. Adab@bdonline.com
3. **Association for Social Advancement (ASA).** Sushil Roy, *General Manager (Programs)*; Ranesh Acharjee, *General Manager (Finance)*; Md. Azim Hossain, *Deputy General Manager (RLF & MIS)*; Chowdhury Showkat Ahmed, *Divisional Manager*; Rayhan Ahmed, *Regional Manager*; Various collectors and clients at Narsingji branch. 23/3 Khilji Road, Shyamoli, Dhaka, Bangladesh 1207 asa@bd.drik.net
4. **Bangladesh Bank.** Md. Shajahan, *Fund Manager, Grihayan Tahabil*. Bangladesh Bank Main Building (6th Floor), Dhaka, Bangladesh 1000.
5. **Bangladeshi Institute for Development Studies (BIDS).** Sajjad Zohir, *Senior Research Fellow*. Zohir@bdonline.com
6. **Bangladeshi Rural Advancement Committee (BRAC).** S. N. Kairy, *Chief Accountant*; Syed Masud Ahmed, *Senior Medical Officer (Research)*. BRAC Centre, 75 Mohakhali C/A. Dhaka, Bangladesh. 1212. Bracamr@bdmail.net
7. **BURO Tangail.** Mosharrof Hossain, *Finance Director*; Sirajul Islam, *program director*; Zakir Hossain, *Executive Director*; Several branch managers, village development workers and clients in the field. Bapari Para, Bazitpur Road, Tangail Bangladesh 1900. Bt@bdmail.net
8. **CARE Bangladesh.** Carlos Ani, *Sector Coordinator, SEAD Sector*; Md. Harun-Or-Rashid, *Assistant Coordinator*; Pranesh C. Banik, *Program Development Officer*. House 60, Road7a, Dhanmondi R/A, Dhaka, Bangladesh 1209. Carebang@bangla.net
9. **Credit and Development Forum.** Zakir Hussein, *Executive Director*. S. M. Rahman, *Director*. House # 9/2, Block # D, Lalmatia, Dhaka, Bangladesh 1207. Cdf@bdmail.net
10. **Grameen Bank.** Dipal Barua, *General Manager*. Grameen Bank Complex, Mirpur 2, Dhaka, Bangladesh 1216. Dipal@grameen.com
11. **Morning Star Family Welfare Centre—World Vision of Bangladesh.** Alphonse Gomes, *Project Manager*. House 16, Road 27, Dhanmondi, P.O. Box No. 5024, Dhaka, Bangladesh 1205.
12. **Oxfam Bangladesh.** Anamul Haque. *Program Manager*. House 157, Road 12, Block E, Banani, Dhaka, Bangladesh 1213. Anamul@bdmail.net

13. **Palli Karma-Sahayak Foundation (PKSF)**. Salehuddin Ahmed, *Managing Director*; Md. Fazlul Kader, *Deputy General Manager*. House #31/A Road #8, Dhanmondi R/A, Dhaka, Bangladesh 1205. Pksf@citechco.net
14. **Proshika**. Syed Giasuddin Ahmed. *Director*. 1/1-GA Section-2, Mirpur, Dhaka, Bangladesh 1216. Proshika@bdonline.com
15. **SafeSave**. S. K. Sinha, *Secretary*. House 132, Road 1KA Syamoly, Dhaka, Bangladesh 1207. Safesave@aol.com
16. **Sonali Bank**. Md. Abdul Awal. *Assistant Director, Rural Credit Division*. Sonali Bank Head Office, Dhaka, Bangladesh. Tel: 880 2 955 0483
17. **South Asian Network of Microfinance Initiatives (SANMFI)**. Huda, *Managing Director*; Emrul Hasan, *Training Coordinator*. Sanmfi@bangla.net

ANNEX B
BIBLIOGRAPHY

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