International Development

ISSN 1470-2320

Working paper Series 2012

No.12-126

Micro-credit – More Lifebuoy than Ladder? Understanding the role of micro-credit in coping with risk in the context of the Andhra Pradesh Crisis

Anita Kumar

Published: April 2012

Development Studies Institute

London School of Economics and Political Science

Houghton Street

London

WC2A 2AE UK

Tel: +44 (020) 7955 7425/6252

Fax: +44 (020) 7955-6844

Email: d.daley@lse.ac.uk

Web site: www.lse.ac.uk/depts/ID

Table of Contents

I. Introduction

Financial inclusion for the poorest and the neediest has been the quest of many developing countries for a long time. This quest gathered momentum with the success of the Grameen Bank model, and micro-credit was widely credited as the latest panacea for poverty reduction. However as pointed out in the initial years, empirical evidence on the impact of micro-finance was conspicuously absent and the positive consequence on income-generation was largely assumed (Morduch 1998, Morduch 1999). Over the last decade, the actual ‘impact’ of micro-credit on income levels of a household has been questioned and a number of studies have looked at 4(pac-1(’)di)3(es)v241ol42 T4(pia241oled at)--24(pa

II. Micro-credit in India and the Andhra Pradesh Crisis

Financial inclusion for the rural poor has traditionally been led by the government of India. Various laws and policy directives were put in place starting in the 1970s with the aim of increasing access to credit and savings for the rural population. The National Bank for Agricultural and Rural Development was established in the early 1980s to facilitate credit flow to rural areas primarily to develop agriculture, small scale and village industries and also to act as the co-ordinator for rural credit operations. Self-Help Groups (small groups of 10-20 women) also came into being around the same time, initially to extend rural development initiatives. The groups also went on to mobilize savings and later with the advent of bank-SHG linkage program facilitated large amounts of lending to the rural households (CGAP 2010, CMF 2010).

Private Micro-Finance Institutions appeared in the scenario in the early 1990s after economic reforms got underway. Initially most of them started out as non-profit organizations, but soon for-profit Non-Bank Finance Companies became the norm. This new breed of MFIs benefited from the SHG structure which was already in place and used Joint Liability Guarantee as the principal mechanism of credit disbursement. Currently there are about 250 MFIs operating across the country (CGAP 2010).

The southern state of Andhra Pradesh (henceforth AP) has one of the oldest and most comprehensive state-led initiatives for Micro-Finance. Women’s self-help groups have been used to implement various poverty-reduction programs since 1979, and in 2000, it was massively scaled up with the Andhra Pradesh District Poverty Initiatives Project, or the Velugu program which aimed to reach 860 sub-districts in 22 districts and 2.9 million of the rural poor (Deshmukh-Randive 2004). In a recent survey three-quarters of the households were found be a member of an SHG (CMF 2010). While the coverage is impressive, the depth of the program is an issue – in order to maintain the heavily subsidized interest rates the program has to compromise on the amount of funds disbursed.

It is no surprise therefore, that AP also has the highest penetration of microfinance in India with close to 5 million borrowers residing in this state - a quarter of the total number of borrowers in India. Many of the biggest microfinance institutions started their operations in AP, and since 2000 the number of borrowers has been doubling every year with MFIs growing at a frantic pace (CMF 2010, Ghate 2007).

In August 2010, SKS, the largest MFI in India was the first MFI to go public. The IPO was oversubscribed by 13 times by institutional investor and was valued at $1.5 billion (CGAP 2010a). This was 40 times the company’s earnings for the fiscal year 2010. However, while huge demand existed

[illegible]

institutions in the state of Andhra Pradesh' was passed by the state government on 15^{th} October 2010 which required every MFI operating in the state to register with the local council and get their approval before any loan was given or recovered and also sought a complete halt in all repayments until the MFIs obliged. While the micro-finance industry as a whole admitted to lapses in certain practices, the ordinance was seen as an act of political vengeance against the for-

III. Research Design and Methodology

a. Research Design and Identification Assumptions

The current study was undertaken in the backdrop of the AP crisis. While almost zero fresh disbursements have taken place since November 2010, some amount of repayment continues to happen depending on the area and the strength of the MFI-borrower relationship. Currently over Rs.5000 Crore (Approx $1 Billion) of MFI loans is still outstanding in AP (Legatum 2011). On the other hand, operations in rest of the country continue as before and have not been impacted by the crisis. This study therefore makes use of the random discontinuity of loan disbursements across border villages with similar MFI operations. Borrowers in the Tamil Nadu (henceforth TN) villages act as the control group with no change in their ability to access MFI credit while borrowers in the AP villages are the treatment group which experienced an abrupt stop to credit-access. Hence it is possible to study the impact which lack of micro-finance has had on the treatment group and get an understanding about the role of micro-credit.

b. FFSL Operations and Project Methodology

The pri(1 T8 7970o)-24(a)-sy ou(1 T)-1(e ( )]TJ /d(i)3((a)]TJ o(1 T)-12(o-12(s-1(pa(at)-13 -12(s-1( )-1

The choice of borrowers to be interviewed within these villages was random. In the case of TN, as lending operations continue unhindered the Credit Officer (CO) was able to arrange for the groups to come together and a combination of individual and group interview method was used. The CO was requested to not be part of these interviews in order to avoid interviewer bias. In the case of AP, the CO helped with locating the villages but did not come in as the situation was still unpredictable with most groups defaulting on their loans. We therefore interviewed whoever was available at that point and there was no systematic pattern in those who were available and those who were not. While most of the clients were interviewed at home, in some cases we went to the place of employment like the local tailoring shop or the school. Most of the questions were close-ended but was conducted in a conversation style and questions apart from those in the questionnaire were used to understand the complete picture. The primary questionnaire can be found in Appendix 4.

That there was close to zero spill-over across the border villages in this study can be deduced by the fact that the borrowers interviewed in TN had no idea about any crisis which was happening just a few kilometres across the border, and repayments and disbursements were continuing without any dip whatsoever. Borrowers interviewed ranged from those who were taking their first loan to many who had been taking loans for years. However, majority of the clients interviewed on both sides of the border were in their 3

IV. Theoretical Arguments and Hypotheses Formulation

Based on available literature and expectation of the situation in AP post the crisis, a number of hypotheses regarding the informal credit market as well as the risk-reducing role of micro-credit could be formulated. The primary purpose of this study was to understand how the sudden lack of access to micro-credit impacted borrowers and compare their risk-coping strategies with those in the control group who continued to have access to micro-credit. While these hypotheses cannot be tested without rigorous quantitative data, the interviews could be used to provide some preliminary conclusions.

a. Micro-credit and its effects on informal borrowing

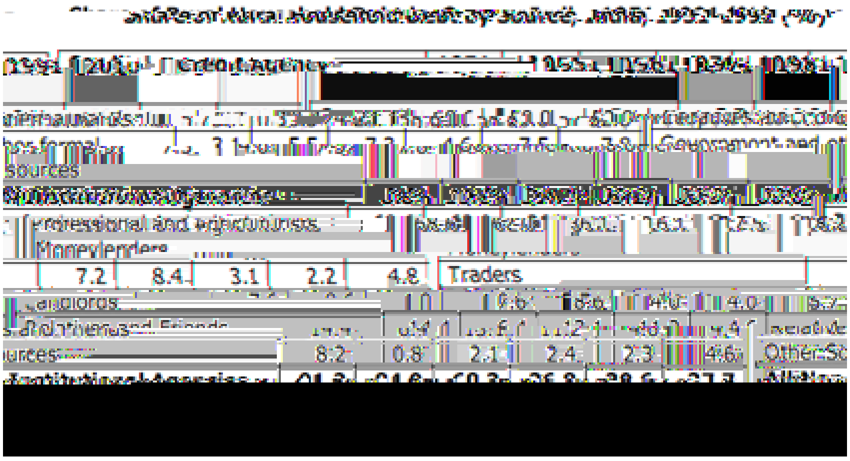
Before proceeding to the hypotheses formulation, it would be useful to understand the various sources of credit available to the rural poor, specifically in the Indian context. Malcolm Darling who was the administrator scholar in Colonial Punjab, once made the statement '*the Indian peasant is born in debt, lives in debt and dies in debt'*. This might not be completely true, but does capture the sentiment of how the rural poor's life revolves around debt. The findings from the All-India Survey of Debt and Investment 2003 show that 27% of the rural poor are indebted, and this is an increase from the 23% in 1991 (NSSO 2003).

Informal sources still serve the majority of credit needs in spite of extremely high interest ranges. This includes pawnbrokers and moneylenders who offer unsecured or secured loans (gold serving as the usual security), often ranging from 36% to even more than a 1000% interest rate per annum (Devaraja 2011, Rutherford 2000). Interestingly, when borrowers speak of interest rates it is in terms of Rs. x per Rs.100 of loan amount. What crucially gets missed is the loan period. In many cases while the quoted interest rates may be 2%-3%, the loan period would be just 10 months or even 10 weeks which when calculated on an annual basis becomes significantly more expensive. To illustrate, a borrower might get an unsecured loan of Rs.1000 from a local moneylender at a stated interest rate of 2% per month which might seem very similar to the formal sources of credit available. Usually, in an unsecured loan, the moneylender holds back 10% of the loan amount as security to cover the cost of risk incurred. Secondly, and more importantly, the loan period would usually be very different. A Rs.1000 loan would usually be for a period of 10 weeks, which translates into a flat interest rate that does not decline with the diminishing principal amount. The rate of return on a weekly basis turns out to be 2%. This works out to an effective annual interest rate of 102%. Hence while the overt interest rate mentioned by the lender or the borrower is only 2%, the actually interest rates are far higher. The borrower is usually aware of this.

Other sources of credit include the local landowner on whose farm the borrowers usually work. While interest rates may be not as high, these landowners might not always be able or willing to lend. Various anti-usury laws have been implemented right from the colonial period, most of which have failed in implementation (Devaraja 2011).

Yet another creative way of borrowing often utilized is to pay for goods/services by credit. Be it groceries at the local shop or the doctor's fees, depending on the perceived trustworthiness of the client, these are common credit sources, usually at zero rates of interest. Family, friends and neighbours are usually a constant form of support and as mentioned in the literature, there are continuous transactions which occur usually of very low amounts ($5-$25). Apart from these informal sources, there are the government banks and government SHGs which lend at heavily subsidised rates. Finally of course are the MFIs, offering credit at annual interest rates anywhere between 12-36%. Table 2 gives the share of various sources of debt of the Rural Household.

Table 2



Source: All-India Debt and Investment Surveys as compiled in Devaraja 2011

As seen above, the share of moneylenders in the rural credit market has been dramatically reducing over the past few decades. While this is good news, it is still the poorest of the poor who end up with usurious debts.

According to available literature, there are various theories about the effect of micro-credit on informal borrowing. While the increase in formal credit sources such as banks could possibly reduce the reliance on informal sources of credit (Binswanger and Khandker 1992, Karlan and Zinman 2011) and as seen from the above table as well, it is possible that formal credit improves the credibility status of the borrower and facilitates informal borrowing during einf81h.ds]TJ 0 Tc h1ble ul(oor)-6(k)-20(l)-9(i)-13(or)-6(m)-2 them beyond the clutches of exploitative moneylenders. Hence one hypothesis which can be tested is the following:

Hypothesis 1: Without access to formal micro-credit, informal borrowing would have gone up and also the informal interest rates.

b. Micro-credit as savings, and insurance against risk

Poor households face a variety of risks – health risks due to poor nutrition and low quality of water and sanitation as well as risky occupations, livelihood risk due to the uncertain nature of their employment and seasonality of agriculture, risks due to death and associated costs for social events, risks due to macrofacilitates credit to play a direct role for insuring against risk (Udry 1990). While these point to the risk-sharing between households in a community, formal micro-possible hypothesis which could be explored in the given situation of the Andhra Pradesh crisis is the following:

Hypothesis 2: Micro-credit helps smooth income and consumption and acts as the primary risk-coping strategy for these households.

Proving the above hypothesis is not straight-forward. As this study is just a snapshot rather than a longitudinal study over time, we cannot observe how households cope in a variety of situations. What we can observe however is how micro-credit is used in these households, how they are coping with the sudden lack of credit-access, and therefore try and understand its role in reducing risk. The above hypothesis also forms the crux of this paper.

c. Measuring the impact of micro-credit

Finally, there are the long-standing debates surrounding the measurement of the impact of micro-finance. While for years the impact of micro-credit was assumed, primarily through anecdotal evidence, there were also attempts to use statistical methods to quantify the impact (Pitt and Khandekar 1998, Aigbokhan and Asemota 2011). Morduch points to the difficulties of obtaining accurate impact evaluations of micro-credit due to the inherent biases such as non-random placement and participation by clients (Morduch 1998) and recent work has focused on using randomized trials for measuring impact (Banerjee et al 2010, Karlan and Zinman 2011).

Impact evaluations have typically focused on how micro-credit has improved the productive capacity of the borrowers and the increase in the household income and well-being if any. There is currently no literature which measures the after-effects of credit withdrawal, especially in the context of the poor. There is also no data on borrowers voluntarily moving out of micro-credit after having achieved self-sustainable businesses.

According to the results in Banerjee et al 2010, borrowers with a higher propensity for starting a business, increase their spending in durables (investments) and those with a lower propensity for starting a business increase their s efft -1(e4(d [(pducpa6(s)-20(d)-12(g h a)-12(ln)-6(eas8(r)3e)-25(y)16(er)-6

Hypothesis 3: Without access to micro-credit borrowers would experience a dip in income and might resort to negative coping strategies; and borrowers who used micro-credit for consumption would be the most impacted.

lenders in Tirutt

have been had these households never had access to micro-credit in the first place? The answer is neither easy nor particularly critical in the current context, what we do see is that the group with continued access to micro-credit is able to react to idiosyncratic shocks better than the group which does not have that access. Almost every household in AP indicated that without access to micro-finance they are essentially in the same position they were before they started getting access to micro-finance, with similar prospects in the informal markets (possibly a little worse due to higher interest rates by moneylenders, but this might be not be a permanent feature). From an impact point of view, this might be a little disheartening and is in agreement with recent impact evaluations. However, this can also be interpreted as micro-credit serving the positive function of a li6( )1(m815.65-8(i)3(2(v)16(al)15(uC2 consumption and survival and hence any additional income through loans from money-lenders or sale of assets goes into consumption.

Finally, on the question about how the termination of micro-credit has impacted their lives, 23 out of 24 respondents in AP responded that they have been negatively impacted. Similarly the response to the question posed to the TN sample about the impact on their lives if micro-credit were to be suddenly withdrawn was unanimous taken loans from 4 MFIs simultaneously; two of these loans were used for productive purposes while two were re-lent at higher interest rates to family and friends. This was also mentioned as a common practice in neighbouring towns. The situation becomes unsustainable when the secondary borrower fails to repay and the primary borrower therefore is unable to repay one or more of his MFI loans.

However, one should be careful about drawing overarching conclusions on the borrowing behaviour of urban versus rural consumers based on a few interviews. One factor which contributed to this situation of over-borrowing has been attributed to the competitive and fast growth of MFIs (Ghate 2008 p.96-102), and there seems to be some truth in this. This can be seen based on the density of MFI operations – there were about 2 or 3 MFIs operating in the villages we visited, however in the one urban town we visited there were MFIs visiting every day of the week. MFIs were identified as Monday Company, Tuesday Company, and so on rather than by their names also showing that the borrowers

o1-13(hepw --1(hef)- 4(es)2(nds)(b)a)-12(s(hi)p79(hi)3(c)12(n)--12(ah3(eek)-2-8(enh) 0 Td [(t)-0))-1(i)o]TJ oia f1 i e

they had partly repaid. The tractor was bought in order to lease it out to earn some income. However the demand for the tractor was not completely predictable or regular and the MFI loan would help smooth income during the lean months. With the abrupt end to this credit access, they fell back on

VI. Limitations of the study and areas of further research

This study is based primarily on qualitative data and personal interviews. Moreover the sample size is extremely small due to time and resource constraints. While the study provides a number of important insights on issues including loan-usage, financial behaviour of the poor and MFI practices, and points to ways in which micro-finance can be used for improving the risk-coping strategies of the poor; due to the nature of the study it is not possible to test the hypotheses for statistical significance. Further, the results are primarily valid for the surveyed villages. While the villages are reasonably representative of other rural areas in both states, we already found huge behavioural differences between the urban and rural borrowers. Similarly it is possible that the findings may differ within different districts of Andhra Pradesh. Krishna District suffered a similar crisis in 2006 when the local collector imposed a ban on micro-credit. However the situation revived within a few months and operations continued unabated. It is plausible that borrowers in that district continue to repay in the knowledge that even the current crisis would pass and micro-finance will once again be available. This might also prevent them from taking on too many informal loans from moneylenders and moneylenders in that district might continue to charge normal interest rates.

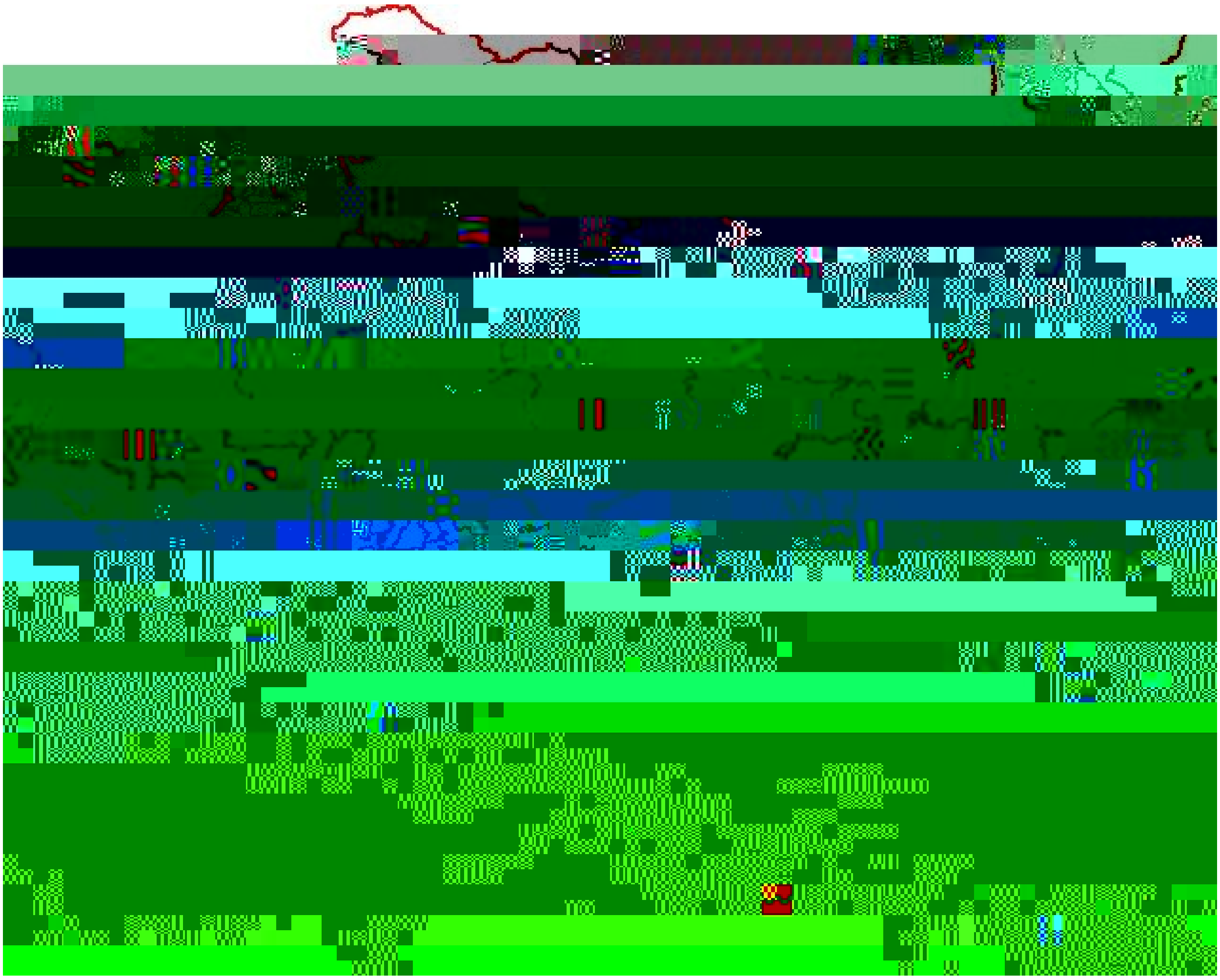
It cannot be established without a doubt that the same results would hold anywhere in the world. Social networks might differ, sources of credit might differ and livelihood options might differ. Most importantly, the exact situation where access to credit is suddenly cut-off would be difficult to replicate under natural circumstances. Even in India, the Central Bank is taking steps to avoid a similar situation from occurring in the future where a State Government would arbitrarily be able to bring an entire industry to a standstill putting the lives and livelihoods of millions of poor people at stake. It might also not be ethically possible to have an experiment for a number of years offering micro-credit and then suddenly withdraw this support.

However a number of interesting insights have emerged during the course of the study which point to further areas of research. Firstly, the whole theory on measuring impact of micro-credit needs to be redefined. Even a randomized trial of micro-credit involving control and treatment groups only provides results on the productive capacity of micro-credit and measures only if income and well-being have improved as a result of micro-credit. What also needs to be taken into account is that well-being includes financial security and not worrying about risk-coping ability. The control group in a randomized experiment might be unaware of how micro-credit could help reduce risk. When operated at reasonably competitive interest rates (rather than the 60% interest rates of the Philippines MFI in the Karlan and Zinman 2011 experiment) it could possibly emerge that micro-

Appendix 1

Areas of Operation of Future Financial Services Limited

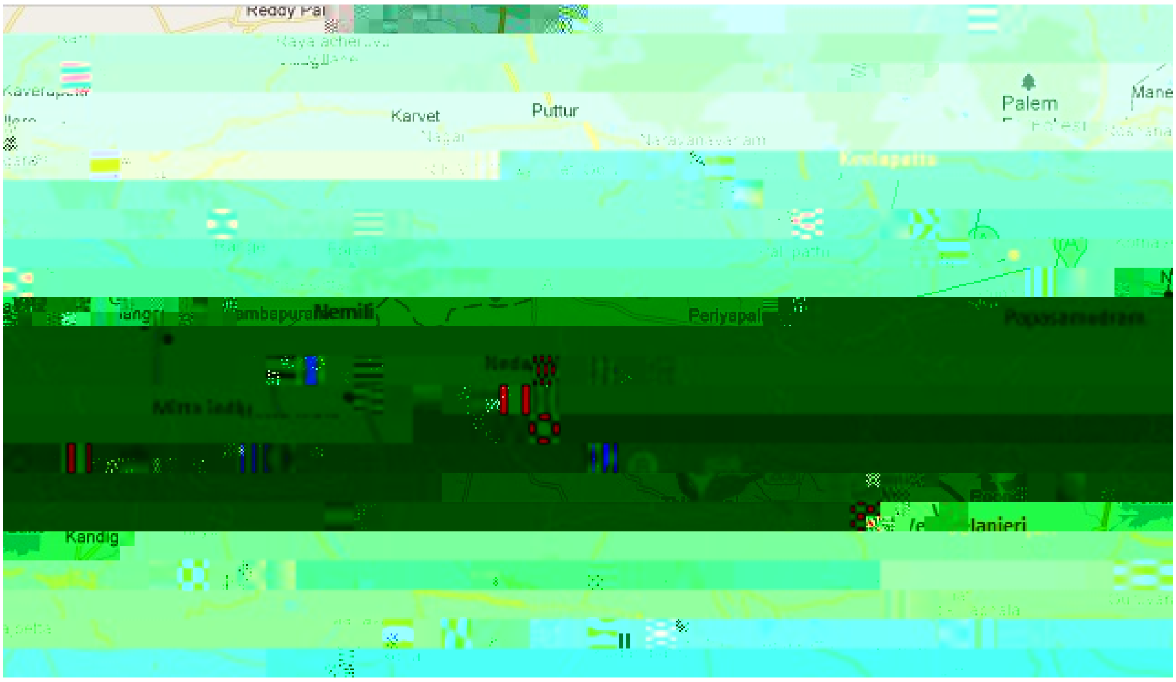
FFSL operates out of the four districts shown below in green, with headquarters in Chittoor.



Appendix 2

Location of villages where interviews were conducted

Main map sourced from Google Maps, villages located through different online maps and with the help of the MFI staff.



Note: Distance from Town A Nagari to Town B Thiruthani is 18.2 Kms as per Google Maps. The six villages should therefore lie within approximately a 25 Km distance.

Appendix 3

Profile of villages as downloaded from Government of India Census Website
*Mitta Undlu data not available

http://www.censusindia.gov.in/Census_Data_2001/Village_Directory/View_data/Village_Profile.aspx

Village Name

Medical facilities	Available	Available	Available	Available	Not available
Number of allopathic hospitals	0	0	0	0	0
Allopathic hospitals available within range	More than 10 Kms	More than 10 Kms	Within 5 Kms	Between 5 Kms and 10 Kms	More than 10 Kms
Number of ayurvedic hospitals	0	0	0	0	0
Number of unani hospital	0	0	0	0	0
Number of homeopathic hospital	0	0	0	0	0
Number of allopathic dis*f* 254.64 623.88 2l4					

Tubewell water	Available	Available	Available	Available	Available
Handpumb	Available	Available	Available	Available	Available
	No information	No information	No information	Not available	Not available

Number of agricultural credit societies	0	0	1	0	0
Available within range	Between 5 Kms and 10 Kms	More than 10 Kms			
Number of non agricultural c redit societies	0	0	0	0	0
Available within range	Between 5 Kms and 10 Kms	More than 10 Kms	With in 5 Kms	More than 10 Kms	More than 10 Kms

Electricity of agricultural use	Available	Available	Available	Available	Available
Electricity of other purposes	Available	Available	Available	Available	Available
Electricity for all purp oses	Available	Available	Available	Available	Available
News paper/magazine					
News paper/magazine facilities	Available	Available	Available	Available	Available
Newspaper	Available	Available	Available	Available	Available
Magazine	Available	Availab le	Not available	Not available	Not available
Income and expenditure of the village (in Rs.'00)					
Income & Expenditure of the village	Yes	Yes	Yes	Yes	Yes
Total income				17125	9992
Total expenditure				8820	8500
Most important commodities manufactured					
Manufactured item no. 1	No information	No information	No information	No information	JAGGERY
Manufactured item no. 2	No information	No information	No information	No information	No information
Manufactured item no. 3	MANGOJUICE	No information	No information	No information	No information
Land use (Two decimal) in hectares					
Number of forest land	0	0	26.01	0	99.47
Number of government canal	0	0	0	0	0
Number of private canal	0	0	0	0	0
Well (without electricity)	0	0	22	0	0
Well (with electricity)	192.47	100.94	0	67.6	42.09
Tube - well (without electricity)	0	0	0		

Appendix 4

Survey Questionnaire used for the interviews

1. Name of the respondent and village:

2. Head of the household? Yes/No

3. Relationship to the head of the household:
    a. Self
    b. Spouse
    c. Son/Daughter
    d. Parent
    e. Parent-in-law
    f. Son-in-law/Daughter-in-law
    g. Other - Specify

4. What are the main sources of income for the household?
    a. Agriculture – own land
    b. Landless agricultural labour
    c. Own business
    d. Non agricultural employment
    e. Casual labour
    f. NREGA
    g.

20. How has the interest rate changed in the past one year?
    a. Increasing
    b. Decreasing
    c.

For TN sample:

27. If the MFI loans were suddenly terminated (like it has happened in AP) how would you manage?
    a. Borrow more from friends/relatives
    b. Borrow more from moneylenders
    c. Borrow from SHG/Chit funds
    d. Cut spending on food/clothing
    e. Cut or delay spending on education/medical treatments
    f. Cut or delay spending on consumer durables/home improvement
    g. Others – Specify

For AP Sample:

28. How has the sudden termination of credit from MFIs affected you?
    a. Negatively impacted
    b. Positively impacted (Don't have to repay loan)
    c. No impact(Can borrow from other sources)
    d. Other reasons – Specify

29. How did you cope with the lack of credit?
    a. Borrowed more from friends/relatives
    b. Borrowed more from moneylenders

Bibliography

Primary Sources

Personal interviews with 49 MFI borrowers over 7th-15th July 2011. Borrowers belonged to the villages of Keelapattu, Mitte Undla, Papasamudram, Pullarikuppam, Velanjeri, Nemili, Nedambaram and the town of Greamspet. Identities have been kept anonymous except for the two case-studies.

Personal interviews with the staff of Future Financial Services Ltd. Over 7th-15th July – Mr. Dasarath Reddy, CEO; Mr. Rajasekhara Reddy, Chief of Operations; Mr. Lakshmipathy Reddy, Regional Manager; Mr. Vinayak, Credit Officer; Mr. Prakash, Credit Officer

Personal interviews with 4 moneylenders in the town of Thiruthani, Tamilnadu on 15th July. Identities have been kept anonymous on request.

Ordinance passed by the Andhra Pradesh State Government *'An Ordinance to protect the women Self Help Groups from exploitation by the Micro Finance Institutions in the State of Andhra Pradesh and for the matters connected therewith or incidental thereto'*

Village profiles from Government of India Census Website
http://www.censusindia.gov.in/Census_Data_2001/Village_Directory/View_data/Village_Profile.aspx

NSSO 2003, National Sample Survey Organization, Press Note on '*Household Assets Holdings, Indebtedness, Current Borrowings, and Repayments for Social Groups in India as on 30.06.2002'.* http://www.mospi.nic.in/nss_press_note_503.htm

Secondary Sources

ADB 2007, Sujatha Viswanathan and Ravi Srivastava '*Learning From The Poor - Findings from Participatory Poverty Assessments in India'*, Asian Development Bank 2007

Aigbokhan, Ben E. and Abel E. Asemota 2011, '*An Assessment of Microfinance as a Tool for Poverty Reduction and Social Capital Formation: Evidence on Nigeria',* Global Journal of Finance and Banking Issues Vol. 5. No. 5. 2011.

Aportela, Fernanda 1999, *Effects of Financial Access on Savings by Low-Income People*, Banco de México Research Department

Armen

Banerjee, Abhijit, Esther Duflo, Rachel Glinnerster, and Cynthia Kinnan 2010, '*The Miracle Of Micro-finance? Evidence from a Randomized Evaluation'*, mimeo, MIT

Berger, Marguerite 1989, '*Giving Women Credit: The Strengths and Limitations of Credit as a Tool for Alleviating Poverty*', World Development, Vol

Harper, Malcolm 1998, '*Profit for the Poor: Cases in Micro-Finance'*, Published by Practical Action, ISBN13: 9781853394386

Karlan, Dean and Jonathan Zinman 2011, '*Microcredit in Theory and Practice: Using Randomized Credit Scoring for Impact Evaluation' Science* 332, 1278 (2011); DOI: 10.1126/science.1200138

Morduch, J. 1998, '*Does Microfinance Really Help the Poor? Evidence from Flagship Pro-grams in Bangladesh'*, Department of Economics, Harvard University and.Hoover Institution, Stanford University

19Morduch,n

Morduch, J. 1999 '*The Microfinance Promise*.' Journal of Economic Literature 36:

Zeller, Manfred and Manohar Sharma 2000, *‘Many borrow, more save, and all insure: implications for food and micro-finance policy’,* IFPRI, Food Policy 25 (2000) 143–167, URL: www.elsevier.com/locate/foodpol

News Articles, Presentations and other Publications

Basix 2000, ‘Micro Finance in India’, Basix Papers and Publications