



REPORT

BUILDING RESILIENCY THROUGH DISASTER RISK REDUCTION: AN ASSESSMENT OF INDIA'S MICROFINANCE SECTOR

MARCH 2017



Citi Foundation



Table of Contents

Executive Summary	
Background	4
Research Design	5
Key Findings and Opportunities for Positive Change	5
Recommendations	6
Introduction	
Rationale	7
Objectives	7
Scope of the Study	7
Research Design	
Provider-level Disaster Risk Mapping: MFI Practices Around Disaster Risk Reduction	8
Client-Level Disaster Risk Assessment	8
Assessing and Documenting Gaps and Promising Practices Through Various Institutional Perspectives on Disaster Risk Reduction	8
Sampling and Selection	9
Literature Review	
Definitions	10
Legal Regulatory Framework	10
Literature Review for South East Asia	12
Primary Data Collection	
MFIs	
Profile of Organization	14
Understanding About Disaster and DRR Practices	14
Products and Services	14
NGOs and NGO-MFIs	
Profile of Organizations	16
Understanding About Disaster and DRR Practices	16
Stakeholder Analysis	16
Role of Technology in DRR	18
Stakeholder Mapping and Collaboration in DRR	19
Key Findings and Opportunities for Positive Change	
Risk Events and Categorization	21
Current Practices	22
Risk Mitigation and Resilience	22
Product Innovation	23
Technology Utilization Case Study	23
Recommendations	24
Appendixes	
Appendix I: Major Disasters in India in the Last Five Years	26
Appendix II: List of Organizations Interviewed for the Study	27
Appendix III: Disaster Management Cycle—MFI Sector	28
Appendix IV: DRR Assessment	29
Appendix V: Case Study	30
Introduction	30
Role of MFIs	30
Role of NGOs	31
Role of the Government	31

▼ Acronyms

CB-FEWS	Community Based Flood Early-Warning System
CBFM	Community Based Flood Management
CBRN	Chemical, Biological, Radioactive and Nuclear (Disasters)
CRC	Central Relief Commissioner
CSR	Corporate Social Responsibility
CCS	Cabinet Committee on Security
DC	District Commissioner
DDMA	District Disaster Management Authority
DM	Disaster Management
DM Act 2005	Disaster Management Act, 2005
DMT	Disaster Management Team
DR	Disaster Risk
DRR	Disaster Risk Reduction
FDRM	Financial Disaster Risk Management
FGDs	Focus Group Discussions
HFHI	Habitat for Humanity India
IFMR	Institute for Financial Management and Research
IMD	India Meteorological Department
MFI	Microfinance Institution
MFIN	Microfinance Institutions Network
MHA	Ministry of Home Affairs
MHT	Mahila Housing SEWA Trust
NCDM	National Committee on Disaster Management
NDMA	National Disaster Management Authority
NDMP	National Disaster Management Plan
NDRF	National Disaster Response Force
NGO	Non-governmental Organization
PRIs	Panchayati Raj Institutions
RBI	Reserve Bank of India
SDMA	State Disaster Management Authority
SDRF	State Disaster Response Force
SEC	State Executive Committee
UNDP	United Nations Development Programme
VDP	Village Defense Party



MFIs have both a responsibility and a vested interest in addressing the issue of disaster management to ensure their own institutional sustainability, as well as the resiliency of their clients.

EXECUTIVE SUMMARY

Background

The frequency and impact of disasters across the globe have grown exponentially over the past several decades. In the past 20 years, 90 percent of major disasters have been caused by 6,457 recorded floods, storms, heat waves, droughts and other weather events. India is among the top five countries hit by the highest number of disasters, along with the United States and China¹. Beyond the immediate physical devastation of disasters, there are long-term negative social and economic consequences, particularly for vulnerable communities that are the most severely affected. Along with this India is also exposed to multiple social, and political disaster situations because of its vulnerability to complex communal and religious dynamics. In the past, there have been many large scale riots where thousands have lost their lives but very little has been done to manage such situations at the national level. While the initial humanitarian and emergency response to crisis is crucial, there is a growing recognition of the value of disaster risk reduction (DRR) strategies in preparing for, and thus reducing, economic and social losses associated with disasters. This is especially true for developing countries where poverty is a fundamental cause of vulnerability.

Microfinance institutions (MFIs) largely cater to poor and near-poor populations. These populations are also highly vulnerable to external shocks, putting them at greater risk when disaster strikes. At the same time, many MFIs in India operate in communities and regions that are hit by predictable disasters year after year. Others work in more stable, yet disaster-prone, areas. Disasters hinder the ability

of microfinance clients to repay loans efficiently by impacting their livelihood and productive assets. Given the demographic section they serve, MFIs have both a responsibility and a vested interest in addressing the issue of disaster management to ensure their own institutional sustainability, as well as the resiliency of their clients. Through resiliency products, greater awareness of client needs and internal risk management procedures, MFIs can play a key role in continuing to support populations most affected by disasters. Promoting such activities would not only increase the ability of poor households to cope with different kinds of crises, but also, in turn, protect the MFIs' portfolios.

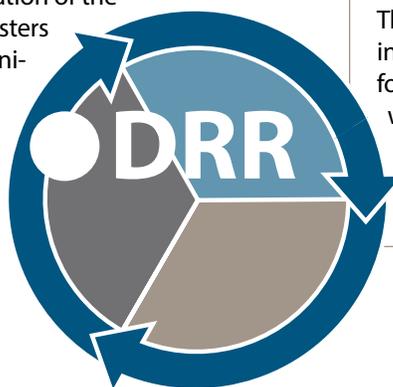
Greater preparedness will require MFIs to participate in all phases of DRR, from pre-disaster to post-disaster management. Within the phases of disaster planning and response, a number of opportunities for collaboration exist between MFIs and state-sponsored disaster management agencies. These include contributions to disaster management plans, risk mapping, communication of early warnings, mutual awareness-raising, disaster relief and disaster assessments. At the same time, MFIs can take clear operational steps that include developing contingency plans, training staff and developing risk-reducing products for clients. In emergency situations, MFIs can also contribute to overall relief efforts through partnerships with humanitarian agencies or through their own relief efforts, based on the financial and economic needs of existing clients.

¹ United Nations International Strategy for Disaster Reduction (UNISDR), 2015, "The Human Cost of Weather Related Disasters 1995–2015," <https://www.unisdr.org/we/inform/publications/46796>.

Research Design

This study was undertaken as part of the SEEP Disaster Risk Reduction Project, financed by the Citi Foundation. The objective of the study was to understand the existing DRR practices of MFIs in the Indian market and to map out the disaster-related vulnerabilities of clients affected by crisis in order to assess gaps for more effective disaster preparedness. The pan-India study was conducted using primary and secondary data. Desk research was undertaken to understand the global and Indian disaster risk management context and the MFI sector's role in disaster management practices. Secondary data was also used to select the geographical locations for the study, isolating areas where high- and medium-impact disasters have taken place in India over the last five years. To keep the study representative of India's overall disaster management initiatives, in-depth interviews were conducted with 15 MFIs and NGO-MFIs of varying size and reach from different parts of the country.² Based on the information about the microfinance market that was reported and collected in this study, the organizations interviewed cover approximately 32 percent of the customer base.³

Interviews followed the disaster management cycle—which consists of three phases: pre-disaster management, disaster occurrence management, and post-disaster management—to understand the roles that MFIs, NGO-MFIs and government play in the disaster management process. In addition to mapping MFI Roles to DRR, the study also mapped disaster-related vulnerabilities through a client assessment. A focus group discussion (FGD) was conducted in Deheri village, in the Dhemaji district of Assam, which is one of the worst disaster-hit areas of Assam. Located at a confluence of rivers, with the mighty Brahmaputra River flanking the district and its numerous tributaries running through it, the region is perennially affected by floods. Conducting a case study in this region allowed for an exploration of the vulnerabilities of individuals to disasters and helped to identify key opportunities for building the resilience of MFIs, their clients and the community at large in the face of recurring crisis.



Key Findings and Opportunities for Positive Change

The study found that the Indian microfinance sector is in a very nascent stage of development with regard to disaster risk reduction. Though MFIs have the potential to play a significant support role, in general there is very little awareness and knowledge of disaster management and planning practices, and hence no organizational policy or protocol is in place for DRR. Currently, MFIs offer only limited support during the response and recovery phases. There are few innovative financial products and services in the MFI sector in general, and limited use of emergency loans (small-value, pre-approved loans), microinsurance or agent networks. MFIs do, however, capture client risk exposure at the loan application stage, and many use technology platforms to collect real-time data on cash collection and loan disbursements. There is an opportunity for the information collected in the application stage to be used to identify and categorize clients and locations into vulnerable groups.

In general, MFIs have participated in very limited relief efforts. They have contributed to annual philanthropic work, such as setting up health camps, providing education, supporting training, rescheduling loans and making some house repair/reconstruction loans after disasters strike. But these efforts are often ad hoc, and MFIs lack standard organizational practices or protocols to handle disaster response. There is, however, widespread evidence of robust operational and financial risk mitigation mandates and practices within MFIs. This indicates that these institutions would be capable of scaling these practices to the disaster context, provided there is capacity building and orientation from the perspective of disaster preparedness.

The microfinance sector has evolved over the years and is taking bold steps toward financial inclusion. One of the reasons for the gaps in DRR is very weak stakeholder engagement with regard to the disaster agenda. Though the institutions abide by the regulatory body guidelines and are committed to poverty reduction, there remains a lack of a concrete vision of their role in disaster management.

² By NGO MFIs we mean the philanthropic wing of the MFIs which were not directly involved in the lending business of MFIs. The working and activities of the NGO wing and the MFI are independent and separate from each other.

³ According to the "Bharat Microfinance Report 2016" (Sa-Dhan), total microfinance clients in India equal 40 million.



Recommendations

The research found that microfinance institutions are as vulnerable to disasters as their clients, underscoring the importance of risk mitigation and the need to shift from post-disaster support to pre-disaster preparedness. Based on the observations, it is recommended that an overall stakeholder engagement be launched to develop a disaster mitigation and management strategy for the microfinance sector. This strategy should entail a facilitated discussion among the various key players involved in the sector, such as industry associations, sector experts, financial institutions and government bodies. Such an exercise can lead to the development of successful partnerships among organizations that can pool their resources and skills to design resilient models for disaster management. This also needs to be supported by more policy advocacy, research and the evaluation of other global models that can be replicated in the Indian context.

Specific recommendations detailed below:

- **Proactive role of Industry Associations:** Industry Organizations, like the Microfinance Institutions Network (MFIN) and Sa-Dhan, should play a more proactive role in bringing together stakeholders and pooling resources to develop an industry-level strategy to mitigate disaster risks.
- **Needs assessment by MFIs:** The microfinance industry should work together to assess the disaster-prone areas, including the volume of business and the need for microfinance support, during pre- and post-disaster phases.
- **Awareness generation:** There should be a sustained dialogue between the MFI sector and the recognized bodies on disaster management planning to ensure better coordination.
- **Partnership development:** Partnerships between MFIs and stakeholders (e.g., government, investors) are needed to develop robust disaster management strategies.
- **Moving toward preparedness:** MFIs should set up, review and regularly test organization-level policies and disaster management plans to better prepare for unforeseen disasters.
- **Promotion of savings:** MFIs should create awareness about the role of savings in increasing resilience and consider serving as Business Correspondents for the banks, as some do, to promote savings with their clients, especially for disaster emergency use.
- **Incentivizing work in disaster areas:** The majority of MFIs are not proactively operating in highly disaster-prone or affected areas, which leads to exclusion of the most vulnerable people. Donors and government can create incentives for MFIs, like early-warning systems, communications and product innovations that would encourage more MFIs to work more in these areas.
- **Disaster finance fund:** Liquidity for MFIs during a disaster is limited. An emergency fund/disaster support fund could help to ensure financial support in disaster situations.
- **Replication of promising practices from the region:** For example, in collaboration with the government in Bangladesh, MFIs employ a variety of risk reduction and disaster management strategies, which include developing DRR and prevention plans and offering products like loans where payments are temporarily suspended or have varying interest and monthly installments after disasters.

It is important for the government, regulators and industry associations to understand the important role that the microfinance industry can play in the area of disaster management. With the increasing risk of exposure to disaster, it becomes the responsibility of the sector to both ensure its operations are protected and support its vulnerable clients from slipping further into poverty. This can only happen if all the ecosystem actors come together to develop a strategy around a common vision for disaster risk reduction, with clear roles and responsibilities to ensure its implementation.

INTRODUCTION

Rationale

India has traditionally been vulnerable to natural disasters due to its unique geo-climatic conditions. According to the World Risk Index (2004), it features in the top half of all countries at risk from natural disasters: 68 percent of the Indian landmass is prone to droughts, 60 percent to earthquakes, and 8 percent to cyclones; over 40 million hectares are at risk of flooding. From 2002 to 2013, India was among the five countries worst hit by natural disasters. These disasters included the Indian Ocean tsunami in 2004, which caused approximately 11,000 deaths and affected 2.79 million people in India, and the 2013 floods in Uttarakhand, which caused 5,748 deaths and affected 4,200 villages. These disasters have emphasized the need for preventive solutions via disaster preparedness and management to ensure minimal socioeconomic loss.³

Disaster literature reveals poverty to be the fundamental cause of vulnerability. Microfinance institutions (MFIs) largely cater to the poor and near-poor clients who are excluded from the formal financial system. These sections of the population are also highly vulnerable to external shocks such as disasters. Microfinance in such a scenario could contribute to building an effective way to manage the negative consequences of disasters. Given the demographic section that they serve, MFIs could directly address the issue of disaster management within their operations to ensure their own long-term sustainability. Additionally, disasters may hinder the ability of microfinance clients to repay loans efficiently. As research suggests, poor households under stressful post-disaster conditions tend to increase their levels of borrowing.⁴ However, in the event of a major disaster, livelihoods can be so badly disrupted that many microfinance clients are unable to repay their loans, causing temporary or permanent migration in lieu of losing their household or other productive assets.⁵

Though microfinance is adversely affected in the event of a disaster, it can also be utilized as an instrument to improve the socioeconomic conditions of populations most affected by the disaster. As Pitts (2000)⁶ explains, microfinance helps poor households diversify income in several ways: by supporting different types of income-generating strategies and capital, by promoting regular employment throughout the year and by providing women with income-earning opportunities. Promoting such activities would also increase the resilience of poor households to different kinds of crises, including disasters.

⁴ Ministry of Home Affairs, Government of India, 2011-09-092011, "Disaster Management in India— A report by the Ministry of Home Affairs," <http://www.indiawaterportal.org/articles/disaster-management-india-report-ministry-home-affairs>.

⁵ Del Ninno, C., Subbarao, K., & Milazzo, A. (2009). How to make public works work: A review of the experiences. World Bank, Human Development Network.

⁶ Sinha, S., & Lipton, M. (1999). Undesirable fluctuations, risk and poverty: A review. Documento mimeografiado. Washington, DC: Banco Mundial.

Objectives

Finding ways and means to minimize the effects of a disaster, especially for the economically and socially weaker segments of the population, has been one of the prime motives of disaster management agencies, policy makers and academics in the recent past. It is within this context and as part of the SEEP Disaster Risk Reduction Project financed by the Citi Foundation that IFMR-LEAD conducted the study on disaster risk mapping for the microfinance sector in India. The study sought to:

- Identify the risk events and categories of shocks as well as, disaster vulnerability and capacity of the microfinance sector at different levels of the market (i.e., individual, household, enterprise, institutional and governmental);
- Understand opportunities to build resilience and/or mitigate the impact of a forecasted crisis through (1) institutional business continuity or financial disaster risk management (FDRM) planning, (2) new product and service development and (3) greater inter-organizational collaboration at the national or regional level;
- Identify any barriers in terms of rules, norms or perceptions that inhibit MFIs from working more effectively toward planning and recovering from crisis on both an institutional and a client level;
- Identify opportunities to use emerging technology, as well as product innovation to increase efficiency and reduce response times during a crisis; and
- Document current practices among MFIs to cope with unanticipated disasters in the country, highlighting what worked well, challenges faced and changes at a policy, operational, and/or product level that would improve resilience in the future.

Scope of the Study

The study attempts to analyze the effectiveness of current disaster management practices of MFIs in India, with special reference to identified disaster-prone districts. It also seeks to review possible links between disaster management and microfinance in each of the pre-disaster management, disaster occurrence management and post-disaster management phases.

In the Indian context, it has been difficult to find any empirical analysis of the effectiveness of microfinance in disaster management. Further, the disaster management literature does not account for the potential impact of microfinance on disaster risk reduction (DRR). Therefore, this study fills some of these gaps in the disaster management and microfinance literature.

RESEARCH DESIGN

Provider-Level Disaster Risk Mapping: MFI Practices Around Disaster Risk Reduction

The research team used the disaster management cycle, which consists of three phases—pre-disaster management, disaster occurrence management and post-disaster management—to understand the roles of microfinance institutions, NGOs and government in assisting in disaster management. Here, pre-disaster management includes activities related to preparedness and mitigation; disaster occurrence management includes initiatives taken to ensure that the emergency needs of victims are met and suffering is minimized; and post-disaster management encompasses the rehabilitation and reconstruction activities aimed at the early socioeconomic recovery of the victims.⁷ The extent of the institutions' role in different phases of disaster management and their operational readiness were gauged by assessing the direct and indirect disaster management measures they took (more details on the assessment process can be found in Appendix III).

Client-Level Disaster Risk Assessment

In addition to mapping MFI response to DRR, the study also mapped disaster-related vulnerabilities through a client assessment. This allowed for not only exploring the vulnerability of individuals to disasters but also helped in identifying key links for building resilience among MFIs and their clients and the community at large in the face of a crisis. The limited and small-scale client assessment consisted of three phases, similar to those in the MFI disaster management assessment: pre-disaster response, disaster occurrence response and post-disaster assistance received. It also included a segment on gaps in and preferences for disaster-oriented financial products.

Assessing and Documenting Gaps and Promising Practices Through Various Institutional Perspectives on Disaster Risk Reduction

Documenting any cross-sector coordination and response was considered essential to the study, due to the importance of such coordination for smooth, efficient, targeted and effective DRR policies. This section of the study built on findings from the literature on the overall disaster risk context in India and assessed the gaps between design and action of inter-institutional coordination on disaster management before, during and after disasters. The section focused on scoping out further public-private partnerships and identifying the role of technology in improving MFIs' level of disaster preparedness and resilience.

Assessing gaps and needs at a(n):

- Institutional level
- Product level
- Policy level
- Technology level

⁷ Khan, H., and Khan, L. G. 2008, "Disaster Management Cycle—A Theoretical Approach." *Journal of Marketing and Management* 6(1), 43–50.

Sampling and Selection

The study used both primary and secondary data. Interviews and focus group discussions were conducted to gather data from various public and private informants delivering financial and humanitarian services to vulnerable populations, as well as from disaster management experts and beneficiaries. Desk research reviewed the existing literature on disaster risk assessments in India.

The study design followed the methodology for conducting the client-level analysis. In-depth interviews with MFI officials with diverging profiles were conducted in order to get a provider-level perspective on DRR, and government officials and NGOs were interviewed about DRR and the need for inter-institutional coordination on disaster management (see box below).

To keep the study representative of India's overall disaster management initiatives, in-depth interviews were conducted with MFIs; NGO-MFIs, which cover

almost 32 percent of the client base of the microfinance market; and humanitarian organizations of varying size and reach from different parts of the country. Eleven MFIs, six NGOs (including NGO-MFIs), one industry regulator and one government organization were interviewed across the geographical locations selected for the study (see Appendix II for a list of organizations interviewed). NGO-MFIs interviewed are NGO wings of a parent organization that also have an MFI institution of the same name in operation, but the NGO-MFIs and their counterpart MFIs function independent of one other, as completely separate entities.

The geographical locations for the study (shown on the map in Figure 1) were selected based on the location of high- and medium-impact disasters that have taken place in India over the last five years.⁸

Based on the aforementioned criteria, the following types of crises were covered by the study.

Natural	Political (Human-made)
Floods	Internal conflicts
Storms	Corruption
Tsunamis	Terrorism/ insecurity
Earthquake	
Droughts	
Famines	

Objectives

Understanding the risk context of India:

Desk research, secondary data

Mapping the present response of MFIs in disaster risk reduction:

Secondary data, interviews with MFI officials

Mapping disaster-related vulnerabilities of clients who have experienced a disaster before:

Small-scale focus group discussions with clients

Assessing and documenting gaps and promising practices through various institutional perspectives on DRR: Interviews with MFIs, government officials, disaster management experts, NGOs and academicians

Figure 1: Field Sites



⁸ A list of disasters in India in the last five years can be found in Appendix I.

LITERATURE REVIEW

Definitions

To facilitate understanding of the capacity of the microfinance sector to address disaster vulnerability at different market levels, a definition of disaster was required. For the purpose of this study, a **disaster** is defined as: *A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.*⁹

This working definition was followed by the mapping of the disaster risk context of India. The risk events and categories of shocks, as well as disaster vulnerability, were identified. Knowledge of the various kinds of natural and human disasters that the country is prone to was seen as an essential pretext to documenting the DRR national infrastructure in place to address them. Documenting the DRR infrastructure included reviewing policies and protocols in place for disaster preparedness and awareness for the vulnerable low-income population, as well as the mechanisms in place to engage different stakeholders (e.g., the financial services market) in delivering the government's DRR program to vulnerable populations.

The study uses the following definition of **disaster risk reduction**: *The conceptual framework of elements considered with the possibilities to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.*¹⁰

The study design also incorporates the four priorities set out by the Sendai Framework from the United Nations Office for Disaster Risk Reduction.¹¹ Adopted in Japan in 2015, these priorities are:

1. Understanding disaster risk
2. Strengthening disaster risk governance to manage disaster risk
3. Investing in disaster risk reduction for resilience
4. Enhancing disaster preparedness for effective response, to "Build Back Better" in recovery, rehabilitation and reconstruction

Legal Regulatory Framework

In India, the Disaster Management Act, 2005 (DM Act 2005) lays down institutional and coordination mechanisms for effective disaster management (DM) at the national, state, district and local levels. The DM Act 2005 mandates the establishment of a national disaster management plan (NDMP) for the whole country and also designates responsibilities to hazard-specific nodal ministries/departments that are required to prepare detailed DM plans specific to the disaster assigned.¹²

The NDMP attempts to be consistent with the approaches promoted globally by the United Nations, in particular the Sendai Framework for Disaster Risk Reduction, adopted in Japan in 2015. India is a signatory to the 15-year, voluntary agreement, which recognizes that the state has the primary role to reduce disaster risk but also that responsibility should be shared with other stakeholders, including local government and the private sector.

The legal regulatory frameworks for DRR in India are split among three levels of governance—national, state and district.

1.1. National level: The nodal agency responsible for formulating guidelines for effective management of disaster risk reduction is the National Disaster Management Authority (NDMA). Given the increased frequency of disasters in recent years, the NDMA is moving away from a relief-centered approach toward proactive mitigation. The NDMA is assisted in its operations by the National Institute for Disaster Management (NIDM) and the National Disaster Response Force (NDRF). The NDRF is led by a designated Deputy General and is structured similarly to national level paramilitary forces. Additionally, the NDMA is assisted by the National Committee on Disaster Management (NCDM), which emphasizes capacity building and awareness generation. Figure 2 provides a synopsis of the institutional structure for national-level DRR operations.

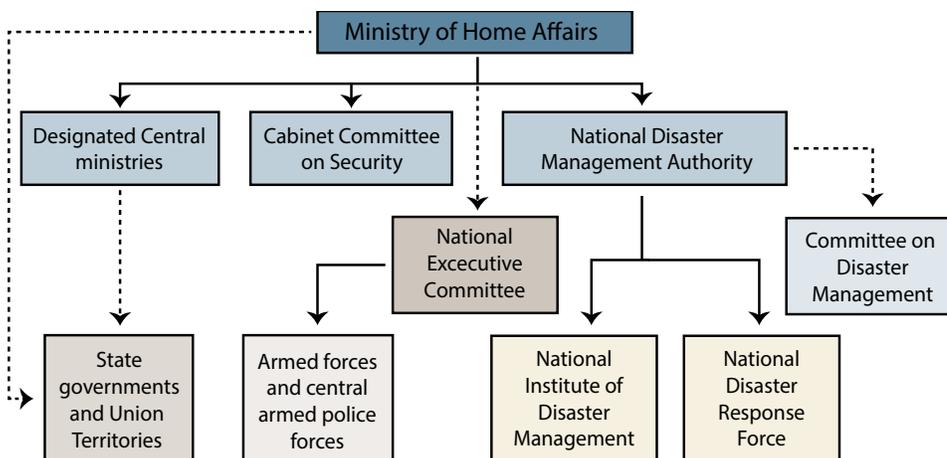
The Central Relief Commissioner (CRC) in the Ministry of Home Affairs (MHA) is the nodal officer to coordinate relief operations for natural disasters. The CRC receives forecasts of natural calamities from the India Meteorological Department (IMD) or from the Central Water Commission of Ministry of Water Resources on a continual basis. The MHA is also assisted in the mitigation of non-natural disasters by the Cabinet Committee on Security (CSS). The main function of the CSS is to assess the disaster from a security perspective with a special emphasis on CBRN (chemical, biological, radioactive and nuclear) disasters.

⁹UNISDR 2009 Global Assessment Report on Disaster Risk Reduction," <http://www.irdrinternational.org/2013/01/25/unisdr-global-assessment-report-on-disaster-risk-reduction-2009>.

¹⁰ Ibid.

¹¹ UNISDR, 2015, "Sendai Framework for Disaster Risk Reduction," <http://www.unisdr.org/we/coordinate/sendai-framework>.

¹² Key departments: Ministry of Health and Family Welfare (MoHFW); Ministry of Environment, Forest and Climate Change (MoEFCC); Ministry of Civil Aviation (MoCA); Ministry of Earth Sciences (MoES); Ministry of Agriculture and Farmers Welfare (MoAFW); Ministry of Earth Sciences (MoES); Ministry of Water Resources (MoWR); Ministry of Mines (MoM); Ministry of Defense (MoD); Department of Atomic Energy (DAE); Ministry of Railways (MoR); Ministry of Road Transport and Highways (MoRTH); and Ministry of Urban Development (MoUD).

Figure 2: Synopsis of the Central-Level Institutional Structure for DRR

1.2. State level: The DM Act 2005 requires each state to establish a State Disaster Management Authority (SDMA) or its equivalent with the Chief Minister as its chairperson. The SDMA is mandated to formulate policies and plans for DM in the state, in accordance with the guidelines of the NDMA. The SDMA is responsible for coordinating the implementation of the state plan, recommending provision of funds for mitigation and preparedness measures and reviewing the developmental plans of the National Disaster Management Authority. Additionally, state governments are required to establish a State Executive Committee (SEC) to assist the SDMA in performing its functions. The SEC is required to coordinate and monitor the implementation of the national policy, the national plan and the

state plan. A critical prerequisite for planning DM functions is to conduct a state-wide vulnerability assessment and risk analysis, following the guidelines issued by the NDMA.

Assam: Community-Based Flood Management (CBFM)

The operations for CBFM are spearheaded by disaster management teams (DMTs), which work in coordination with the Gram Sabha of the respective village. The DMTs include search and rescue, first aid, patrolling, damage assessment, etc. The community uses available local resources to equip the concerned team members. For example, early warning teams use the microphones of the local temple or mosque. DMTs also coordinate with local priests and maulvis who provide trauma counseling for farmers suffering from loss of their livestock and crops. For patrolling, they deploy local youths who are generally trained by the Village Defense Party (VDP) and work on a rotation basis.

The strategy of CBFM is particularly efficient, as it embodies the “resilience approach” by building the indigenous capacities of local communities to cope with floods. The strategy also implies zero operational costs for the Assam State Disaster Management Authority (ASDMA).

prepare for region-specific disasters (such as the Institute of Seismological Research in Gujarat).¹³ These agencies are assisted

in implementing their plans through the State Disaster Response Force (SDRF).

Assam’s SDMA supports a “resilience approach,” which focuses on shared responsibility among governments, agencies, institutions, communities at risk (households), business and service providers, CSOs/NGOs and individuals (refer to box).¹⁴

Despite such measures, there is a lack of institutionalized accountability in the SDMA. The SDMA also do not make risk-reduction needs location-specific.

1.3. District level: District-level DRR efforts are spearheaded by a nodal agency, in most cases referred to as a district disaster management authority (DDMA). DDMA operate under the chairmanship of the district commissioner (DC) and are supported by various disaster management committees, such as natural disaster program implementation and planning and monitoring. The DDMA is not supported by agencies, but rather by individuals and district-level representatives of line department. The DC is supported in DRR efforts by the district’s chief executive officer, chief medical officer, Panchayati Raj officer, police superintendent and local civil engineers.

Despite the seemingly robust governmental infrastructure for disaster risk reduction, the legal and regulatory framework for institutions supporting MFIs in the event of a disaster is currently absent. At present, the Reserve Bank of India (RBI), with support from NDMA, has guidelines for banks only in three sectors most relevant to MFIs—housing loans, loans for artisans/craftsmen and loan provisions for small-scale and tiny units.¹⁵ We explored this lack of provisions and cross-institutional support for DRR in our interviews with MFIs, government organizations and NGOs.

¹³ State Disaster Management Plan, 2015–2016, Gujarat State Disaster Management Authority, Government of Gujarat.

¹⁴ Yadav, N. P., & Gangabushan, M., 2013, “A Study on the Role of Assam State Disaster Management Authority (ASDMA) and Social Worker: Some Aspects of Community-Based Flood Management in Assam,” Department of Social Work, Assam University, Jun 20, 2016.

¹⁵ Tiny Units refer to undertakings having fixed investment in plant and machinery not exceeding Rs. 23 lakhs. These also include undertakings providing services such as laundry, Xeroxing, repairs and maintenance of customer equipment and machinery, hatching and poultry etc. Located in towns with population less than 50,000. “Existing Financial Measures for Disaster Management,” Ministry of Finance, Government of India. <http://shodhganga.inflibnet.ac.in/bitstream/10603/8619/5/14%20chapter%207.pdf>

Table 1: South East Asia: Disaster Profile and Practices (MFI Sector)¹⁷

	India	Bangladesh	Nepal	Sri Lanka
Policies and Acts	1. National Disaster Management Plan (2016) 2. National Policy on Disaster Management (2009) 3. Disaster Management Act (2005)	1. National Plan for Disaster Management (2010) 2. National Adaptation Programme of Action (2005)	1. National Strategy for Disaster Risk Management (2009) 2. National Action Plan on Disaster Management in Nepal (1986)	1. National Policy on Disaster Management (2010) 2. Disaster Management Act (2005)
10-Year Moving Average (2005–2014)				
1. Events 2. Deaths 3. Economic Loss	1. 16 2. 2,377 3. USD: 4,384,925 INR: 29,70,019	1. 6 2. 722 3. USD: 285,400 INR: 1,93,309	1. 4 2. 211 3. USD: 6,355 INR: 4,304	1. 3 2. 53 3. USD: 69,125 INR: 46,820
Inform 2015 Risk Index	Very High	Very High	Very High	High
MFI Role in Disaster Risk Management	Not very actively involved and lack capacity and awareness in DRR. There is very small-scale support on individual levels by the MFIs.	Very organized and progressive, with increasing involvement of MFIs. The major source of funds for the products and services offered by MFIs during a disaster or in post-disaster situations has been grants from donors or soft loans from Palli Karma-Sahayak Foundation (PKSF), a government-controlled refinancing agency for the MFIs. Leading MFIs have developed DRR and prevention plans and offer various products and services, such as no-repayment loans, where payments are temporarily suspended, or loans with varying interest and monthly installments options.	Because of the small scale of the MFI sector, MFIs themselves are heavily affected by the disaster and are not in a position to provide much support, even during post-disaster relief work.	Very little documentation on the role of MFIs. Few studies have outlined potential roles at different phases of disaster.

While some studies discuss the potential support that MFIs can provide in DRR, it is apparent that only Bangladesh, because of its rich experience in microfinance, has been successful in implementing different risk reduction and disaster management strategies

in collaboration with the government of Bangladesh (via the Bank of Bangladesh). Different examples from Bangladesh of the role of MFIs in DRR can be used and replicated by other South East Asian countries, including India.

¹⁷ Based on information provided by Prevention Web at <http://www.preventionweb.net/countries/map#hits=20&sortBy=default&view=pw>.

¹⁸ Islam, S., 2008, "Role of Microfinance Tools in Disaster Risk Reduction: A Study in India, Bangladesh and Sri Lanka," http://www.unisdr.org/files/9671_DRRStudyBangladeshCountryReport.pdf.

PRIMARY DATA COLLECTION

Profile of Organization

MFIs

A detailed survey instrument on four key areas (Knowledge on Disaster, Current Products and Services, Stakeholders and Recommendations) was administered to experienced leaders and various experts in the microfinance sector. Respondents held positions such as managing director, founding director and chief risk officer.

The MFIs selected for this study are institutions that have been functioning for more than five years in their prime area of operations and work in one of the geographically vulnerable areas identified by the study.¹⁹ Though they all issue standard financial products and follow identical regulatory guidelines, they marginally differ in their operational and business practices because of the differences in operational context and client characteristics.

The sample MFIs have an average of about 750,000 active clients and a maximum of 1,200,000 clients. In all, these institutions serve 12,835,352 clients. A few of them have also recently been granted a Small Finance Bank license.²⁰ On average, the sample MFIs operate across five states (ranging from 1 to 12 states). In all, the study covers 18 states through different respondents to capture the disaster exposure and understanding of the DRR by the financial institutions.

Understanding About Disaster and DRR Practices

We find that most of the MFIs define *disaster* in terms of scale and type of impact on life, assets and livelihood. Most of them refer first to natural disasters and then also discuss human-made disasters, as described in the instruments. The most common natural disasters to which the MFI clients are exposed are floods, droughts and earthquakes. The human-made disasters mentioned are communal and political issues in the operational areas. Only one participant mentioned an impact of disaster on the complete ecosystem, including MFIs, because of exposure to the disaster risks.

Overall, there is very little understanding about disaster risks, and hence no organization policy or protocol is in place for disaster risk reduction. There were mixed responses on the disaster-prone area identification. Though there is no standard process of identifying vulnerable areas, most financial institutions are doing this through a vigilance exercise (which has other objectives in addition to identifying

disaster-prone areas) to test business viability before setting foot in any new location. While some respondents claimed that if an area seems risky they do not operate there, there are instances in which they are already working in areas adversely impacted by heavy rainfall or recurring droughts. Other respondents confirmed that there were no operations in disaster-prone areas with high exposure to risk. With years of exposure to marginal disasters, they have coped with the impacts by developing a mutual understanding with their clients and offering the most common solution of loan restructuring.

All the MFIs were very transparent in accepting their limitations and capacity to handle the disaster-hit areas and showed interest in developing more capacity. Lack of awareness about DRR practices was also reflected in a knowledge gap about stages of disaster, preventive practices and limited suggestions on the scope of support MFIs could offer in the event of a disaster.

Products and Services

All the organizations confirmed that they do not offer any of the standard products or services (like insurance, cash distribution, etc.) in disaster management situations specifically. They offer some forms of loan rescheduling or restructuring in order to provide support during an emergency or crisis. Only one MFI confirmed a non-preapproved emergency loan of very small value (one-quarter the size of the smallest loan offered by MFIs to support clients in case of medical or similar needs. One NBFC-MFI had a unique

insurance product but only for the earthquake-prone area in its operational area. The most commonly cited reason for this gap was the regulatory framework limiting MFIs from providing savings/deposit facilities, cash transfers or insurance products. The other reason was gaps in product innovation—given the MFIs' already risky operations, they cannot afford to take on more risk by offering disaster management finance, which may or may not succeed. In terms of developing sustainable and scalable microinsurance

¹⁹ Includes institutions of different scale, such as MFIs, non-bank financial institutions (NBFCs) and small finance banks (SFBs).

²⁰ Some organizations were granted a license in November 2014 in principle but had not launched operations as a bank as of the date they were included in the study.

Table 2: Summary of Responses from MFIs

Area of Discussion	Trends in Responses from MFIs	Unique Points Found in Interviews
Knowledge of Disaster and Disaster Risk	<p>Disaster</p> <ul style="list-style-type: none"> • Large-scale negative impact • Life, assets, livelihood impacted • Unpredictable and unforeseen effects <p>Disaster Risk</p> <ul style="list-style-type: none"> • Very little clarity on disaster risk; mixed with others • Overlap with business and operational risks 	<ul style="list-style-type: none"> • Disaster impacts MFIs, which are part of the ecosystem • Lack of contribution, but willingness to learn
Products and Services	<ul style="list-style-type: none"> • Lack of products and services for DRR • Little awareness about disaster management practices • Robust financial and operational risk management practices 	<ul style="list-style-type: none"> • Emergency small pocket loans • CSR contributions can be linked to post-disaster support

products, the challenges faced by the sector are more systemic than institution-specific. The MFIs and industry associations interviewed admitted to struggling to analyze whether micro-insurance could be an independent revenue generator or provide additional value over their existing services. The commission earned by the MFIs from the sale of insurance products does not constitute a substantial fee income for them. This has further limited the interest of the industry associations in microinsurance. Despite the lack of insurance products in the sector, there are a few unique examples of MFIs providing insurance products (see the box below).²¹

Despite these examples of availability of different products related to DRR practices, in general the MFIs have done very limited work so far in disaster management or relief activities. The MFIs have contributed through general annual philanthropic work like health camps, education and training support via CSR work. Only one MFI reported distributing relief material during a disaster, and almost all claimed to provide minimal support through loan re-scheduling. They do not have any practice or organizational protocol to handle disaster. Mostly, the MFIs mentioned that there is very little awareness about disaster management practices, and so no organizational policy has been developed (see Table 2).

On the other hand, it was remarkably interesting to note that all of the MFIs have very structured and fool-proof financial and operational risk management processes in place. As financial institutions, they have fully reviewed and documented plans of action for cash handling and capital adequacy, and they conduct regular monitoring and audits for financial checks. Their experience and capacity in handling operational crises through infrastructure and manpower management seems robust. For business purposes, they conduct regular checks of their infrastructure to ensure smooth functioning. Risk assessment of

Spandana Sphoorty Financial Limited (NBFC MFI)

The growing momentum of its microfinance program led Spandana to provide certain social security schemes to its clients. Witnessing its clients slide down the poverty ladder because of unexpected crises led Spandana to develop house insurance products. Spandana offers a credit life insurance on the disbursed loan amount, with two additional benefits: a small amount of hut insurance and inclusion of spouses in the insurance product.

Habitat for Humanity India (Non-governmental, non-profit)

Habitat for Humanity seeks to eliminate poverty housing and to make adequate shelter a matter of conscience and action. As part of its disaster risk reduction solutions, Habitat for Humanity India (HFHI) is piloting a disaster insurance product to complement and enhance social security measures within its beneficiary communities. The goal of this comprehensive insurance policy is to not only provide asset and property coverage against a wide range of natural and manmade perils (including severe storms, typhoons, earthquakes, fires, riots, strikes and malicious damage) but also cover the insured and their family members against accidental death and permanent disability. While the pilot program will engage 5,000 families from three states (Odisha, Andhra Pradesh and Tamil Nadu), HFHI plans to roll out the product to all flood-affected/prone areas, and to ultimately make the insurance compulsory for all HFHI-supported houses located in these areas.

clients is done as part of their standard loan application process but not for disaster risk exposure measurement. It was clearly observed that none of the mentioned protocols have been consciously used as a disaster management or risk reduction practice but instead follow regular business mandate. Only one organization confirmed training its staff for proper relief and recovery activities, while two others occasionally discuss these topics but only at the regional branch level without formal training.

²¹ For more details on these examples, please refer to http://www.microinsurancenetowork.org/sites/default/files/_Microinsurance_and_MFI_Case_Study_15.pdf and http://www.seepnetwork.org/filebin/pdf/resources/drr/DRR_HabitatHumanityINDIA_4.pdf.

NGOs and NGO-MFIs

NGOs and NGO-MFIs were surveyed about their involvement in supporting DRR in four key areas. The Disaster Management Act, 2005, emphasizes the need for a continuous and integrated process of planning, organizing, coordinating and implementing policies and plans in a holistic, community-based, participatory, inclusive and sustainable manner. Therefore, though the emphasis of the study is on the role of the financial sector in DRR, it was important to have a holistic understanding of the involvement and collaboration of NGOs and NGO-MFIs in DRR. As mentioned earlier, the study makes a distinction between NGO-MFIs and NGOs—NGO-MFIs refer to the non-governmental institutions of a parent organization that also runs a microfinance institution (in most cases, with the same name). All the NGO-MFIs interviewed for this study work independently of their MFI counterpart, with little or no overlap in their operations and projects.

Profile of Organizations

The NGO-MFIs selected for this study are institutions that have been functioning for more than five years in their prime area of operations. Their average outreach is about 2 lakhs (or 200,000) with the maximum being in the range of 5 lakhs (or 500,000). The NGO-MFIs covered in the study were chosen from across India and operate with a few branches spread across various districts of at least one state, to a maximum of eight states. In all, the NGO-MFI part of the study covered approximately 12 states of the country. The NGOs selected for the study were more regional in nature, not operating in more than four states each.

Understanding About Disaster and DRR Practices

Most of the NGOs define disaster in very systematic ways, and this is true especially for those NGOs that actively work in disaster management. Unlike the MFIs interviewed, all NGOs interviewed believed that a disaster could be of any scale, impacting units as small as a family to as large as a state or country. All of them acknowledged that disasters can be human-made or natural events. The most common natural disasters that the NGOs stated being exposed to in their operational areas were floods, droughts and tsunamis. The human-made disasters included riots and migrant economic security crises, which were only mentioned by an NGO that works extensively with migrants. Overall, there was significant understanding of disaster risk among all the NGOs interviewed; however, most of their outreach and involvement in DRR was around relief measures in the form of providing food supplies and distributing other necessary commodities to affected populations during a disaster.

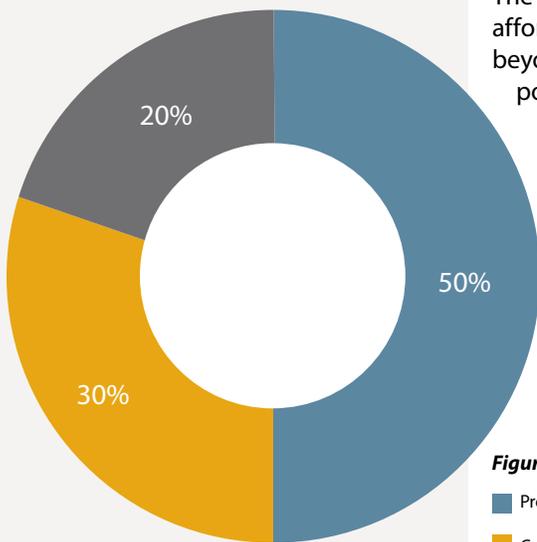
Stakeholder Analysis

With respect to the scope of research, we asked both MFIs and NGO-MFIs to identify the main stakeholders in DRR: the roles, key strengths, support from others and limiting factors (see Table 3). While their viewpoints generally coincided, there were a few instances where they differed. For example, MFIs have a slightly more positive view of humanitarian organizations than do NGO-MFIs, who think an inadequate number of humanitarian organizations apply a DRR lens to their work. MFIs also saw a role for media, researchers and regional government to play in DRR, while NGO-MFIs mentioned only mobile providers and technology.

Table 3: Stakeholder Analysis from MFIs' and NGO-MFIs' Points of View

In DRR	Government	Humanitarian Agencies	MFIs	NGO-MFIs	Others
Role of Institutions	<ul style="list-style-type: none"> • Frame policies and plans to enable effective disaster management • Anchor coordination between stakeholders and government • Involve smaller NGOs in disaster relief work • Orient and train revenue officers at Panchayat level who distribute money for government disaster relief programs; require detailed reports • Create policies, rather than use ad hoc practices 	<ul style="list-style-type: none"> • Provide support during relief and recovery operations • Share knowledge about creating awareness of DRR and disaster management • Need more NGOs that focus on issues from a DRR perspective 	<ul style="list-style-type: none"> • Currently not very involved in DRR as a sector but making individual contributions in post-disaster relief 	<ul style="list-style-type: none"> • Provide disaster-related loans and other kinds of financial support pre-disaster to vulnerable populations in order to create more resilience to disasters with improved livelihoods and housing 	<ul style="list-style-type: none"> • Media: Raise awareness about DRR • Researchers: Provide information to make India better prepared for disaster • Government at the sub-national level: Support disaster management • Mobile providers: Harness technology to provide early-warning signals
Key Strengths	<ul style="list-style-type: none"> • Main authority in planning and policy making • Can ensure proper implementation and roll out of disaster management programs 	<ul style="list-style-type: none"> • Have the capacity, skills and experience to work during disaster situations • Understand elements of disaster management and can contribute to DRR 	<ul style="list-style-type: none"> • Vast social network and local rapport • Support DRR in local institutions by providing information and infrastructure support through existing network and operations 	<ul style="list-style-type: none"> • Have the financial tools to help the economic situation of the most vulnerable populations • Can mobilize community for DRR because of their outreach 	<ul style="list-style-type: none"> • International agencies: Sensitivity and awareness about the impacts of disaster and support government to take action • Mobile providers: Widespread communication channels
Support from Others	<ul style="list-style-type: none"> • International agencies like UNDP can generate awareness and identify gaps in policy for DRR 	<ul style="list-style-type: none"> • Support from government to coordinate with MFIs and existing disaster management authorities 	<ul style="list-style-type: none"> • Awareness, training and skill development for management teams 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Financial regulator: Support MFIs to get involved in DRR
Limiting Factor or Weakness	<ul style="list-style-type: none"> • Lack of awareness about potential measures for disaster management and risk mitigation • Lack of proper implementation of policies and plans 	<ul style="list-style-type: none"> • Lack of understanding the local context of India • Lack of understanding, knowledge and resources for providing aid beyond relief measures 	<ul style="list-style-type: none"> • Lack of regulatory and financial support for MFIs involvement 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • Mobile providers: Limited role due to connectivity issues once a disaster strikes

ROLE OF TECHNOLOGY IN DRR



The rapid change in technology is also leading to a change in the DRR landscape and affording new opportunities in DRR practices. These changes have the capacity to go beyond early-warning signs of identifying and reducing the impact of the disaster on populations. Technology can not only provide for a means of communication during a disaster, but also for a means of ensuring cash-less and quick transfer of relief funds, apart from ensuring less monetary loss for affected populations. Technology for DRR was used by only one organization interviewed, to provide early warnings for floods in the Dhemaji district of Assam (see box). All other respondents from the government, NGOs and the MFI sector were not tapping at that time into existing technology in any form for DRR efforts. However, technology was seen as an important instrument in DRR efforts, with potential use in DRR measures taken by the financial sector (see Figure 4).

Figure 4: Role of Technology in DRR Measures

- Providing Pre-disaster warnings
- Communication with affected communities during and after a disaster
- Cash-less relief fund transfer



Road to Deheri village (Dhemaji district) flooded with a minimal rise in water level

Community-Based Flood Early-Warning System in the Dhemaji District

The Dhemaji district is one of the most remote districts in the Himalayan region of India. Its location at a confluence of rivers causes the region to be perennially affected by floods. The government of India has adopted several policy measures aimed at assisting disaster-affected populations, including various cash grants, cash transfers, relief materials, strengthening of embankments and DRR training. Many of the MFIs, however, are privately owned and only offer small-loan products and no insurance products. Few NGOs actively work in the area, and most provide only post-disaster relief. One NGO, however, has helped set up a community-based flood early-warning system that gives 45 vulnerable communities a two-hour warning before the flooding begins. This allows people in those communities time to move their families and livestock to safety and alerts the district disaster management authorities to dispatch flood rescue teams. For more details, see the full case study in Appendix V.

STAKEHOLDER MAPPING AND COLLABORATION IN DRR

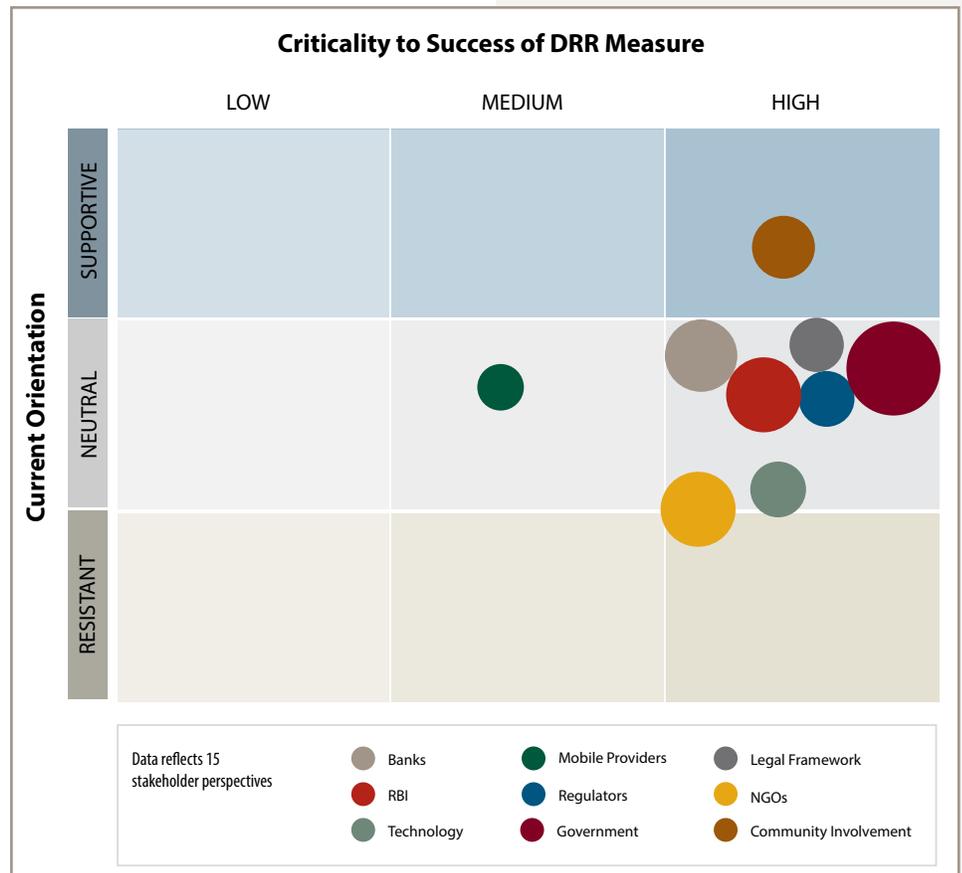
The involvement of multiple stakeholders in disaster planning is important for successful DRR and for ensuring the social and economic welfare of the affected populations. Figure 5 represents the criticality of different institutions in DRR activities, as stated by the respondents.

The size of the bubble represents the number of respondents with similar views. Based on our interviews with MFIs, humanitarian organizations, NGO-MFIs and government institutions, most financial-sector institutions considered critical to the successful implementation of DRR initiatives were perceived as neutral in their present efforts toward DRR (y-axis). The institution cited as being most important to ensure successful implementation of DRR measures was the government, followed by NGOs, banks and the RBI (x-axis).

Most respondents believe that the government needs to play a central role both in ensuring a coordinated implementation of policies and processes at the grass-roots level, and in providing support and a framework for the participation of different stakeholders—including MFIs—in DRR initiatives. In terms of support from within the financial sector, interviews with MFIs suggested the need for proactive measures from the RBI or banks to support development of subsidized disaster products. Respondents also saw the role of NGOs in accessing disaster-affected communities and providing them with short-term, disaster-related financial products as being somewhat important.

Technology can not only provide for a means of communication during a disaster, but also for a means of ensuring cashless and quick transfer of relief funds, apart from ensuring less monetary loss for affected populations.

Figure 5: Criticality of Institutional Role to Ensure Success of DRR Measures for the Financial Sector



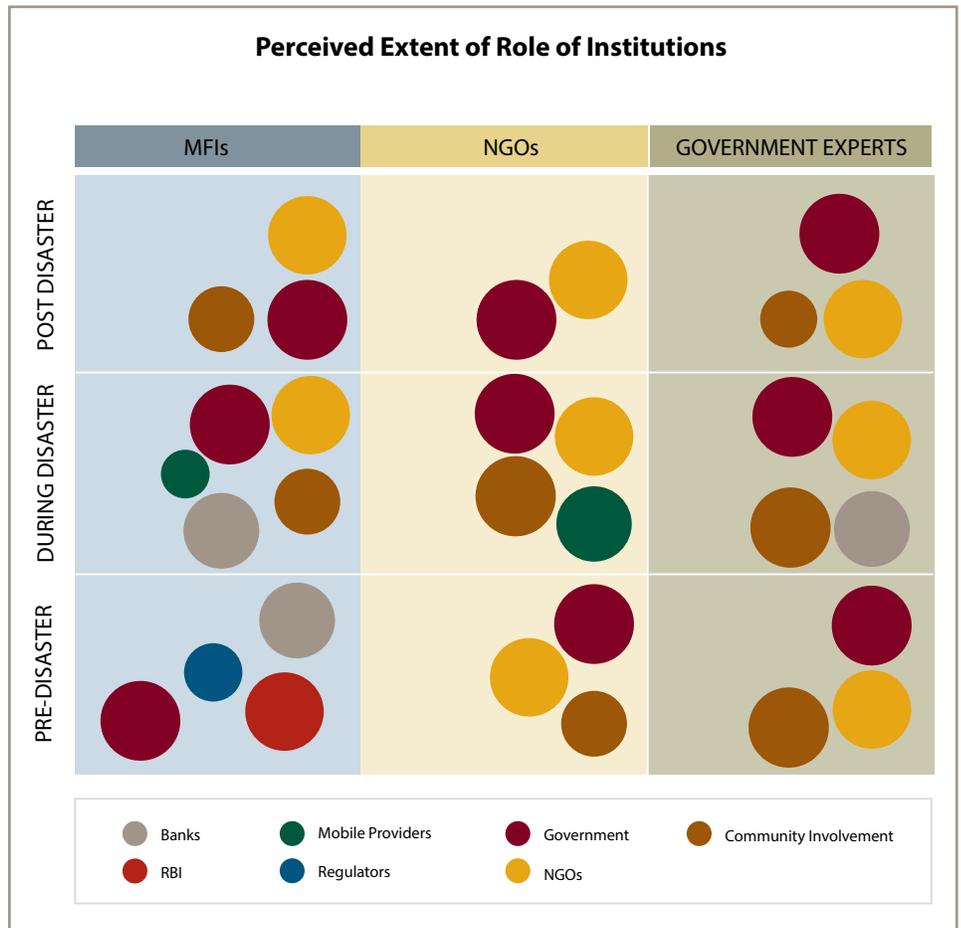
The involvement of multiple stakeholders in disaster planning is important for successful DRR and for ensuring the social and economic welfare of the affected populations.

From Figure 6, it is evident that all respondents saw the role of government as being crucial (x-axis) in all three phases of DRR (y-axis). Here again, the size of the bubble represents the number of respondents with similar views.

The other prominent actors identified were NGOs, especially to help with relief, recovery and rebuilding measures during and after a disaster. Respondents from

the MFI sector saw the role of banks, regulators and the RBI as being crucial in the pre-disaster phase. While the regulators were seen as being important agents in bringing together and facilitating discussions around DRR in the MFI sector, the support of banks and the RBI was seen as essential in enabling the sector to respond to disasters and being involved in any risk reduction efforts for the same (see Figure 6 for more details).

Figure 6: Perceived Extent of Role of Different Institutions in DRR



KEY FINDINGS AND OPPORTUNITIES FOR POSITIVE CHANGE

Though microfinance has been globally recognized as an important institutional channel for providing formal financial services to poor, the study results indicate that there has been very little work in the field of disaster risk reduction in this sector.

Risks Events and Categorization

- **Clients/Households:** They are highly exposed to the negative impacts of a disaster, which leads to depletion of health and material assets. Vulnerable to threats of food insecurity, loss of livelihood and life, they mainly resort to a change of location (migration), sale of assets or change in occupation. Depending upon the scale and frequency of disasters and their varying impact on resources availability and the business environment, microfinance clients are exposed to riskier market conditions. This phenomenon is called consequent risk.²²
- **Enterprise:** The impact on an MFI is proportional to the disaster risk exposure in its portfolio. This impact can be in terms of breadth of outreach (number of people reached), depth of outreach (poverty groups reached) and the spatial distribution of outreach (number of clients concentrated in disaster-prone areas or likely to suffer from a given disaster as a whole).²³ Primarily, MFIs are exposed to risk depending upon the kind of exposure their clients have in disaster-prone areas and the size, age and level of financial and operational sustainability of the institution. MFIs, in general, face internal risks (institutional, strategic, operational, financial management) and external risks (regulatory, competition, physical environment). In case of disaster, to some extent, these risks vary based on the preparedness of the institution.
- **Sector:** Since the role of MFIs in DRR has been minimal and unregulated, the exposure and impact can be calibrated only at the enterprise level. Macroeconomic effects of a disaster can be seen if there are significant changes like inflation or devaluation. Also, when a disaster affects clients living in areas served by multiple enterprises, there is risk of scaled reactions, such as mass defaults, distrust of micro-credit, loan waiver announcements, etc. As MFI clients are burdened with additional payback pressure in comparison with non-clients, there is always a possibility of loss in business.

It is important that the MFIs are well informed about the consequences of the disaster at the three levels described above. We see that the microfinance sector is relatively more prone to disaster risks because of the high vulnerability of poorer clients. MFIs should also be made aware of the importance of their role not only in activities related to disaster response and recovery, but also in disaster management and preparedness.

²² Chua, Ronald T., Simon Peter Gregorio, Marica Feria Miranda, Marie Apostol, and Daniel del Rosario. 1999. "Risk, Vulnerability, Assets and the Role of Financial Services in Reducing Vulnerability: A Study of the Women Clients of CARD Bay Laguna, Philippines." Report prepared for the 2000/2001 World Development Report. Washington, D.C.: Assessing the Impact of Microenterprise Services

²³ Pantoja, E., 2002, "Microfinance and Disaster Risk Management Experience and Lessons Learned," The World Bank, UNDP, and UNCDF.



Risk Mitigation and Resilience

We find that most MFIs do not have any disaster-targeted resilience or mitigation strategies. However, there are a few relevant opportunities where MFIs can move forward in refining their approach to develop DRR strategies:

- At the loan application stage, client risk exposure is captured. Since this is already a step in the current process, a more thorough disaster risk profiling of clients can be done. This information can be analyzed and used in both planning and post-disaster support. The MFIs interviewed conduct a thorough risk assessment of clients at the time of loan application. They collect information about clients' financial practices, including income, expenses, asset holdings, etc. All of this information can be used to build a disaster-oriented risk profile of the clients.
- Since there are already recognized entities to develop disaster management plans and provide support during a disaster, MFIs can be extremely helpful at these stages because of their networks and infrastructure. Their involvement during the planning and support stages will also create awareness about the impact of disasters and may lead to financial product innovations.

Current Practices

Most of the financial institutions surveyed in the study are using only some post-disaster supports like loan rescheduling. Most of the MFIs have set up robust mechanisms and protocols for managing internal and external risks, yet they still admit to being ill-prepared for disaster risks. This is primarily because of lack of information, knowledge and skills for technical, operational and financial management in such situations.

We find that microfinance institutions that are regularly exposed to certain natural disasters have developed some informal mechanisms or agreements with clients with regard to delayed repayments. Through their experiences, they have also sensitized field staff about interactions with clients in such situations. This also indicates that with experience and knowledge of risk exposure, the MFIs become much better prepared to mitigate internal risks and to support their vulnerable clients with effective coping mechanisms. We find the following to be key practices in the sector:

- **Risk prevention and mitigation:** Infrastructure-building projects at the community level are implemented through public-private partnerships. While community members are supported by a marginal loan amount from the financial institution, private and government partners also make monetary contributions toward building the local infrastructure. Such microcredit programs are successful because of technical advisors and the partnership between public and private organizations. This model was used in 1999 by SEWA Bank, Mahila Housing SEWA Trust (MHT) and private sector not specific for a disaster support.²⁴ SEWA Bank was the financial intermediary, and MHT provided technical assistance; both mobilized the target slum population to join the project.
- **Microinsurance services:** Asset insurance coverage is provided to clients in an earthquake-prone area in Gujarat, India. The success of such products stems from repeated exposure to disasters in selected areas. MFIs, through continued experience, have honed their products according to client profiles and the potential impact of a disaster. Microinsurance by itself proves to be very costly for the clients and is reported to be difficult to scale. However, if MFIs are sensitized to adopt and promote the usage of insurance through their operational network, it can prove to be one of the best measures to mitigate risk.

We did not find any financial products used by MFIs in the disaster response and coping stage. There is no financial support from investors or regulators for disaster emergency preparedness, so even institutions are reluctant to extend support to vulnerable clients or start operations in highly disaster-prone areas.

²⁴ *Ibid.*

Product Innovation

- There is limited support for innovating products like emergency loans and small-value, pre-approved loans. Based on the performance of existing and previous clients, a convenient credit option for larger amounts can be made available in case of disasters. This can be used toward livelihood generation or asset rebuilding in order to support a sustainable business model and healthy repayment habit.
- Savings can play a very important role in increasing the resilience of poor households to different crises. As MFIs are not permitted to hold savings for clients, this becomes a huge challenge and can only be done at the individual or client level. Still, MFIs can encourage their clients to save by promoting general savings in the bank accounts from which they collect repayments or disburse loans. Some MFIs also serve as Business Correspondents for the banks and can help in this process.
- For areas prone to regular disasters, clients can be given an option to save a certain percentage of the approved loan amount to be used in case of emergency to recover from disaster or even for repayment of an existing loan. This must be subject to proper regulatory compliance so that the clients are not exploited.
- SEWA Bank offers regular housing finance, including loans to repair or replace a roof, wall, floor or door; for monsoon proofing; and for housing expansion or rehabilitation. These loans are not marketed as disaster support products but could be scaled in different contexts. However, it is important to acknowledge that the existence of such products depends on the type of institution and its investor backing, as most of the MFIs find it challenging to market risky products.

Technology Utilization

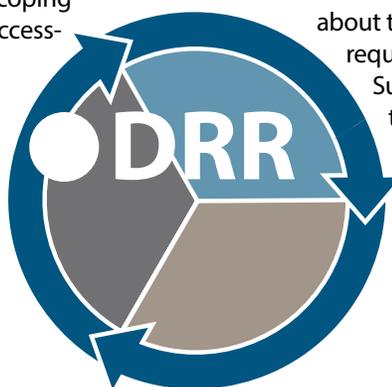
- Unless exposed to regular cycles of disaster, MFIs in India, have very limited awareness about the support they can provide in DRR strategies. Currently, the MFIs are more involved in post-disaster support activities, like loan rescheduling and house repair/reconstruction loans. However, the use of technology can also contribute to better DRR strategies. Most MFIs are using technology platforms on handheld devices to collect real-time data on cash collection and loan disbursements. A few MFIs that we spoke to have hired IT vendors to develop Android-based applications to record the process for loan application processing and disbursement. In case of disaster situations, these data can be easily accessed to identify and categorize clients and geographies into most vulnerable and less vulnerable groups. Based on this information, supportive credit facilities and recovery support can be provided in disaster-hit areas.
- MFIs have a very well-established network and correspondence with the poor. This represents one of the biggest resources that the institutions can use at various stages of disaster management. For instance, awareness generation and education on disaster preparedness can be disseminated through group meetings and one-to-one interactions. There are various other advantages of having an already existing social rapport on ground and infrastructure support that can be helpful before and during a disaster. During an Awareness Campaign, clients trust an existing lender more than a third agency or sometimes even government.



Recommendations

Through this research, we find that the microfinance sector is equally as vulnerable as its clients with regard to the impacts of a disaster. Therefore, there is a serious need to understand the importance of risk mitigation and preparedness rather than simply providing post-disaster support. Based on the observations, we make the following recommendations:

- Proactive role of industry associations:** Industry associations like MFIN and Sa-Dhan should play a more proactive role in bringing together the different stakeholders (sector experts, MFIs, investors NGO-MFIs and the government) on a common platform to discuss and facilitate the development of an industry-wide strategy to mitigate disaster risks. All the stakeholders have strong resources and unique expertise, which, if merged, can be put to excellent use for disaster management. Industry associations can engage with local disaster management bodies to encourage them to include MFIs in their strategies. They should also work with the RBI and the government to empower MFIs to meet finance needs in disaster-prone areas by providing a clear path to MFIs for finance support that can be channeled to clients for their needs. It is important to understand the needs and vulnerabilities of clients and establish a sustainable strategy for the microfinance sector to be able to implement risk-assessment, mitigation and coping mechanisms successfully.
- Needs assessment by the MFIs:** The microfinance industry should engage in identifying disaster-prone areas and assessing the volume of business and need for microfinance support before, during and after disaster.
- Awareness generation:** More discussion and academic research is needed to determine the involvement and role of the MFI sector in the DRR strategy. It is necessary to understand and test the feasibility of other global models and then be able to replicate them in the Indian context.
- Partnership development:** There is a need for additional support for partnerships between different stakeholders, as this can prove useful in developing a robust disaster management strategy. Microfinance institutions are financial entities and not philanthropic organizations. Within the purview of their main objective, they can provide support in disaster management and the recovery process. However, the research team found that because of lack of awareness about the knowledge and skills required, this is currently limited. Such partnerships can help fill the gap.





- **Moving toward preparedness:** Disaster risk management is an ongoing process and needs to be timely addressed at the disaster-planning phase. The MFIs should set up organization-level policies and a disaster management plan to be better prepared for unforeseen disasters (this can also be mandated by government). These should be reviewed and regularly tested to ensure their effectiveness at the time of need.
- **Promotion of savings:** In group meetings or client interactions, MFIs generally undertake the responsibility of educating their clients. MFIs have financial literacy modules, and education was provided by all the MFIs we interviewed. Using similar methods, client awareness about savings for disaster emergencies could also be promoted.
- **Incentivizing work in disaster areas:** As of now, most of the MFIs are not proactively operating in highly disaster-prone or regularly affected areas. This tends to exclude the people who are most vulnerable. Donors and governments should incentivize MFIs to get actively involved in operations in disaster-prone areas. This should also be supported with more research and development in technologies like early-warning systems, communications, product innovations, etc.
- **Disaster finance fund:** Availability of credit to support the client and the institution for the recovery process is required to keep the ecosystem functional. Currently, due to lack of availability of any dedicated line of credit for the MFIs, this service is limited during disaster. Credit can be provided in the form of emergency/disaster support funds from the government and/or donors to ensure MFIs that they have the required liquidity in disaster situations.
- **Replication of promising practices from the region:** For example, in Bangladesh, MFIs employ different risk reduction and disaster management strategies in collaboration with the government of Bangladesh (via the Bank of Bangladesh). Funded by donor grants or soft loans to MFIs, these strategies include developing DRR and prevention plans and offering products like no-repayment loans, varying interest and monthly installments options.

With ever-increasing natural and human-made uncertainty in the world, risk exposure due to disasters is increasing exponentially. The microfinance sector has a responsibility to support vulnerable clients, but financial institutions serving at-risk populations can be as vulnerable to these disasters and crises as their clients. This means that institutions need to be prepared to deal with the institutional, operational and financial risks resulting from crises while at the same time being able to help their clients mitigate their own risk exposure, in terms of loss of assets, income and livelihoods.

As the institutions are inhibited by limited policy and norms on the agenda of disaster, it is crucial for key stakeholders like the government, regulators and industry associations to not only acknowledge the important role that the microfinance industry can play in the area of disaster management, but also be instrumental in bringing together other players to support the contribution. There is a need to develop a robust strategy to enable an environment in which all the players can actively participate and mutually support each other, and thus mitigate the effect of disasters on the poor.

APPENDIXES

Appendix I: Major Disasters in India in the Last Five Years²⁵

Serial No.	Name of Event(s)	Year	State & Area	Fatalities
1.	South India floods	2015	AP, Tamil Nadu, Pondicherry	Over 500 dead and 18 lakh (1.8 million) displaced
2.	Droughts in India	2015–2016	AP, Karnataka, Telangana, Maharashtra, Odisha, Chhattisgarh, MP, UP	Not Known
3.	2015 Gujarat floods	June 2015	Gujarat	Minimum 80 dead
4.	Floods	October 2014	Jammu, Kashmir	Not known
5.	Cyclone Hudhud	September 2014	Andhra Pradesh, Odisha	Not known
6.	Odisha floods	October 2013	Odisha	21
7.	Andhra floods	October 2013	Andhra Pradesh	53
8.	Cyclone Phailin	October 2013	Odisha, Andhra Pradesh	23
9.	Floods/landslides	June 2013	Uttarakhand, Himachal Pradesh	4,094
10.	Cyclone Mahasen	May 2013	Tamil Nadu	8
11.	Cyclone Nilam	October 2012	Tamil Nadu	65
12.	Uttarakhand floods	August–September 2012	Uttarkashi, Rudraprayag, Bageshwar	52
13.	Assam floods	July 2016	Assam	Not Known
14.	Cyclone Thane	December 2011	Tamil Nadu, Puducherry	47
15.	Sikkim earthquake	September 2011	Sikkim, West Bengal, Bihar	60
16.	Odisha floods	September 2011	19 districts of Odisha	45
17.	Sikkim earthquake	2011	North Eastern India with epicenter near Nepal border and Sikkim	97 dead (75 in Sikkim)
18.	Assam Bodo militancy	2011	Assam (Manipur-Assam border)	Not Known
19.	2011 High Court bombings	2011	Delhi	12 dead, 76 injured
20.	2013 Patna bombings	2013	Patna, Bihar	1 dead, 6 injured
21.	2011 Mumbai bombings	2011	Mumbai, Maharashtra	26 dead in three locations
22.	Naxal Guerilla insurgency	Ongoing	Orrisa, Jharkhand, Bihar, AP, MP	Between 2011–2016, 2,000 dead

²⁵ NDMA reports.

Appendix II: List of Organizations Interviewed for the Study

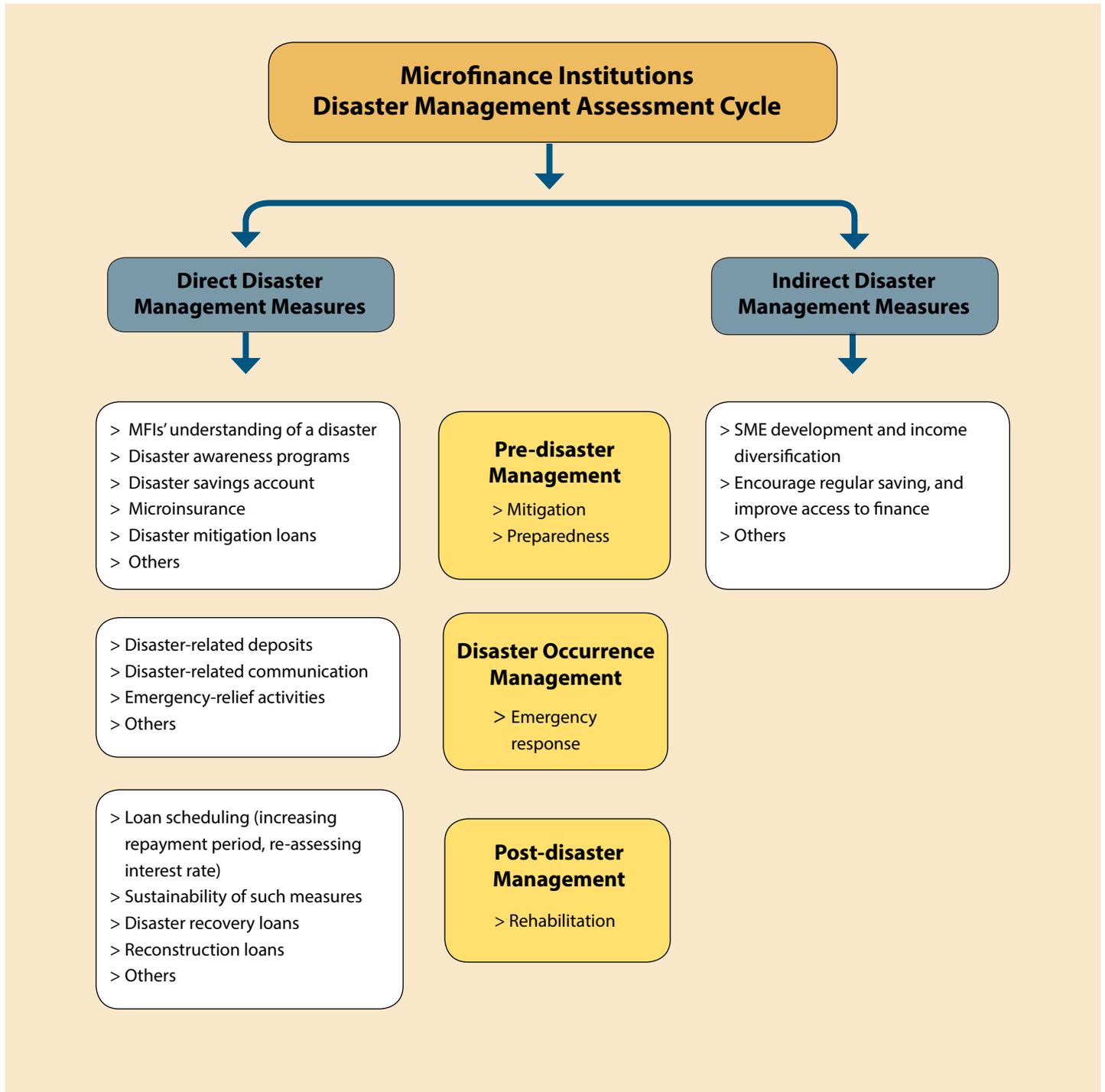
Serial No.	Name of the Organization	No. of States Covered	Approximate No. of Clients²⁶
1.	Sonata Microfinance (MFI)	8	650,000
2.	Margdarshak Financial Services (MFI)	4	130,000
3.	Seva Mandir (NGO)	1	70,000 households
4.	Cashpor Micro Credit (MFI)	5	100,000
5.	Utkarsh Microfinance (SFB)		120,000
6.	World Vision (NGO-MFI)	7	<500,000
7.	World Vision*	1	>500,000
8.	Grameen Sahara (NGO-MFI)	3	15,000
9.	Grameen Sahara*	3	15,000
10.	Hand in Hand (NGO-MFI)	8	1,229,352
11.	Aaranyak (ICIMOD) (NGO)	<2	<20,000
12.	Aajeevika/Rajasthan Shram Sarathi Association (NGO-MFI and MFI)	2	>100,000
13.	Vistaar Finance (NBFC-MFI)	12	100,000
14.	Bandhan Bank (MFI turned into a bank)	<12	<500,000
15.	RGVN Microfinance (MFI)	6	<300,000
16.	Adhikar India	3	130,000
17.	District Disaster Management Authority (Dhemaji)**	-	N/A

* Organizations with an NGO branch and an MFI counted as one institution in the main report.

** Government regulator

²⁶ As per reported numbers given during the interviews or collected from online sources.

Appendix III: Disaster Management Cycle—MFI Sector



Appendix IV: DRR Assessment Process**Pre-disaster Response**

- > Understanding of a disaster
- > Self-reported sense of preparedness
 - Housing
 - Finances/assets
 - Plan in case of a disaster

Disaster Occurrence

- > Reliance
 - Household members
 - Community
 - Government
 - MFIs
 - Other organizations
- > Impact
 - Household
 - Livelihood
 - Finances/assets

Disaster Occurrence

- Post-disaster Help Received
- > Economic support
 - > Relief support
 - > Relocation support
 - > Reconstruction reliance
- (Units)
- Community
 - Government
 - MFIs
 - Other organizations

Other:

- > Self-reported gaps during the disaster cycle in terms of response and support from institutions
- > Possible role of MFIs in different phases of the disaster cycle
- > Preferred financial products to cope with disasters and the likelihood of their use

Appendix V: Case Study

Figure 7: Map of Dhemaji District in Assam (region highlighted in red)



Introduction

The name *Dhemaji* is believed to be derived from a combination two Assamese words: *dhal* meaning “flood,” and *dhema-li* meaning “play.” The Dhemaji district occupies an area of 3,237 square kilometers, and it is one of the most remote districts of India, in the easternmost part of Assam. Being at a confluence of rivers with the mighty Brahmaputra River flanking the district and its numerous tributaries running through the district, the region is perennially affected by floods.

Due to the district’s vulnerability to annual flooding, the disaster management approach adopted by the government has been to prepare the people to cope with the floods. The study conducted a focus group discussion in Deheri village of the Dhemaji district to document the realities of the village in relation to the recurring disasters and the impact of any measures taken by the government, non-governmental organizations and MFIs present in the area.

The village of Deheri has around 200 families who live and work in the region. The vast majority of them live in tin sheds, and the primary occupation is agriculture. There is one primary school in the village, which was badly affected by flooding in June 2015. The structure that works as a makeshift school is made out of tin and is not on higher ground (unlike the houses in the area), which would prevent the flooding of floors when the water level rises minimally. There are no *pakka* tar roads leading to the village, and the *kuccha* dirt roads end up getting flooded even with a minimal rise in the water level of the river.

Role of MFIs

The study found that many of the microfinance institutions (MFIs) are privately owned and follow a corporate, profit-seeking model. We interviewed a few MFI organizations in the area to assess how these microfinance institutions responded to the floods that the district has been prone to for more than a decade. The only products being offered were small loans that were smaller in size than those offered in some other areas of the district. The loan size reflected the high risk involved in offering a larger loan amount in this area as compared to other less disaster-prone areas of the district. There were no insurance products offered by the MFIs interviewed to insure clients against damage or loss of life caused by floods, cyclones or other natural disasters.

Excluding actions for economic development by providing loans for income-generating assets, most MFIs did not make other pre-disaster efforts to limit the vulnerability of their clients. Still, the critical role of MFIs in addressing vulnerability was evident from the fact that a majority of member families had taken loans after disasters to meet their various requirements, including repairing the assets damaged by the floods, purchasing new income-generating assets and house repairs. After a disaster, the role of MFIs in the village was limited to rescheduling loan payments and providing a break in the collection of loan installments for about two months to ease the burden of repayment on affected families.

Role of NGOs

There were very few NGOs that were actively working in Deheri village. Most of the DRR-related activities undertaken by the NGOs were only in post-disaster relief efforts. Only one NGO was directly working on DRR in the pre-disaster period by setting up an early-warning flood system in the village that gives community members a two-hour warning before the flooding begins. The warning enables the members of the community to secure their livestock and other valuables to prevent damage (see box for more details on the early warning system).²⁷

Figure 8: Early-Warning Flood Instrument



Community-Based Flood Early-Warning System (CB-FEWS)

To enhance the resilience of 45 vulnerable communities in the Indian Himalayan region to flood hazards, a collaboration between ICIMOD, CICERO and Aranyak created the Community-Based Flood Early-Warning System (CB-FEWS).

In India's Dhemaji and Lakhimpur districts, CB-FEWS was piloted by ICIMOD and maintained by Aranyak in the Jiadhul and Singora sub-basins of the eastern Brahmaputra River. It has warned villages of impending floods nearly 50 times, giving people time to move their families and livestock to safety and alerting the district disaster management authorities to dispatch flood rescue teams.

Role of the Government

The government of India has adopted several policies aimed at assisting disaster-affected populations. The policy measures include various cash grants, cash transfers, relief materials and the strengthening of embankments. The interview with the district disaster management authority (DDMA) suggested proactiveness on the part of the government in handling the disaster situation in Dhemaji. DDMA communicated that apart from providing relief measures and taking efforts to strengthen embankments, it also conducted DRR training with various government departments like public health, education and Panchayati Raj institutions (PRI). However, the focus group discussion conducted in Deheri with village community members pointed toward a different reality. While there were visible government efforts to ensure the strength of embankments, post-disaster visits from the health department and provision of relief measures, there was an absence of any trickle-down of initiatives discussed during the official training.

“The government does come during and after the disaster, but for minimal things. The embankment was leaking, and we feared flooding in July this year; the government responded quickly and did a temporary fix. That, however, was never replaced with a permanent measure [and] the leakage is still only being averted by the use of sand sacks.”

**— Deheri Village Member,
Dhemaji District**

²⁷ ICIMOD, 2016, “Early Flood Warning System,” <http://www.icimod.org/?q=16932>.

Organizational Information

The **SEEP Network** commissioned IFMR-Lead, Centre for Microfinance, to conduct this study in 2016. This study is part of the Disaster Risk Reduction (DRR) Program that aims to create awareness of the need for disaster preparedness in financial services markets and to build a general consensus among key stakeholders around effective disaster risk reduction practices. The DRR Program has been co-designed and funded by the Citi Foundation. For more information, visit seepnetwork.org/DRR

SEEP is a global learning network. We support strategies that create new and better opportunities for vulnerable populations, especially women and the rural poor, to participate in markets and improve the quality of their life. www.seepnetwork.org

About IFMR LEAD

IFMR LEAD is a non-profit research organization conducting high-quality scalable action research and outreach in development economics and finance. IFMR Lead's Centre for Microfinance (CMF) conducts research in the areas related to credit, savings, insurance and pensions, livelihoods, and policy and regulation. www.ifmrlead.org

About Citi Foundation

The **Citi Foundation** works to promote economic progress and improve the lives of people in low-income communities around the world. They invest in efforts that increase financial inclusion, catalyze job opportunities for youth, and reimagine approaches to building economically vibrant cities. The Citi Foundation's "More than Philanthropy" approach leverages the enormous expertise of Citi and its people to fulfill its mission and drive thought leadership and innovation. www.citifoundation.com

