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Mitigating the Impact of a Natural Disaster In Your MFI

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Natural disasters tend to intensify both sides of the dual challenge faced by a microfinance institution already: helping its clients break out of poverty while maintaining its own financial sustainability. All at once, the critical need for microfinance may be greater than ever, but the pitfalls and difficulties in providing it rise suddenly as well.

Although the poor and non-poor alike can be hit by natural disasters, with their property, health, livelihoods and even their lives put in danger, research shows that the poor are more vulnerable than the average population and tend to suffer greater loss in relative terms. Microfinance, however, can serve as an effective tool for reducing the vulnerability of poor clients to such shocks. The experience of several MFIs in disaster-prone areas has demonstrated that microfinance lessens the adverse impact on the poor by providing critically needed cash for basic necessities.

Unfortunately, at the same time, an MFI's portfolio quality and liquidity are likely to deteriorate in the aftermath of such crises. Clients' repayment capacities tend to decline and the MFI usually faces increases in the costs of maintaining services. Providing microfinance services during and after a crisis is only possible if an MFI has planned for it. If unprepared, MFIs – just like their clients – find themselves struggling to survive.

The necessary preparation is a three-step process: assessing the risk and potential impact of disasters in a given area; taking steps to protect the loan portfolio; and preparing the institution's management systems, including administrative procedures, information management and liquidity management.

Figure One

1. Know the context where you operate: assess disaster risk.
2. Design products to help clients mitigate and cope with crisis.
3. Develop, test and modify administrative and information systems and prepare for liquidity needs.

Assessing Risk and Impact

Not all disasters are unexpected. In fact, MFIs can research the potential for disaster using data and reports from local authorities or from NGOs, such as the Red Cross. An MFI should look for information on what kinds of disasters have affected its working area in the past, their causes, the frequency and rate at which they occurred and the level of damage inflicted. Such an assessment helps determine which branch offices are at high risk and what impact might be expected on a region's communications, infrastructure, crops and other economic sectors. Disaster warning and emergency response systems are often in place with local governments. Monitoring these systems can help an MFI increase its preparedness.

Protecting the Portfolio

The next consideration, how to protect an institution's portfolio, can be approached with two distinct strategies; both are important and they can be used in combination. The first is to design and offer products that, long before a disaster hits, enhance clients' ability to cope with potential disasters. This "mitigation" strategy would include financial services that reduce vulnerability in advance. The second strategy involves offering emergency products in the immediate aftermath of a disaster.

As with any financial products, the effective design of either mitigation or emergency products requires market research. MicroSave Africa has developed a variety of tools to assist MFIs in understanding clients' needs. Some of these tools - including "Seasonality," "Life-cycle," "Time Series of Crisis" and "Time Series of Asset Acquisition and Ownership" – help reveal how clients cope with crises. This can help MFIs develop products that reinforce the strategies their clients are already using to manage crises.

Figure Two

Caisses d'Épargne et de Crédit Agricole Mutuel (CECAM) has developed a product to help farmers in Madagascar obtain agricultural equipment, livestock, equipment for rural craftspeople and domestic equipment such as sewing machines and solar lighting units. To obtain a lease on a specific piece of equipment, the client must have the capacity to make a down payment that is equal to 25 percent of the equipment's total value. The client pays the remaining 75 percent of the price in periodic payments, plus annual interest of 30 percent. The payment schedule depends on the client's production cycle. CECAM retains ownership of the equipment until final payment, after which time it legally transfers ownership to the client (Bass and Henderson, 2000).

Figure Three

In Haiti, the **Fondasyon Kole Zepol (FONKOZE)**, a Haitian microfinance organization, has entered the remittance market by developing a partnership with the City National Bank of New Jersey (CNB) to offer a safe, inexpensive, secure and legal way for Haitians living abroad and other friends of Haiti to send dollars back to FONKOZE's clients in Haiti (Ayiti Direk Direk, 2001).

Such research helps MFIs tailor products to fit the existing coping strategies of their clients. If clients are vulnerable to losing homes or other structures because they are not sound enough to weather potential storms, an effective mitigation product could offer housing

finance with partner companies to make disaster-resistant home improvements. If clients have sufficiently sturdy houses but typically have to sell off assets like machinery to cope with crises, an MFI might offer a machine-leasing product, to help clients build their asset base (see Figure Two).

If clients depend on savings, a voluntary savings product may assist them. Or, if clients depend on relatives living abroad, money transfer services may be the best product (see Figure Three).

Clearly, the best time to develop such products is not in the midst of a natural disaster, or in its aftermath, but in advance; and to the extent that an MFI understands its clients, it can prepare products that support the most relevant disaster-coping strategies.

Emergency products and policies should also be conceptualized and developed well before a disaster strikes. These temporary tools, ready for use in the event of a disaster, are aimed both at helping clients and at minimizing an MFI's vulnerability to loan losses (see examples in Figure Five).

Figure Four

After Hurricane Mitch in Nicaragua, **Pro-Mujer** refinanced its clients, determining loan terms based on client needs, capacity to repay and repayment history (Pro-Mujer, 1999). To assess these variables, Pro-Mujer sent trainers to work closely with established community banks (Pantoria, 2002).

All emergency response products – and emergency policies – must include clear criteria governing (i) when they are to be used, (ii) who is to authorize their use, (iii) how staff are informed, (iv) how clients are informed and (v) who determines that the emergency has ended. Criteria must also be clear regarding (vi) which clients are eligible (rarely do all clients lose the capacity to repay). As with all policies, staff and clients should have full information and staff should be practiced and ready to roll out programs if a disaster is declared.

Preparing to Manage through a Disaster

To prepare administrative procedures, safeguard information management systems and plan how to overcome a possible liquidity crunch, an MFI must determine how a disaster could affect its infrastructure, equipment, staff, communications, access to clients and access to funds – and then develop appropriate policies in advance.



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Administrative Procedures:

A simple first step is to give a designated staff member the responsibility to keep the institution informed of potential disasters, by monitoring the disaster warning systems that are identified when the MFI initially assesses its disaster risk.

Figure Five**Emergency Response Products and Policies**

- *Moratorium on lending:* Stop lending during disaster warnings to minimize high-risk loans. If disaster occurs, fewer clients will have large balances to repay. Should be used only for serious potential crises. Frequent use hurts client satisfaction.
- *Restructuring:* Alter loan terms after a natural disaster to facilitate repayment. This often implies longer time periods and ideally interest will still be collected. New terms should be clear. This is the most common response.
- *Switching from group to individual liability:* Disbursing new loans to group members who have fully paid loans, even if the group as a whole has yet to pay its loan in full. Temporary, after a disaster. This has had mixed results.
- *Emergency loans:* Offer to clients in good standing, immediately after a disaster - small amount with short repayment. This is typically successful.
- *Allowing withdrawal of forced savings:* Allow such withdrawal immediately after a disaster, for a temporary time; to be repaid. This can create a liquidity crunch. Has had mixed results.

Second, an MFI must ensure its staff's own security. This includes developing an evacuation plan and training staff in its implementation. Depending on its capacity, an MFI may also consider health insurance and life and/or property insurance for staff in the event of a natural disaster. At a minimum, the institution needs a clear policy on how staff will be contacted, paid and assisted if they are harmed by a disaster.

Other basic preparations include measures to ensure that infrastructure and equipment will survive a potential storm or other disaster. Preparations will vary for different type of disaster risks. For example, MFIs in flood zones should have a location above the ground floor to store equipment in an emergency; hurricane areas require construction that can withstand high winds, and access to a basement. Equipment may be protected with the installation of fire-proof or water-proof cabinets. Disaster insurance, covering either facilities or equipment, or both, may be in order. Policies should be put in place (and staff trained) for the evacuation or storage of equipment and vehicles,

and an MFI should also ensure the security of keys to its offices and to its safe, if it has one, planning where and with whom the keys will be kept in the event of evacuation.

Finally, a communications plan should be set for the possibility that telephone, postal or roadway communications are cut off. This may entail identifying institutions (such as governments or hospitals) with radio or satellite equipment and initiating an agreement to be able to use them in times of crisis. Alternative routes to reach clients should also be developed by loan officers, in case main roadways become inaccessible.

For all of these emergency steps, policies must be clear with respect to what constitutes a natural disaster, who determines whether a disaster plan is implemented, how the determination is communicated to staff and at what stage the policy becomes active. Since these policies are not used on a day-to-day basis, occasional practice or training is recommended to make sure that staff are ready to implement them.

Information System Reinforcement:

MFIs should ensure that their management information systems (MIS) can still function in adverse conditions. Portfolio and financial reports should be up to date and maintained with accuracy. If an MFI struggles with keeping updated information in normal times, it will become overwhelmed in a disaster. In a crisis, information will be key to determining what can be offered, when it can be offered and to whom.

Additionally, policies for data back-up should exist. The safe-keeping of these back-ups becomes vital in case of a disaster. To the extent possible, hard and soft copies of information should be kept in secure locations. Many MFIs have all branch data backed up at the head office. Having data in two locations also minimizes risk of loss to disaster.

MFIs sometimes find that their MIS is not flexible enough for their needs in times of disaster; their systems operators can become overwhelmed. If an MFI wishes to introduce emergency products, or adapt its regular products, its MIS must be able to track these changes, whether manually or in an automated fashion. Emergency products often demand more flexible payments, such as periods where only interest is paid, or cases in which multiple loans to a single client are outstanding.

As an MFI develops emergency loan products, it must ensure that it has adequate systems to manage them.



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All system operators should be familiar with the methods for recording emergency product transactions before a crisis occurs. It is also useful to cross-train non-MIS staff so that they can assist in accounting and portfolio recording, in the event of a natural disaster, when activity increases or resumes.

Figure Six Management Information Systems Considerations

Many security controls could be breached in the event of a disaster situation and policies should address each of the following:

- Data integrity, protection and safety
- Virus protection for networks, applications and databases
- Authorized internal-user access controls
- Authentication of customers and 3rd-party agents (external users)
- Network and server up-time
- Confidentiality of information.

Some technology options to assist in disaster contingencies:

- Replication solutions, e.g., storage mirroring applications
- Back-up and recovery applications
- Disaster recovery solutions
- Archiving solutions
- User administration capabilities
- Biometrics, PINs, passwords
- Encryption technologies for data transmissions.

As part of developing the above technology tools, MFIs should consider business-continuity elements, such as:

- Network, server, application, and connectivity reliability
- Operational, reputational and legal risk mitigation strategies for security breaches or system failures
- Customer privacy
- Partner, alliance, or 3rd-party relationships with vendors and service providers (i.e., outsourcing).

Liquidity Management:

Finally, liquidity management becomes extremely important during a natural disaster, as increased demand for loans and demand for savings withdrawals coincide with clients' decreased capacity to repay. MFIs must have a plan to manage changing liquidity needs.

To do this, they should identify all potential sources of liquidity, such as retained earnings, savings, grants, required cash reserves, overdraft facilities, funds committed to new loan outlays, negotiated late payments on recurrent costs, sale or lease of fixed assets, bond issues, or sales of loan portfolio to other lenders with a "discount." They could also investigate

whether any donors or relevant governments have created funds that can be accessed in times of crisis, to assist with liquidity. After determining which of these sources may be sufficient and most easily accessed during a disaster, the MFI can start negotiations before a disaster hits, thus maximizing the speed of response when dire events occur.

Figure Seven

ACODEP in Nicaragua has developed a comprehensive disaster-preparedness plan that includes modifications in the delivery of their products and services during a disaster, as well as the introduction of emergency and recovery products. In addition to a flexible credit policy for disaster emergency and recovery, ACODEP created a disaster loan fund to help the institution prepare for possible cash-flow demands and to control credit and liquidity risks. The MFI stops collecting payments during the emergency period, allows clients to withdraw compulsory savings deposits (which are used normally as collateral), stops normal lending, and, on the basis of a field damage assessment, prepares loan restructuring and refinancing plans. In addition, it offers short-term loans of 1 or 2 months with special interest rates in cases of severe emergencies for household needs. ACODEP loans are restructured when clients lose their homes, but not their productive assets. Loans are also restructured for those clients that are severely injured. Loans may be refinanced when productive assets are completely lost (Pantoja, 2002).

Planning for a crisis requires commitment and resources on the part of an MFI. But failure to plan can turn out to be a terrible mistake. Steps taken in advance can prove vital for the institution and its clients, if and when disaster strikes.

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