

Post-Nargis Social Impacts Monitoring: June 2009



A report prepared by the Tripartite Core Group comprised of representatives of the Government of the Union of Myanmar, the Association of Southeast Asian Nations and the United Nations with the support of the humanitarian and development community.



December 2009

FOREWORD

On 2 May 2008, Cyclone Nargis struck the coast of Myanmar. Over two days, it moved across the Ayeyarwady Delta and southern Yangon Division. Those who survived lost their family members, homes and, in many cases, almost all of their assets. In its aftermath, scores of domestic and international actors, including private citizens, religious groups, local and international aid organizations, ASEAN and its member countries, the government, UN agencies, several bilateral donors and others contributed their time, money and organizational skills to assist people of the Delta.

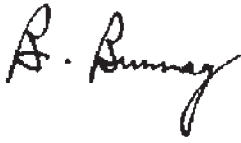
The success of any post-disaster aid effort depends on how programs respond to and reflect the changing needs and dynamics of affected communities. In order to understand these changing dynamics, the Tripartite Core Group (TCG), composed of the Government of the Union of Myanmar, ASEAN and the United Nations (UN), approved on 9 September 2008 a comprehensive results framework and monitoring system. The framework includes results monitoring, aid tracking and community monitoring. The community-monitoring component comprises the Post Nargis Periodic Review, which is designed to report regularly on progress in meeting household and community-level needs in affected areas, and a complementary qualitative monitoring of the social and socioeconomic impacts of the cyclone and aid effort, the Post-Nargis Social Impacts Monitoring.

This report outlines the results from the second phase of the social impacts monitoring (SIM 2), conducted a year after the cyclone in June 2009. It builds on research conducted during the first phase of the social impacts monitoring (SIM 1), undertaken six months after the cyclone in November 2008, and on the Post-Nargis Joint Assessment (PONJA), which took place in the immediate aftermath of the cyclone.

The report aims to understand how Cyclone Nargis and the subsequent aid effort have affected key aspects of social and socioeconomic life in Delta villages a year after the cyclone. It focuses on three areas: aid effectiveness, the socioeconomic impacts of the disaster, and the impact on social relations within and between affected communities.

Although many Nargis-affected communities have begun to recover, needs remain immense. Lessons from other disasters show that if humanitarian partners fail to sustain assistance before communities have adequately recovered, the successes of any immediate recovery phase may be short-lived. We thus request that donors, humanitarian partners and other members of the international community continue to support the vital humanitarian and recovery efforts for cyclone-affected communities in the Delta.

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The Tripartite Core Group wishes to express its appreciation to the many people who made the Post-Nargis Social Impacts Monitoring possible, particularly to the people in Delta villages and towns who participated in the research. Survivors of the cyclone continue to show immense resilience in coping with the aftermath of the disaster. This report is dedicated to them and to the many organizations and individuals that are supporting them.

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EXECUTIVE SUMMARY

Natural disasters can have profound impacts on the social and economic fabric of affected communities. These evolve over time, responding to the strength of community coping mechanisms, the effectiveness of the aid effort and changes in the wider social and economic environment. As time goes on, the needs and priorities of affected communities change accordingly.

The success of any post-disaster aid effort depends on how programs respond to and reflect such changing needs and dynamics. Since Cyclone Nargis, the Tripartite Core Group (TCG), composed of the Government of the Union of Myanmar, ASEAN and the United Nations (UN), has thus developed a Post-Nargis Recovery and Preparedness Plan to frame aid responses as well as a comprehensive monitoring system that aims to inform them.

One component of this is the Post-Nargis Social Impacts Monitoring (SIM), which aims to understand how key aspects of social and socioeconomic life in villages have changed since Cyclone Nargis. The SIM (SIM 2), conducted in June 2009, builds on a first round of research undertaken in November 2008 (SIM 1), and on the Post-Nargis Joint Assessment (PONJA), which took place immediately after the disaster.

The report assesses three areas:

1. *Aid effectiveness*: this analyses the recovery effort at the village level as experienced by affected villagers. It examines how much and what types of aid people are getting, needs and shortfalls, how assistance is being targeted and delivered, how decisions are made, and how complaints are resolved.
2. *Socioeconomic impacts*: this analyses the ongoing impacts of Nargis on key occupational groups such as farmers, fishermen and casual labourers. It examines livelihoods, debt and credit and land tenure.
3. *Social impacts*: this explores how Nargis and the subsequent aid effort have affected social capital, the capacity in villages for collective action, group relations within villages (among gender, age, religious and ethnic groups), inter-village relations and relations among villagers and their leaders.

As the previous November 2008 research (SIM1) highlighted concerns about villagers possibly falling into a debt trap, this report also presents an in-depth analysis of credit markets in the Delta, the Credit Market Analysis (CMA). The CMA analyses different aspects of borrowing and lending, including credit supply, demand and shortfalls; the usual terms of credit and use; and the implications of default. It focuses on borrowers and lenders at the township level.

SIM 2 is based on in-depth qualitative interviews, focus groups and discussions involving over 2,450 villagers in 40 villages in eight townships across the Delta. Villagers were selected to be representative of villages in the Delta and were chosen according to primarily livelihood, distance from urban centres and levels of cyclone damage. The CMA is based on interviews, focus groups and discussions involving over 320 people conducted in the capitals of the same eight townships covered by the SIM 2 study.

Aid Effectiveness

Cyclone survivors continue to prioritise livelihoods aid

A year after the cyclone, the needs of affected communities have evolved. In SIM 1 and SIM 2, villagers overwhelmingly prioritized aid to enable them to recover their livelihoods. Villagers in SIM 2 also prioritized health, education and aid to recover small-scale community infrastructure to enable them to have better links with markets and other villages. This reflected a shift from emergency to longer-term recovery priorities.

There has been a shift from emergency aid to longer-term assistance

The aid effort appears to have responded well to the need for livelihoods aid identified by communities in SIM 1: 34 out of 39 villages in the study received some form of livelihoods assistance in SIM 2. Overall, the types of aid received have changed. The emphasis on providing common types of 'emergency' assistance, such as food and basic household goods, has shifted to assistance more commonly associated with early and longer-term recovery, including support for repairing small-scale community infrastructure. The government has continued its rebuilding effort, particularly in building physical infrastructure, such as roads, houses and schools. Disaster risk reduction measures also increased, initiated both by aid providers and communities themselves.

However, aid levels have dropped and are too low to enable cyclone survivors to recover their livelihoods adequately

Overall aid levels have dropped sharply and livelihoods aid has decreased along with it. Although the livelihoods aid received so far has assisted villagers, its overall levels have been too low to enable cyclone survivors to recover their livelihoods adequately. Levels of aid varied among villages, as did the pace of recovery. Highly damaged villages and very remote villages continue to receive more aid than less affected or less remote villages. SIM 2 found that neither damage nor overall levels of aid appeared to strongly determine the pace of recovery.

Villagers mostly preferred cash or affordable credit but sometimes in-kind assistance, reflecting the importance of consulting with and giving choices to villagers

As in SIM 1, assistance in the form of cash or credit appeared to be more effective—and preferred by villagers—than in-kind assistance, because it enabled households to prioritize among their varied needs. Levels of satisfaction with cash programs—particularly conditional cash transfer programs—were high. In some cases, however, farmers said they preferred in-kind assistance because it enabled them to avoid social pressure to repay debt to creditors, reflecting the importance of community choice in aid decisions.

Aid providers continue to make aid decisions, and aid distribution is more formalized through formal leaders and village emergency committees. Communities have made significant contributions to the aid effort

Aid decisions continue to be made by aid providers rather than aid recipients. Participation in the aid effort appears to have become more institutionalized: formal leaders and village emergency committees now play a greater relative role in aid distribution and management within villages than village elders or religious leaders. A wide variety of targeting methods were used, though most common

was to target particular livelihoods groups, the marginalized or all households. Community contributions to the aid effort have increased. Community members have helped to renovate or reconstruct schools, pathways, ponds and other community infrastructure, and did not view this as burdensome.

The amount of information shared about aid varied. A little over half of villages conducted meetings and shared information about aid, though few kept regular minutes or shared lessons learned. A lack of clear information about aid led to some cases of perceptions of misuse or to conflict about aid.

Socioeconomic impacts

Socioeconomic conditions are still challenging, and are exacerbated by the wider economic environment.

While townships and villages have often been able to re-build basic infrastructure and re-start some livelihood activities, the socioeconomic conditions of the Delta are still challenging. There has been little overall progress with livelihoods recovery. Farmers, fishermen, casual labourers and small entrepreneurs such as vendors and shopkeepers face great economic difficulty. They are affected by both the cyclone and by wider economic constraints, such as falling farm gate prices and a scarcity of credit. Livelihoods aid has been helpful but insufficient.

Farmers, fishermen and casual labourers continue to struggle

Farmers have struggled to recover their livelihoods. They have been unable to afford adequate farming inputs, so have reduced how intensively they have cultivated land. This has caused farming yields to drop. Total yields of summer paddy dropped 46 percent on average compared to before the cyclone. Yields for monsoon paddy dropped by 33 percent. Farmers also reported that farm gate prices for paddy had dropped from their peak just before Nargis. On average, prices of the most commonly grown types of paddy were about 20 to 25 percent lower than before the cyclone, meaning that farmers are both growing less and making less from what they grow.

There appeared to be some progress with restarting fishing, though less progress in the returns of fishing as a source of livelihood. In most villages, fishermen reported that both overall fishing yields and the price of fish had declined. Fishing assistance has also declined since SIM 1. Most fishing aid provided has been small-scale fishing gear that enables fishermen to earn a subsistence income, rather than the kind of larger-scale aid and capital necessary to revive the fishing value chain.

Casual labourers also continue to struggle. As in SIM 1, the inability of big farmers to recover their livelihoods and cultivate their land as intensely as before has reduced job opportunities within villages for casual labour. Furthermore, some farmers and fishermen have themselves become casual labourers, so competition for the jobs that do exist has increased. With little ongoing support, casual labourers are living a precarious existence.

Debt levels are rising and interest rates remain high. Some of the people in villages and towns who before faced the risk of a debt trap are now in a debt trap.

Household indebtedness has continued to rise. Before the cyclone, people reported being able to cope with debt, despite high interest rates. The cyclone,

however, destroyed people's assets and ability to repay pre-existing debts, leading SIM 1 to identify the risk that households would fall into a debt trap.

Many households are now in a debt trap, from which the prospects of escape are few without external support. Among the more than 2,000 farming households in the SIM study, farmers who had small debts before Cyclone Nargis have seen their debt totals rise by 17 percent on average; those who had large debts before Nargis have seen their debt totals increase on average 138 percent. The debt totals of big farmers have increased more than those of medium or small farmers. Fishermen have seen their debt double or triple since Nargis. Casual labourers have seen their debt increase 50 to 400 percent. The debt totals of small entrepreneurs living in township capitals have also increased, mostly because they have had to borrow to repair or rebuild homes damaged by the cyclone or reinvest in their businesses. Larger businesses, such as rice mills and fertilizer shops, which also lend money to villagers, have seen their businesses decline and are thus unwilling or unable to lend as before or to provide advance payment to farmers.

Interest rates remain high, though they have changed little since Nargis. Rates are higher for those borrowing small amounts and for those without collateral, and are higher for casual labourers and fishermen than for farmers. The average monthly interest rates after Nargis were on average 5 to 9 percent after Nargis for farmers, 6 to 10 percent for fishermen, and 13 percent for casual labourers. In some cases, however, interest rates were as high as 20 percent for farmers, 30 percent for fishermen and 50 percent for casual labourers. The lowest interest rates available were offered by agricultural development banks or microfinance institutions and were in the range of roughly 1 to 3 percent a month, but the supply of such credit was extremely limited.

Meanwhile, the credit supply has shrunk. Demand for credit far outweighs supply.

Meanwhile, the credit supply has shrunk significantly. The formal credit supply in the Delta is limited, and is vastly outweighed by demand, so credit markets in the Delta are dominated by informal financial businesses, such as private moneylenders, pawnshops and gold shops, that lend based on trust and social collateral. All such private moneylenders reported that they had faced high levels of default since Cyclone Nargis. Many of them have tried to cope by being flexible with repayment terms, extending repayment periods or freezing interest payments. Nevertheless, they have faced high rates of default, as borrowers affected by the cyclone have had difficulties in repaying them. Pawnshops reported that customers from villagers no longer have anything to pawn. Private moneylenders have thus lost capital and have seen their businesses decline, which has led to a decrease in the overall supply of credit in the system. This risks turning into a vicious circle, where farmers continue to have too little capital to reinvest in production, leading to further falling yields and an inability to repay debt.

Farmer and fishermen have thus downgraded their livelihoods and produce less, which has impacts up and down the value chain. Villagers have begun to lose land to moneylenders

These economic difficulties have led to changes in the livelihoods mix in villages. The most common pattern has been for larger-scale farmers to become smaller-scale farmers, and for larger-scale fishermen and fish collectors to become small-scale or subsistence fishers. Farmers have begun to sell land to others, practice sharecropping or use existing farmland as collateral to get further credit. Farmers have also begun to lose land to moneylenders as they fail to meet their debt

payments, leading to the beginnings of a redistribution of wealth towards creditors. Some farmers and fishermen are now making a living as casual labourers. This downgrading of livelihoods has reduced job opportunities for casual labourers. It has also contributed to the decline of livelihoods of businesses further up the value chain, such as rice mills, fertilizer shops and fish collecting businesses.

Social impacts

Social capital is still strong, but is getting weaker in a few villages

Social capital is still strong overall, driven by the mutual participation of community members in the aid effort, which has helped strengthen social cohesion. However, cases of aid-related tension rose, which has weakened social capital in some villages. There was also some decrease in psycho-social well being, driven by cyclone trauma and economic difficulty, though this has not translated into any increase in violence or crime.

Gender relations remain good but widows, widowers and orphans face the greatest challenges

Overall, villagers reported that relations among men and women remained good, and women appeared to be more aware of aid affairs than before. However, in villages with high overall or disproportionately high male or female death tolls, gender work roles within households have shifted. This has created a noticeable double burden for widows and widowers, who are responsible for generating income outside the household and for childcare and other household responsibilities. Orphans also faced special problems: most orphans are being taken care of by monasteries or by relatives, but their relatives for the most part cannot afford to keep them in school, so some orphans have had to start work as child labourers.

Relations among age groups continue to be strong

Young people continue to play an active role in relief and recovery activities, such as repairing and renovating schools and pathways. Villagers reported that relations among young people and the elderly continued to be good, and that youth groups have become more involved than before in community-wide affairs.

The roles of religious leaders in the aid effort have changed somewhat

In the aftermath of the cyclone, all kinds of religious leaders were involved in the aid effort. A year later, as the immediate emergency has dwindled, Buddhist monks appeared to have focused on providing support for education and other realms. Christian and Muslim religious leaders continued to be involved in day-to-day recovery activities.

There were too few ethnically or religiously mixed villages to draw conclusions about the impact of the cyclone on religious or ethnic relations. A few cases of social tension arising from exclusive faith-based aid targeting, however, arose.

Relations among villagers and their leaders are similar to before

Relations among villagers and their leaders—formal leaders, religious leaders and village leaders—tended to remain the same or improve. Formal leaders continued to play a strong role in aid-related affairs, though the roles of village elders in aid affairs decreased somewhat since SIM 1. Relations among villagers and formal

leaders were mostly good, though deteriorated in a few villages where there were perceptions of aid inequity or capture of aid by elites.

Inter-village interactions have increased.

There has been some change in inter-village interaction. Social and religious interaction has increased somewhat, but business and administrative interaction has decreased, especially where pathways and bridges connecting villages remain destroyed. Shared community infrastructure programs have contributed to improved inter-village social capital as villages have worked together on shared priorities but, as with intra-village relations, there were some cases of perceived inter-village aid inequity leading to social tension.

SECTION 1: INTRODUCTION

Natural disasters have profound immediate impacts. Lives are lost; shelters are destroyed; assets are damaged or destroyed. Those who survive may face acute health or sanitation problems and food or water shortages. When Cyclone Nargis hit the Ayeyarwady Delta and southern Yangon division in Myanmar on 2 May 2008, it brought devastation in its wake. An estimated 140,000 people died, and damages and losses were estimated at around US\$ 4 billion.¹ In its aftermath, scores of domestic and international actors launched a wide-ranging humanitarian aid effort to address immediate emergency needs. The Government of the Union of Myanmar, ASEAN and the United Nations (UN) formed a Tripartite Core Group (TCG) to coordinate this aid effort.

After disasters, the needs of affected communities evolve. As immediate survival priorities recede, disaster survivors start focusing on how to rebuild their lives and communities. Communities develop coping mechanisms to help them deal with the disaster and aid effort, which can have wide-ranging impacts on local socioeconomic structures and social relations. At the same time, new obstacles to recovery can emerge as different individuals and institutions adjust their behaviour in the post-disaster environment. Resource scarcity can increase competition or promote cooperation.

The success of any post-disaster aid effort depends on how programs respond to and reflect such changing needs and dynamics. Since Cyclone Nargis, the TCG has thus developed a comprehensive monitoring system that aims to inform aid responses. One component of this is the Post-Nargis Social Impacts Monitoring (SIM). The SIM aims to understand the changing needs and priorities of villagers, how social relations and socioeconomic life are evolving, and the impact of the aid effort. It focuses on 40 villages spread across the Delta. By focusing on a limited set of villages, it provides in-depth information on how village life is changing post-Nargis and how aid responses can best help Delta communities. It complements the ongoing quantitative Periodic Review assessment work, which measures progress against recovery indicators in a wider set of affected villages.

The first SIM (SIM 1) was conducted in November 2008 and assessed how the disaster had affected Delta communities in the first six months after Nargis. This report outlines the results of the second social impacts monitoring (SIM 2) conducted from May to June 2009. It revisits the same 40 villages to assess changes from December to June 2009.

1. Focus Areas

As with SIM 1, SIM 2 focuses on three areas identified through the initial social impacts assessment conducted as part of the Post Nargis Joint Assessment (PONJA), released in July 2008. SIM 2 tracks changes in these areas since SIM 1:

Aid effectiveness: This analyses the recovery effort at the village level as experienced by affected villagers. It looks at how much and what types of aid people are getting, needs and shortfalls, how assistance is being targeted and delivered, how aid decisions are made and how complaints are resolved.

Socioeconomic impacts in the Delta: This examines the ongoing impacts of Nargis on key occupational groups such as farmers, fishermen and casual labourers. It looks at issues such as livelihoods, debt and credit and land tenure.

¹ Tripartite Core Group (2008a). *Post-Nargis Joint Assessment*. Yangon: TCG.

Social impacts: This explores how Nargis and the subsequent aid effort have affected social capital, the capacity for collective action, group relations within villages (gender, inter-generational, inter-religious and inter-ethnic), inter-village relations, and relations among villagers and their leaders.

2. Methods

SIM relies primarily on in-depth qualitative fieldwork conducted between May and June 2009 in 40 villages spread across eight affected Delta townships (see Map A1).² In all, the research teams interviewed over 2,450 villagers. There were three rounds of village-level fieldwork: a pre-test in eight villages, where the field guide was refined, and then two rounds of 15 and 17 villages, respectively. For SIM 2, the researchers also conducted a township-level analysis of credit markets in the Delta, focusing on the changing behaviour of lenders and borrowers. They conducted this research in all eight townships from April to May 2009.

The villages studied in SIM 2 are the same as in SIM 1 to allow changing conditions to be tracked over time. Villages were originally selected to cover the eight most severely-affected townships to ensure that different predominant village livelihoods were included in the sample (in rough proportion to the importance of those livelihoods in the Delta economy), and to maximize variation in the impacts of Nargis and in the level of remoteness, both of which were hypothesized to affect recovery. Four less-affected control villages were also included in the sample.³

Researchers spent approximately three days and two nights in each village. Overall, the teams conducted 438 formal key informant interviews, 230 focus group discussions with an average of seven to eight people each, and 174 informal discussions. The researchers selected respondents to include a wide cross-section of villagers, including: the village head and other official village leaders; village elders and religious leaders; others who were involved in aid decisions; farmers, fishermen, labourers and those in other occupations; (potentially) vulnerable groups, including female-headed households, disabled or injured people and the elderly; and young men and women. To the extent possible, the researchers tried to get perspectives on the same topics from each group in order to triangulate the information received.

The researchers also collected case studies to provide in-depth explorations of the issues emerging. Throughout the report, these are used to illustrate the experience of villagers in the Delta since Nargis. In each village, the researchers also collected standardized data to allow for comparative village analysis.

3. Report Structure

The report continues as follows:

- Section Two: Aid Effectiveness
- Section Three: Socioeconomic Impacts
- Section Four: Social Relations
- Section Five: Conclusions

² A more comprehensive discussion of the methodology employed is given in Annex A.

³ All four of these villages turned out to have been affected by Nargis, although to a lesser extent than most other villages. One of the farming villages (not a control village) turned out not to have been directly affected by the cyclone.

In each area, the focus is primarily on changes since SIM 1 was conducted in November 2008. In areas where this kind of time-bound information was not available, however, the report focuses on changes since just before Nargis.

The annexes give a full outline of the methodology employed by the social impacts monitoring.

SECTION 2: AID EFFECTIVENESS

This section examines the state of the aid effort a year after the cyclone and explores how it evolves from the state described in SIM 1, six months after Nargis. The research aims to understand how villagers experience the aid effort, so takes as its starting point villagers' perceptions of aid. These were triangulated where possible with objectively verifiable criteria and data.⁴

The research found that aid received by villages has declined significantly since the first six months after Nargis. Very few villages are now receiving food from aid providers. The number of villages receiving shelter assistance has halved. Livelihoods assistance, particularly in the form of farming and fishing inputs, has also declined even though remaining needs are immense. Disaster risk reduction efforts and aid to provide public goods such as community infrastructure have increased but, as is discussed in Section 3, the relative lack of attention being paid to replacing private assets is hampering progress in restoring economic life in affected villages.

A year on from the cyclone, there was little correlation between how well villages were recovering and either how damaged they had been or how much aid they had received. This does not suggest that aid was ineffective; rather, it suggests that aid effectiveness depended instead on a complex set of variables that played out differently in individual villages. Our analysis of individual cases suggested that aid was most effective—and perceived by community members to be most effective—when it fit with the priorities of villagers, was targeted and distributed according to principles agreed to with the participation of villagers, and where effective accountability measures were in place.

1. Aid Received

Levels of aid

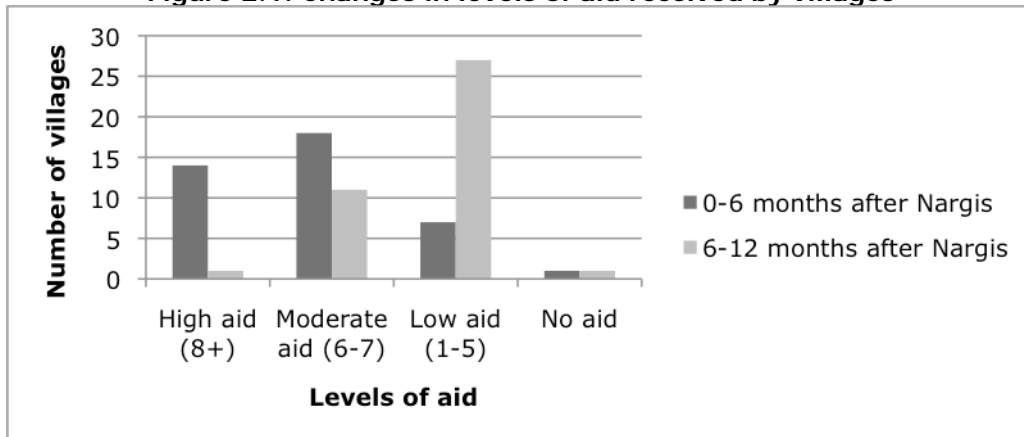
Aid has declined sharply over the past six months. Six months after the cyclone, 14 villages received high levels of aid, 18 received moderate levels and seven received low levels. Six months later, only one village was receiving high levels of aid, eleven were receiving moderate levels, and 27 received low levels. One village, which suffered very little cyclone damage, still received no aid. Figure 2.1 below highlights the extent of the reduction.

Box 2.1: Counting Aid

How are aid levels assessed in SIM? It was hard to quantify precisely the monetary value of aid received at the village level, since villages did not tend to keep detailed records of the value of aid received. However, they did have records of the types of aid received from each organization, and the levels of aid received within each type varied little across villages of similar size. The researchers thus used the number of types of aid as a reasonable proxy for aid levels, and categorized villages into those receiving 'high' levels of aid (eight or nine types), 'moderate' (six or seven types), or 'low' (less than six types). These were tracked for SIM 1 and SIM 2, which enabled a comparison over time.

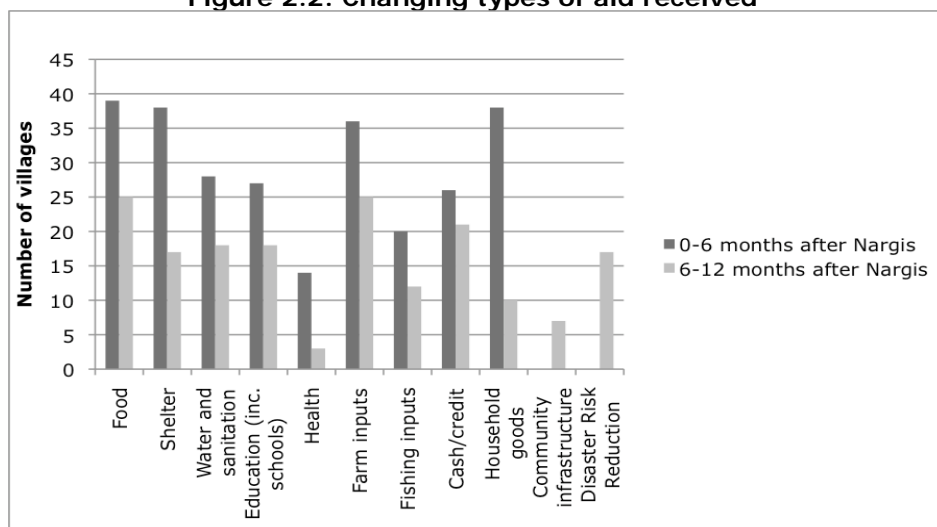
⁴ 'Aid' refers to all types of assistance received in villages, both cash and in-kind and across multiple sectors. In each village, researchers obtained disaggregated data on aid received, broken down by sector and aid provider. However, as villagers themselves did not tend to distinguish among different sources of assistance, such as government, local and international non-governmental organizations (NGOs), UN agencies, the private sector, and religious groups, all entities providing assistance are referred to in this report as 'aid providers'.

Figure 2.1: Changes in levels of aid received by villages



Types of aid

The types of aid received are changing (Figure 2.2). All forms of aid identified in SIM 1 declined six months after Nargis. The greatest decline was in the provision of health-related aid with an 80 percent drop in the number of villages receiving assistance (from 14 to 3 villages), household goods (a 74 percent drop, from 38 to 10 villages) and shelter (a 55 percent drop, from 38 to 17 villages). The emphasis on providing common types of 'emergency' assistance, such as food and basic household goods, has shifted to assistance more commonly associated with 'early recovery'. Seventeen villages now report receiving assistance for public infrastructure (mainly from government), including assistance to build schools. Assistance within sectors such as education has changed: early aid provided basic materials for schoolchildren; the focus is now primarily on providing new school buildings.

Figure 2.2: Changing types of aid received⁵

The researchers asked what aid had been provided over the six-month period between SIM 1 and SIM 2. However, just because aid had been supplied over that period did not mean it was *still* being supplied when the SIM 2 research was conducted. The notable example is food aid. Although 25 villages received food aid during the six-month period between SIM 1 and SIM 2, most received it in the early part of the six-month period only and were not receiving any food aid at the

⁵ Data for community infrastructure and disaster risk reduction for this chart were not available for SIM 1; however, the interviews confirmed that aid in these categories had increased.

time of the research. At the time of the research (May to June 2009), only five out of 40 villages reported they were still receiving food aid, and in all of those villages, aid providers targeted food aid solely at labourers rather than at the whole population. In the villages where food aid had stopped, villagers reported that it stopped between January and April 2009.

Livelihood aid also decreased, though less than most other forms of assistance. Six months after the cyclone, 36 villages received farm inputs and 20 villages received fishing inputs. A year after the cyclone, only 25 villages received farm inputs, and only 12 received fishing inputs. Cash and credit aid decreased less than in-kind assistance. In June 2009, 21 villages received aid in the form of cash or credit, slightly lower than the 26 villages six months earlier.

Two types of aid increased: public goods and disaster risk reduction. Support for renovating and repairing small-scale community infrastructure, such as schools, pathways, village jetties and small bamboo or *nippa* bridges, increased,⁶ as did support for disaster risk reduction. This included disaster preparedness training, cyclone shelters and projects to make homes more disaster-resistant.

Why are some villages getting more than others?

Six months after the cyclone, the level of aid received was correlated with both the level of loss and damage and proximity to urban centres. Highly affected⁷ villages tended to receive more aid than less affected villages, but so did villages close to urban centres, regardless of how damaged they were.

This pattern has broadly endured. During the SIM 2 period, highly affected villages were more likely to have received moderate levels of aid than other villages, and almost every slightly affected village received at least low levels of aid (see Table 2.1 below). However, the overall decline in aid means that, in contrast to the first six months after Nargis, a third of the highly affected villages and two thirds of the moderately affected villages are also receiving low levels of aid.

Table 2.1: Level of recent aid by level of damage and loss⁸

Level of aid (last 6 mths.)	Level of damage from Nargis (from SIM 1)			
	High	Moderate	Low	Slight
High aid	0	1	0	0
Moderate aid	6	1	3	1
Low aid	3	4	11	9

Aside from the level of Nargis damage, what accounts for variations in the level of aid being received six-twelve months after the cyclone? The SIM data allow us to test a number of different hypotheses.

One hypothesis is that the amount of aid received by villages over the past six months is correlated with amounts of aid received in the first six months after Nargis. This does not appear to be the case. Twelve of the 14 villages that

⁶ Villages in the Delta tend to exist on the sides of rivers and their tributaries, which form the main transport network in the Delta. Sometimes villages bridge both sides of a tributary with different hamlets connected by bridges. Out of 40 villages in the SIM sample, 33 were on the side of rivers.

⁷ SIM 1 categorised villages by level of damage and loss from Nargis. The criterion used for categorisation is the number of deaths as a percentage of the pre-Nargis village population. Almost every village had a very large proportion of houses damaged or destroyed, so it was hard to use this as a criterion. Villages with no deaths are categorised as 'slightly' affected; villages where less than one percent of the population died are 'low' affected; villages where one to five percent died are 'moderately' affected; villages where more than five percent died are 'highly' affected.

⁸ For this and the following tables, as in SIM 1, the village that received no post-Nargis aid is excluded. It experienced little damage from Nargis.

received high levels of assistance during the first six months after the cyclone are now receiving low levels of aid, whereas the remaining two are receiving moderate levels. Other villages received more aid than they did before. One village that received moderate assistance immediately after Nargis is now receiving high levels and two villages that received low levels of aid immediately after Nargis are now receiving moderate assistance. Table 2.2 shows changes in the levels of aid received by villages.

Table 2.2: Level of recent aid by past level of aid

Level of aid (last 6 months)	Level of aid (first 6 months after Nargis)		
	High	Moderate	Low
High aid	0	1	0
Moderate aid	2	7	2
Low aid	12	10	5

A second hypothesis is that changes in aid levels over time are driven by how fast villages are recovering. This too does not appear to be true: the patterns were mixed. Half of the villages that recovered quickly during the first six months after Nargis are now receiving lower levels of aid than before, suggesting that aid providers have moved programs away from villages that are recovering fast. However, almost all villages that recovered slowly during the first six months after Nargis are still receiving low levels of assistance.⁹ The evidence suggests that village level targeting thus does not respond particularly well to changing needs (see Table 2.3 below for details).

Table 2.3: Level of recent aid by earlier speed of recovery

Level of aid (last 6 months)	Speed of recovery (first 6 months after Nargis)		
	Fast	Moderate	Slow
High aid	0	1	0
Moderate aid	5	5	1
Low aid	5	11	11

A third hypothesis is that levels of aid depend on proximity to urban centres. This appeared to be true in SIM 1, but the pattern has changed somewhat in SIM 2. SIM 1 found that villages closer to urban centres were far more likely to receive significant support, even where they were less damaged than more remote villages. The SIM 2 data show that this pattern is now mixed (see Table 2.4 for details). Although aid in the two very remote villages that received high levels of aid during the first six months after Nargis has dropped off, almost half of very remote villages received moderate aid, which was better than the ratio among remote or close villages. 'Remote' rather than 'very remote' villages appeared to be worst off: less than a quarter received moderate aid. This suggests that, although proximity enables villages close to urban centres to receive support, and although aid providers became better at targeting very remote villages, villages in the middle may have been overlooked.

Table 2.4: Level of recent aid by remoteness

Level of Aid (last 6 months)	Remoteness		
	Very remote	Remote	Close
High aid	0	1	0
Moderate aid	4	2	5
Low aid	5	9	13

⁹ See SIM 1 pages 7-9 for a fuller outline of data on aid in the first six months after Nargis.

2. How is Aid Affecting Recovery?

Speed of recovery

Six months after Nargis, ten of the 39 affected villages in the sample were recovering quickly, 17 moderately, and 12 slowly. In SIM 2 there were some improvements: 13 were recovering quickly, 21 moderately, and only 5 slowly.¹⁰

In general, villages that recovered fast over the first six months have managed to sustain their recovery (see Table 2.5 below): all recovered fast or moderately over the following six months. Similarly, only one of the 17 villages that recovered at a moderate pace over the first six months after Nargis is now recovering slowly, whereas six of these villages recovered faster than before. Two-thirds of villages that recovered slowly during SIM 1 are now recovering more quickly.

Table 2.5: Change in speed of recovery

Speed of recovery (SIM 1)	Speed of recovery (SIM 2)		
	Fast	Moderate	Slow
Fast	5	5	0
Moderate	6	10	1
Slow	2	6	4

Determinants of recovery: initial damage and aid

As might be expected, SIM 1 found a strong negative link between how damaged villages were and how fast they recovered: eight out of ten villages that recovered quickly had only low or slight levels of damage. A year on from the cyclone, however, this link has weakened (see Table 2.6 for details). None of the highly or moderately damaged villages were recovering slowly. In contrast, three villages that suffered low levels of damage and two villages that were only slightly affected were recovering slowly.

Table 2.6: Nargis damage and recovery, 6-12 months on

Level of Nargis damage	Speed of recovery (SIM 2)		
	Fast	Moderate	Slow
High	2	8	0
Medium	2	3	0
Low	6	5	3
Slight	3	5	2

To what degree is aid determining recovery? Analysis of recovery rates by aid levels suggests that the level of aid is not the most important determinant of recovery. The two villages that were recovering quickly had received moderate levels of aid over the past six months. Of the remaining eight villages that were recovering moderately, four had received moderate levels of aid in the past six months and four low levels of aid.

If we look at villages that were heavily affected by the cyclone, two villages were recovering quickly and three moderately in the SIM 2 period. The two villages

¹⁰ The SIM 2 researchers classified villages into different recovery speeds by triangulating villagers' own perceptions of how fast their villages were recovering with the researchers' perceptions of how fast they were recovering compared to other villages. It is important to note, however, that villages damaged by the cyclone are in many cases recovering from a very low level, and that the villagers' perceptions of recovery were mostly based on the physical recovery of their villages in relation to a low level of development prior to Nargis. This does not imply that the village or its inhabitants have thus restored their livelihood to a potentially sustainable level—indeed, as is discussed in Section 3, many village residents faced serious economic difficulties even if they perceived their villages to be recovering fast.

recovering quickly had received low levels of assistance in this time period. Of the remaining three villages (which were all recovering at a moderate rate), one had received a high level of assistance in the past six months, one a medium level and one a low level. The evidence suggests that recent aid is not a strong determinant of recovery in highly or moderately affected villages.

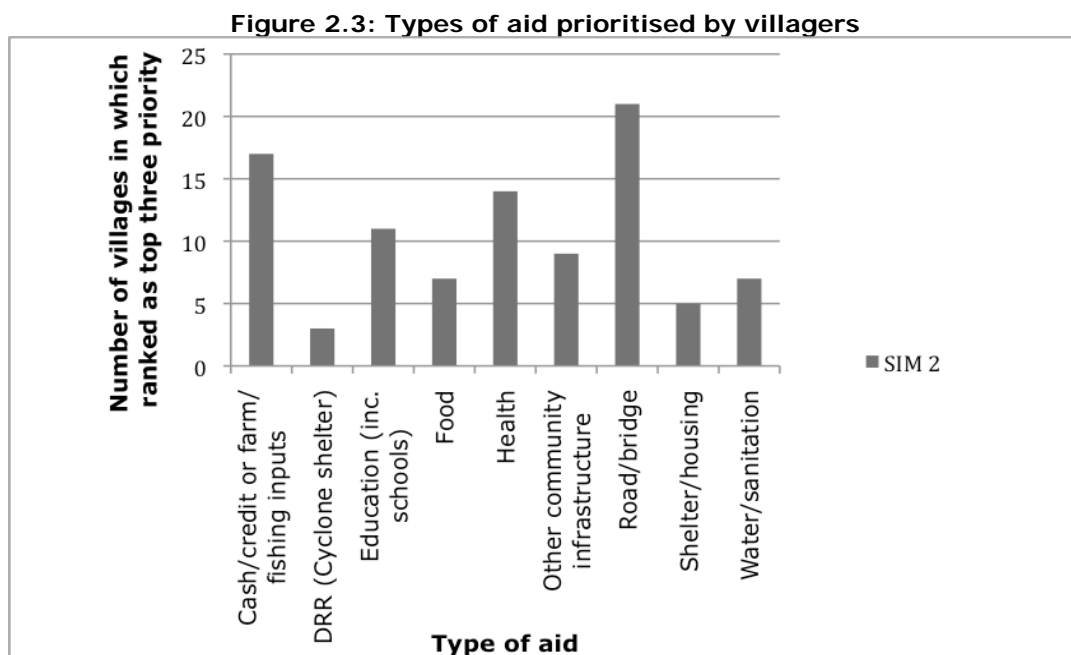
This suggests that neither damage nor overall levels of aid determine the speed of recovery. Close analysis, however, shows that aid can have an impact where it is of appropriate types, delivered in efficient ways, and where community members are involved in decisions about aid targeting and distribution. The rest of this section discusses this in greater detail.

3. Priorities and Shortfalls

What are villagers' priorities now and how are they changing?

Villagers' needs and priorities have changed since immediately after the cyclone and since six months afterwards. In the immediate aftermath of the cyclone, villagers needed emergency assistance, such as food, temporary shelter, water and household goods, most of which were provided. Six months later, in SIM 1, villagers prioritized assistance to help them recover their livelihoods and ensure clean and sufficient water and sanitation. Food aid then continued to be important but had already declined.

During SIM 2, villagers continued to prioritize assistance to recover their livelihoods, such as cash, credit and in-kind livelihoods assistance. This was particularly true of highly damaged villages, 80 percent of which identified livelihoods aid as one of their top three priorities. Different occupational groups prioritized different kinds of livelihoods assistance. Farmers prioritized money to pay for planting costs, wage labour, seed and other farm inputs. Fishermen prioritized cash or low interest credit, but reported that they would be glad to have fishing inputs if cash assistance were unavailable. Figure 2.3 below shows the top three priorities as ranked by villagers.



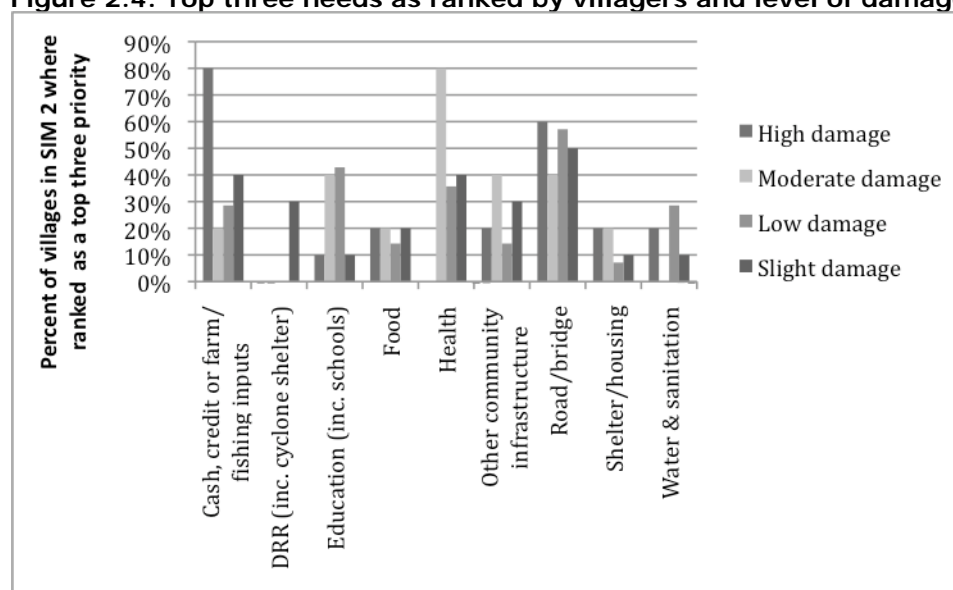
Although communities continued to prioritize livelihoods aid, in other areas villagers' priorities changed.

First, villagers for the most part no longer prioritized food aid.¹¹ There appeared to be little direct link between how badly damaged villages were and how much priority their residents placed on food aid: two of the seven villages that prioritized food aid were highly affected, one moderately affected, one 'low' affected and the last two only slightly affected.

Second, villagers increasingly prioritized replacing community infrastructure, such as paved pathways, bridges and jetties, to enable them to have better access to markets and to other villages. They also reported needing other types of community infrastructure, such as electricity or generators and religious buildings. This was true across villages regardless of the level of damage.

Third, villagers increasingly prioritized education and health. Villagers in over a quarter of villages ranked education as one of their top three needs. Most of these villages lacked a primary school; their school age children instead had to travel to other larger villages to go to school, which was expensive and time-consuming. Families found the lack of a local school problematic even where nearby villages were close enough for school children to walk because during the rainy season, inter-village pathways were muddy and difficult to traverse, so their children would be soaked through with rain by the time they arrived at school. Health was also a priority: over a quarter of villages ranked health as one of their top three needs. Figure 2.4 below shows the percentage of villages with high, moderate, low and slight damage in which villagers ranked certain types of aid as one of their top three community needs.

Figure 2.4: Top three needs as ranked by villagers and level of damage



How does aid fit with needs?

The SIM 1 research found that villagers overwhelmingly prioritized aid to enable them to recover their livelihoods. Aid delivered in SIM 2 appears to have responded well to this need: 34 out of 39 affected villages received in-kind or cash or credit-based livelihoods assistance. As we discuss in the next section, however, the overall levels have been insufficient to enable affected people to recover their livelihoods adequately.

¹¹ The research, however, took place after the harvest, when the need for food aid was lower than it might be normally.

A comparison of needs identified in SIM 2 and aid delivered in SIM 2 found a mixed pattern. 21 out of 39 villages in SIM 2 were receiving at least one of their top three priority needs. Out of these, 13 villages were receiving one kind, five were receiving two kinds, and only three were receiving all three kinds. The pattern, however, suggested that these relatively low numbers reflected insufficient levels of overall aid rather than a mismatch of aid with needs: 15 out of the 18 villages receiving none of their top three identified needs received low overall aid or none; and nine out of the 13 villages receiving only one of their top three needs received low overall aid.

Mixed cash versus in-kind preference reflect importance of choice

As in SIM 1, assistance in the form of cash or credit appeared to be more effective than in-kind assistance because it enabled households to prioritize among their varied needs, but in some cases villagers said they preferred in-kind assistance. Cash or credit was provided in 21 villages in the form of straightforward cash transfers to individual households, low interest credit or conditional cash transfer programs whereby aid providers gave cash to households if they identified and proved how they would spend the money.

Villagers reported being satisfied with such programs. This was particularly true for aid directed at livelihoods groups, such as farmers and fishermen and women. The fishing industry in the Delta is long-standing and complex. Fishermen and women need different traps and nets for different species of fish and different seasons.¹² For the most part, fishermen said that they preferred cash or low-interest credit to in-kind assistance, though they would be happy for in-kind assistance if cash were unavailable.

Farmers had mixed preferences. In most cases farmers preferred cash, but sometimes said they preferred in-kind assistance because if they got cash they would feel social pressure to repay their creditors¹³ or spend the money on other things, risking have too little to buy adequate farm inputs.

The key issue underlying farmers' responses was choice. Where farmers had choice about the type of assistance they could get, whether cash, conditional cash transfers or in-kind inputs, it enabled them to prioritize among their needs and weigh up the kinds of complex social, economic and other considerations they faced to achieve their preferred outcome. Demand-driven methods of aid selection also appeared to be effective in realms other than farming, as described in Box 2.2 below.

Box 2.2: Addressing needs according to villagers proposals

One aid provider in Kungyangon planned to provide shelter to a village. The village leader organized a community wide meeting where villagers identified who in their village needed shelter. The village gave the list to the aid provider, whose staff came to the village to verify and approve the proposal. The village leader then explained that the village needed a health centre, which was subsequently provided. Villages reported being satisfied with the assistance, and one villager even donated his land for the health centre to be built.

¹² The traps needed include at least three kinds of prawn traps, three different kinds of upright fish traps, two kinds of eel traps, at least 13 kinds of fish traps, mud crab traps, wedge traps, basket traps, drop door traps, plunge basket traps and inlay baskets. Nets used include stationary lift nets, cast nets, man push nets, beach surround nets, stow nets, beach seine nets, drift gill nets and set gill nets. Larger traps include stationery bamboo fish filter traps, stationary bamboo traps and shallow bamboo stake traps. There are also different kinds of boats for different kinds of fishing. Fishermen and women often rent equipment when they cannot afford to own it.

¹³ An analysis of the purpose of borrowing, however, in Section 3, found that farmers were far more likely to use credit to buy farm inputs rather than repay creditors.

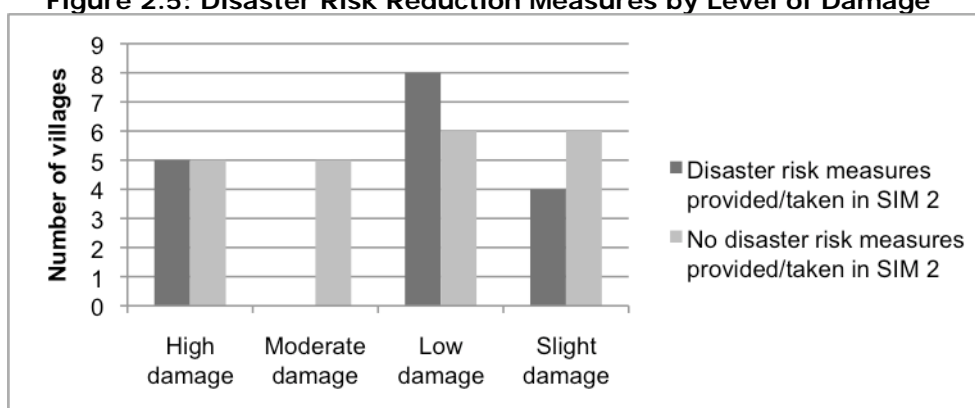
4. Aid and Disaster Risk Reduction

During SIM 1, no village had taken any noticeable emergency preparedness or disaster risk reduction (DRR) measures.¹⁴ This has since changed. A year after the cyclone, 17 out of 40 villages had taken disaster risk reduction measures, including five out of the ten highly-affected villages (see Table 2.7 and Figure 2.5 below for details). These mostly consisted of disaster risk reduction training, plays and seminars conducted by NGOs, village leaders and local authorities.¹⁵ They also included practical measures such as upgrading and reinforcing embankments, building or renovating religious buildings for use as cyclone shelters, and raising houses or strengthening them with bamboo poles to make them more disaster resistant.

Table 2.7: Progress on disaster risk reduction

Villages with...	# Villages
... Some DRR program	17
... Self-initiative DRR activity	4
Type of DRR effort	
Public information or training	13
Change in way houses are built	4
Emergency shelter constructed or strengthening of embankments	6

Figure 2.5: Disaster Risk Reduction Measures by Level of Damage¹⁶



Villagers did not tend to identify disaster reduction as a 'top three' village priority, though this might be expected given their need to recover their livelihoods in the face of severe economic difficulty. Nevertheless, villagers were active in putting in place their own self-initiated measures, such as tying ropes between trees for people to grab onto in case of flood; building high coconut palm towers; setting aside plastic flotation containers, rope and provisions; binding their houses with bamboo poles; listening regularly to weather reports on small radios; and disseminating information about weather conditions. This indicates that villagers valued reducing their disaster risk even if it was not a top three priority.

5. Aid Decision-Making, Delivery and Targeting

The SIM 1 report found that key decisions about aid tended to be made by aid providers rather than aid recipients. Aid providers used a wide variety of pre-identified aid-targeting mechanisms, which caused confusion, and, because little

¹⁴ Some small-scale efforts had occurred such as sensitization programs conducted by village elders, local government and NGOs and a few measures initiated by villagers themselves, such as setting aside plastic containers for use as flotation devices.

¹⁵ One such training was 27 days long.

¹⁶ One non-affected village is excluded from this analysis. It took no disaster risk measures.

information about aid targeting and distribution was made available, cases of perceived inequity arose.

The SIM 2 research found few differences. Key targeting decisions continued to be made by aid providers. Village leaders, aid providers and emergency committees were the main actors in distributing aid.

Who makes the main decisions about aid?

The main decisions about aid, particularly on targeting, continue to be made by aid providers rather than aid recipients. Aid providers determined the target group(s) that received aid in 38 out of the 39 villages.

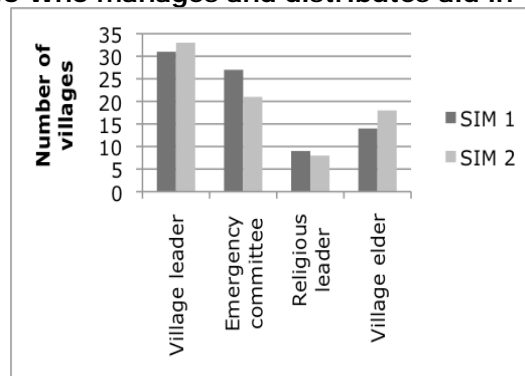
Decisions about *who* within a particular village would be eligible to be on the beneficiary list were made primarily by formal leaders and aid providers. Formal leaders played a prominent role in beneficiary selection in 24 out of 39 villages; aid providers played a role in 18 out of 39 villages¹⁷, sometimes in conjunction with village elders, religious leaders or project committees. Table 2.8 below gives details.

Table 2.8: Actors deciding on beneficiary selection

Type of actor	Number of villages in which actor is a main decision-maker in beneficiary selection
Formal leader	24
Aid provider	18
Project committee	7
Village elder	3
Religious leader	3
Villagers	1

Who distributes and manages aid?

Figure 2.6 Who manages and distributes aid in villages?¹⁸



There was greater breadth in the range of actors who managed and distributed aid. This too has changed little since SIM 1. The SIM 1 report found that village leaders and emergency committees played the greatest role in aid management and distribution, followed by village elders and religious leaders.¹⁹ Since then the role of emergency committees has decreased slightly, but otherwise the pattern

¹⁷ In most cases where aid providers played a role in beneficiary selection, they did so in conjunction with formal leaders because they are unfamiliar with the households of the village. In a few cases aid providers selected beneficiaries directly. These were cases, for example, where aid agency staff members selected beneficiaries for shelter assistance by walking around the village and directly identifying which houses were most damaged.

¹⁸ This figure excludes aid providers because there was no comparative data on the role of aid providers from SIM 1.

¹⁹ See SIM 1, Figure 4, page 15.

has endured. Aid agencies also were influential managing and distributing aid within villages, playing a key role in 33 out of 39 villages.

How is aid being targeted?

Table 2.9: Targeting mechanisms within villages

	# Villages employing these criteria for aid distribution
Based on livelihood	26
Marginalized	24
All households	21
All persons	9
Lucky draw	8

Aid providers used five main methods to determine how to target aid. The most common was to select particular livelihoods groups, such as farmers or fishermen, to receive aid. The second was to target aid at marginalized households with aid providers rather than aid recipients tending to determine how to define 'marginalized'. The third was to target aid at all households within a village. The fourth and fifth methods—targeting aid at every person within a village, and targeting aid by lucky draw—were least common. Table 2.9 above shows the targeting methods used.

The SIM 1 report found cases where the vulnerability criteria employed by aid providers were at odds with how community members viewed vulnerability, usually because they were 'pre-cyclone' criteria that singled out households that were poor before the cyclone, even though the cyclone destroyed the assets of rich and poor alike. In other cases, community members decided to redistribute aid equally to all community members regardless of vulnerability to preserve social harmony.

The SIM 2 research found similar cases. Discontent over aid targeting tended not to be felt by the better off, but rather by the worse off who perceived themselves to be excluded from aid. The dynamics are illustrated in the case below (Box 2.3), where community members were not consulted about aid targeting methods and perceived the methods use to be unfair.

Box 2.3: Disagreement on aid targeting causes friction

In one village, an aid provider decided to distribute rice only to the most vulnerable part of the village. The aid provider identified a particular set of households—consisting of one out of 15 village 'blocks'—as meeting the criteria for rice distribution, and decided to distribute 800 bags of rice among them. However, when aid provider staff tried to unload the rice at the village jetty, villagers from other blocks protested. Instead the villagers took all the bags of rice to the office of the local authority, complaining that distributing only to the one block would be unfair. The village chief then redistributed the rice equally to all 15 blocks in the village.

In the case below, where community members as a whole were consulted broadly about aid targeting, community members reported being satisfied with the outcome even when they had been excluded. In this case community members even disqualified themselves from receiving assistance after participating broadly in selecting beneficiaries (Box 2.4).

In a similar case, an aid provider called a village meeting to discuss a housing project. At the meeting, the aid provider staff read out a list of beneficiaries and asked villagers who should and should not be on the list. Afterwards, the list was placed on a village notice board, and villagers were given seven days to object. Villagers reported that they were satisfied with the list and none objected.

Box 2.4: Participation in targeting and beneficiary selection

In one village, an aid provider called a village-wide meeting, consisting of women and members of different livelihoods groups, to decide how to distribute livelihoods aid. The aid provider had collected data on village livelihoods and livestock possession before the meeting, but wanted villagers to participate in deciding who should be on the beneficiary list. During the meeting, the aid provider drew up a preliminary list of beneficiaries and read them out, giving villagers a chance to object. When the names were read out, some people who were on the beneficiary list disqualified themselves from receiving the assistance, saying they did not meet the agreed criteria. Villagers reported that conflicts over the program would be low, because they had all participated in making key decisions.

6. Transparency, Aid Equity and Complaints***Transparency of aid***

The SIM 1 report found that the amount of information shared about aid varied. Although about half of the villages conducted meetings on aid and shared information, emergency committees mostly did not keep minutes or discuss progress or lessons learned—though this is usual in the immediate aftermath of emergencies, where speed is important. This relative lack of transparency about aid led to some cases of perceived aid inequity.

Table 2.10: Aid transparency

	# Villages in SIM 1	# Villages in SIM 2
Kept records for assistance	Data unavailable	23
Conducted meetings and shared info on aid	25	23
Kept regular meeting minutes	5	7
Shared progress and lessons learned	0	5

The SIM 2 research found a similar picture on aid information and transparency, though there were some improvements in sharing progress and lessons learned. Table 2.10 above shows the main patterns.

As in SIM 1, cases of overt misuse were rare, though there were cases where a lack of clear aid information created the conditions for misuse, such as in the case below (Box 2.5).

Box 2.5: Lack of transparency gives way to misuse

In one village, an aid provider allocated money to build 55 latrines for poor households. The aid provider set aside kyat 75,000 per target household for the latrines, and a village hygiene committee was set up to manage implementation. However, members of the village hygiene committee decided to manage the aid differently, and were not transparent about their methods. They bought poor quality wood and construction materials and decided to charge an extra carpentry fee of 7000 kyat to targeted households for building the latrines. Some of the targeted households could not afford this fee and so did not get latrines, which went instead to richer households outside the target group. The poorer households have since complained to the aid provider but at the time of the research said that no follow-up action has yet been taken.

A lack of clarity over aid also created conditions for village tension (Box 2.6), though in another case, a conflict over aid—whereby a village leader was wrongly accused of misuse but was able to prove his innocence through records and minutes kept—created beneficial spill-over effects, whereby the village leader has adopted a transparent ‘aid-information sharing’ model for village affairs. (The case is discussed in Section 3 on relations among villagers and their leaders.)

Box 2.6: Unclear guidelines create conflict

One aid provider ran a microcredit scheme whereby borrowers were asked to repay in three instalments over six months, thereby creating a revolving fund for other villagers. However, villagers reported that the project guidelines were unclear. They thought that if they repaid their money, they could withdraw it again immediately. When some borrowers repaid their portion and found they were unable to do this, conflict arose between them and the village early recovery committee, which managed the funds.

Complaints about aid existed in eight villages. Most of these cases arose because of perceived aid inequity, pointing to the importance of both transparency and involving a wide range of villagers in decisions about aid targeting. Official complaints were made in five of these eight villages, either by villagers themselves or by village leaders on behalf of villagers.

The outcome of complaints made varied. In some cases, projects were put on hold while the aid provider examined the complaint. In another, the aid provider and village leader were able to resolve the complaint speedily. The case below illustrates how a complaints resolution mechanism put in place by an aid provider functioned. In this case, the complaints resolution mechanism set in place by the aid agency did not work, but aid providers were nevertheless alerted about the complaint because they used a village notice board to provide villagers with aid information, which villagers then used to communicate back to aid agency staff, reflecting the multiple uses of such transparency mechanisms.

Box 2.7: A village notice board enables villagers to complain to aid providers

In one village, an aid provider decided to provide housing to vulnerable and marginalized groups. However, when the beneficiary list was drawn up, disagreements arose because some people, including the village leader, who had already rebuilt their houses, were on the list. The aid provider had set up a complaints resolution mechanism whereby people could voice any disagreements over the beneficiary list at a public meeting. Calling the meeting, however, was the responsibility of the village leader, who never arranged it, so villagers did not get a chance to do this. The aid provider, however, had also set up a village notice board to provide villagers with aid information. The beneficiary list was required to be posted on this notice board. One villager, who disagreed with the aid targeting, put a red line on the notice board to indicate his discontent. When aid agency staff came to the village, they thus called villagers together to discuss the disagreement. They started an investigation of the cases, suspending the shelter project for the duration of the investigation.

7. Community Contributions and Perceived Burden

The SIM 1 report found that community members had helped to renovate or reconstruct houses, schools, ponds, paths and other community infrastructure. For the most part they did not view such contributions as a burden.

The SIM 2 research found that community contributions of this kind had gone up. The contributions took different forms. In some cases community members participated in cash-for-work programs to rebuild infrastructure. In other cases, the government hired private sector companies as contractors to build schools, and community members contributed by helping to prepare land for school construction or rebuilding village jetties so that construction materials could be unloaded. Community members tended to undertake this kind of preparation unpaid, but were hired as paid workers for the actual construction of the schools, such as doing masonry work and carpentry. When they contributed unpaid labour to community projects in this way, they mostly reported being satisfied on the grounds that they were contributing to education and community affairs, something they valued within their communities. Table 2.11 above contains details of the types of contributions made by villagers, along with the level of

perceived burden by type of contribution. For the most part, community members did not view such contributions as particularly burdensome: although some community members reported a moderate burden, almost no community members reported feeling highly burdened, and most reported feeling little or no burden. In most cases they reported that this was because they valued contributing to education and other such community-wide goods, reflecting the priority placed on public goods and socially beneficial activities.

Table 2.11: Types of contribution by villagers

Type of contribution by villagers	Total # villages in which contribution made	# Villages out of this reporting high burden	# Villages out of this reporting moderate burden	# Villages out of this reporting low burden	# Villages out of this reporting no burden
None	7	0	0	0	7
Cash	11 ²⁰	0	4	3	3
Labour	25 ²¹	1	9	5	7
Materials	5	0	2	0	3
Operations and maintenance	15 ²²	0	4	2	7

²⁰ Data on burden levels were unavailable for one village.

²¹ Data on burden levels were unavailable for three villages.

²² Data on burden levels were unavailable for two villages.

SECTION 3: SOCIOECONOMIC IMPACTS

SIM 1 found that Nargis had severely affected local socio-economic structures. The cyclone decimated the asset bases of many villagers. The winds and storm surge destroyed draught animals and seed stocks, destroyed boats and fishing equipment, and flooded soil with salt water, all of which reduced crop yields. Farmers and fishermen struggled to recover their livelihoods and, because farmers could not afford to hire as many casual labourers as before, so did casual labourers. Meanwhile, villagers found themselves facing a debt trap. The SIM 1 identified the risk that wealth could be re-distributed in the longer term away from indebted villagers towards their better-off creditors.

Overall, the SIM 2 research found that while townships and villages have often been able to re-build basic infrastructure and re-start some livelihoods activities, the socioeconomic conditions of the Delta are still challenging. Three main themes could be observed. First, there has been little progress overall with livelihoods recovery. Farmers, fisherman, casual labourers and small business are still struggling to recover. Farming and fishing yields have decreased significantly. Delta villagers are struggling not only because of the direct physical destruction caused by the cyclone but because of wider economic constraints such as a drop in the price of paddy and a scarcity of credit. Although livelihoods aid has helped Delta villagers, it has been too low overall to prevent this.

Second, household indebtedness continues to rise. Many households who faced the risk of a debt trap in SIM 1 are now *in* a debt trap, from which there are few prospects of escape. Credit remains scarce, which makes it difficult for households to recapitalize.

Third, the inability of households to repay debt and the lack of progress with livelihoods has begun to affect land ownership and use, which, along with the particular kind of livelihoods aid provided in villages, has affected the livelihoods mix in villages. Households have sold land to meet their consumption needs or have lost land to creditors; as a result, many large-scale farmers have become small-scale farmers; and many small-scale farmers have become casual labourers. Such changes in land ownership have caused the risk of land conflict to rise.

1. Progress with Livelihoods Recovery

*Farming*²³

Farmers have struggled to recover their livelihoods and continue to face rising debt and a lack of access to credit.²⁴ Farmers cannot afford the inputs they need, so farm yields have dropped sharply. Farm gate paddy prices have also dropped, so farmers are both growing less and earning less from what they grow.

Farming yields have dropped sharply ...

Farming yields for both monsoon paddy and summer paddy have decreased significantly since before Nargis.²⁵ Almost all villages experienced a drop in yields. The number of acres sown per village has not decreased much, but farmers have

²³ Annex 1 provides an overview of how paddy farming works in the Delta.

²⁴ Indebtedness and credit are discussed later in this section.

²⁵ Monsoon paddy is planted in July and harvested in December; summer paddy is planted in December and harvested in April. The relevant comparison is between monsoon paddy yields six months before Nargis and monsoon paddy yields six months after Nargis, and between summer paddy yields just before Nargis and summer paddy yields a year after Nargis.

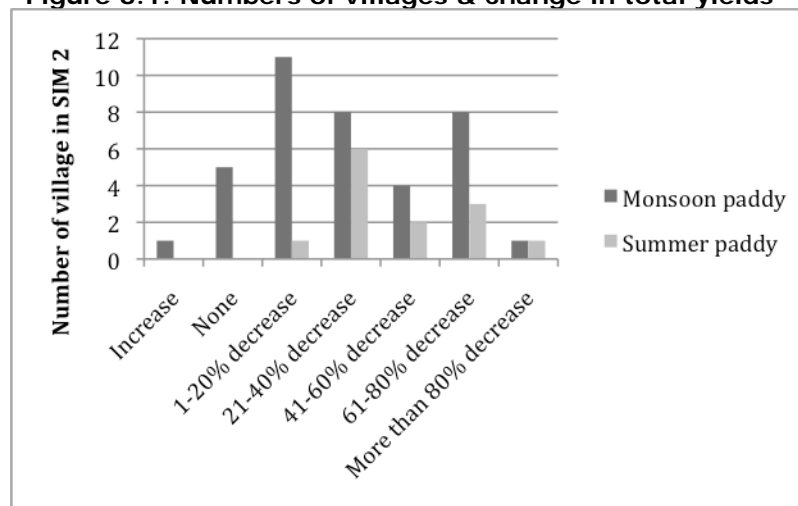
not been able to afford as much labour, fertilizer or seed as before, and have decreased how intensely they have cultivated their land. This has led yields per acre and total yields to drop (see Table 3.1 below). In some villages farmers reported that soil salinity was still a problem, which also may contribute to the decrease in yields.

Table 3.1: Changes in paddy production

Average percentage change in...	Monsoon paddy (Dec 2007 to Dec 2008)	Summer paddy (Apr 2008 to Apr 2009)
Acres sown	4% decrease	7% decrease
Yields per acre	30% decrease	41% decrease
Total yields	33% decrease	46% decrease

Summer paddy requires more farm inputs than monsoon paddy. Its yields thus dropped more than for monsoon paddy. Summer paddy yields dropped on average 46 percent, compared to 33 percent for monsoon paddy. Figure 3.1 below shows the range in the decrease in yields.

Figure 3.1: Numbers of villages & change in total yields²⁶



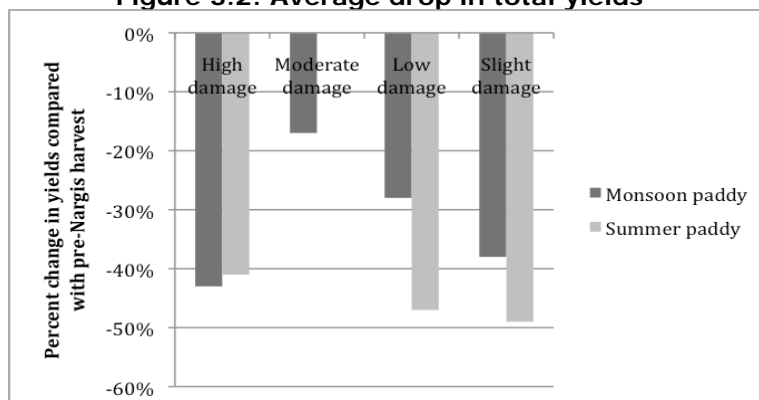
However, there was no clear relationship between how badly damaged villages were by the cyclone and how much their farming yields decreased. Although highly affected villages had bigger decreases in yields than village with 'moderate' or 'low' damage, their yields dropped about the same as those in villages with 'slight' damage, even when accounting for aid received by highly damaged villages. Figure 3.2 below has details of the average drop in farming yields.

This suggests that, in contrast to SIM 1, the impact of the direct physical destruction caused by the cyclone appears to have been less important a year after the cyclone than wider economic factors.²⁷ These factors include a lack of available credit for farmers (discussed later in the section), a drop in paddy prices and a rise in the cost of some farm inputs, the combination of which has worsened the outlook for Delta farmers.

²⁶ Data for monsoon paddy were unavailable for two villages. 21 villages did not plant summer paddy; data were unavailable for a further six.

²⁷ Farmers reported being affected by economic factors such as falling paddy prices and a lack of credit. Businessmen, gold traders and other lenders at township level reported also being affected by the global financial crisis.

Figure 3.2: Average drop in total yields²⁸



... And paddy prices have also decreased...

Farmers reported that farm gate prices for most kinds of paddy had dropped from their peak just before the cyclone²⁹, but had recently increased somewhat from their low point shortly before the SIM 2 research. The farm gate price of paddy usually decreases at harvest time because farmers need to sell paddy to earn money to pay labourers. It commands higher prices once it is handed over to rice traders, who can afford to store it while waiting for prices to increase. At the time of the SIM 2 research, however, farmers reported that the price of paddy had dropped more than usual. On average, prices of the most commonly grown types of paddy were about 20-25 percent lower than immediately before the cyclone—though this was at a point where world rice prices were at their peak.³⁰ Table 3.2 below shows changes in the prices of two commonly grown types of paddy, *bay gyar/paw san* and *hnan kar*.

Table 3.2: Change in farm gate prices before Nargis and one year after

	Average reported change in price	
	Bay gyar/paw san paddy	Hnan kar paddy
Big farmers	19% decrease	26% decrease
Medium farmers	17% decrease	25% decrease
Small farmers	19% decrease	24% decrease

The implication of this decrease in prices is twofold. First, it reduces the income of farmers. Small and medium farmers³¹ who cannot afford to hold onto any surplus paddy are forced to sell at low prices and so are particularly hard hit, along with casual labourers who are paid in paddy. Second, it reduces the likelihood of breaking even given the cost of farm inputs, and so reduces the incentives of farmers to grow paddy.

... Whereas prices of farm inputs have varied

At the time of the research, farmers reported that the costs of farm inputs had changed. The average cost of fertilizer and diesel had declined since before

²⁸ Only 13 villages planted summer paddy, among these none moderate damage.

²⁹ World rice prices were then at their peak.

³⁰ Little comparative data were available on paddy prices during the intervening time, but farmers confirmed in interviews that it had fallen and then risen again slightly.

³¹ For the purposes of this report, 'small' farmers are defined as those who have ten acres of land or less, 'medium' farmers are defined as those who have between ten and 20 acres, and 'big' farmers are defined as those have more than 20 acres of land.

Nargis. According to farmers interviewed, the cost of one bag of fertilizer declined 25 percent. The cost of one gallon of diesel declined 27 percent.³² In contrast, the cost of labour increased. The cost of one day of casual labour went up on average 29 percent, and the cost of one season of labour went up on average 12 percent. Table 3.3 below shows the range in the villages studied.

Table 3.3: Wage rates for casual labour

		Before Nargis (kyat)	One year after Nargis (kyat)
One day of labour	Average cost	1,700	2,200
	Range	1,000 – 4,000	1,200 – 5,000
One season of labour	Average cost	140,000	160,000
	Range	60,000 – 200,000	60,000 – 200,000

Box 3.1: The cost of casual labour and food aid

Farmers reported that the cost of casual labour increased after Nargis. They believed this to be because casual labourers were provided with food aid, which provided a disincentive for them to work for money. "Before Nargis, a labourer would never have a whole bag of rice at any one time," one farmer said, "but could only afford one meal at a time. After Nargis he would have one or two sacks of rice in his house. So how can he be motivated to work?" Since food aid has ceased, however, wages for casual labourers have come down from their peak.

Livelihoods aid has been helpful but insufficient

Assistance received by farmers included fertilizer, seeds, tools, power tillers, diesel and draught cattle. The effectiveness of in-kind assistance was mixed. In some cases farming aid provided was inappropriate to the local context. In one village, for example, an aid provider gave sickles to farmers that were appropriate for conditions in the middle region of Myanmar but not for the Delta, causing farmers in that village to say that providing such aid was like "pounding water into sand."

In other, cases, however, in-kind farm assistance was appropriate and effectively used, as in the case in Box 3.2 below.

Box 3.2: Effective demand-driven provision of farming assistance

One village, which received little aid compared to its neighbours, heard that nearby villages had received tractors and so went to an aid provider to request one. The aid provider agreed, as long as certain procedures were followed. The village was required to set up a committee and fund to maintain and run the tractor. Every farmer was required to pay to use the tractor, and accumulated funds were used to pay the tractor driver, cover the committee's costs, and maintain the tractor. The aid agency monitored the tractor use for six months and then legally transferred the tractor to the village for good.

Overall, farmers reported that livelihoods aid had been helpful. However, livelihoods aid overall declined between SIM 1 and SIM 2. The levels of livelihoods aid have been insufficient to have a significant impact on the economic difficulties faced by farmers.

³² This, though, masks a temporary sharp rise in the cost of diesel six months after Nargis, when farmers were planting the summer paddy crop.

Fishing

Progress with fishing was mixed.³³ More households were able to restart fishing than before, and villagers perceived the majority of fishermen to be recovering at a moderate pace. However, fishermen reported that fishing yields remained low and that some fish prices had declined. Fishing assistance has dwindled, and has mostly supported subsistence fishing rather than the fishing value chain. Meanwhile, fishermen continue to face rising debt and a lack of credit. The overall economic returns of fishing have thus declined, and fishermen continue to struggle.

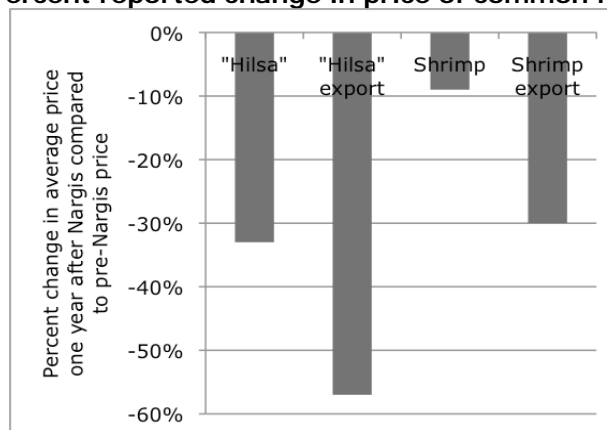
There appears to be some progress with restarting fishing ...

There was some recovery in the numbers of households who have been able to restart fishing. Although 14 percent of fishing households reported being unable to restart fishing at all, 22.5 percent reported being able to restart partially and 63.5 percent report being able to restart fully. There was also some progress in how fast fishing households were perceived to be recovering. Overall, 66 percent of fishing households thought themselves to be recovering at a moderate pace, 13 percent fast or very fast, and 21 percent slowly or very slowly.

... But less progress in the returns of fishing as a source of livelihood

In-depth interviews with fishing households, however, suggested that they were struggling more than the numbers suggested. Their experiences suggested that even though fishermen had managed to restart fishing, the economic returns of fishing had dwindled. In most villages, fishermen reported that both overall fishing yields and the price of fish had declined. Fish prices decreased by over 30 percent for *hilsa* and almost 60 percent for export *hilsa*³⁴ (see Figure 3.3). Fishermen also reported being trapped in debt (discussed in more detail later in the section).

Figure 3.3: Percent reported change in price of common fish products³⁵



Villagers also reported that fishing assistance had declined since SIM 1. Only 12 villages received fishing assistance during the SIM 2 period, compared to 20 in SIM 1. Only three of the eleven villages where fishing is the primary activity received aid in SIM 2, compared to eight in SIM 1. The aid provided was mostly in the form of small scale fishing gear enabling fishermen to earn a subsistence income, rather than the larger scale gear and capital needed to revive the fishing value chain.

³³ Annex 1 provides an overview of how the fishing industry in the Delta.

³⁴ See Annex 1 on the importance of export for the fishing industry.

³⁵ Data are based on prices as reported by fishermen interviewed.

Casual labour

SIM 1 identified severe impacts on opportunities for landless labourers. A reduction in arable land, and other economic impacts on landed farmers, reduced the opportunities for paid daily work. Large-scale fishermen, too, were hiring fewer helping hands six months after Nargis.

A year after Nargis, this trend has continued and worsened. Daily wage rates rose for a period as some think that the provision of food aid created disincentives for some labourers to work, especially because some aid was targeted specifically at those without regular work. However, with food and other forms of aid declining, wage levels have fallen again, though they are still higher than before Nargis.

This reduction is largely a result of the increased pool of potential labour, in itself a result of a large numbers of farmers losing their land and fishermen losing their equipment. Many farmers and fishermen have thus to take on jobs as daily wage labourers (see Box 3.3 below). With little ongoing support, many such people are living in an extremely precarious position.

Box 3.3: Becoming labourers

One man, who was a farmer before Nargis, did not own any land but rented ten acres for a fee of 25 buckets of paddy per acre. Nargis resulted in a substantial decrease in yield from his fields, which collectively only produced 60 buckets of paddy. As a result, he had to give up his life as a farmer and became a labourer.

Another farmer owned 50 acres of land, which yielded around 70-80 baskets of paddy per acre. Salt-water intrusion from Nargis devastated the land. He soon accumulated debt of Kyat 380,000. For the time being, he is working as a labourer to help his family survive. He said, "There are three or four people who are in debt like me and they have had to abandon their farms because of indebtedness. Recently I couldn't pay back my debt. I want to continue to be a farmer but there is neither capital investment nor credit to help me."

Small enterprises

SIM 1 found that the difficulties faced by farmers and fishermen had wider impacts. It affected enterprises both down and up the value chain, such as fish-paste processors and rice mills.

SIM 2 collected information from small enterprises—mainly shopkeepers and vendors—on the impact of Nargis on their businesses a year after the cyclone. Much of the information from shopkeepers is discussed below in the section on debt and credit.

Village grocery stores, which perform a crucial credit-providing role at village level, reported that sales decreased sharply during the period after the cyclone due to the provision of food aid to villagers but that since food aid has ceased, their sales have gone up again.

2. Debt and Credit

One of the strongest findings of SIM 1 was that villagers faced the risk of a debt trap. Although interest rates were high before the cyclone, villagers reported being able to manage with their borrow-harvest-repay cycle of borrowing and lending. Cyclone Nargis was a massive shock to this system. It destroyed people's assets and so destroyed people's ability to repay pre-existing debts while increasing their need to borrow. This, combined with high interest rates, caused

people's debt burdens to increase considerably. Meanwhile, creditors, whose assets were often also destroyed, were faced with large numbers of defaulters.

SIM 1 thus found the risk that villagers would fall into a debt trap, whereby difficulties repaying loans, combined with a decrease in the general supply of credit, would make it difficult for people to get further credit, which, in the absence of sufficient recovery aid, would prevent farmers and fishermen from recapitalizing their businesses. This, in turn, would be likely to lead employment opportunities and production yields to decrease, leading to lower incomes and even greater difficulty in repaying existing loans. The report found a risk that the inability of villagers to repay debt could thus lead fishermen to lose their fishing rights and farmers to lose their land to creditors, causing a redistribution of assets to the creditors.

SIM 2 found that these trends had intensified. Household indebtedness has continued to rise. Many households that before faced the risk of a debt trap are now in a debt trap, from which there are few prospects of escape. People have begun to lose their existing assets—particularly land—to creditors. Farmers and fishermen have thus scaled down their operations (discussed in Part 3 below), causing the occupational mix in villages to change. Meanwhile, credit remains scarce. This makes it difficult for farmers, fishermen and small businesses to recapitalize, exacerbating further the effects of the debt trap.

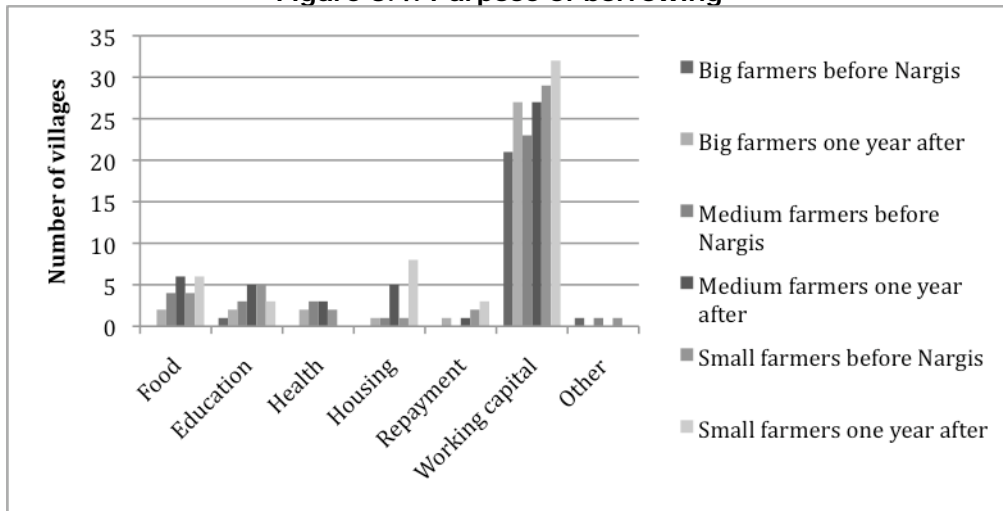
The section below discusses the different impacts on debt and credit for farmers, fishermen, casual labourers and small businesses at the village- and village-tract level. The Attachment presents findings from an analysis of credit markets at the township level in the eight townships studied.

Farmers

Farmers borrow money primarily for working capital

Farmers overwhelmingly reported borrowing money to get working capital for their farms, both before and after Nargis. They reported borrowing for other purposes, such as food, education, or repaying debts, only rarely. As might be expected, however, Nargis caused some small and medium farmers to start borrowing money for housing and shelter needs.

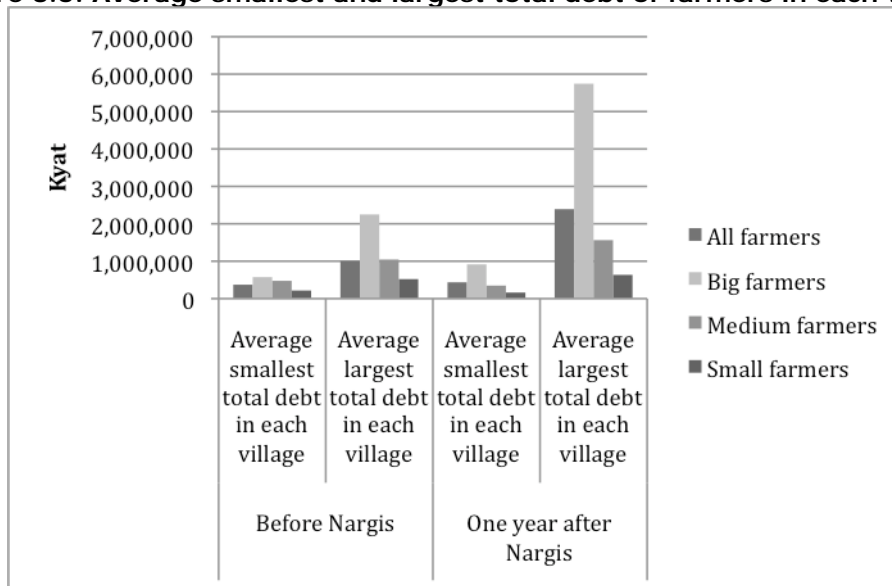
Both before and after Nargis, farmers reported borrowing money for working capital far more than for repaying debts, suggesting that if further credit were available, farmers would be more likely to use it to recapitalize their farms rather than to service existing debts. Figure 3.4 shows the main purposes of borrowing in the SIM villages.

Figure 3.4: Purpose of borrowing³⁶

Total indebtedness for farmers has risen sharply since Nargis...

Total levels of indebtedness remain high and are rising, particularly for farmers who were already highly indebted before Nargis.³⁷ Farmers who were least in debt before Nargis saw their debt totals increase on average by 17 percent. Farmers who were most in debt before Nargis saw their debt totals increase on average 138 percent. Big farmers, who tend to take out bigger loans than small and medium farmers, saw their debt totals increase the most. The debt totals for big farmers taking out relatively small loans rose 59 percent, whereas the debt totals for big farmers taking out relatively high loans rose 155 percent (see Figure 3.5).

Figure 3.5: Average smallest and largest total debt of farmers in each village

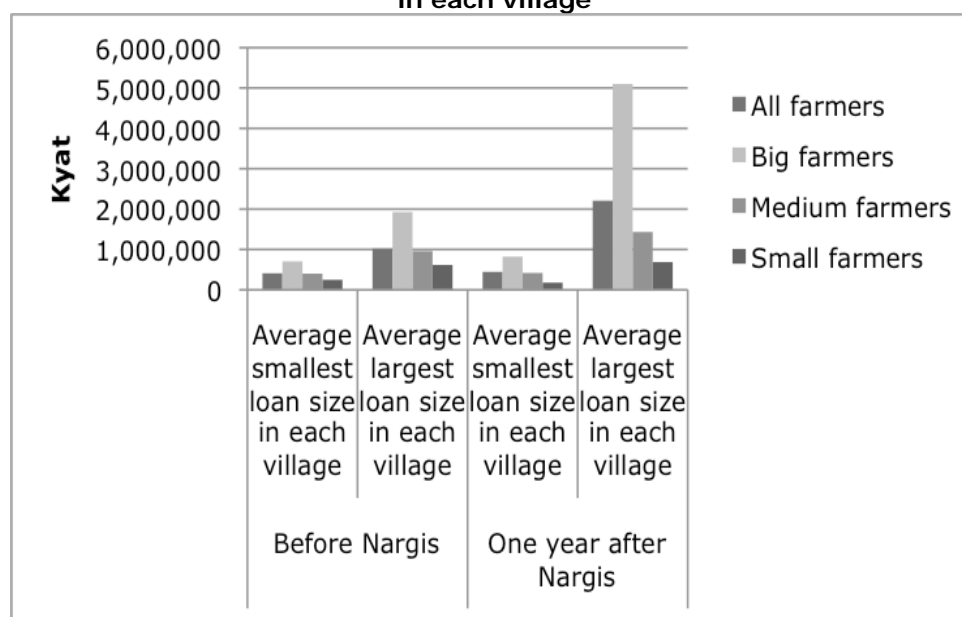


³⁶ See footnote 31 for a definition of 'big', 'medium' and 'small' farmers.

³⁷ Comparative data were not available for the period six months after the cyclone or for the average level of indebtedness among farmers in each village, but were available for the period before the cyclone and one year later and for the lowest and highest level of indebtedness among small, medium and big farmers in each village.

There was a clear relationship between the size of farmers' loans before and after Nargis.³⁸ Individual loan sizes—for those who could find credit—increased most for those who took out big loans before Nargis. The loan sizes of big farmers increased more than those of medium and small farmers. The average largest individual loan taken by small farmers increased 12 percent, and the average smallest loan decreased 28 percent, suggesting that smaller-scale farmers are taking what loans they can get or afford—to reach the level of borrowing they need. In contrast, the average largest loan taken out by big farmers increased more than 2.5 times, or 165 percent, compared to 116 percent for all farmers. The average smallest loan amount for all farmers was 9 percent higher than before, but for big farmers was 17 percent higher.

Figure 3.6: Average smallest and largest individual loan sizes of farmers in each village



... And interest rates remain high ...

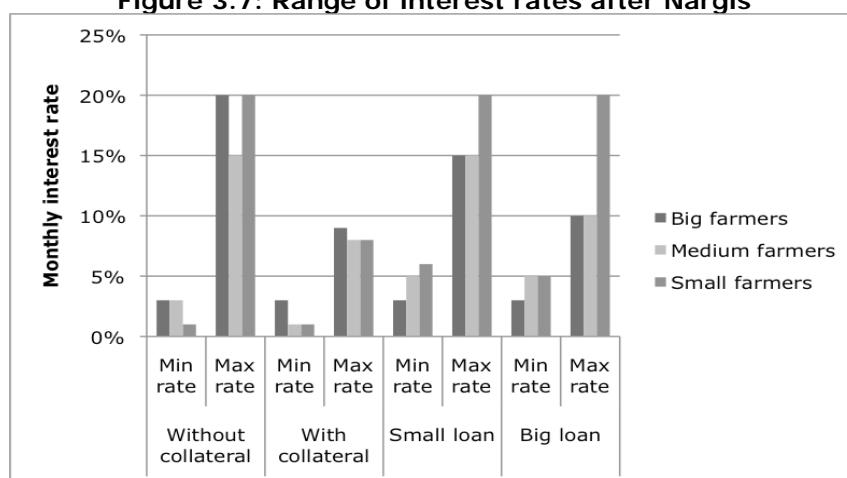
Interest rates for farmers remained high overall, as evidenced in Table 3.4. They differed according to whether farmers had collateral and were taking out small or big loans. As might be expected, average interest rates were higher for borrowers without collateral and for those taking out small loans. However, the average interest rate across all types of loans has not changed much since Nargis. Nor has the range of interest rates on offer, apart from interest rates for small loans. The cheapest monthly rate for small loans increased threefold from one to three percent, and the most expensive rate remained increased from 10 to 20 percent, indicating that farmers who needed to borrow even for small amounts were willing to accept higher interest rates out of necessity.

³⁸ Comparative data were not available on average individual loan sizes within each village, but were available on the smallest and largest loans taken out by small, medium and big farmers within each village.

Table 3.4: Monthly interest rates for farmers before Nargis and a year later³⁹

	Monthly rate without collateral		Monthly rate with collateral		Monthly rate with small loan		Monthly rate with big loan	
	Before Nargis	After Nargis	Before Nargis	After Nargis	Before Nargis	After Nargis	Before Nargis	After Nargis
Average	7%	7%	5%	5%	8%	9%	7%	7%
Minimum	1%	1%	1%	1%	1%	3%	1%	3%
Maximum	20%	20%	8%	9%	20%	20%	10%	20%

Credit was more expensive for small farmers than for medium and big farmers. Small farmers were willing to accept rates of up to 20 percent a month both for small and big loans, whereas medium and big farmers faced maximum interest rates of only 15 percent a month for small loans and 10 percent a month for big loans (see Figure 3.7 below).

Figure 3.7: Range of interest rates after Nargis

... While the credit supply has dwindled

Farmers reported that the overall supply of credit had decreased and that there was insufficient credit available. The township level analysis of credit markets conducted as part of SIM 2 and presented in the Attachment confirmed this.

There are several reasons for this undersupply of credit.⁴⁰ Affected villagers have sought money to replace their destroyed assets, so the demand for credit has gone up. Meanwhile, however, existing debtors have been unable to repay their loans to creditors, and many creditors have also had their assets destroyed so have had to use a greater portion of their own funds to repair and replace their own assets. Both of these have significantly reduced the ability of creditors to lend. The dynamics of this reduced credit supply are illustrated in Box 3.4 below.

Box 3.4: Cyclone causes moneylender to reduce lending

Before Nargis, one land-owning rice miller ran a side business lending money to about 200 trusted farmers. He would borrow some of his capital from Yangon rice traders at 7 percent interest a month and on-lend it to farmers at 8 percent a month. Before Nargis, he

³⁹ The 1 percent rate in this table is rounded down from a rate offered by the Myanmar Agricultural Development Bank and so is below the rates offered by private moneylenders, from whom most farmers borrow.

⁴⁰ The SIM 2 researchers did not collect data on the extent to which the global contraction of credit had affected the credit supply in the Delta. Even setting aside the effects of the global financial crisis, however, there are several reasons, as explained here, why the credit supply in the Delta has shrunk.

had about 500-800 *lakh* (kyat 50-80 million) in circulation at any one time.

The cyclone badly damaged the rice miller's assets. It destroyed much of his rice and paddy stock and spoiled the rest, which he was forced to sell on at an 85 percent loss. It also damaged his rice mill, which was costly to repair. The cyclone also destroyed the assets of the farmers who owed him money, so they were unable to repay him during the first six months after the cyclone. Meanwhile, he had to keep up his debt payments to his creditors in Yangon, which he managed to do only by selling his gold and other jewels.

The rice miller said he had faith that the farmers who owed him money would eventually repay him. Some of them have offered him farmland in lieu of debt payments, but he has refused, believing that they will repay him eventually. In the meantime, he has been able to lend much less money than before. Whereas before Nargis he was able to lend up to kyat 80 million distributed among 200 farmers, now he is able to lend only up to kyat 20 million distributed among 50 farmers—a 75 percent reduction.

Another reason for the decrease in credit has been the effect of destroyed seed on rice quality and the system of rice borrowing and lending between rice millers and farmers. Before Nargis, large rice millers would provide advance payment to smaller rice millers, brokers and farmers for their paddy. But the cyclone destroyed the traditional seeds of farmers, who were forced to borrow seed from other farmers or use seed provided by aid agencies. Farmers in SIM 2 reported that large rice mills have been unwilling to pay in advance for harvests because the quality of paddy grown with such seed could not be ensured.

Many farmers who faced the risk of a debt trap are thus now in a debt trap

The combination of high interest rates, rising debt totals and scarcity of credit has led many of those farmers who in SIM 1 faced the risk of a debt trap to fall into a debt trap, as illustrated in Box 3.5 below.

Box 3.5: The debt trap

One farmer borrowed 2 million kyat at 20 percent interest a month before Nargis, but had his entire paddy destroyed during the cyclone, so was unable to repay his debts as expected. Using his brother as a guarantor, he was able to borrow a further 1 million kyat from the same lender, but because of interest, his total debt soon grew to over 10 million kyat. The lender started coming by often to ask him to repay his debts, but he was unable to. He tried to reduce his debts by giving farmland to the lender, but he was still unable to keep up with his payments. Eventually he ran away to a neighbouring village. He now has no farmland and works as a casual labourer to make ends meet.

Farmers have employed a range of coping strategies to deal with debt, but these have generally been short-term strategies that hurt farmers' longer-term earning prospects. The most common coping strategy was to sell land to raise money to repay debts or to surrender land to creditors, which reduces debt totals but hurts farmers in the longer-term. The effects of indebtedness on livelihoods and land ownership and use are discussed below in the section on land use and occupational shifts.

Fishermen

Fishermen usually borrow for working capital but in some cases for food

Table 3.5 Purpose of borrowing for fishermen

	Number of villages					
	Big fishermen		Medium fishermen		Small fishermen	
	Before Nargis	One year after Nargis	Before Nargis	One year after Nargis	Before Nargis	One year after Nargis
Food	0	1	7	11	9	10
Education	0	1	4	2	5	3
Health	0	0	2	3	2	1
Housing	0	1	2	4	0	4
Repayment	1	2	2	2	3	1
Working capital	6	8	18	18	12	13
Other	0	0	0	0	0	1
Villages in which data available:	6	9	20	21	16	19

There were too few villages with big fishermen to draw strong comparative conclusions among big, medium and small fishermen⁴¹ about why each group tended to borrow money. However, two reasonably strong patterns emerged. First, like farmers, fishermen tend to borrow for working capital. Medium and big fishermen need a relatively large amount of capital to pay for inputs such as engine fuel, and so borrow for working capital more than small fishermen. Medium and big fishermen borrowed for working capital in 80-90 percent of villages, compared to 70 percent for small fishermen. Second, unlike farmers, small and medium fishermen sometimes borrow money for food. Small and medium fishermen borrowed for food in about half of the villages for which data were available, both before Nargis and a year later. The number of villages in which medium fishermen borrowed for food increased slightly after Nargis.

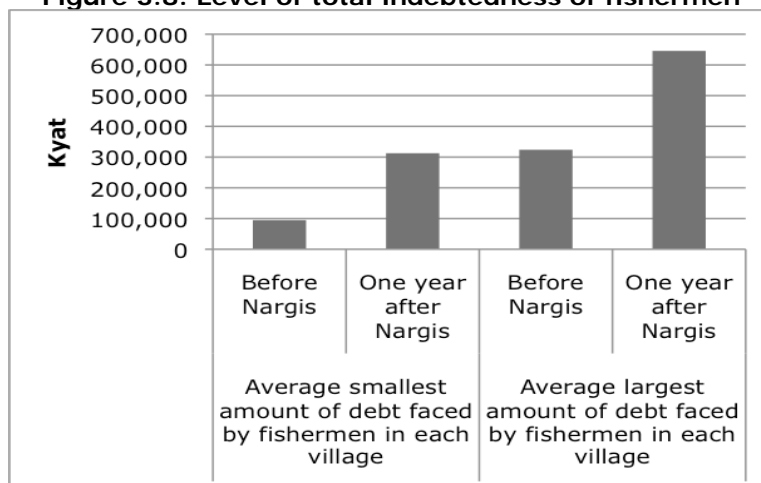
Debt totals of fishermen have risen since Nargis ...

The total indebtedness of fishermen has risen.⁴² The average smallest amount of debt faced by fishermen in each village has more than tripled and the average largest amount of debt has more than doubled (see Figure xx above for details). The size of individual loans also increased. The average smallest loan increased by 83 percent, whereas the average largest loan increased by 115 percent.

⁴¹ For the purposes of this report, 'small' fishermen are defined as those who catch fish using subsistence fishing gear, 'medium' fishermen are defined as those who catch fish in rivers with *hilsa* or other nets used in commercial fishing or who catch fish off shore in boats with engines, and 'big' fishermen are defined as those who catch fish and act as middlemen or possess big boats with storage containers.

⁴² Data were available on the smallest and largest amounts of debt faced by fishermen within each village, but not on the average total indebtedness within each village.

Figure 3.8: Level of total indebtedness of fishermen



... And interest rates remained high but have changed little...

Table 3.6: Monthly interest rates for fishermen

	Monthly rate without collateral		Monthly rate with collateral		Monthly rate with small loan		Monthly rate with big loan	
	Before Nargis	After Nargis	Before Nargis	After Nargis	Before Nargis	After Nargis	Before Nargis	After Nargis
Average	9%	10%	7%	6%	9%	11%	8%	8%
Minimum ⁴³	1.5%	1.5%	5%	4%	2%	1%	5%	1.5%
Maximum	30%	30%	10%	10%	20%	25%	15%	20%
# Groups ⁴⁴ where data available	6	10	22	30	14	23	14	22

Interest rates for fishermen remain high and have not changed much since before Nargis. Table 3.6 shows the range of interest rates for fishermen. Before Nargis, average monthly rates of interest were between 7-9 percent. A year afterwards, they were 6-11 percent. As might be expected, the monthly rate without collateral and for small loans tended to be higher than the monthly rate with collateral or with big loans.

... Making it difficult for fishermen to cope with debt

Fishermen reported difficulties in coping with such high levels of debt. As a result, some of them have lost their boats, nets and other means of livelihood, as illustrated by the case below (Box 3.6).

Box 3.6: Fishermen struggle to resume fishing and become trapped by debt

One family used to work as small fishers before Nargis. They owned a 10 yard-boat and nets. Before Nargis, they managed to earn kyat 5,000-20,000 a day. Cyclone Nargis destroyed their boat and nets. Since then, they have made a living as casual labourers while gradually trying to gather up fishing gear to enable them to restart fishing. They have not earned enough as casual labourers, though, and have slowly become entrapped by debt, even though they had none before Nargis. They now owe kyat 6,000 to the

⁴³ The minimum rate of 1.5 percent here is rounded up from a below-market rate offered by a formal financial institution, not by private moneylenders.

⁴⁴ The data in this table refer to the number of groups of fishermen for whom data were available rather than the number of villages in which data were available. If data were available for one group of 'small' fishermen in a village and one group of 'medium' fishermen in the same village, the number of 'groups' for which data were available in this village would be two.

village grocery store, kyat 16,000 to the village fish collector for two nets, and kyat 20,000 worth of their labour to a farmer. The family reported feeling trapped by this increasing level of debt. They said that if they could get access to low interest loans, they would borrow kyat 100,000 to buy a boat to enable them to restart fishing again.

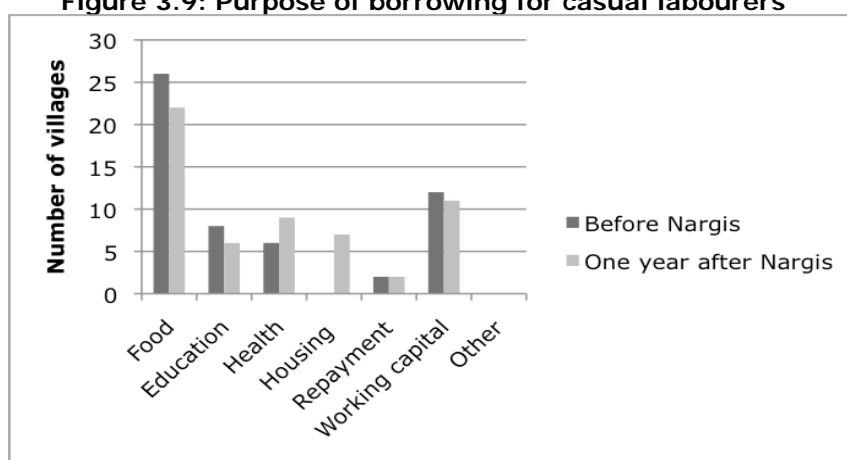
Landless and casual labourers

Casual labourers often borrow in advance and pay later with labour

Casual labourers often reported borrowing money in advance from farmers to meet their consumption needs, paying later with a number of days of their labour. When they repaid their creditors in the form of labour rather than cash, they reported that their daily wage rate was usually calculated at lower-than-market rates.

Casual labourers borrow primarily for food

Figure 3.9: Purpose of borrowing for casual labourers⁴⁵



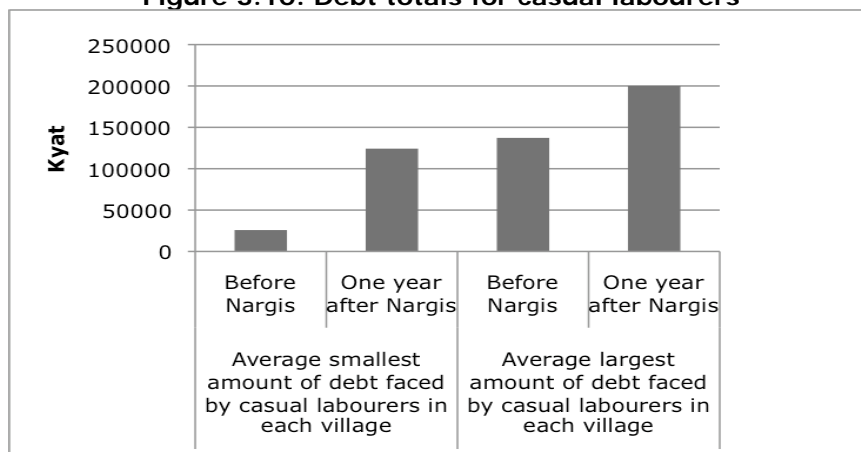
Casual labourers overwhelmingly reported borrowing money to meet their food needs, though this dropped somewhat a year after Nargis. Before Nargis, casual labourers borrowed money for food in 26 out of 28 villages for which data were available, compared to 22 villages a year later. Casual labourers also borrowed money for education, health care, working capital⁴⁶ and, after Nargis, for housing.

Debt totals and loan sizes for casual labourers have increased

The total indebtedness of casual labourers has increased sharply. The average smallest amount of total debt rose almost fivefold from kyat 26,000 before the cyclone to kyat 124,000 a year after, and the average largest amount of debt rose from kyat 137,000 to kyat 200,000. Figure 3.10 below shows the change in debt totals.

⁴⁵ Data were available for 28 villages both before and after Nargis.

⁴⁶ Casual labourers often have small businesses during the off-season, such as selling snacks within villages, for which they need working capital.

Figure 3.10: Debt totals for casual labourers

Interest rates for casual labourers have gone up and are higher than for farmers or fishermen

Interest rates for casual labourers have increased. Before the cyclone, interest rates for casual labourers borrowing without collateral ranged from 1.6 percent-20 percent a month, averaging 10 percent a month.⁴⁷ After the cyclone, the rates ranged from 1.6 percent-50 percent a month, with an average of 13 percent. These interest rates were higher than those faced by farmers or fishermen.

Small enterprises

Small entrepreneurs in villages and towns also reported that Nargis had affected their borrowing and lending. Small entrepreneurs in towns, such as vendors, shopkeepers, trishaw drivers and boatmen, reported that Nargis had caused them to borrow for different reasons: before Nargis, they borrowed to obtain working capital or for food, but afterwards had to borrow also to repair or rebuild their homes, which had been damaged during the cyclone.⁴⁸

The debt totals of small entrepreneurs have also risen. On average, the debt totals of small entrepreneurs in towns have increased by 36 percent since the cyclone. Vendors appear to have seen their debt totals increase the most. They reported having to borrow not only to repair their damaged homes, but also to reinvest in their business and replace inventory damaged during the cyclone. Some vendors and shopkeepers have been forced to shift livelihoods, as described in the case below (Box 3.7).

Larger enterprises, such as rice mills and fertilizer shops, which also lend money to villagers, reported that their businesses had declined significantly since before Nargis. Usually, rice mills provide advance money to farmers, who then repay them through paddy. Nargis destroyed the ability of farmers to repay, so rice mills have faced high levels of default. They have thus been forced to reduce significantly the amount that they are able to provide in advance. The equipment of rice mills was also often damaged by the cyclone, so rice mills owners face large repair bills. Some have been unable to reopen, though the government has instituted special projects to help revive them. Fertilizer shops and big fish collectors have also experienced losses.

⁴⁷ Casual labourers tend not to have collateral, so very little data were available on interest rates for casual labourers with collateral.

⁴⁸ It can often cost more to repair urban homes than the simple bamboo or wooden structures often found in rural areas.

More information on how Nargis has affected entrepreneurs in towns is available in the Credit Market Analysis attached to this report.

Box 3.7: Lack of credit forces shopkeeper to become a casual labourer

One woman had sold vegetables, fish and meat before Nargis, but could not find enough capital after Nargis to restart her business. As a result, she was forced to earn her living as a casual labourer. She earns kyat 800 a day on the days that she is able to find work. Since she does not have a regular income, however, she has to borrow money for food and take money in advance from her employers, paying later with her labour. When she is paid in advance, a day of her labour is valued at only kyat 500 a day. She has struggled to keep up with repayments to her creditors, so her creditors have repossessed her plates, cooking pots, and the subsistence fishing gear she owns. She says that she cannot see how to escape from her debt trap.

3. Impacts on Land Ownership, Land Use and the Occupational Mix

The SIM 1 report found a risk that the inability of farmers and fishermen to repay their debts could lead to shifts in primary livelihoods, as large-scale farmers and fishermen became small-scale farmers and fishermen, and as small-scale farmers and fishermen became casual labourers.

A year after the cyclone, these shifts in livelihoods are beginning to play out. The inability of struggling households to recover their livelihoods and repay debt has begun to affect land ownership and use, which has affected the livelihoods mix in villages. Some households have sold land to meet consumption needs or have lost land to creditors; as a result, many larger scale farmers have become smaller scale farmers, and smaller scale farmers have become casual labourers. A similar pattern can be observed among fishermen. These changes in land ownership have given rise to cases of land conflict, which was more common in SIM 2 than SIM 1.

Farmers who are struggling have begun to lose or sell land

Table 3.7: Changing land tenure patterns a year after Nargis

Landowning farming households...	Numbers of households	Percent of households
Able to retain land	1,906	88
Land transferred to moneylenders	140	6
Sold to others	57	3
Changed to sharecropping	48	2
Recovered by local authorities	26	1

The lack of progress with livelihoods recovery and rising levels of indebtedness have begun to change the way farmers use land. At the time of the research, two main patterns could be observed. First, farmers are selling land to others, practice sharecropping or use existing farmland as collateral to get money to plant or repay existing debts. Second, farmers have begun to lose land to moneylenders as they fail to meet their debt repayments, though moneylenders have been more flexible in villages where they have longstanding relationships with farmers and a long-term interest in ensuring they regain productivity. At the time of the research, over one in ten landowning farming households had lost land to creditors, sold it or switched to sharecropping.⁴⁹ Farmers were concerned that this would worsen in future.

⁴⁹ At the time of the research, little comparative information was available on what was happening to land turned over to creditors. Some cases, however, highlighted possible future trends. In one case, creditors who had seized land were letting it out to tenant farmers; in other, they were farming it

Box 3.8: Losing farm land because of debt

One farmer, who lost her brother during the cyclone, borrowed kyat 600,000 at 6 percent monthly interest right after Nargis to grow monsoon paddy. However, her yields were not good enough to repay her debt, which soon grew to kyat 960,000, and she also felt responsible for repaying her brother's pre-existing debt of kyat 500,000. The farmer owned 18 acres of land before Nargis, valued at about kyat 500,000 an acre. Instead of repaying her creditors in cash, she was forced to repay them in the form of land, at a lower-than-market valuation. Eventually she paid five acres of the land to creditor to make up her debt, valued at kyat 300,000 per acre, for a total value of kyat 1,500,000.

Fishermen who are struggling have lost boats and engines to creditors

Fishermen who have struggled economically since the cyclone have also either been unable to replace their fishing gear or have lost fishing gear to creditors as they have been unable to repay their debts, as illustrated in box 3.9 below.

Box 3.9: Economic struggle causes a large-scale fisherman to lose his boat and become a small-scale fisherman

After Nargis, one large-scale fisherman of *hilsa*, a commonly caught type of fish, needed money to rebuild his house, provide for his family and replace his boat. He borrowed kyat 50,000 from his friend to rebuild his house and provide for his family, and kyat 150,000 from another friend at 15 percent monthly interest for his boat. Since *hilsa* is usually caught off shore in the sea from July to November, and since he, like many other open-sea fishermen, felt unsafe after the cyclone, he also borrowed kyat 220,000 from a fish collector to buy an engine for his boat to enable him to escape more easily in case of storm.

However, in the post Nargis period, the price of *hilsa* decreased significantly, so he was only able to repay his kyat 50,000 loan from his friend. Eventually, because he could not make his debt repayments, the fish collector and other creditor repossessed his boat and engine. The fisherman now hires a small boat for kyat 1,500 a day and earns his living as a small-scale fisherman.

Economic difficulties have led to occupational shifts: farmers and fishermen are 'downsizing' or have become casual labourers.

These economic difficulties have led the occupational mix within villages to begin to change. Larger-scale farmers or fishermen have become smaller-scale farmers or fishermen or have become casual labourers. The qualitative evidence available suggested that this kind of shift was common.⁵⁰

Box 3.10: Fisherman becomes casual labourer

One medium fisherman made a living before Nargis by fishing and also fish-collecting: he borrowed money from larger fish collectors and collected fish from smaller fishermen to whom he paid money in advance. Nargis destroyed all his property and fishing gear. The small fishermen who owed him money were unable to repay, so he in turn could not repay his creditors. At first, he attempted to make a living by fishing with a small net and boat donated by an aid agency. But he had no experience in using the particular net and boat provided, so was unable to make ends meet. Instead, he has sought a living as a casual labourer, relying on food provided by aid agencies.

themselves. In this case the creditor had also changed the official land title name through paying the land office.

⁵⁰ There was little reliable comparative data on the numbers of households who had changed their primary livelihood in this way, as the households interviewed were afraid they would lose livelihoods-specific assistance if they reported they had changed their primary livelihood, but the qualitative evidence was strong.

In a few cases, casual labourers 'upsized' in response to aid provided, seeking their primary livelihood through subsistence fishing, using equipment donated by aid providers, rather than through casual labour.

These changes have a knock-on effect on long-term livelihoods and on casual labour

The loss of land and fishing gear and the attendant downsizing among farmers and fishermen have affected longer-term livelihoods opportunities within villages and have reduced the employment opportunities for casual labourers, whom larger farmers can no longer afford to hire. If the trend continues, there is a risk of a vicious circle whereby more and more farmers and fishermen are forced to become casual labourers, but where the employment opportunities for casual labourers are reduced, alongside a rise in the numbers of casual labourers seeking work. If the beginnings of the trend toward farmers losing land and fishermen losing fishing gear to creditors continues, there is a risk of further redistribution of wealth towards the better-off.

Anecdotal evidence gathered during the research suggested that some creditors, particularly those with long-standing social ties within villages, recognize that they will be worse off in the long-run if farmers and fishermen continue to lose their means of livelihood, and are thus being more flexible about repayment than usual.

Changing land ownership because of debt has caused the risk of land conflict to rise

The inability of farmers to repay debt, and the attendant transfers of land over to their moneylenders, have increased the risk of future land conflict. Although the SIM 2 researchers did not observe any cases of overt land conflict, they did identify 41 cases where transfers of land were unclear enough to contain the potential for future disputes. Most of these were cases where farmers owed land to creditors, but where their valuation of their land was higher than the moneylenders' valuation of their land. Furthermore, such cases of land transfers were rarely official, existing in a 'grey zone' of land ownership based on verbal agreements backed up by social and economic rather than legal enforcement, causing further potential for disagreements down the line.

4. Migration

The SIM 1 report identified the risk that the downturn in livelihoods and subsequent reduction in employment opportunities within villages would cause villagers to migrate elsewhere in search of work. This does not appear to have materialized. In the villages studied, there was seasonal migration in search of work elsewhere, but villagers reported that there was little change in such patterns compared to before the cyclone.

SECTION 4: SOCIAL IMPACTS

This section examines the state of social capital, inter-village relations and relations among villagers and informal and formal leaders a year after the cyclone. It builds on research conducted during SIM 1, which found that social capital in affected villages was strong and growing. Relations among men and women and young and old had tended to improve as villagers worked together to overcome the collective challenges of cyclone recovery, and ethnic and religious relations were mostly strong despite a few cases of social tension arising from exclusive faith-based aid targeting. Relations among formal and informal leaders were mostly good. In most villages, significant collective community leadership had emerged through the aid effort, involving youth, elders and to some extent monks and women. The impacts on inter-village relations were mixed: relations among some villages had improved as they helped one another in the aid effort and shared common resources, but perceptions of aid inequity among villages highlighted the risks of inequitable distribution or inadequate information.

SIM 2 found that these patterns had mostly persisted, but with a few changes. Social capital is still strong overall, but has grown weaker in some villages, driven, as in SIM 1, by perceptions of aid inequity. This has not, however, spilled over into an increase in violence or crime. There has been some decline in psychosocial wellbeing. Gender relations are still good overall, and women have more awareness of aid affairs than before. However, widows and widowers continue to face a double burden, and orphans have been taken out of school and have to work because their relatives cannot afford their school fees. Young people continue to play an active role in the aid effort, and relations among young people and the elderly continue to be strong. The role of religious leaders in the aid effort has shifted somewhat, some focusing on their traditional role as providers of education.

As in SIM 1, there were too few ethnically mixed villages to draw strong conclusions about inter-ethnic relations, which were mostly good, though there was an increase in cases of social tension arising from exclusive faith-based aid targeting. Aid also played a role in whether villagers' relations with their leaders changed. Villagers' perceptions of the aid effort tended to determine whether relations among villagers and their leaders changed. Relations were mostly good, though some cases of perceived aid mishandling caused relations to worsen. There have also been some changes in inter-village interaction. Business and administrative interactions have decreased somewhat, but social and religious interaction and participation in inter-village infrastructure projects has gone up.

1. Social Capital, Collective Action and Conflict

Social capital is still strong but is getting weaker in some villages

A year after the cyclone, social capital in affected villages continued to be relatively strong. As in the first six months after the cyclone, villagers continued to work together to meet the longer-term challenges of cyclone recovery. They contributed collectively to community infrastructure projects, such as rebuilding pathways, bridges, jetties and schools. Such mutual participation in the aid effort helped strengthen social cohesion.

However, although social capital was still strong overall, in some villages it was weaker than in SIM 1. Cases of aid-related social tension rose. Most of these were cases where villagers perceived other groups to be getting an unfair proportion of aid. They were sometimes severe: for example, in one village, farmers who were

excluded from receiving cooking oil targeted at labourers looted oil that was distributed, causing another group of villagers to start looting as well.

Box 4.1: Improved social capital stemming from mutual participation in the aid effort

In one village, formal leaders, village elders, youth, women, and other community members from across the social spectrum took mutual responsibility for the aid effort. Village elders and the village leader together supervised aid distribution and recorded and made public what aid had been delivered to whom, what targeting methods were used and which households were on the beneficiary lists. They also set up a system to share information between their village and the nearest town, particularly about any storm warning. Villagers reported strong participation in the information-sharing system, including from young women and men. Meanwhile, community members contributed to the aid effort directly. One village elder donated part of his yard to build a small house for a water-purifying device sent by an aid agency. The formal village leader also embarked on a project to create electricity by extracting bio-fuel from paddy husk. Community members reported that social relations in their village had improved as a result of this mutual participation in the aid effort.

Psychosocial wellbeing has declined somewhat but there has been little impact on violence and crime

A year after the cyclone, the psychosocial wellbeing of community members had declined somewhat, especially in villages with a high death toll. This affected both women and men. For example, a woman in one village said that the cyclone had changed her mentality. "I can't be patient anymore and I'm not afraid of anything," she said. "Before, if I saw quarrelling people near me, I felt nervous and ran away from them. But now, if someone tells me something that I don't like, I want to beat and tear him into pieces. I don't care what the consequences are." The decrease in psychosocial wellbeing was often reflected in an increased fear of storms, as described in the case below.

Box 4.2: Trauma and fear of storms

One village suffered enormous loss of life during Nargis. Before the cyclone, villagers there could cope easily with winds of up to 40-50 miles an hour, and could keep fishing in the river or out at sea. Now villagers are scared even of normal monsoon rain and wind. They said that even *gwan-gwan*, the sound from wind touching zinc roofs, and *byan-byan*, the sound from wind touching tarpaulin, scared them as it brought back memories of the cyclone. Most villagers reported feeling insecure.

In some villages, community members reported higher levels of alcohol use than before. Economic difficulties exacerbated the stress felt by villagers.

Box 4.3: Economic difficulties cause stress

One large-scale farmer owned 50 acres of farmland, which he had bought on credit. He owed kyat 380,000 to his creditor but, before the cyclone, produced 70-80 baskets of paddy per acre and so was able to keep up with his repayments. During Cyclone Nargis, however, his farmland, all of which was located on low land, was flooded by saltwater. His farm yields thus decreased dramatically. Many of his family members also died in the cyclone. He is unable now to keep up with his loan payments and cannot get credit so has started working as a labourer to support his remaining family. He has little interest in his job and has started drinking heavily.

Despite these cases of a decline in psychosocial wellbeing, however, villagers reported little difference in levels of violence and crime.

2. Gender Relations and Changes in Household Structure

The SIM 1 report found that gender relations in affected villages had mostly stayed the same or improved. However, in villages with high overall or disproportionately high male or female death rates, gender work roles within households had shifted. Widows had to take on greater-than-usual responsibility for generating income outside the household and widowers had to take on responsibility for childcare, creating a noticeable double burden for widows and widowers. Women tended to play a supporting rather than decision-making role in aid distribution. It was difficult to ascertain whether gender-based violence had increased as a result of the cyclone.

SIM 2 found a similar pattern. Impacts on gender roles continued to be felt mostly in highly affected villages. Widows and widowers still struggled to manage their households while attempting to make ends meet. There was also more evidence of remarriage, though overall rates were still low, and of grandparents and relatives taking on household responsibilities to ease the burden.

Gender relations are still good overall

Relations among villagers and women's groups—mainly those involved in the aid effort—continued to improve. No village reported that such relations had worsened. Ten villages reported that they had improved. 30 villages reported that they had remained the same.

Table 4.1 Relations among villagers and women's groups

# Villages 0-6 months after Nargis ⁵¹			# Villages 6-12 mths. after Nargis ⁵²		
Improved	Stayed the same	Got worse	Improved	Stayed the same	Got worse
12	27	0	10	30	0

Widows and widowers continue to face a double burden

There continued to be few discernible impacts on household gender roles in villages with low or non-existent death tolls, but several discernible impacts in villages with high overall or disproportionately high male or female death tolls. Before the cyclone, gender roles in the Delta were usually clearly delineated. Although both men and women took on income-generating responsibilities, women tended to have greater responsibility for childcare and household responsibilities, and men had greater responsibility for economic and community-wide activities. The cyclone caused widows and widowers to have to take on their spouses' responsibilities in addition to their own. Six months afterwards, widows and widowers struggled with this double burden, causing other villagers to identify them as one of the most vulnerable social groups within their communities. A year after the cyclone, widows and widowers continued to struggle, preventing women in particular from engaging fully in village affairs.

Orphans face the greatest challenges

These changes in household structure have caused special problems for orphans. Almost all orphans living in villages with a high and medium death rate were out of the formal schooling system. Most orphans were being taken care of by

⁵¹ Data were unavailable for one village.

⁵² Villagers were asked whether relations had improved since SIM 1, but in some cases it was difficult to differentiate whether they were reporting improvements since the cyclone or only since SIM 1. This table thus is a mix of responses.

informal orphanages, such as monasteries. Other orphans were taken care of by relatives, who mostly could not afford adequate food, let alone education fees, and so were forced to earn their keep as labourers, as described below.

Box 4.4: Orphans no longer in school and working as child labourers

One 61 year-old casual labourer lost his son, daughters, in-laws and cows during the cyclone, and so was left with four grandchildren, two boys and two girls. He could not afford to take responsibility for all the children so sent two grandsons to live in a monastery. He could not afford school fees for his granddaughters and struggled to make ends meet. His granddaughters are thus now working as casual labourers and also catch fish and crabs in creeks and small ponds.

Women's awareness of aid affairs has increased

There was some evidence that women were becoming more aware of and vocal about aid affairs. In SIM 1, women tended to play a supporting rather than decision-making role in aid distribution, for instance by providing hospitality to visiting aid providers. In SIM 2, women still played a supporting role overall, but appeared to be more aware of aid affairs than before. Women had also become more vocal about aid. They made more informal complaints about aid than before (for instance, by complaining in person to village elders or the village head's house), though formal complaints (by letter or in person to aid providers or formal authorities outside the villages) tended still to be made by men.

The impact on gender-based violence was difficult to ascertain

There was little discernible impact on gender-based violence compared to the period six months after the cyclone. Researchers in SIM 1 found a few cases of gender-based violence, including a case of attempted rape in a household where three sisters had lost their relatives, but did not have enough information to gauge whether overall levels of gender-based violence had increased since the cyclone. The researchers a year after the cyclone heard no further gender-based violence cases. Because gender-based violence is usually under-reported, it was difficult again to ascertain overall levels.

3. Relations among Age Groups

SIM 1 found that the role of youth in affected villages had expanded. This was partly because more old people died than young but also because young people—primarily men but also women—played an active role in relief activities, including serving on committees and participating in recovery activities requiring physical labour, such as renovating schools and pathways and cleaning ponds. On the whole, villagers reported being satisfied with the expanded role of youth, though the inability of the elderly to participate actively in cyclone recovery activities, combined with cyclone-related depression, caused them to feel weak, useless and depressed.

Young people continue to play an active role in the aid effort

SIM 2 found that youth continued to play a significant role in village aid activities, including in formal village administrative committees, informal committees, youth groups, religious groups and aid committees set up by aid providers.

Relations among young people and the elderly continue to be strong

Villagers reported that relations among young people and the elderly had improved. In several villages, villagers cited examples whereby previously dormant youth groups were revived and put to use for post-cyclone recovery activities. Villagers reported that such youth groups had usually spent money, which they received from festivals and other ceremonies, on social activities such as drinking alcohol and gambling, and before the cyclone had been scattered and inactive. Now these groups have become active once more and, among other things, buy supplies to replace ones that local monasteries lost in the cyclone.

As a result of the active participation of youth in the aid effort, community members reported that relations among youth groups and villagers as a whole had tended to improve. Table 4.2 shows the changing relations of youth groups and their communities.

Table 4.2: Relations among villagers and youth groups

# Villages 0-6 months after Nargis ⁵³			# Villages 6-12 months after Nargis ⁵⁴		
Improved	Stayed the same	Got worse	Improved	Stayed the same	Got worse
25	15	0	15	25	0

4. Relations among Religious and Ethnic Groups

There are several different ethnic and religious groups in the Delta. Ethnic groups include the Bamar, who form the majority, and Kayin, Rakhine and Indians; religious groups include the majority Buddhists and also Christians, Muslims and Hindus. Out of 40 villages in the sample, 31 were religiously homogenous and nine were mixed; 31 villages were ethnically homogenous and nine were mixed (see Table 4.3 for details).

Table 4.3: Religious mix in villages

# Villages	Ethnically Homogenous	Ethnically Heterogeneous	Total
Religiously homogenous	28	3	31
Religiously heterogen.	3	6	9
Total	31	9	40

There were too few heterogeneous villages to draw strong conclusions

There were too few religiously or ethnically mixed villages to draw strong conclusions about overall relations among ethnic and religious groups a year after Nargis. In SIM 1, villagers in all nine ethnically mixed villages and in all nine religiously mixed villages reported good or normal relations. Two villages reported deteriorating relations, though from good to normal. SIM 2 found little discernible overall change. There were, however, more cases of inter-religious tension caused by exclusive faith-based aid targeting, causing religious and racial tension to deteriorate sharply in one village, a risk highlighted in SIM 1 (see Box 4.6 below).

⁵³ Data were unavailable for one village.

⁵⁴ Villagers were asked whether relations had improved since SIM 1, but in some cases it was difficult to differentiate whether they were reporting improvements since the cyclone or only since SIM 1.

The roles of religious leaders in the aid effort have changed

Buddhist monks appeared to have shifted their recovery effort in SIM 2 compared to SIM 1. In the majority of villages for which data were available, monks were less involved with aid distribution and management than before and tend to focus on fulfilling their traditional role of education providers. This is consistent with Buddhist teaching: monks are expected to separate themselves as much as possible from secular affairs, something that, in the absence of extraordinary circumstances such as the cyclone emergency, would circumscribe day-to-day involvement in aid-related activities but allow for involvement in education, a realm in which they continued to be involved.

In the immediate aftermath of the cyclone, many religious leaders were involved in the aid effort, but as the immediate emergency has dwindled, the leaders of different faiths have been involved in different ways, with monks focusing on education and social affairs, and Christian and Muslim leaders being involved in day-to-day aid activities, such as distributing aid and being members of aid committees. Many religious leaders, including monks, serve as liaison points for aid being provided to their villages by religious groups outside their villages.

Community members tended to approve of religious involvement in the aid effort and reported that relations among community members and religious leaders had either remained the same or improved (see section below on villagers and their leaders).

Box 4.5: Religious involvement in aid for cyclone survivors

One religious leader came from a SIM village but before the cyclone went to practise in another village. His adopted village was badly affected by the cyclone: 114 of its community members lost their homes. The religious leader tried to find shelter for them in a camp for cyclone survivors, but when he learned it was full took the families back to his home village. By that time, a different religious leader was responsible for religious affairs in his home village.

40 days after arriving in the village, the cyclone survivors held a meeting to decide their future. They decided they were too traumatized to return to their original village and needed to resettle elsewhere. The religious leader asked the new religious leader of his village if the cyclone survivors could stay. The host religious leader was sympathetic. He mobilized the host community and religious association to assist the cyclone survivors in establishing a new village nearby. Villagers in the host community had also been affected by the cyclone but still gave aid to the cyclone survivors to enable them to resettle. Villagers reported that relations among the host community and the cyclone survivors were good.

A few cases of social tension arising from faith-based aid targeting arose

SIM 1 highlighted the risk of social tension arising when religious groups targeted aid only at members of their own faith but not to others. Such cases were also found in SIM 2, where exclusive faith-based aid targeting caused social tension (Box 4.6)

Box 4.6: Exclusive faith-based aid targeting causes social tension

One village contained two different religious groups. During the first six months after Nargis, all villagers received assistance from a range of aid providers. After that, however, a religious association from the minority religious group started providing aid only to members of the same religion. This exclusive faith-based targeting caused social tension. Members of the majority religious group stopped wanting to share their aid with the minority religious group, and claimed that they would try to loot the next round of aid provided to the minority group.

5. Villagers and Their Leaders

As in SIM 1, relations among villagers and their leaders—formal leaders, religious leaders and village elders—tended to remain the same or improve. As in SIM 1, changes in these relationships tended to be connected to the cyclone recovery effort. Both six months and a year after the cyclone, village leaders were heavily involved in the aid effort, participating in aid committees, helping distribute and manage aid, and liaising with project committees. This involvement in the aid effort brought with it the potential for relations both to improve and to worsen. In the aftermath of the cyclone, relations improved as villagers and their leaders faced the collective challenge of cyclone recovery. However, when complaints or perceived inequities about aid arose, relations among villages and their leaders grew worse by real or perceived association with the aid mishandling.

Formal and informal leaders at both the village tract and village levels play a critical role in villages. There are two kinds: those authorized by the state (*ya ya ka*) and those recognized according to village custom (*yat mi yat pha*⁵⁵), village elders. The *ya ya ka* tend to take responsibility for administrative, religious and social affairs, whereas the *yat mi yat pha* tend to take responsibility for religious, social and welfare matters. At the village tract level, the key *ya ya ka* players are the president of the village tract, the secretary and the clerk. These authorities then appoint leaders for clusters of households with the consent of the township authorities: “100 Household” leaders (*yar ain hmuu*), “10 Household” leaders (*sae ain hmuu*) and regional leaders (*nal may hmuu*).⁵⁶

Formal leaders played a strong role in aid-related affairs during SIM 1 and continued to do so in SIM 2. Village elders and religious leaders also played a role, but less so than in SIM 1, and less so than for formal leaders. Table 4.4 below shows the roles of formal leaders, village elders and religious leaders in the aid effort:

Table 4.4: Roles of village leaders in the aid effort

	# Villages in which a ‘key actor’ in aid affairs	# Villages in which ‘influential’ over aid affairs
Formal leaders	28	33
Religious leaders	5	8
Village elders	6	18

Relations among villagers and their leaders were mostly good although deteriorating in a few villages

On the whole, relations among villagers and their leaders remained good, though they were not as good as relations between villagers and other groups involved in the aid effort, such as women’s groups and youth groups. Relations among villagers, village elders and religious leaders mostly remained the same as in SIM 1. Relations among villagers and formal leaders changed slightly. In 22 villages, relations remained the same. In nine villages relations improved, and in nine villages got worse. Table 4.5 below shows the relations among villagers and different types of leaders during SIM 1 and SIM 2.

⁵⁵ *Yat mi yat pha* refers to people who are relatively aged, respected and admired by villagers because of their knowledge, spirit or past role in village affairs, or elderly wealthy people who are reputed to be fair in their business dealings.

⁵⁶ The president of the village tract is officially appointed by the township authorities, and then selects the 100 household and 10 household leaders, who are not official members of the Village Peace and Development Council.

Table 4.5: Changes in relations between villages and their leaders

Relations between villagers and ...	# Villages 0-6 months after Nargis			# Villages 6-12 months after Nargis ⁵⁷		
	Improved	Stayed the same	Got worse	Improved	Stayed the same	Got worse
Formal leaders	13	20	6	9	22	9
Religious leaders*	8	22	3	10	27	2
Village elders	18	20	1	9	28	3

* Data not available for six villages for first six months after Nargis and for one village a year after Nargis.

Villagers' perceptions of the aid effort tended to determine whether relations among villagers and their leaders changed

Villagers' perceptions of the involvement of their leaders in the aid effort appeared to be the main determinant of whether relations improved or got worse. Almost all cases where relations deteriorated were those where villagers felt that their leaders has mismanaged aid or ensured an unfair distribution, as in Box 4.7 below. Since formal leaders tended to have more of an aid management role than village elders and religious leaders, this would explain why there were more cases of deteriorating relations among villagers and formal leaders than among villagers and village elders or religious leaders.

Box 4.7: Elite capture of aid by village leader

In one village, an aid provider distributed money to farming households and bags of rice to casual labourers. They entrusted the village leader with distributing the goods, but he gave more aid to his family and neighbours than to other members of the community. Villagers as a whole were unhappy with the arrangement, but felt they could not complain because they depended on the money distributed.

Box 4.8: Transparency and accountability measures improve relations among villagers and formal leaders

In one village, upper-level government authorities investigated a village tract leader who was accused of abusing aid. But the village tract leader was able to submit aid records to the authorities and so the inspection ended. Since then the village tract leader has set up transparency and accountability measures by holding meetings on aid distribution, keeping minutes, publicly announcing distribution lists and opening a channel for complaints. There is also now a village notice board that gives information about aid allocations. Trust between villagers and the village tract leader has since been restored. Villagers also believe that they now receive more aid than nearby villages because of the village tract leader's actions.

6. Inter-Village Relations

Villages in the Delta tend to be fairly close to one another. Villages interact with neighbouring villages in a variety of ways: they trade with one another, share in religious affairs, share common resources, perform religious ceremonies in common and share in social life.

Over the last six months there has been some change in these interactions. Although for the most part interactions among villages have remained the same, there has been some decrease in business and administrative interaction, and some increase in social and religious affairs. This is consistent with the way the cyclone affected social and economic life. Business interactions have decreased

⁵⁷ The data in these columns refer to changes since SIM 1.

because many of the pathways and bridges connecting villages remain destroyed, and farm product collectors and farmers in the villages lost capital, stored farm products and means of transport—such as boats and bullock carts—during the storm.

In contrast, there has been a notable increase in inter-village community infrastructure projects. Villages have cooperated with one another to build shared infrastructure, such as small bridges linking one riverside village to another.

Table 4.6: Frequency of inter-village interactions during the last six months

Frequency of interactions in ...	# Villages in which increased	# Villages in which stayed the same	# Villages in which decreased
Business	3	24	12
Administrative affairs	6	29	5
Social affairs	10	27	3
Religious Affairs ⁵⁸	7	32	0
Resource sharing ⁵⁹	4	33	1
Inter-village community projects ⁶⁰	14	15	1

The impact on inter-village relations of the cyclone, the aid effort and subsequent changes in inter-village interactions has been mixed. For the most part it was positive. Shared community infrastructure programs contributed to improved inter-village social capital, as villages worked with one another on shared priorities.

However, as with social capital within villages, perceptions of aid inequity have in some cases led to inter-village tension. In one batch of 15 villages (including 10 fishing villages), four villages had bad relations with nearby villages. This was mostly because the village leaders of those villages thought badly of the aid related affairs of the other. In one village, relations between one severely affected village and a neighbouring village severely deteriorated because of perceived aid inequity.

⁵⁸ No data for one village.

⁵⁹ No data for two villages.

⁶⁰ No data for ten villages.

SECTION 5: CONCLUSIONS

Cyclone Nargis had a devastating impact on people in villages and towns across the Delta. Those who survived lost their family members, homes, and in many cases everything they owned. Yet despite the immensity of the disaster, a year later community members in villages across the Delta have begun to patch their lives back together. In the absence of massive outside resources, they have drawn on strong social, familial and community bonds to rebuild their communities and begin to return their lives to normal.

The aid effort has helped them do this. In the aftermath of the disaster, private citizens, religious groups, businesses, local and international non-governmental organizations, the government, the United Nations, ASEAN, bilateral donors and others contributed their time, money and organizational skills to provide Delta communities with the basic resources necessary for survival. The government has continued its rebuilding effort, particularly in building physical infrastructure, such as roads, houses and schools. The assistance of these groups, coupled with the strength and resourcefulness of cyclone survivors themselves, enabled Delta communities to get schools up and running again, restart farming and fishing, and start repairing their homes, ponds, pathways and bridges. The aid effort has not been perfect: as in many emergencies, cyclone survivors themselves have not had much say in aid decisions, which in some cases has hampered effectiveness. But undoubtedly it helped prevent further disaster.

That aid, however, has declined, and the resources available to Delta communities have been very low compared to those provided for disasters of similar magnitude elsewhere, such as the Indian Ocean tsunami. For communities facing disaster, the longer-term challenges of recovery are often more complex than the immediate challenges of survival. It is during the transition to long term recovery that they have to cope with the interwoven challenges of readjusting personal lives in the face of loss, maintaining social cohesion in the face of competition over scarce resources, coping with economic difficulty, and dealing with the unforeseeable ways the disaster may affect their lives and communities in the long term.

The conclusions to this report therefore highlight some of those challenges and issues, and identify some of their wider possible implications.

1. Key issues and Challenges

Economic challenges

A year on from the cyclone, the central challenge facing communities across the Delta is economic recovery. Farmers, fishermen, casual labourers and small entrepreneurs face great economic difficulty. They are affected by the cyclone and by wider economic constraints, such as falling farm gate prices and an undersupply of affordable credit.

Affected communities risk being caught in a downward spiral, which has wider ramifications throughout the Delta economy. The cyclone destroyed people's assets, which increased their consumption needs, made it difficult for them to restart farming, fishing and running small businesses, and seriously undermined their ability to repay previous debts. This, combined with high interest rates, has led to unsustainable and ever-increasing levels of household indebtedness. Meanwhile, many people have defaulted on their loans, so informal moneylenders, who drive credit markets in the Delta, have also faced difficulty, and have been forced to reduce their lending. The credit supply has thus shrunk

further, making it even more difficult for farmers and fishermen to get the credit they need to recapitalize. This leads in turn to lower yields and lower incomes which, combined with falling farm gate prices, reduces further their inability to repay and get credit.

The beginnings of this trend are evident a year on from the cyclone. Affected people have begun to shift their behaviour in response to the difficulties they face. Farmers and fishermen have downgraded their livelihoods, and have become smaller-scale farmers or fishermen or casual labourers. Large moneylenders have taken what capital they have left and re-opened businesses as small moneylenders. Where possible, people have reduced their expenditure, though poorer people, who already earn little and spend mainly to meet basic needs, have been unable to reduce how much they spend in proportion to how much their incomes have declined. Where they can find credit, poorer people, such as casual labourers and small fishermen in the villages and vendors and boatmen in towns, have increasingly borrowed to meet basic consumption needs such as food. People have also attempted to cope by pawning their goods or using their remaining land, gold and other possessions as collateral for loans. The value of these goods, however, has decreased: pawnshops report that people have increasingly pawned cooking pots and clothes and that people from villages have little left to pawn.

This trend has consequences throughout the Delta economy. People's inability to recover their livelihoods and repay debt has affected not only the businesses of moneylenders but also other key players who drive the economy, such as rice mills, fertilizer shops and big fish collectors. People have also started to lose land and other possessions to moneylenders. This brings with it the risk that this downward trend may be compounded by an increase in inequality. It also brings with it the risk of social strain: because of high rates of default and disagreements over the valuation of land among borrowers and lenders, moneylenders report that the long-standing relationships of trust, which in the absence of a more formalized system of credit drive the system, have in some cases broken down, causing them to be less willing to lend to others. The villagers of the Delta, despite their greatest efforts, will most likely not be able to reach their prior standards of living without increased support from the government and from outside organizations.

Social challenges

In the face of such challenges, affected communities have coped remarkably well with maintaining social cohesion in and among their villages. Community members are contributing more than before to the aid effort, helping to repair and restore public goods, such as pathways, jetties, small bridges and schools. They mostly do not report this as a burden even though the private benefit of such contribution may not outweigh the costs, as they tend to place high value on the community-wide social benefits of such projects. Social capital remains remarkably strong. Villagers report that relations among younger and older people, men and women and villagers and their leaders are also mostly strong.

Social relations, however, do not exist in a vacuum: they are affected by their wider environment. A year on, this contains two main sources of stress. The first is the vast economic challenges facing communities, which, as outlined above, have led to the risk of future social strain. They have contributed in some cases to a decline in psychosocial wellbeing: people have reported that economic stress has left them feeling despondent and less able to cope. The second is cases of perceived inequity associated with the aid effort. Such cases are still rare, but

have risen, and drove many of the cases of social tension observed during the research.

2. Wider Implications

The difficulties facing cyclone survivors in the Delta pose challenges for both aid providers and policymakers. Several of these challenges are of particular importance.

Cash grants and small scale public works

First, the Delta economy as a whole needs a stimulus. Livelihoods assistance received thus far has been too low, and the aid effort has declined. Delta villages need much larger injections of resources to enable farmers, fishermen and small entrepreneurs to recover and to provide work opportunities for casual labourers. The SIM 2 research found that livelihoods assistance was most effective in the form of cash grants or conditional cash transfers to households. The institution of programs to revitalize community public works, in which community members can be hired to repair, recover or build new community infrastructure, would also provide such a stimulus and create jobs within villages.

Expansion of credit and an approach to debt

Second, an approach needs to be found to deal with the undersupply of credit and sharply rising debt. The Delta economy needs much more affordable credit than it currently has. Absent a policy framework that provides formal credit at affordable rates, informal moneylenders, who face higher risks, have little legal recourse and charge high interest rates, drive the Delta credit system. Meanwhile, aid providers can increase their supply of affordable credit and expand microcredit programs. However, providers of credit and other kinds of livelihoods assistance should be cognizant of approaches to dealing with debt and livelihoods from elsewhere in the world: dealing with livelihoods effectively demands dealing with indebtedness in parallel.

A demand-driven, common approach to aid

Third, as the emergency relief effort shifts towards long-term recovery, it becomes increasingly important to ensure that decision-making is put in the hands of aid recipients and that community members from across the social spectrum participate in such decisions. A demand-driven approach has several advantages. It enables aid providers to avoid providing unsuitable inputs, so is more cost-effective. It enables aid providers to use targeting methods that are in accordance with how affected communities understand vulnerability, so helps prevent perceptions of inequity or social strain. It enables aid providers to better match the supply of aid with local needs: with varied local-level needs, it is difficult to predetermine what kind of assistance is likely to be most effective. A demand-driven approach coupled with good information-sharing and complaints resolution systems enables aid providers also to avoid perceptions of inequity. Finally, it enables aid providers to work backwards from markets, avoiding an input-driven approach, which can introduce distortions. A common approach among aid providers to working in villages is equally important. Such an approach would pay attention to issues of distributional equity across villages and help avoid distortions or other unintended implications.

ANNEX 1: FARMING AND FISHING IN THE DELTA

How does paddy-farming work in the Delta?

The primary crop grown in the Delta is rice. There are four main kinds of paddy farmers: (i) landowning farmers; (ii) tenant farmers, which includes both smallholders who own some land but still need to rent from landlords to reach a land holding size big enough to subsist and landless tenants who work as wage labourers or as contract farmers; (iii) landowners, generally from the township or village tract level, whose land is worked by tenant farmers or wage labourers; and (iv) a few large farming enterprises.

There are two harvests a year: the monsoon paddy and the summer paddy. The monsoon season is planted in rain-fed fields in July and harvested in December. The summer paddy is planted in December and harvested in April. Summer paddy cultivation requires greater farm inputs than monsoon paddy but generates higher yields.

At the beginning of the planting season, farmers usually get cash or, if unavailable, in-kind, loans to pay for the inputs they need to begin planting, such as seeds, diesel and cattle, and to pay labourers to help transplant paddy—an historically reciprocal but now wage-based relationship. Payment can be in cash or in the form of an agreed number of baskets of paddy.

Farmers then begin land preparation using cattle or tractors. Paddy is sown either directly or using transplanting, depending on the soil type. Directly sown paddy requires large amounts of seed but comparatively little labour, whereas transplanting requires less seed but more labour to prepare nursery beds, erect fencing and sow seed. Women, who often form cooperatives for this work, usually lead transplanting.

At harvest time, farmers have to find money to pay casual labourers to help them harvest paddy. Often they do this by selling paddy stocks, which can depress the rice price. Once the rice is harvested, farmers have to start repaying their debts, both to their creditors of capital and input suppliers, to the village grocery store, from which they usually buy goods on credit between harvests, and to wage labourers. Most debts to input suppliers and village grocery stores are settled in paddy. Wage labourers are usually paid partly in cash and partly in kind.

If farmers have a paddy surplus after paying their creditors, they can sell their paddy to brokers or directly to rice millers, who will hull it and produce rice. The paddy or rice then gets sold through the wholesale market. Farmers may also use paddy to hedge: farmers may choose to store paddy if they think the price is likely to rise and sell if they think the price will decrease.

The main players in the wholesale market are warehouses, trade houses, agents and large rice mills, all of which may have their own agents. These mainly exist in township capitals or other urban centres. They buy paddy from farmers or rice from rice millers and sell it onto other wholesalers or domestic distributors. They also speculate: because the paddy price is sometimes higher than the rice price and vice versa, warehouses will hold onto their stocks of one or the other if they think the price is likely to rise. Social networks tend to be important in the system: large rice mills tend to have strong social or family links to agents, small rice millers and trade houses.

Rice reaches consumers via retailers, who buy from distributors or directly from wholesalers. Consumers buy rice at daily markets, where traders generally make

a 30-40 percent profit, at groceries, supermarkets or at specialized rice shops, which extend daily credit to consumers, who often take rice in the morning and repay the shop with interest on their way home in the evening.

Farmers usually operate on a borrow-harvest-repay system, borrowing before the planting season and repaying creditors after the harvest. Farmers usually borrow cash from creditors or get in-kind loans from input suppliers before the beginning of the planting season and repay loans at harvest time. Most deals are structured whereby farmers repay paddy in kind to input suppliers. Usually farmers take an advance from millers or brokers and use that money to pay labourers to harvest the fields. Then they have to settle their outstanding debts in kind.

Farmers with access to more than one type of creditor usually mix their portfolios, borrowing from several different sources at different rates of interest. Bigger farmers often have networks with people in urban areas who are willing to lend them money at lower interest rates than those provided by professional moneylenders. The aim of such lenders is not to maximize profit through lending (in which case they might make more risky investments at a higher interest rate) but as a form of 'safe investment' in order to beat inflation. Such lenders usually have social networks directly with villages or are linked to well-known monks originally from that village. Bigger farmers may then on-lend some of the money they have borrowed to other farmers.

How does the fishing industry work in the Delta?

The fishing industry in the Delta is based on distinct roles for different groups, each of which extracts profit at different points in the value chain. Fishing rights are issued by the government, either through auctioning exclusive leasehold rights to certain flood plain fishing areas, or by issuing licenses to fish in open fishery areas by set fee or through tender. At the top of the value chain are the tender owners, who usually live in township capitals, and export companies in township capitals or Yangon. Below the export companies and tender owners are middlemen, village-level fish collectors, boat owners, equipment-owning fishermen, and the family members of fishermen and other crew who work on the boats.⁶¹

As with agriculture in the Delta, the system is driven by credit. Tender owners and export companies provide credit to the middlemen/retailers, who in turn provide credit to the village-level fish collectors, boat owners and fishermen. Usually, they do so if the fishermen agree in exchange to sell their entire catch back to the middlemen, who deduct a portion as in-kind repayment for their loans and pay for the rest in cash. Most of the fish products are exported internationally, so the price is affected more by international markets than local supply and demand. Middlemen are key players in the system: those with social networks in the villages have traditionally provided credit to fishermen for social and familial as well as business purposes. Large fishermen sometimes take loans directly from township-level private moneylenders rather than through middlemen or village fish collectors. Both small and medium fishermen usually get food and household goods from the village store on credit, especially in the off-season.

If fishermen and boat owners do not have sufficient catch to repay middlemen, they usually have to repay debts during the next fishing season. But if their debts

⁶¹ Triangle GH (2008). *Ayeyarwaddy Fisheries Analysis: Propositions for the Recovery Effort After Nargis*

are large and their catch remains insufficient, the fish collectors and middlemen may seize their collateral, usually nets, boats and other fishing equipment

Cyclone Nargis was a massive shock to this system. After the cyclone, tender owners and middlemen were unable to provide sufficient capital to fishermen to repair or replace destroyed boats and other fishing equipment. Fishing equipment donated by aid providers tended to be for subsistence fishing rather than in support of the fishing value chain. As a result, fishermen up and down the value chain struggled to return to normal, and fishing yields decreased significantly.

ANNEX 2: SOCIAL IMPACTS MONITORING METHODOLOGY

The Post-Nargis Social Impacts Monitoring (or SIM) is a core part of the Tripartite Core Group's framework for monitoring the ongoing impacts of Cyclone Nargis and recovery progress. SIM provides assessments of how 40 villages affected by the cyclone are recovering, how the aid effort is playing out at the local level, and of changes in the social and socioeconomic structures of villages. SIM is the first time that the social impacts of a natural disaster have been assessed periodically as a core part of a post-disaster damage and loss assessment and formal monitoring system.

The second phase of the social impacts monitoring (SIM 2) was conducted in the same 40 villages spread across the Delta where the first social impacts monitoring was conducted. Fieldwork took place between May and June 2009. The methodology used is an adapted version of that employed for the first phase of SIM (SIM 1), which was conducted in late 2008.⁶² Whereas SIM 1 focused on the initial impacts of Nargis and aid efforts in the first six months after the disaster, this second phase looks at developments six to twelve months after Nargis (from December 2008 to June 2009). Comparison of the SIM 1 and SIM 2 data allows for an examination of how the situation in Delta villages has evolved over the course of the recovery effort and points to particular issues one year on from Nargis.

SIM 2 also focused in greater depth on problems identified by SIM 1. That report had shown the massive difficulties that farmers, fishermen and labourers were experiencing in the post-Nargis period. Many had been unable to fully resume their livelihoods and were facing major debt problems. SIM 2 examined these issues in depth, through additional focused village-level research and a township-level Credit Market Analysis (CMA).

The CMA was conducted in eight townships and includes interviews with both providers of credit at the township level and larger borrowers. These data help provide a fuller picture of how the credit system has evolved since Nargis, and help contextualize the village-level research on credit and debt issues. Research for the CMA was conducted in two phases from April to May 2009.

As with SIM 1, Myanmar Egress conducted the fieldwork and analysis for SIM 2 with technical support from the World Bank. The researchers are all from Myanmar civil society with extensive experience of working in remote villages and conducting social assessment work. The social impacts monitoring team represents a mix of Myanmar's ethnic groups and religions. Women form over half the team. Research was conducted in local languages. An advisory group, consisting of Tripartite Core Group members and civil society, provided peer review.

While findings from both SIM 1 and SIM 2 are representative only of the villages where fieldwork was conducted, triangulation with other data sources suggest that many apply more broadly across Nargis-affected areas.

1. Fieldwork for SIM 2

A pre-test was conducted in eight villages in early May 2009 after three days of intensive training. This initial fieldwork allowed the instruments and approach to be tested. Four teams, each comprising a senior researcher and two additional

⁶² Tripartite Core Group (2009). *Social Impacts Monitoring: November 2008*. Yangon: TCG. Available on-line at <http://www.asean.org/CN-SocialImpactMonitoring-November08.pdf>.

researchers, each visited two villages. Two to three days and two nights were spent in each village. (The period of time in each village was increased from SIM 1 to allow for a fuller examination of socio-economic issues in the villages). The pre-test fieldwork allowed for an adaptation of the instruments and some of the formats collecting standardized quantitative data on aspects of village life and progress in recovery (see below). Qualitative data from the pre-test are utilized throughout the report. Because some of the quantitative formats were adapted based on the experience of the pre-test, some of the quantitative data used in the report exclude the eight pre-test villages.

Two rounds of fieldwork were then conducted for the full social impacts monitoring, from late May to June 2009. Fieldwork was delayed by around two weeks because poor weather conditions in the Delta made travel extremely difficult. Overall, 32 villages were covered. Each research team spent approximately three days in each village, with additional time allocated for travel.

The township Credit Market Analysis was conducted in two rounds in April 2009. The analysis was performed at township level in the same eight Delta townships as selected for the SIM. Research methodologies were the same as in the SIM: they relied on in-depth interviews, focus group discussions and case studies of both borrowers and lenders at the township level. In all, 139 in-depth interview, 26 focus group discussions and 40 case studies were carried out.

2. Sampling of Villages

The 40 villages visited in SIM 2 are the same as those where SIM 1 was conducted. Full sampling procedures are outlined in the SIM 1 report.⁶³ Table A1 and Map 1 show the locations of the social impact monitoring villages.

Pre-test villages were selected to include villages visited during the PONJA in June 2008; villages were relatively easy to access and included different predominant livelihoods. Villages were selected for the *full social impacts monitoring* to ensure: (a) wide geographic coverage; (b) coverage of the eight townships most affected by Nargis; (c) variation in predominant village livelihood types⁶⁴; and (d) variation in the degree of initial affectedness by Nargis. Four control villages were added to allow for comparisons to be made between areas that were affected and those less so, although three of the four 'controls' had also been impacted by Nargis.

Interviews for the Credit Market Analysis were conducted in the capitals of the same eight townships studied in the SIM.

3. Overview of Research Questions and Topics

SIM 2 focused on the same topic areas as SIM 1.⁶⁵ Collecting data on the same issues allowed for an assessment of the evolution of conditions and villagers' and

⁶³ Tripartite Core Group (2009). *Op. Cit.*

⁶⁴ For purposes of selecting villages, the social impacts monitoring uses the following definitions: (a) a *fishing village* is where fishing is the primary livelihood for a majority of households (i.e. more than any other livelihood); (b) a *farming village* is where farming is the primary livelihood for a majority of households; (c) *peri-urban villages* are those within or on the outskirts of an urban centre where neither fishing nor farming is the primary livelihood; (d) *control villages* are those noticeably less affected by Nargis.

⁶⁵ The SIM 1 focus areas and questions were based on issues identified through the initial social impacts assessment conducted as part of the PONJA; see Tripartite Core Group (2008a, pp. 27-2 and Annex 15). That report identified a number of hypotheses on forms of social impact that might play out in the post-Nargis period. SIM aims to track these issues over time. In addition, an extra emphasis is placed in SIM on issues of aid effectiveness. The PONJA report identified four guiding principles for aid delivery: effectiveness, transparency and accountability; independence, self-

aid deliverers' responses over time. The focus in SIM 2 was on changes over the six months before fieldwork was conducted (roughly December 2008 to May 2009).

Specific question areas for the three topics examined are given below.

Aid effectiveness

- (1) The aid effort and current needs: aid received in the past six months; current needs and shortfalls and how these differ from the first six months after Nargis; how shortfalls in aid identified in SIM 1 affect current village recovery; how villagers are contributing to recovery and changes in the past six months; and whether aid is reducing vulnerability to future disasters.
- (2) Targeting aid: how aid is targeted and delivered and whether this is changing from the initial pre-Nargis period; equity in aid targeting within and between villages; and how marginalized groups are accessing aid (or not).
- (3) The process of aid delivery: actors involved and whether this has changed since the first six months after Nargis; transparency; decision-making; complaints; accountability.

Socioeconomic impacts

- (1) Local economic structure: the ongoing impacts of Nargis and the recovery effort on farmers, fishermen, labourers and others, and changes in the past six months; whether there have been occupational changes; changes in prices; access to markets.
- (2) Indebtedness: how the credit market is changing; who is lending, to whom, how much and criteria for lending; ease of access to credit; changes in interest rates and terms of loans; impacts of changing credit market on livelihoods and welfare; and changes in debt burdens.
- (3) Land: changing patterns of land tenure; whether people are losing land; land conflicts and disputes.
- (4) Migration and displacement: whether people are still displaced; inwards and outwards migration flows in the past six months; and the social impacts of migration.

Social impacts

- (1) Gender relations: changes in work roles in the past six months; changes in marriage patterns; and levels of domestic violence.
- (2) Changes in inter-generational relations and comparisons with the first six months after Nargis.
- (3) Inter-village relations: changes in relations; varying impacts of cyclone damage and effect on inter-village relations; inter-village tensions and conflict; and comparisons with the first six months after Nargis.
- (4) Inter-religious/inter-ethnic relations: changes in relations; role of religious and ethnic leaders; and comparisons with the first six months after Nargis.
- (5) Intra-village relations and social capital: strengthening or weakening of social capital; how problems and tensions have been resolved; new types of community cooperation since Nargis; and comparisons with the first six months after Nargis.
- (6) Relations between villagers and formal/informal leaders: role of formal leaders; role of informal leaders (disaggregated by actor); and comparisons with the first six months after Nargis.

4. Informants

Within villages sampling protocols were the same as for SIM 1. Research teams sought to interview a wide cross-section of the community. This included: the village head and other official village leaders; village elders and religious leaders; others who were/are involved in aid decisions in the village; farmers, fishermen, labourers and those in other occupations; (potentially) vulnerable groups, including female-headed households, the handicapped or injured, and the elderly; and young men and women. Because the same researchers were visiting the same villages as in SIM 1, many informants from that fieldwork were re-interviewed, allowing a more accurate assessment of changes over time. All in all, the research teams interviewed over 2,450 persons in the 40 villages, an average of over 60 per village. At the township level, over 320 persons were interviewed as part of the Credit Market Analysis.

To the extent possible, the researchers tried to get the perspectives on the same topics from each group in order to triangulate information received. Where differences existed in the answers, this could also be important for assessing social impacts and local dynamics.

5. Research Instruments

Three research instruments were used.

First, in-depth interviews were conducted with a wide range of elite and non-elite villagers (see above). Interviews were semi- or unstructured, meaning that the researchers had the flexibility to focus on particular issues that the informant had information on and follow up interesting lines of inquiry. Guiding questions were provided to the researchers to help focus interviews, but the researchers were free to amend and adapt these as necessary, in particular to make sure that they fitted with the local context. Overall, 438 formal interviews were conducted.

Second, focus group discussions were held with different groups within the villages studied. In each, around six to eight informants were interviewed together. Groups were constructed so that people with similar characteristics (for example, village leaders, young women, etc.) gathered together. This helped ensure the "openness" of the discussions. On average, 5-6 focus groups discussions were conducted per village, 230 in total.

Third, the researchers also conducted informal interviews and participant observation. This included many late-night discussions with those with whom the research teams stayed and discussions with individuals and groups over meals. In all, 174 informal discussions were conducted. Directly observing dynamics and impacts also provided much information on the way villages were functioning, the effects of Nargis and how aid was operating.

6. Use of Data

Three types of data are utilized in the SIM 2 report.

First, the research teams collected standardized data on various dimensions of village life and on the aid effort for each village. These data were used to generate tables that allow for a mapping of broad patterns and consideration of sources of variation. Many of the indicators collected were based on those used in SIM 1. This allowed for analysis of changes in conditions from the pre-Nargis period, from the situation in late 2008, and the situation in mid-2009. Tables were also generated as part of the Credit Market Analysis.

Second, qualitative field reports were written for each round of fieldwork (and for the CMA). These provide the researchers' assessment of conditions in the various villages, and a preliminary analysis of trends.

Finally, case studies on the experiences of particular families and groups in Nargis affected villages and at the township level were created. These allow for in-depth investigations of *how* Nargis and the aid effort have affected the lives of different people. Case studies focused first on people and families whose experience is representative of (large sub-sections of) the general population. This allowed for an extrapolation from the experience of particular individuals or households. Second, case studies outlined the experience of 'exceptional' cases, those who have had particularly positive or negative experiences. In these, researchers made efforts to determine *why* the individual or household had done worse or better than others. Again, this helped determine sources of variation in outcomes and experiences, between and within villages. A selection of the case studies is presented throughout the report.

Map A1: Location of villages studied in the social impacts monitoring



ATTACHMENT: CREDIT MARKETS IN THE DELTA

This analysis of credit markets in the Delta region of Myanmar was carried out as part of the second Post-Nargis Social Impact Monitoring (SIM 2). The first round of SIM (SIM 1) carried out six months after Cyclone Nargis, highlighted the risk of increased debt and a lack of access to credit faced by people in the Delta. SIM 2 thus supplemented its analysis of village debt and credit with further township-level research on Delta credit markets.

The research took place between April and May 2009 in the same eight townships as in the SIM study: Pyapon, Bogale, Dedaye, Kyaiklat, Labutta, Ngapudaw, Mawlamyinegyun and Kungyangon. The researchers employed a range of qualitative research methods, including in-depth interviews, focus groups and case studies. In all, they held 26 focus group discussions with borrowers, 139 in-depth interviews with lenders and borrowers and 40 case studies, interviewing over 320 people in total.

The aim of the research was to gain a greater understanding of different aspects of borrowing and lending in the Delta, including: the socioeconomic profiles of borrowers and lenders; credit supply, demand and shortfalls; the usual terms of credit and use; the implications of default; and the current state of the credit market a year after Nargis.

1. Lenders

Credit plays a central role in the Delta economy. Farmers borrow money at the beginning of the planting season to pay for farm inputs and labour, and repay after the harvest. Fishermen borrow money from fish collectors and middlemen and sell their catch to them at lower-than-market prices. Casual labourers borrow money from farmers and repay with their labour. Villagers often buy goods from their village grocery stores on credit.

Historically there has been an undersupply of formal credit. Some formal institutions provide credit to villagers, but the overall supply is far less than the demand for credit. A thriving informal credit market has thus emerged. Farmers, fishermen, labourers, small business owners and others mix their portfolios and borrow from a range of sources to meet their credit needs, including family and friends, input suppliers, private moneylenders, pawnshops and jewellery stores. In the absence of enough supply of affordable formal credit, however, interest rates are high.

Researchers interviewed four main types of lenders: (i) private moneylenders (small, medium and big moneylenders, private savings and loan businesses, gold and jewellery shops, and pawnshops); (ii) government lenders; (iii) cooperatives; and (iv) semi-formal microfinance institutions.

Private Money Lenders⁶⁶

The researchers interviewed 16 small, medium and big⁶⁷ moneylenders and private savings and loans businesses.

⁶⁶ Private moneylenders tend not to have licenses to lend money and thus operate in a grey area. Small, medium and big moneylenders and private savings and loan businesses do not have official licenses to lend and operate privately. Gold and jewellery shops have licenses to sell gold and jewellery but not for lending or pawning. Pawnshops may have a license to lend money, but their terms of credit may not be in accordance with the terms laid down by their licenses.

a. Moneylenders

(i) Small moneylenders

The researchers interviewed ten small moneylenders, who lent mainly to trishaw drivers, vendors, farmers, small traders, and other grassroots level borrowers. They reported using their own funds as capital for lending, though they sometimes borrowed from friends and relatives.

Usual lending practices. Small moneylenders reported making loans of between kyat 5,000 and 200,000 at interest rates of between 10 and 20 percent a month, though usually they asked for loans to be repaid daily. They reported collecting debts either by walking around the market with their daily record books, waiting at home for their borrowers to come to them or by going personally to find defaulting borrowers to ask for repayment.

Effect of Nargis. Cyclone Nargis and the economic difficulties faced by farmers and town dwellers have decreased the ability of small moneylenders to provide credit. There were two main reasons for this. First, many borrowers in towns have had to spend money to repair their houses so have defaulted on their loans. Second, many farmers have defaulted on their loans, citing destroyed farmland and declines in both yields and the paddy price. As a result, small moneylenders have not been able to lend as much as before: the average money in circulation of the small moneylenders interviewed decreased from about kyat 1.5 million before Nargis to about kyat 940,000 a year later. Several small moneylenders reported that they rarely now lend to farmers because so many farmers have defaulted. They also said that there were many more new borrowers than before, but that they did not have enough capital to meet the demands of these new customers. The average monthly income of the small moneylenders interviewed had decreased from kyat 250,000 before Nargis to kyat 160,000 a year later.

Coping with Nargis. Small moneylenders reported that they had tried to be flexible with borrowers since Nargis. Six of the moneylenders interviewed either froze interest payments or extended repayment periods for their borrowers. Despite this, they still reported facing defaults and overdue loans.

Box A1: Small moneylenders try to be flexible to cope with Nargis

One moneylender had run a business for seven years lending money to vendors in the Pyapon market and selling goods on credit, both at 10 percent monthly interest. One month before Nargis, a woman came to her to borrow money to start a business selling clothes and utensils on credit in her village. The moneylender believed that the business would thrive and so lent the woman money at only 5 percent interest. By the time Nargis hit, the woman's total debt was kyat 500,000. However, Nargis destroyed all the woman's goods, and her village customers were unable to pay her for the clothes and utensils they had got from her on credit. She thus faced great difficulties with her repayments, and begged the moneylender for flexible repayment terms, saying she would sell her home and non-arable land to repay her debt. So far, though, she has not been able to do so, so the moneylender has not been repaid. The moneylender said that she and other moneylenders, who tend not to have licenses, did not have recourse to the legal system if their debtors defaulted.

⁶⁷ Moneylenders were categorised according to their total lending and type of customer. For the purposes of the study, 'small' moneylenders are those who have less than 20 *lakh* (kyat 2 million) in circulation, 'medium' moneylenders were those with on average 100-300 *lakh* (kyat 10-30 million), and 'big' moneylenders were those with over 1,000 *lakh* (kyat 100 million) in circulation.

(ii) Medium moneylenders

The researchers interviewed two medium moneylenders, each of whom lent mainly to farmers. The businesses of both declined after Nargis.

Box A2: Medium moneylenders lose capital and become small moneylenders

Before Nargis, one couple, a well-off farmer and a teacher, lived in a village where they owned 24 acres of land. The couple earned substantial income from lending money to other farmers and to fishermen and labourers. They charged farmers 60 percent interest a season, charged other borrowers 10 percent a month and accepted repayment in labour from casual labourers. Before Nargis, their loan sizes ranged from kyat 5,000 to kyat 3 million. They kept a reserve of both cash and 1,200 baskets of paddy.

Cyclone Nargis destroyed their cash and paddy reserves and massively reduced the ability of their borrowers to repay. Before Nargis, the couple had about kyat 20 million in circulation. Since then, only kyat 1 million has been repaid, so kyat 19 million is still outstanding.

The couple has thus lost most of their capital. They believe that their customers will eventually repay them but this has not yet happened. In the meantime, they have used the small amount of capital they have left to start a business as small moneylenders in the township capital. They started this business with kyat 500,000 and now lend to trishaw drivers, vendors and small traders at 10 percent monthly interest. The size of their loans, though, has decreased significantly. Their smallest loan size is still kyat 5,000, but now their largest loan size is only kyat 30,000, compared to kyat 3 million before the cyclone.

(iii) Big moneylenders

The researchers interviewed one big moneylender in Kungyangon who lent mainly to farmers, but also to fishermen, traders and shopkeepers, and another moneylender in Mawlamyinegyun who mainly lent to rice, bean, crab and fish traders. The moneylender in Kungyangon reported that he had about kyat 100 million in circulation before Nargis and kyat 200 million after Nargis. The Mawlamyinegyun moneylender did not report how much money he had in circulation, but the researchers estimated it from the reports of others to be about kyat 100 million.

Box A3: Big moneylender sees his business decline

One big businessman owned two electronic stores and also ran another business transferring money and making very short-term loans of up to three days at a time to rice, fish and bean traders. He did not perceive these short-term loans as lending, but rather as providing a cash flow service where traders could use his money temporarily. Under the terms of this service, he would provide cash to traders for short-term use, and would take a kyat 200 cut for every kyat 100,000 provided if traders were unable to repay the funds within three days. His short-term loans ranged in size from kyat 1-2 million. Before Nargis, he had about 15 customers daily.

The businessman reported that his business had declined since Nargis. He has had to reduce his number of customers and his money in circulation. Before Nargis, he reported that the trading business had declined and rice traders had experienced losses, so he had reduced his business by about 20 percent. Since Nargis, he has reduced his business a further 40 percent.

The businessman also made money by running a money transferring business. He takes kyat 200 as a service fee for every kyat 100,000 transferred through him and, because over kyat 5 million is transferred through him daily, is able to earn kyat 10,000 a day this way. From 1996 to 2006 he also transferred money for non-governmental organisations that wanted to pay salaries for their staff. Then, kyat 10 million were transferred through him a day, so he made more money. He also kept funds for non-governmental organisations in a current account.

Over the course of his business life, many of his borrowers have defaulted, but he has

never taken legal action against them. He stated that he wished to lend money legally and openly even if it meant he had to do so at reduced interest rates.

Both moneylenders reported that their businesses had declined since Nargis. The cases illustrated above and below show how. They also show that big moneylenders often perform roles more commonly associated with formal financial intermediaries.

Box A4: Kungyangon moneylender faces defaulting borrowers

One couple runs a primary business lending money and a side business selling textiles on credit. They lend mainly to farmers, fishermen and shopkeepers both in the township capital and in villages. They make loans of between kyat 100,000 and kyat 10 million, charging 5 percent monthly interest for loans with collateral. Trusted friends and regular customers may borrow without collateral, but first-time borrowers or those borrowing small amounts are charged 6-7 percent interest. There is no specific time period for repayment, but most farmers settle their debts at harvest time.

Nargis has affected how their business operates. They now have more overdue loans than before. Before Nargis, they had about kyat 100 million in overdue loans: this has since increased to kyat 200 million. They also now have many new customers, most of whom are farmers, but are changing their loan sizes. Before Nargis, 15 borrowers took loans above kyat 10 million, and 60 borrowers took loans above kyat 1 million. Now, about ten of their new customers have taken loans above kyat 10 million, 60 have taken loans above kyat 2 million, and 20 have taken loans above kyat 1 million. However, they still have over 60 overdue loans of kyat 1 million each or more.

According to the couple, their borrowers' attitudes towards repayment vary. Some borrowers default with seemingly few consequences or attempt to defraud them and, as a result, they sometimes make contracts for first-time borrowers, though this is done primarily to constrain the borrowers rather than a base for suing in the case of default, which they have never done. Other borrowers settle their loans at whatever cost. For example, one borrower, who borrowed kyat 2.5 million before Nargis and after Nargis faced a kyat 4 million debt, was unable to settle his debt because his farm yield declined. To repay his debt, he ended up pawning his farmland and his home.

The couple sometimes finds it difficult to obtain capital for their lending. Usually, they borrow from a moneylender in Yangon and from other business friends at 3 percent monthly interest, using their gold as collateral. They have kyat 100 million of their own funds but have to borrow a further kyat 100 million for their money in circulation, borrowing kyat 30 million to 40 million at a time to do this. Their supply of credit is not always steady, and in months where borrower demand is high, it can be difficult for them to obtain the necessary capital. They say that they would prefer to be able to get credit at low interest and with stable term

b. Gold and jewellery shops

The researchers interviewed ten gold shops. The gold shops reported lending to all borrowers who can provide gold as collateral. They lend mainly to farmers and also to traders, fishermen and shopkeepers.

*Usual lending practices*⁶⁸. The gold shops interviewed reported making loans of between kyat 10,000 and kyat 4 million at interest rates of between 3 and 5 percent a month, depending on the loan amount. Repayment terms varied from three months to one year.

Effect of Nargis. Six of the ten gold shops reported that their business volume (buying and selling gold) and profits had declined since Nargis. They reported that their average income had declined from kyat 360,000 a month before Nargis to kyat 270,000 after Nargis. Their average expenditure has dropped from kyat

⁶⁸ Only three gold shops were willing to provide information on money in circulation

240,000 a month before Nargis to kyat 180,000 after Nargis. The interest rates they charge borrowers have not changed.

Two gold shops said that the global financial crisis rather than Nargis was the main reason their businesses had declined, as people were buying less gold than before. Others cited Nargis. Before Nargis, the main customers of gold shops were farmers. The gold shop owners reported that farmers now could no longer buy gold and, on the contrary, now came to pawn what gold they owned. They also reported that most borrowers who had borrowed using gold as collateral have been unable to settle their debts and so have lost their gold. The pawning and borrowing/lending business of gold shops has thus increased in proportion to their usual business of selling gold.

Box A5: Usual procedures of a gold shop

One gold shop owner has run a gold shop in a township market for over two decades. The business has been in his family for generations. He has a license to run a gold shop and act as a goldsmith but does not have a license to lend.

He usually lends a smaller amount of money than the value of the collateral his customers offer, and charges 3 to 5 percent interest a month, depending on the loan size.⁶⁹ His terms are dependent on collateral: if his customers borrow a small amount compared to the value of their collateral, they may take longer to repay their loan. However, he is usually flexible with repayment times, giving a usual grace period of two months after the standard four-month repayment period has expired. He keeps kyat 4 million in reserve. According to the gold shop owner, lending to borrowers who have gold as collateral is less risky than other types of lending, but gold owners are at risk from fluctuating gold prices. This, however, sometimes works in his interest. Although he has to accept depreciating gold prices if he has lent someone money with a certain amount of gold as collateral, he can also sell gold when it has appreciated and keep the difference once debts have been settled.

The gold shop owner reported that the cyclone had affected his business. He now only has about 150 customers, compared to 200-300 before Nargis, and faces higher rates of default than before.

All gold shops said that they faced higher rates of default since Nargis, especially among farmers. Two gold shops said that even farmers who regularly repaid debts before Nargis had since defaulted. They think this is because the farmers' yields have been too small for them to settle their debts, and the gold price has declined. One gold shop reported that it had extended credit to its regular farmer customers since Nargis even though they had been unable to settle their old debts, because the farmers badly needed capital to grow paddy. Since then, however, the farmers have been unable to repay.

Coping with Nargis. Some gold shops have attempted to be flexible in dealing with the aftermath of Nargis. Most reported that they had extended repayment times by a month. They were flexible, however, not to all borrowers but mostly to their regular customers with a good repayment history.

c. Pawnshops

The researchers interviewed eight pawnshops, all of which had licenses. They reported that the system for issuing license fees to pawnshops in their areas had changed. Until the fiscal year 2007-08, licenses were allocated by auction and so could vary significantly among neighbourhoods. In neighbourhoods with no competition for licenses, the fee would thus be the floor price determined by the municipal department, whereas in neighbourhoods with competition the price

⁶⁹ He charges 5 percent for loans below kyat 50,000, 4 percent for loans between kyat 50,000 and 100,000 and 3 percent for loans above kyat 100,000.

could increase dramatically. In one neighbourhood, for instance, two rival businessmen drove up the license price to kyat 1.2 million, even though the floor price was only kyat 200,000. Since then, the system in their areas has been amended. Under the new system, existing pawnshops have the right of first refusal and are offered to buy licenses at a price determined by the municipality, which increases yearly. The municipality only holds an auction if existing pawnshops are unable to renew at the price offered.

The business sizes of the pawnshops interviewed differed: one had kyat 2.5 million in circulation, whereas another had over 20 million in circulation.⁷⁰ They reported lending to customers both from the township capital and from villages. Most village customers were farmers and fishermen wanting to borrow large amounts of money using gold as collateral.

Usual lending practices. Pawnshops reported accepting gold and, in most cases, other items, such as bicycles, engines, cooking pots, cassettes and clothes, as collateral. Interest rates were lower for gold than for other types of collateral. The interest rate charged for gold varied from 3 to 6 percent a month but was usually 4 to 5 percent a month depending on the loan size,⁷¹ with a repayment period of between three to six months. Interest rates for loans where borrowers had other types of collateral varied from 8 to 15 percent a month. Rates were lower for high-value collateral, such as bicycles, than for low-value collateral, such as clothes. Loan sizes varied significantly, from kyat 3,000 to kyat 410,000.

Effect of Nargis. Pawnshop owners reported that Nargis had affected their businesses. All eight pawnshops interviewed experienced higher rates of default after Nargis, even among customers who previously settled their debts regularly. Five out of eight pawnshops said that most of their borrowers who had put up as gold as collateral had lost it after Nargis because they were unable to repay. Pawnshops reported that their average income had declined from approximately kyat 360,000 a month before Nargis to approximately kyat 250,000 afterwards.

Five out of eight pawnshops reported that the number of their customers had declined since Nargis. The number of customers from villages has also declined, which pawnshops reported was because customers from villages no longer had anything left to pawn.

Two of the eight pawnshops had more customers after Nargis, mainly consisting of labourers from the township capital. However, they reported that most of these new borrowers were unable to repay their debts and so lost the items they pawned.

d. Private saving and lending services

The researchers interviewed two types of private saving and lending services, one with no license and one with a pawnshop license. The owner of one service, which has been run out of a pawnshop for 15 years, offers this service mainly to shopkeepers in the township market whom the owner knows well or to friends and other trusted borrowers from a nearby village. The owner of the other service, which has been run for three years, mainly trades preserved fish and other items and offers his service mainly to trishaw drivers, vendors and other shopkeepers.

⁷⁰Note: information on the money in circulation, reserve money and the number of customers are largely unavailable as most of the owners didn't want to mention about their business. As a result, the average money in circulation cannot be calculated.

⁷¹ Interest rates were usually 5 percent for loans below kyat 100,000 and 4 percent for loans above kyat 100,000.

Usual savings and lending procedures. Both savings and lending services had similar procedures, but different interest rates and other credit terms. The procedure of the first service typified the process: if borrowers deposit kyat 1,000 a day and do not draw on their savings all year, they receive a payout at the end of the year of kyat 400,000. Borrowers are able to withdraw money if they have saved for at least three months. After three months, they are eligible to borrow up to kyat 200,000, but have to pay 3 percent monthly interest on any withdrawals. The second service accepted savings from kyat 200 to kyat 10,000, with the most common ranging from kyat 500 to kyat 1,000 a day, and offered 1 percent monthly interest on deposits and 3 percent interest on withdrawals. Like the other service, borrowers can borrow up to six months worth of savings once they have saved for three months. Neither owner has ever taken legal action against a defaulting borrower.

Effect of Nargis. The owners of both businesses reported that people withdrew savings after Nargis but that otherwise their businesses had resumed and they had more customers than before.

Government Lenders

a. Myanmar Agricultural Development Bank (MADB)

The MADB provides low-interest loans to farmers and requires them to save a certain proportion of what they borrow⁷². It also has a development loan program that sells farmers farming equipment on instalment, though the officers interviewed reported this had stopped in some townships as some aid providers have given farmers equipment directly. The researchers interviewed MADB officials in all eight townships.

Before Nargis, the MADB lent farmers kyat 7,000 per acre⁷³ for up to 10 acres of land. Loans are made for the monsoon and summer paddy crop during planting time and are repayable seven months later after the harvest. Farmers have to form groups of five borrowers, and each group is responsible for its repayment even if an individual member defaults; and village formal leaders are responsible for ensuring that farmers from their village repay.⁷⁴ As a result, default is rare: MADB officials interviewed reported that farmers settled their debts even when it was hard for them, and had even done so immediately after Nargis.

MADB officials reported that they do not always have enough of their own capital to provide loans for all farmers who apply, and so sometimes have to borrow from the Myanmar Economic Bank, at a rate of 15 percent interest a year.

Effect of Nargis. In the aftermath of Nargis, the MADB increased its loan amount to kyat 8,000 per acre for the first planting season after Nargis, and then again to kyat 10,000 per acre for the following planting season, at an interest rate of 17 percent for seven months.

MADB officials from two townships reported that they had more borrowers than before Nargis. They reported that even big farmers, who before Nargis considered the MADB loan amounts to be negligible, had since started borrowing. One MADB

⁷² Data were unavailable on the savings rate for all eight townships, but were usually in the range of kyat 6-7 per 100 kyat borrowed—in other words, 6 to 7 percent. It is reportedly difficult, however, to withdraw these savings.

⁷³ Cultivation costs are usually approximately kyat 150,000 per acre.

⁷⁴ Respondents reported that village and group leaders try to repay on time because a tacit rule of MADB is to give priority to villages that make regular, on-time payments.

bank manager said that because farmers always repaid even if they were struggling, they should be provided with more credit in times of difficulty.⁷⁵

b. Myanmar Economics Bank (MEB)

The researchers interviewed officials from the MEB in three townships. The MEB provides credit to the Myanmar Small Loans Enterprise (government pawnshops), the Myanmar Agricultural Development Bank and to private enterprise. The officials reported that most of their business customers were rice traders. They reported making loans ranging in size from kyat 700,000 to kyat 20 million. According to one MEB official, township level branches are able to make loans of up to kyat 5 million, district branches may make loans of up to kyat 10 million, and division level branches may make loans of over kyat 10 million. The interest rate is 17 percent a year, repayable within a year in three instalments.

In order to borrow, customers have to submit documentation endorsing ownership of a particular immovable property and submit business tax documents. The MEB can then lend 30 percent of the market value of the particular immovable asset owned by the borrower.

The MEB officials interviewed reported having limited customers. One branch did not lend to any customers during the 2008-09 fiscal year; another branch had only a few customers. Branch officials also reported that head office had issued a new instruction requiring any new customers to be able to show more than kyat 30 million in immovable assets.

c. Myanmar Livestock and Fishery Bank (MLFB)

The researchers interviewed officials from the MLFB in three townships. Since Nargis, the MLFB has started a loans program targeted at fishermen and fishing businessmen of different sizes. The loans program started on June 2008 and ended in October 2008. The CMA teams visited three MLFB branches located in Bogale, Labutta and Pyapon. The amounts offered differed by branch and the business size of the borrower⁷⁶, but ranged from kyat 300,000 to kyat 30 million. Like the MADB, it lends to groups of borrowers, each of whom are responsible for their group's repayment even if an individual member defaults. The interest rate is 17 percent a year, and repayment periods in the branches interviewed ranged from one to two years.

Some borrowers have defaulted on their loans. In one branch, 80 out of 554 borrowers defaulted; in another, 50 out of 287 defaulted. According to one branch manager, though, the savings rate at his bank has increased since Nargis.

The MLFB officials interviewed reporting that they had made some amendments to their requirements since Nargis. Before Nargis, borrowers were required to submit licenses for boats, houses and businesses to borrow and get the endorsement of their village leaders. However, some borrowers lost their documents during Nargis, so bank authorities have had to accept the endorsements of formal leaders and the respective police departments of borrowers.

⁷⁵ The official specifically requested this to be included in the report.

⁷⁶ The minimum loan amount given by one branch was kyat 300,000 for fishermen with small boats, and the maximum amount was kyat 2.5 million for offshore fishing. Another branch, however, made one loan of kyat 30 million to a big fisherman.

d. The Myanmar Small Loans Enterprise (Government pawnshops)

The researchers interviewed officials from the Myanmar Small Loans Enterprise (MSLE) in six townships. These pawnshops only accept gold as collateral for the loans they offer. The MSLE offers smaller loans compared to the value of the collateral offered than private pawnshops, but their interest rates are only about 3 percent, compared to private rates of about 5 percent at private pawnshops.⁷⁷ This gives customers less incentive to pawn their gold at the MSLE. MSLE officials reported lending mainly to small farmers, though the number of customers has declined since Nargis, which officials reported was because MSLE offered lower loans for collateral. Loans made ranged from kyat 10,000 to kyat 2 million per borrower, and the MSLE head office determines how much each branch is able to lend per year.

Cooperatives

The researchers interviewed cooperatives in four townships, some of which had been set up after Nargis to assist cyclone-affected households with government funds. Four types of cooperatives were interviewed: agricultural cooperatives, savings and loan cooperatives, fishing cooperatives and salt farm cooperatives. The lending terms of each type of cooperative differed, though all cooperatives operated on the basis of group borrowing and lending.

a. Agricultural cooperatives

One agricultural cooperative interviewed had been running for four years, targeting small farmers and casual labourers in 24 village tracts. It has 506 members and lends its members kyat 5,000 per acre at a rate of 2.5 percent monthly interest. Most of its farmer members borrow money for between three to seven acres of land, though the maximum number of acres for which the cooperative will lend is 50 acres. The cooperative uses a group lending system in which members are obliged to settle their group's loans even if an individual member cannot repay. The cooperative gets its capital from the Cooperative Bank and the savings of different cooperatives. Every year, it lends a total of kyat 27.3 million, to serve 5,460 acres of land. This has not changed since Nargis.

b. Savings and loans cooperatives

The researchers interviewed savings and loan cooperatives in three townships. One had existed for twelve years and had different credit terms from the post-Nargis cooperatives.

The twelve year old cooperative has two groups, one targeting staff of cooperatives and the other targeting staff of the Agriculture and Commerce Department. Each group has about 20 members, some retired. Members have to pay a fee of kyat 500 and are required to save kyat 300 per month. They can borrow from kyat 10,000 to 30,000. They receive 1 percent monthly interest on their savings and are charged 2.5 percent monthly interest on their loans, which are repayable within a month. The cooperative keeps a reserve of kyat 100,000. No member has ever defaulted.

The two cooperatives set up after Nargis have similar procedures but slightly different terms. Their members have to come from particular businesses and have a guarantee from a trusted member. They are mostly vendors and

⁷⁷ Outside lenders also only take 3 or 4 percent if the gold is of good quality or for trusted customers or friends.

shopkeepers. Members have to pay a kyat 10,000 membership fee and can borrow up to kyat 30,000 at a time at a rate of 2.5 percent interest a month, repayable in two months. However, borrowers have to repay kyat 600 every day over the course of two months, kyat 500 of which is taken as capital, kyat 25 of which is taken as interest and kyat 75 of which is taken as savings.

Each cooperative was set up using funds from the Ministry of Cooperatives, one with a kyat 1.5 million initial investment and the other with a kyat 3 million initial investment. They now have 336 and 137 members, respectively, and the larger cooperative has approximately kyat 7 million now in circulation.

c. Fishing cooperatives

Fishing cooperatives were studied in two townships. Both were set up after Nargis to assist cyclone-affected fishermen. Each, however, had different procedures and credit terms.

The first cooperative was set up in August 2008. One hundred twenty four households in a new village set up the cooperative at the instruction of township authorities so that the Ministry of Cooperatives could provide the households with credit. Each household then got a loan of kyat 500,000 at 1.5 percent monthly interest. Households were required repay their loans within a year in four-monthly instalments.

The second cooperative was also set up in August 2008. It obtained kyat 3 million of its initial funds from the Cooperative Revolving Fund (CRF) and kyat 3.7 million of its funds from the Salt Industry Fund and has 263 members. All members are fishermen. Members have to pay a membership fee of kyat 10,000 and then are eligible for a kyat 50,400 loan at 2.5 percent interest. Every five days, each borrower has to repay kyat 3,300 to the cooperative, kyat 2,800 of which is taken as interest, kyat 210 of which is taken as interest and kyat 290 of which is taken as savings. Members then receive 1.5 percent interest on their savings. Now, the cooperative has over kyat 25 million in circulation and, after settling its initial debts from the CRF and salt industry fund, has a balance of kyat 7.9 million, saved at the Myanmar Livestock and Fisheries Bank.

d. Salt industry cooperatives

The CMA team studied two types of salt industry cooperatives, both of which differed in their credit terms and their source of capital.

The first cooperative obtained its initial investment fund of kyat 59 million from the Ministry of Minerals, which enabled it to provide low-interest loans to its 92 members. The cooperative has provided loans of kyat 46 million to its members at 1.8 percent monthly interest.

Salt producers in the second township were provided with loans from the Myanmar Salt and Oceanic-Chemical Industrial Department, which provided low interest loans to 125 salt producers in October 2008. The total loan amount provided was almost kyat 2 billion. The interest rate on the loans was 15 percent a year, repayable within two years.

Semi-formal Microfinance Institutions

The CMA teams interviewed staff from one large internationally funded microfinance program, which has existed since 1997. The program offers general loans, special loans, education loans, micro-enterprise loans, group loans and

loans for the vulnerable. There are certain requirements for membership in a borrowing group, such as owning no more than five acres of land, permanently residing in a village and not joining a group with close relatives. Members of each group have to approve requests of individual group members to borrow.

The program has changed since Nargis: it has resumed general loans, and membership is up. There are now new, post-Nargis members in addition to old members. Staff from the program said that the number of members had increased because people are facing declining access to credit and scarce job opportunities in the aftermath of Nargis. Old members may borrow up to kyat 150,000, whereas new members may borrow only up to kyat 70,000. The interest rate is 3 percent a month, repayable every five days for 50 weeks. At the time of the research, the savings program had yet to be resumed in the townships studied.

The program is large. In one township studied, the program lent approximately kyat 775 million to borrowers in 206 villages. In another, it lent kyat 165 million to 223 villages.

2. Borrowers

The researchers interviewed two types of borrowers: (i) 'grassroots' borrowers, such as vendors, wage labourers, dockworkers, transporters, small farmers, fishermen and small shopkeepers, and (ii) business borrowers, such as rice traders and farming input shops.

Grass-roots Level Borrowers

a. Purpose of borrowing

The researchers found that the purpose of borrowing had changed since Nargis. Before Nargis, most grassroots borrowers interviewed at township level borrowed to obtain working capital or food. After Nargis, grassroots borrowers also borrowed to obtain money to repair or rebuild their houses, which had been damaged during the cyclone.

b. Borrowing procedures

The borrowers interviewed reported that they usually borrow from small moneylenders without providing collateral. They usually face interest rates of 10 to 20 percent a month, but when they urgently need money sometimes have to borrow short-term loans at 5 percent interest per day. Most borrowers have to settle their loans within a month, but have to repay a portion of it daily. Other lenders do not specify a loan repayment time and are satisfied as long as their borrowers repay a portion every day. Most borrowers tend to meet their daily repayments, in case they are denied further credit in future, which they reported as being the worst sanction small, unlicensed moneylenders could apply.

The researchers found cases, however, where the real interest rate faced by small borrowers was higher than the interest rate they thought they were paying, because they did or could not work out the terms on offer, as in the case below.

Box A6: Borrower's real interest rates are higher than she thinks

One vendor who sold snacks usually borrows kyat 90,000 a month from a moneylender without collateral. The moneylender offers her a stated rate of 20 percent interest a month—kyat 18,000. However, the moneylender withholds the kyat 18,000 interest when the loan is made, so the vendor only gets a loan of kyat 72,000. Her effective interest rate

is thus kyat 18,000 on a kyat 72,000 loan, giving her an effective interest rate of 25 percent a month, not 20 percent a month. When interviewed, the vendor did not realise how much interest she was effectively paying.

c. Total indebtedness

Grassroots borrowers in towns reported that their total indebtedness had increased since Nargis, mainly because they have to borrow money to repair their homes and reinvest in their business. The researchers found that the average total indebtedness had increased from kyat 181,000 before Nargis to kyat 246,000 a year later. Over half of borrowers borrow from two or more credit sources. All borrowers said they would like to borrow low-interest loans if available.

d. Different types of borrowers

The borrowing practices and profiles of different types of grassroots borrowers, including vendors, transport workers and shopkeepers, differed somewhat. The details are presented below.

(i) Vendors

Most of the small vendors interviewed were women. They sold vegetables, fish, fruit, snacks, cosmetics and flowers at township markets. They usually did not have official licenses to sell but paid unofficial fees to municipality staff to secure their space (kyat 100 per foot), service the municipality (kyat 200) and for cleaning (kyat 100).

The vendors interviewed reported being rarely free from debt. Vendors mostly reported borrowing from small, unlicensed moneylenders at rates of 10 to 20 percent monthly interest, repayable every month in daily instalments. Sometimes, though, they fail to settle, and moneylenders have to extend their time limits. Moneylenders have no legal recourse if the vendors repay, but can cut off further credit, which vendors try to avoid. According to one vendor, moneylenders hold on to the national identity cards of vendors if the vendors owe more than kyat 150,000.

Many vendors reported being trapped in a debt cycle, as illustrated in the case below.

Box A7: Debt cycle of vendors

One woman sells vegetables in the market. She has to borrow kyat 150,000 per month at 20 percent monthly interest, repayable in the form of daily instalments of approximately kyat 6,000.

Most months, however she is unable to repay regularly. At the end of every month, when she borrows from the lender again, the lender gives her the kyat 150,000 minus any amount owed. Her daily repayments for each monthly loan regardless of how much the lender has kept in reserve, however, remain the same, at kyat 6,000 a day.

All vendors reported being affected by Nargis. Their homes were destroyed and so they needed to borrow money to rebuild and repair their homes, in addition to still needing to borrow for working capital. Since Nargis, their need to borrow for food has also increased. Vendors reported that their total indebtedness had thus increased since Nargis. Before Nargis, their average indebtedness was kyat 134,000. This has increased to kyat 1.37 million after Nargis, mostly because of house repairs and because they needed to borrow to replace destroyed

inventory.⁷⁸ Some vendors reported that since Nargis, their income had declined 90 percent.

(ii) Shopkeepers

Shopkeepers interviewed included small grocery shops that sell snacks, dry foods and cosmetics. They reported that their average income had declined from kyat 533,000 a month before Nargis to kyat 210,000 afterwards, and their average expenditure had declined from 145,000 before Nargis to kyat 130,000 after.

(iii) Trishaw drivers, cycle taxi drivers and boatmen

Trishaw drivers, cycle taxi drivers and boat men reported borrowing mostly from small, unlicensed moneylenders. Their debt has increased since Nargis from an average because they have had to borrow to repair their houses and trishaws, cycle taxis or boats. Their debt has increased from an average of kyat 46,000 before Nargis to an average of kyat 56,000 after Nargis. They borrow frequently, usually at rates of about 15 to 20 percent a month, with no collateral. They usually have to repay within a month, and reported rarely being free from debt.

Trishaw drivers. Most trishaw drivers reported renting their vehicles at a rate of approximately kyat 600-700 a day, with a deposit of kyat 8,000. Their average monthly income has decreased from kyat 78,000 before Nargis to kyat 66,000 after Nargis, and their average expenditure has decreased from kyat 65,000 to kyat 60,000. Trishaw drivers usually have to borrow money every month. Their credit needs increase during the monsoon, when they have fewer passengers.

Cycle taxi drivers. The cycle taxi drivers interviewed were not officially licensed and are not usually to operate in township centres, where priority is given to licensed trishaw drivers. They reported having to pay kyat 2,500 to the owners of the cycles as owner fees, and can earn kyat 5,000 for a trip between township capitals. Before Nargis, they reported making good business, but their businesses have declined since Nargis.

Boatmen. Most boatmen interviewed owned their boats but to run a boat at a particular jetty have to give gate fees of between kyat 10,000 and 20,000 to the chief boatman, who is the jetty tender owner. Boatmen who line up at the gate have to pool money to pay their fee. The average monthly income of the boatmen interviewed has decreased from kyat 83,000 before Nargis to kyat 60,000 afterwards, and the average expenditure has decreased from kyat 80,000 before Nargis to kyat 75,000 afterwards, meaning that boatmen are increasingly in debt.

Business Borrowers and Product-market Suppliers

a. Rice millers

The researchers interviewed eleven rice mills, all of which were affected by Cyclone Nargis. Their average income is kyat 1.8 million a month. Ten of the eleven have seen their businesses decline since Nargis, which they attributed to their increased need to spend capital on rebuilding or repairing their mills, which has led to a corresponding decrease in investment capital. Nargis destroyed both the plants and paddy stocks of rice mills, causing the rice mills' owners interviewed to suffer average losses of kyat 180 million.

⁷⁸ Houses of town dwellers tend to be more complex than the bamboo or simple wooden houses of village dwellers, so cost more to repair.

Rice mills are a significant source of financing to farmers in Delta. Three of the rice mills' owners interviewed also sell fertilizer to farmers on credit, with effective interest rates of 4 to 8 percent a month.

Since Nargis, however, many farmers who borrowed from rice mills' owners have defaulted on their loans. Data on amounts outstanding were limited. The average loss caused by default appeared from the limited data available to be approximately kyat 22.5 million, though researchers estimated the real figure to be twice that in reality. Many farmers have also been unable to repay their fertilizer loans. As a result, one rice mill owner has reduced fertilizer loans, which has led to a vicious circle: it has caused a further decrease in paddy yields, which in turn has led paddy supplies to his rice mill to decrease. Another rice miller has decided not to sell fertilizer on credit but only to accept cash, and yet another has seized the farmland of farmers who are unable to repay.

Because the rate of default has been so high, several rice mill owners have taken action to reduce their risk, but these have caused hardship to farmers. Two rice millers interviewed urged farmers with outstanding loans to sign over the contracts of selling their houses and compounds to them. They have seized the land and immovable properties of defaulting farmers.

Three rice millers interviewed now only purchase paddy with cash, not on credit, and do not purchase it in advance but only when farmers or paddy brokers bring paddy to the rice mill, to ensure quality. All rice millers interviewed also no longer provide farmers with advance financing for rice. There were three main reasons for this. First, the rice mills' owners interviewed were financially weak because of their Nargis losses. Second, the quality of paddy has not been guaranteed since Nargis. Third, the long trust that has existed between farmers and rice millers has been eroded by the ability of farmers to repay their loans in the post-Nargis period.

Most of the rice millers interviewed have borrowed from the Myawady Bank since Nargis, some under special projects to revive rice mills. Loans ranged from kyat 20 million to kyat 160 million, with an average loan of kyat 70.8 million. They have had to use their rice mills and home compounds as collateral. They face monthly interest rates of 1.7 percent, repayable in six years. Some rice millers reported borrowing from other sources, including gold shops, friends and the Myanmar Livestock and Fisheries Bank.⁷⁹

Rice millers reported that their need for credit vastly outweighed the supply available. For example, one rice miller, who was able to borrow kyat 25 million from the Myawady Bank, said that his actual credit need was kyat 100 million.

Box A8: Usual Practices of Rice Millers⁸⁰

One rice miller in Pyapon provides advance money to farmers of between kyat 1 million and kyat 5 million depending on how much land they own. The rice mill takes no interest from farmers with whom they have a long relationship, but takes 3 percent interest from others. They lend only to farmers who can bring their rice to the mill. The farmers usually bring paddy at the end of November. They bring between 200 and 700 baskets of paddy, and are paid the value of the baskets minus the advance.

Almost all farmers who were provided with advance money before Nargis were unable to settle their debts through providing paddy. The rice mill thus has over kyat 30 million in

⁷⁹ The rice miller who borrowed from the Myanmar Livestock and Fisheries Bank borrowed kyat 15 million at 1.42 percent interest, using his rice mill as collateral.

⁸⁰ In order to generally understand the business of rice millers in Delta, the normal business cycle and nature of one particular rice mill in Pyapon was described here. This is the one of the biggest rice mills in Pyapon. It exports rice internationally.

outstanding loans. Despite this, they have had to provide farmers with advance money this season. However, the amount they have been able to provide has decreased significantly since Nargis. Farmers who usually were paid kyat 5 million in advance got only kyat 1 million this year. Those who were paid kyat 3 million before Nargis got kyat 500,000 this year, and those who got kyat 1 million before Nargis got only kyat 100,000 to 200,000 this year.

The rice mill itself lost 10,000 baskets of rice during Nargis. It now grinds much less than before Nargis, partly because the paddy yield has declined, but also because the quality of paddy has declined. Before Nargis, the rice mill ground 5,000 baskets a day. Now it grinds only 3,000 baskets a day.

The rice mill usually borrows from the Myanma Livestock and Fisheries Bank and the Myawady Bank, at approximately 1.7 percent monthly interest. Before Nargis, the Myawady Bank lent the rice mill kyat 30-40 million a year. Afterwards, the bank lent kyat 70 million. However, the rice mill reported needing credit of kyat 200-300 million. The owners have attempted to borrow further money from relatives, at 3 percent monthly interest.

The rice mill manager said that he hoped farmers would be provided with loans by NGOs as they were badly in need of credit to grow paddy. He also said that he hoped rice mills would also be provided with low-interest loans, as several rice mills have been unable to resume operating since Nargis.

b. Fertilizer shops

The researchers interviewed ten fertilizer shops. Some also sold pesticides. All shops sold fertilizer for cash or by credit, commonly with half the payment to be paid in cash and half on credit, at interest rates of between 3 and 7 percent. Borrowers usually repay at harvest time. Fertilizer shop owners had 190 customers on average.

According to one fertilizer shop, its primary customers are rice millers and rice traders. About five rice millers and five rice traders purchased fertilizers on credit from that shop at interest rates of between 3 and 5 percent. Other shops follow similar practices for three of the eleven rice mills described above and are distributing fertilizers to their farmers who supply paddy to their rice mills.

Eight out of ten fertilizer shops interviewed saw their business decline after Nargis. Three attributed their decline in fertilizer sales to the distribution of fertilizers by post-Nargis aid providers. The only fertilizer shop that saw an increase in sales after Nargis said that sales had increased because aid providers had distributed fertilizer, which served as fertilizer advertising and thus increased fertilizer consumption—though the aid provider had also purchased fertilizers from him. Other fertilizer shops blamed the decrease in their sales to a decrease in paddy yields and paddy prices since Nargis.

Some fertilizer shops said that their investment capital had declined because of defaulting borrowers. The average amount of default faced by fertilizer shops was kyat 22.8 million.

Box A9: Practices of creditors and debtors in the informal credit market

Fertilizer shops reported making transactions based on trust and intimacy. As a result, they often face default. According to one fertilizer seller, before Nargis one in ten customers defaulted. The fertilizer shops have no legal recourse, but sometimes seize the land and draught cattle of defaulting farmers. Farmers tend to repay debts with anything they possess as a last resort in order to prevent default. In one case, the debtor finally repaid his debt with land, but the value of the land assessed by the debtor was higher than the market price. According to the fertilizer shop owner, he had to seize the land before the farmer's other creditors did.

c. Fish collectors and big fishermen

The researchers interviewed four fish collectors, all of whom experienced substantial financial and material losses during Nargis. One fish collector lost all his investment capital and livelihood gear so had to give up his business. The average financial and material loss for the four fish collectors interviewed was kyat 84.4 million.

Box A10: Livelihood changes of a big fish collector

One big fish collector ran a business before Nargis with 30 hired fishermen and 13 engine boats. His income was around kyat 5 million during the fishing season. He and his wife also lent money, primarily to other fish collectors, but also to hired fishermen and farmers they knew in the village where they owned land.

The fish collector was severely affected by Nargis. His wife was killed, and kyat 30 million worth of their gold was destroyed. 19 of the 30 fishermen they hired were killed. They lost twelve of their 13 boats and all their nets. They also lost all of their draught cattle. In addition, most of their debtors defaulted after Nargis. In all, he lost about kyat 100 million in losses because of Nargis.

As a result, he has been unable to resume his big fishing business or his lending business. Eventually he was able to borrow kyat 5 million from a friend and has started farming.

3. Conclusions

The financial needs of the people in Delta are largely supplied by informal private moneylenders. The demand for credit in the Delta significantly outweighs the supply of formal credit. Although government financial institutions exist, they are not able to meet the credit needs of people in the Delta. Other financial sources, such as cooperatives and semi-formal microfinance institutions, are too limited to drive the Delta economy.

As a result, the trade and economy of the region have largely been supplied by private, informal lending businesses that are built on trust and social collateral. However, both buyers and sellers of the capital suffer from the risks brought by the lack of proper institutionalization. The business of lending is permeated by high risk. Creditors reported distrusting their legal institutions and rarely have legal recourse to deal with defaulters; furthermore, most private moneylenders operate without licenses and so cannot do so. Interest rates are accordingly high.

Cyclone Nargis severely affected this system of informal financial markets. First, the sellers or suppliers (rice millers) of capital were financially weakened in the post-Nargis period both because of defaulting borrowers and physical damage. Second, the incentives to providing capital were damaged. The rise in defaults and the lack of guaranteed paddy quality have decreased the incentives of rice millers and fertilizer shops to make transactions. This can be clearly seen as rice millers and fertilizer seller's preference for cash-down transactions. Overall, the supply of credit, already insufficient to meet the demand prior to the cyclone, has declined further in the post-Nargis era.

