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AGRICULTURAL FINANCE VS. PROFITABILITY OF MICROFINANCE INSTITUTIONS – A CASE STUDY OF THE MFIS OF ASSAM

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ABSTRACT

The primary objective of conducting this research is to illustrate and assess the role of MFIs (Microfinance Institutions) towards the availability of the agricultural loan to farmers in Assam. Moreover, an attempt is also made to find the profitability of the MFIs providing agricultural loan. The paper also focuses on the collateral requirements, size of the loan disbursed, and repayment time. To achieve these objectives, a sample survey is conducted during June – October, 2010 in the various districts of Assam. Database of the Centre for Microfinance Livelihood (CML), 2010 is considered to select the samples which are so far considered to be the latest database of the MFIs of North East India. Final samples are selected based on the MFIs' outreach i.e., number of clients reached by the MFIs, NGOs & NGO-MFIs in Assam. One sample t-test is also conducted to find whether the profitability of the MFIs of Assam providing agricultural loan are significantly different from the national average. Descriptive statistical analysis revealed that more than 94 percent of borrowers are given loan for agriculture purposes. Moreover it is also seen that these MFIs disbursing agricultural loans are also profitable. The sample MFIs of Assam are earning higher ROAs of 9.43% compared to the national average ROA of 1.40 during 2008-2010 and this result is found to be statistically significant at 5% level of significance. Moreover, these MFIs of Assam are also earning higher ROEs of 19.83% compared to the national average ROE of 12% during 2008-2010 and this result is found to be statistically significant at 5% level of significance. Thus it has been observed that the sample MFIs of Assam are playing a vital role in promoting agricultural activities by providing agricultural finance to the small scale farmers and this agricultural finance is a very profitable business for the sample MFIs of Assam.

1. INTRODUCTION

The United Nations Year of Microcredit in 2005 and the Nobel Peace Prize to Mohammed Yunus and performance of Grameen Bank till 2008 have given considerable public recognition to microfinance as a development tool and attracted world attention. Microfinance has become a global industry and growing at an exponential rate worldwide. The microfinance industry as a whole is growing fast, adding 13 percent more borrowers each year since 1999. Christen et al. (2004) report an astonishing 500 million persons served, mostly with savings accounts, while the Microcredit Summit in the 2006-meeting in Halifax celebrated the milestone of 100 million borrowers reached. The growth of microfinance has emerged out of the failure of development financial institutions and national commercial banks to sustainably meet the needs of poor rural

populations in developing countries. Because of all these worldwide developments, microfinance is accepted as one of the poverty reduction tool.

Microfinance is the provision of a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low-income households and their microenterprises. In contrast to microcredit (i.e. loans), microfinance addresses a wider range of financial services. Microfinance services are provided by three types of sources (Asian Development Bank, 2000) – (a) Formal institutions, such as rural banks and cooperatives; (b) Semiformal institutions, such as NGOs; and (c) Informal sources such as money lenders and shopkeepers.

Indian economy is an agrarian economy. Agriculture is an important engine for economic growth in of our country as well as for each of the regions of India. Rural microenterprise is critical to that growth. The rural agricultural sector (small farmers, small-scale traders, artisan producers) needs access to financial services, including credit and savings products, which should be provided through a professional and dynamic microfinance sector. The rural agricultural sector is essential in both connecting urban and rural economies and industries of different types and sizes. It needs a very specific blend of innovative financial instruments and business support.

Agricultural growth, which underpins much of the growth in the rural nonfarm subsector, significantly influences rural financial market development. Thus, agricultural growth must be accelerated in much of Asia (Asian Development Bank, 2000). The insufficient investments in physical infrastructure (especially irrigation; roads; electricity; and support services for marketing, business development, and extension) continue to increase the risk and cost of microfinance and particularly discourage private investments in the provision of microfinance services on a significant scale. Also, in the absence of economic opportunities created by growth-inducing processes, microfinance cannot be expected to play a significant role in poverty reduction.

2. RESEARCH BACKGROUND

The Indian economy has emerged as one of the fastest growing economies in the world. However, the vulnerability of the Indian economy with respect to the performance of the agricultural sector despite other macroeconomic indicators and sectors gaining in strength is well known. For example, the Indian economy grew at an estimated 3.7 per cent in 2002-03 against 5.6 per cent during 2001-02. This was largely because of the negative growth of 4.4 per cent in the agriculture sector. Many economists and policy-makers increasingly believe that the future growth of the domestic economy, to a large extent, will depend on the robust performance of the agricultural and rural sector. The manufacturing and service sectors cannot sustain the economy's growth if the rural sector underperforms. The contribution of the banking and financial sector to the current economic growth of the Indian economy is very significant. This is reflected in the growth in aggregate deposits and advances for scheduled commercial banks, which stood at 15.4 per cent and 27.9 per cent during 2004-2005. However, the access of banking services to the rural, agriculture and the common man in general is not as promising.

Delivering small-scale loans and savings mechanisms can be particularly challenging in areas of low population density, where the distance between clients is great, transportation networks are

often poor and low income levels tend to translate into impracticably small financial transactions. Given that most rural citizens depend at least in part on agriculture for their livelihoods, these conditions make the prospect of operating a self-sustaining, rural microfinance institution (rural MFI) even more daunting. Agricultural finance is notoriously risky. Many farmers need credit to purchase seeds and other inputs, as well as to harvest, process, market and transport their crops. While borrowing on the basis of anticipated crop production might seem logical where collateral assets are few, such loans expose the lender to production and price risk. Natural disaster, a decline in market prices, unexpectedly low yields, the lack of a buyer, or loss due to poor storage conditions are only some of the factors that can result in lower than expected revenues. Such a fall in revenues can often lead to high default rates on agricultural loans. The overwhelming failure of state development banks that provided billions of dollars in subsidized agricultural finance to farmers in the 1970s and 1980s, combined with scant rural penetration by risk-averse commercial financial institutions, has led to a widespread dearth of agricultural credit. Yet, new approaches are increasingly being developed to fill this gap in a sustainable and efficient manner.

The identification of agricultural microfinance as a significant remaining challenge to financial sectors that serve the majority of the poor spurred the Consultative Group to Assist the Poor (CGAP) to undertake an analysis of current practices. With financial support from IFAD, CGAP, in 2002, began desk research, consultant site visits and stakeholder consultations to identify promising agricultural lending operations. An initial list of 80 candidates was slowly whittled down to a handful of representative examples. While many on the long list proved to be fundamentally unsustainable or lacked the potential to achieve scale, about 30 were sufficiently promising to merit further research. Of that resulting short list, the case studies outlined here were selected as representative examples that merit dissemination.

Another important concern that needs attention is the flow of institutional credit to agriculture. The progress of agricultural credit in India has depended crucially on government intervention over the years i.e. package of incentives and policy measures, which the RBI and the Centre formulate and implement. The growth of commercial banks' lending to agriculture and allied activities witnessed a substantial decline in the 1990s as compared to the 1980s. Credit flow to the agriculture sector from all formal sources amounted to Rs. 70,810 crore in 2002-03 and Rs. 86,981 crore in 2003-04, much below the levels envisaged in the Tenth Plan. Agriculture's share in scheduled commercial banks' total outstanding credit as on 31st March 2005 was only Rs. 1,12,475 crore. The total agricultural lending by commercial banks is lower than credit in "personal loans" which stood at Rs. 2,66,988 crore, comprising advances for housing and consumer durables. In recent years, retail advances have increased by 41.2 per cent in 2004-05 as compared to the growth of 27.9 per cent in the overall loans and advances of Scheduled Commercial Banks. As a result, their share in total loans and advances increased significantly during the year ended March 2005. However, according to a recent study, only 15 out of 85 banks registered an increase in return on assets as at the end of 2004-05 over 2003-04. Hence, the argument that rural credit drives down the banks profits and increases NPA is not justified. NPA in rural credit are far less and the rate of retrieval of rural credit NPAs is faster than other advances. The annual growth rate of farm credit is around 15% and this growth in rural advances essentially comes from advances like gold loans for agriculture and Kisan Cards. About 70% of the present rural credit stock of over Rs. 115243 crores is Kisan Credit Cards spread over 4.8 crore of such card holders. This shows the narrow focus of the banks towards short-term

production loans rather than for term loans. Post reforms, the banking system has mobilised more deposits from farmers and extended less credit to a declining number of farmers.

In India, as in other parts of Assam, lack of credit severely constrains sustainable agricultural development. Deficient, inappropriate or lack of collateral, credit rationing, lender preferences for high-income customers borrowing large amounts, and bureaucratic procedures in the formal financial sector are often identified as key factors contributing to low access to credit among most rural agricultural farmers. Without credit, the millions of cash-starved smallholders who dominate the rural landscape are unable to adopt most productivity-enhancing technologies. Low-return, diversified, subsistence-oriented production practices therefore continue to underpin most rural livelihood strategies. Even after two decades of liberalization, globalization and privatization of the Indian economy, appropriate and adequate credit facilities for rural agricultures is not easily available. Private banks sprung up, but under the more competitive liberalized financial system, they could not profitably fill this gaps left by co-operatives. The sharper focus on profitability and actual financial risks therefore worked against traditional lending to the rural sector, and to agriculture in particular. These barriers to rural lending in the formal and informal financial sectors have become a major concern for policy makers in Assam. One outcome of that concern is increased interest in semi-formal micro-finance institutions, which are responsible for increasingly large shares of credit in both urban and rural areas. Most of these micro-finance institutions are not profit-seeking banks but rather are run as not-for-profit nongovernmental organizations. These features of micro-finance organizations raise a number of issues regarding their viability, and, more importantly, about their ability to meet the borrowing needs of rural dwellers, including farmers.

Lack of information on borrowers' credit history, insufficient collateral, and the presence of a high degree of covariate risk due in particular to weather and market prices for farmers' produce, among other factors, make lending and other financial services risky and often unprofitable. In addition, high levels of transaction and supervisory costs contribute to the absence of functioning rural financial markets and institutions in many countries. The table below lists the limitations in extending rural financial services from the supply and demand perspective. The challenge for rural financial institutions is to develop low-cost ways of reaching farmers (especially smallholders) and to better manage risks involved in loans, insurance and other services.

3. RESEARCH METHODOLOGY

The primary objective of this research is to illustrate and assess the role of MFIs towards the availability of the agricultural loan to farmers in Assam and to find the profitability performance of these MFIs providing agricultural loan. . To find the status of the profitability of the MFIs of Assam, the Return on Asset (ROA) and Return on Equity (ROE) performances of the sample MFIs are compared with their respective national benchmarks. To achieve these objectives, a sample survey was conducted during June – October, 2010 in the various districts of Assam. Database of the Centre for Microfinance Livelihood (CML), 2010 is considered to select the samples. Final samples are selected based on the MFIs' outreach i.e., number of clients reached by the MFIs, NGOs & NGO-MFIs in Assam. Only those MFIs were selected that has been offering micro finance services to their beneficiaries for the last three years. The total sample

size considered for the study was 40. Finally with six rejections, 34 samples were considered for the study.

After selecting the research tool, sample survey is conducted in the different districts of Assam. Firstly, to select the representative number of MFIs for the study, the data base of Centre for Microfinance Livelihood (CML) is considered. The CML data base is published in February 2010 focusing the sector overview of NGOs, NGO-MFIs and MFIs of Assam. From this data base, we have selected only those MFIs that are continuing microcredit operations for the last three years.

TABLE 1: MFIS IN ASSAM

Institutions	Numbers
NGO-MFIs	84
MFIs	7
NGOs	121
TOTAL	212

Source: CML, Sector Overview,2010

After this first level screening, the number of available MFIs comes down from 212 to 79 as shown below.

TABLE 2: MFIS IN ASSAM DOING MICROCREDIT

Institutions	Numbers
MFI	6
NGO	8
NGO-MFI	65
TOTAL	79

Source: Compiled by Author from CML

Thus, we have finally selected 34 MFIs (43% of the sample population) based on the MFI's outreach i.e., number of clients served by the MFIs. This study is conducted in 2010 considering the financial year 2009-2010.

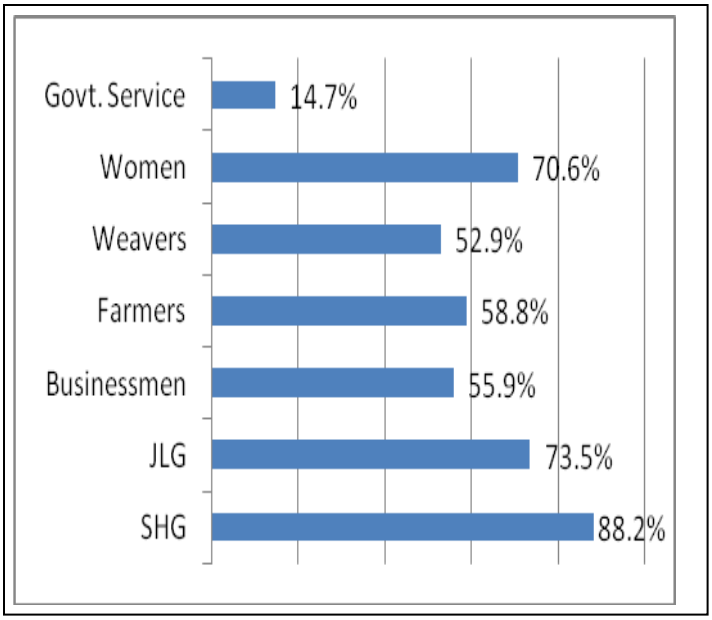
4. SAMPLE CHARACTERISTICS AND MICROFINANCE DELIVERY MECHANISM BY THE MFIS

(A) CLIENT PROFILE: The client profile of the MFIs of Assam comprise of SHG, JLGs, individual businessmen, farmers, weavers, women and government service holders.

TABLE 3: CATEGORIES OF CLIENTS

	Frequency	Percent
SHG	30	88.2
JLG	25	73.5
Businessmen	19	55.9
Farmers	20	58.8
Weavers	18	52.9
Women	24	70.6
Govt. Service Holders	5	14.7

FIG.1: CATEGORIES OF CLIENTS

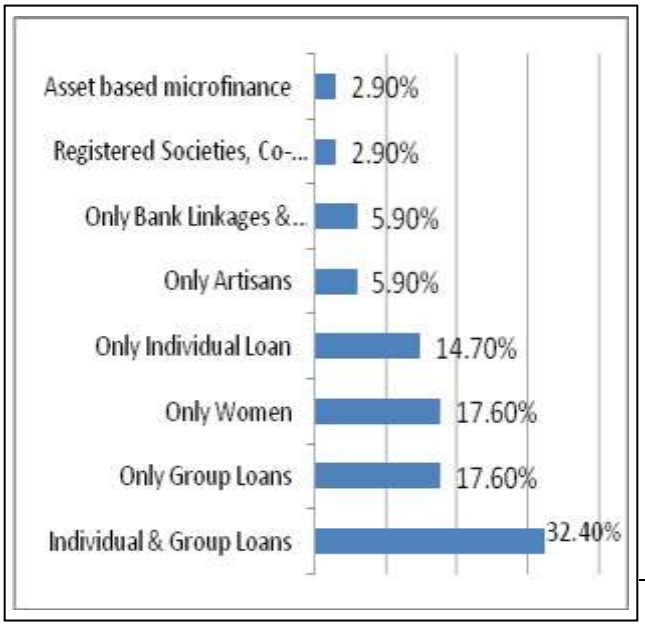


Thus we see that majority of the sample MFIs prefer SHGs (88.2%), JLGs (73.5%) and women (70.6%) as their clients. Surprisingly we find that some MFIs also prefer government service holders (14.7%) as their client. On further investigation we find that majority (32.4%) of the sample MFIs are providing both individual and group loans to their clients. 17.6% of the sample MFIs disburse loan only to women. Only group loans disbursed by 17.6% of the sample MFIs whereas 14.7% of the sample MFIs provide only individual loans. Moreover, few (2.9%) MFIs of Assam also provide asset based loans and institutional loans to NGOs registered in Assam.

TABLE 4: TYPE OF LOANS

	Frequency	Percent
Individual & Group Loans	11	32.4
Only Group Loans	6	17.6
Only Women	6	17.6
Only Individual Loan	5	14.7
Only Artisans	2	5.9
Only Bank Linkages & Credit Linkages	2	5.9
Registered Societies, Co-operatives, NGOs	1	2.9
Asset based microfinance	1	2.9
Total	34	100.0

FIG.2: TYPE OF LOANS

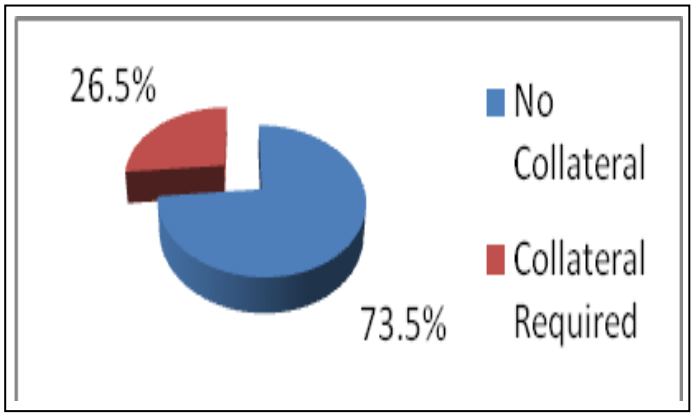


(B) COLLATERAL REQUIREMENTS: The data reveals that 73.5% of the sample MFIs does not require any collateral whereas 26.5% of the MFIs need collateral to provide loan to their clients.

TABLE 5: REQUIREMENT OF COLLATERAL BY MFIS

	Frequency	Percent
No Collateral	25	73.5
Collateral Required	9	26.5
Total	34	100.0

FIG.3: REQUIREMENT OF COLLATERAL BY MFIS

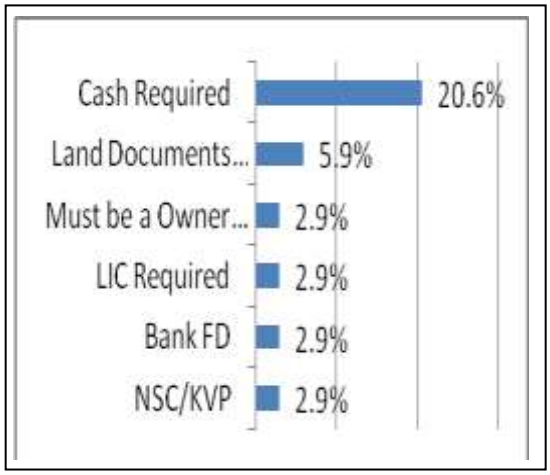


On further investigation we find that majority (20.6%) of the MFIs prefer cash as a collateral to provide loan to their beneficiaries. This cash represents the balance amount in the savings account maintained with the particular MFI. The maximum loan amount is decided based on the savings account balance of the client. The maximum loan amount varies from 10% of the savings balance to 90% of the savings account balance. Some MFIs also provide double the savings amount in the second or third loan cycle. The other collaterals required by the MFIs of Assam are land documents, NSC/KVP, Bank FD, LIC Policy.

TABLE 6: NATURE OF COLLATERAL REQUIRED

	Frequenc	Percent
Cash Required	7	20.6
Land Documents Required	2	5.9
NSC/KVP	1	2.9
Bank FD	1	2.9
LIC Required	1	2.9
Must be a Owner of a Plot of Land	1	2.9

FIG.4: NATURE OF COLLATERAL REQUIRED



Therefore we may conclude that majority of the MFIs of Assam do not require any collateral to provide loan to their clients. A few MFIs require some collateral preferably cash in the form of savings account balance maintained with the particular MFI.

(C) SIZE OF LOAN AMOUNT: Size of the loan of any financial institution represents the depth of the loan outreach. Below we mention the descriptive statistics of three categories of loan i.e., SHG, JLG and Individual loan.

TABLE 7: DESCRIPTIVE STATISTICS ON LOAN SIZE OF SHG, JLG & INDIVIDUAL LOAN

	SHG Loan		JLG Loan		Individual Loan	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
SHG/JLG/Individual	31	31	25	25	21	21
Non-	3	3	9	9	13	13
Mean (Rs.)	2403	16225	3180	24480	2838	53333
Std. Error of Mean (Rs.)	279	2102	334	3595	420	9767
Median (Rs.)	2000	10000	3000	20000	3000	40000
Mode (Rs.)	1000	10000	5000	10000	5000	50000
Std. Deviation (Rs.)	1556	11703	1670	17979	1924	44758.61
Skewness (Rs.)	.398	1.553	-.247	1.015	.032	1.997
Kurtosis (Rs.)	-1.206	2.742	-1.637	.014	-1.833	4.783
Range (Rs.)	4500	47000	4000	65000	4900	190000
Minimum (Rs.)	500	3000	1000	5000	100	10000
Maximum (Rs.)	5000	50000	5000	70000	5000	200000

The results of the survey indicate that the average minimum size of individual member SHG loan amount is Rs. 2403 and maximum is up to Rs. 16,225. Generally SHGs (Self Help Groups) comprise of 10 to 20 members in the same locality. So one SHG of say 15 members may get a minimum loan of Rs. 36,045 and maximum up to Rs. 2,43,375. The majority (25.8%) of the sample MFIs specified the average minimum individual loan of Rs. 1000 and 29% of the MFIs specified the average maximum individual loan of Rs. 10,000.

A JLG (Joint Liability Group) is having less members and generally consists of 2 to 5 members in the same vicinity. The average minimum size of individual member JLG loan amount is Rs. 3180 and maximum is up to Rs. 24,480. So one JLG of say 5 members may get an average minimum loan of Rs. 15,900 and maximum up to Rs. 1,22,400. The majority (32%) of the sample MFIs specified the average minimum individual JLG loan of Rs. 5000 and the average maximum individual JLG loan of Rs. 10,000.

Similarly, the average minimum size of individual loan amount is Rs. 2838 and maximum is up to Rs. 53,333. The majority (38.1%) of the sample MFIs specified the average minimum individual loan of Rs. 5000 and 23.8% of the MFIs specified the average maximum individual loan of Rs. 50,000.

(D) REPAYMENT TIME: The loan time also varies from MFI to MFI. Below we highlight the descriptive statistics of the loan repayment time. Analysing the data, we find that the minimum

average loan repayment time specified by the MFIs of Assam is nearly 10 months and maximum average repayment time is up to 19 months. Further we see that the minimum loan repayment time specified by the MFIs of Assam is 1 month and maximum is up to 48 months.

TABLE 14: LOAN REPAYMENT TIME SPECIFIED BY THE MFIS

	Minimum Time in Months	Maximum Time in Months
Mean	9.71	18.65
Median	12.00	12.00
Mode	12.00	12.00
Standard Deviation	4.78	10.22
Range	17.00	38.00
Minimum	1.00	10.00
Maximum	18.00	48.00

We see that the majority (44.1%) of the sample MFIs' minimum loan repayment time specified for the clients is 12 months and 38.2% of the sample MFIs revealed that the maximum loan repayment specified by them is also 12 months. For some MFIs repayment is also made in weeks. On further investigation, we find that 11.4% of the MFIs fixed their loan repayment time of 50 weeks for the clients. Only in 2.9% of the sample MFIs asks their clients to fix the loan repayment period as per the clients' convenience. Surprisingly, if any borrower willing to make pre-payments say in 1 month, the client need to pay the entire loan period's interest. Thus we may conclude that majority of the MFIs in Assam recover their loans in 12 months and the loan repayment period varies from 1 month to 48 months.

5. AGRICULTURE FINANCE AND THE MFIS' LOAN PORTFOLIO

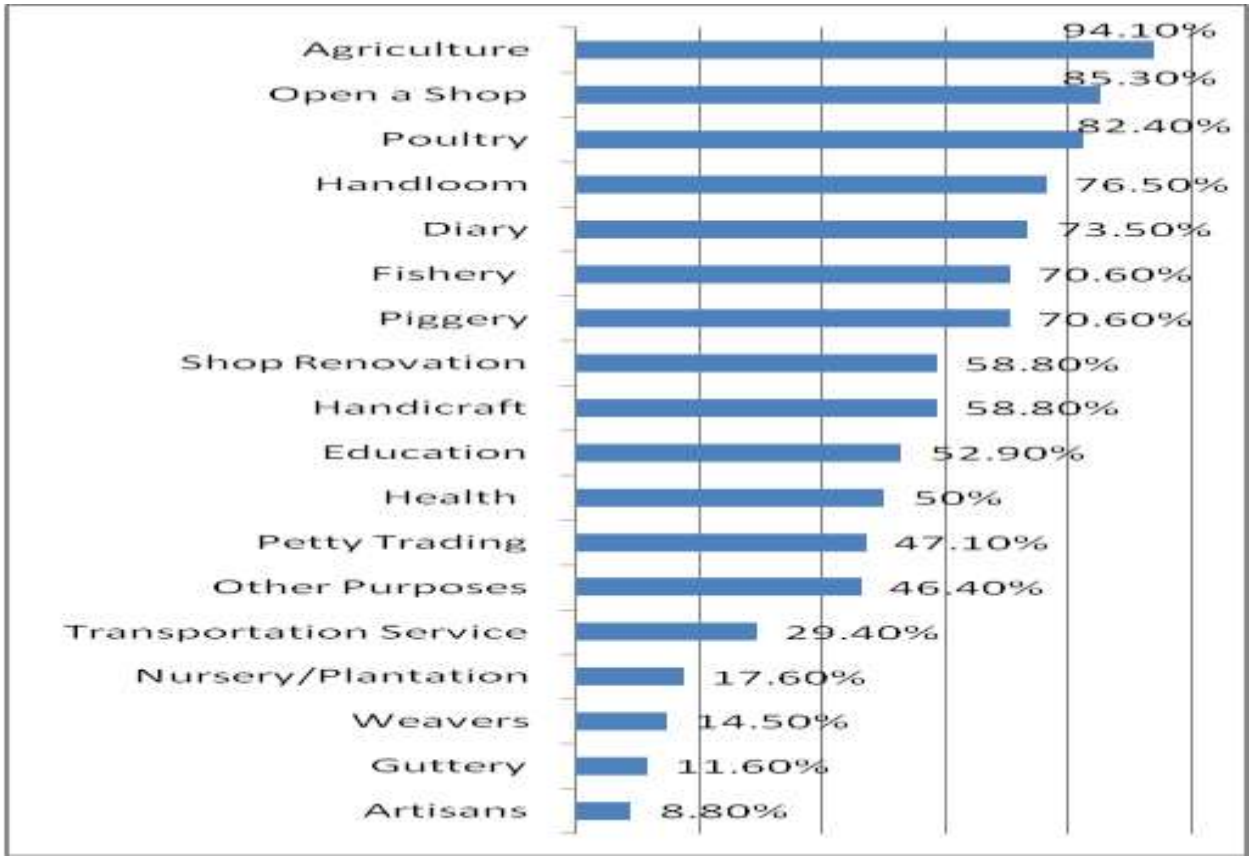
In this section an attempt is made to find out the availability of the microcredit provided by the MFIs of Assam for various purposes of loans to its beneficiaries. The result of the survey indicate that majority (94.1%) of the MFIs in Assam are giving loan to their clients for agricultural purposes. The other important purposes of the loan are opening a shop (85.3%), poultry (82.4%), handloom (76.5%), diary (73.5%), piggery (70.6%), fishery (70.6%), handicraft (58.8%), shop renovation (58.8%), education (52.9%), health (50%), petty trading (47.1%), transportation services (29.4%), nursery/plantation (17.6%), weaving (14.5%), artisans (8.8%) and others (46.4%).

Therefore, it has been observed that around 94% of the sample MFIs provides agricultural finance to the small scale farmers in the state of Assam. Only about 6% of the sample MFIs provide loan to its clients for non agricultural purposes. Thus from the above observations it is clear that the MFIs are playing crucial role for the development of the small scale agriculture in Assam by providing required loan for the agricultural activities.

TABLE 17: DIFFERENT PURPOSES OF THE LOAN

	Frequency	Percent
Agriculture	32	94.1
Open a Shop	29	85.3
Poultry	28	82.4
Handloom	26	76.5
Diary	25	73.5
Piggery	24	70.6
Fishery	24	70.6
Handicraft	20	58.8
Shop Renovation	20	58.8
Education	18	52.9
Health	17	50.0
Petty Trading	16	47.1
Transportation Service	10	29.4
Nursery/Plantation	6	17.6
Weaving	5	14.5
Guttery	4	11.6
Artisans	3	8.8
Consumption Loan	1	2.9
Marriage	1	2.9
Milk Vendors	1	2.9
Stationary/Grocery	1	2.9
Rickshaw	1	2.9
Tea stall	1	2.9
Freeing from Moneylenders	1	2.9
Tailors	1	2.9
Masala Preparation	1	2.9
Sugarcane	1	2.9
Maternity	1	2.9
Sericulture	1	2.9
Terracotta	1	2.9
Duckery	1	2.9
Mastered cultivation	1	2.9
Pottery Items	1	2.9

FIG.5: DIFFERENT PURPOSES OF THE LOAN



6. PROFITABILITY PERFORMANCE OF THE SAMPLE MFIS'

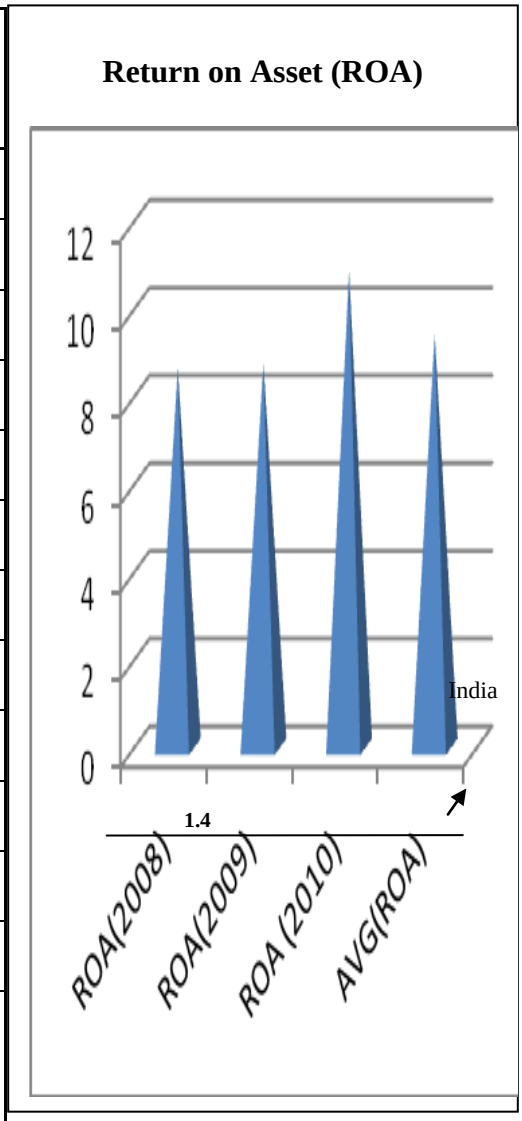
In this section, an attempt is made to find out and compare the profitability of the MFIs disbursing the agricultural loans with the national benchmarks. Here profitability of the MFIs is determined with the help of two financial indicators viz., (i) Return on Assets (ROA) and Return on Equity (ROE). The average profitability for these 34 sample MFIs are calculated for the three years period 2008-2010. For the purpose of comparing the performance of the MFIs of Assam, the methodology used here is difference of means test. The dataset represents a moderate sample (n = 34), which is greater than 30. As per the Central Limit Theorem, it can be assume that the sampling distribution is approximately normal. However, since the population standard deviation, σ is not known, t test is used (Carver & Nash, 2007, pp. - 116).

(A) RETURN ON ASSET (ROA): The application of difference of means test has been done at α =0.05 for various categories the analysis is as follows.

TABLE 18: RETURN ON ASSETS (ROAS) OF MFIS OF ASSAM

Descriptive Statistics	ROA (2008)	ROA (2009)	ROA (2010)	ROA (Avg.)
Mean	8.65	8.77	10.87	9.43
Std. Deviation	14.61	20.54	20.31	15.76
Std. Error	0.40	0.40	0.40	0.40
Minimum	-12.71	-25.47	0.08	-9.33
Maximum	72.33	108.61	101.60	74.07
Sum	293.99	298.26	369.53	320.58
Range	85.04	134.08	101.52	83.40
Skewness	2.82	3.66	3.47	2.75
Kurtosis	10.71	17.49	13.00	8.57
Variance	213.40	421.91	412.68	248.48
df	33.00	33.00	33.00	33.00
N	34.00	34.00	34.00	34.00
95% Confidence Interval of the Difference-Upper	13.74	15.94	17.96	14.93
95% Confidence Interval of the Difference-Lower	3.55	1.61	3.78	3.93
t	3.45	2.49	3.12	3.49
P Value (Two-tailed)	0.0015	0.0180	0.0037	0.0014
P Value (One-tailed)	0.00075	0.0090	0.00185	0.0070

FIGURE 6: ROAS OF MFIS OF ASSAM



We are interested in testing the null hypothesis assumption that the average ROA performance of the MFIs of Assam is equal to the national average of 1.4. So, we conduct one-tailed t test with the followings hypothesis:-

H_0: ROA = 1.40 and, H_1: ROA > 1.40

The average ROA benchmark for India for the year 2008 is 1.4. This benchmark is published by MIX on March 2010. As the p values of the one-tailed t test of 0.00075, 0.0090, 0.00185 & 0.0070 are less than 0.05, so we would reject the null hypothesis. Therefore we may conclude that most of the MFIs of Assam are earning higher ROAs compared to the national average ROA of 1.40 during 2008-2010 and this result is found to be statistically significant at 5% level of significance.

(B) RETURN ON EQUITY (ROE): ROE is a measure of paramount importance since it measures the return on shareholders' investment in the institution. However, given that many MFIs are not-for-profit-organizations, the RoE indicator is most often used as a proxy for commercial viability. A single year's RoE can at times misrepresent the institution's "true" profitability. Finally, there still are very significant differences in portfolio yield among MFIs, as is to be expected in a young industry.

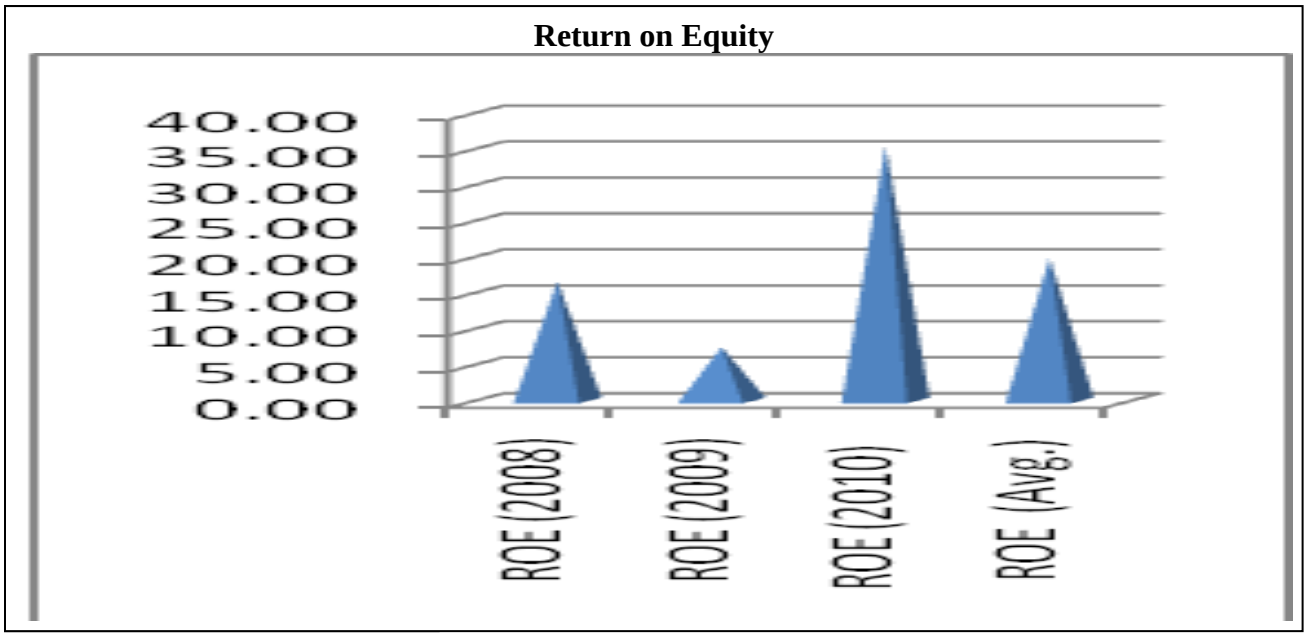
The application of difference of means test has been done at α =0.05 for various categories the analysis is as follows. A null hypothesis is tested with the assumption that the average ROE performance of the MFIs of Assam is equal to the national average of 12. So, we conduct one-tailed t test with the followings hypothesis:-

H_0: ROA = 12 and, H_1 : ROA > 12

TABLE 21: RETURN ON EQUITY (ROE)

Descriptive Statistics	ROE (2008)	ROE (2009)	ROE (2010)	ROE (Avg.)
Mean	16.56	7.43	35.49	19.83
Std. Deviation	33.28	157.37	39.48	49.06
Minimum	-111.43	-821	0.47	-217.79
Maximum	83.15	296.84	198.64	91.72
Sum	563.15	252.77	1206.65	674.2
Range	194.58	1117.84	198.17	309.51
Variance	1107.86	24764.12	1558.38	2406.44
N	34	34	34	34
95% Confidence Interval of the Difference-Lower	28.18	62.34	49.26	36.95
95% Confidence Interval of the Difference-Lower	4.95	-47.47	21.72	2.71
t	2.90	0.28	5.24	2.36
P Value (Two-tailed)	0.00656	0.78467	0.00001	0.02451
P Value (One-tailed)	0.00328	0.39233	0.00000	0.01225

FIG.7: RETURN ON EQUITY (ROE)



The average ROE benchmark for India for the year 2008 is 12%. This benchmark is published by MIX on March 2010. The sample data reports that the average ROE earned by the MFIs of Assam over the last three years is 19.83%. As the p values of the one-tailed t test of 0.00328, 0.0000 and 0.01225 are less than 0.05, so we would reject the null hypothesis in all the years except in 2009 where p value is higher than 0.05. Therefore we may conclude that most of the MFIs of Assam are earning higher ROE compared to the national average ROE of 12% during 2008-2010 and this result is found to be statistically significant at 5% level of significance.

7. CONCLUSION

Descriptive analysis revealed that more than 94 percent of borrowers are given loan for agriculture purposes. Thus it may be concluded that MFIs are playing an important role for the development of the agricultural sector in Assam. Moreover it is also seen that these MFIs disbursing agricultural loans are also profitable. The MFIs of Assam are earning higher ROAs of 9.43% compared to the national average ROA of 1.40 during 2008-2010 and this result is found to be statistically significant at 5% level of significance. Moreover, these MFIs of Assam are also earning higher ROEs of 19.83% compared to the national average ROE of 12% during 2008-2010 and this result is found to be statistically significant at 5% level of significance.

To achieve the ambitious average GDP growth of 10 per cent per annum in our National Budgets, it is important to revitalise and revamp not only the agricultural sector but also rural financial institutions. The directed lending norms that require commercial banks to allocate 40 per cent of their lending to the `priority sector' have not generated the intended results, since most of the banks get around this requirement by subscribing to other eligible instruments. Large farmers and agri-businesses seem to be able to obtain financial services from modern financial institutions but small and marginal farmers continue to depend, largely, on indigenous money-

lenders. Finally it may be concluded that majority of the MFIs of Assam are playing an important role by providing agricultural loan to their beneficiaries and this agricultural microfinance is a very profitable business for these MFIs.

REFERENCES

1. Ahmed, Salehuddin (2009). Microfinance institutions in Bangladesh: achievements and challenges, Managerial Finance, Vol. 35 No. 12, pp. 999-1010.

2. Basu, K and K Jindal (2000). Microfinance: Emerging Challenges, Tata McGraw Hill Publishing Company, New Delhi.

3. Basu, P. & Srivastava, P. (2005). Scaling up Microfinance for India's Rural poor, World Bank Policy, Research Working Paper 3646 (http://econ.worldbank.org).

4. Dasgupta, Rajaram and K Dinker Rao (2003). Microfinance in India: Issues, Challenges and Policy Options, Savings and Development, Vol 2, No XXXVII.

5. Dasgupta, Rajaram (2005). Microfinance in India Empirical Evidence, Alternative Models and Policy Imperatives, Economic and Political Weekly, pp. - 1229-1236.

6. Misra, Alok (2006). Micro Finance in India and Millennium Development Goals : Maximising Impact on Poverty, Discussion paper for Workshop on World Bank, Singapore.

7. MIX (2010). The Micro Banking Bulletin – The premier source of industry benchmark, Issue No.20.

8. National Bank for Agriculture and Rural Development (1999): Task Force on Supportive Policy and Regulatory Framework for Microfinance, NABARD, Mumbai.

9. Pearce, Douglas. 2003, "Buyer and Supplier Credit to Farmers: Do Donors Have a Role to Play?". Paper presented at the United States Agency for International Development-World Council of Credit Unions conference, "Paving the Way Forward for Rural Finance: An International Conference on Best Practices", Washington, DC, 2-4 June.

10. Tucker, M. (2001). Financial Performance of Selected Microfinance Institutions-Benchmarking Progress to Sustainability, Journal of Microfinance, Vol. 3 No. 2. pp. - 107-123.

11. Vallah, G., and Chatrath, S. (2006). Role of Banks In Agriculture & Rural Development, The Chartered Accountant, pp.-1122-1130.

12. Zeller, M., & Meyer, R.L. (2002). Improving the performance of Microfinance: Financial Sustainability, Outreach and Impact, pp. - 1-15. In Zeller, M., & Meyer, R.L (Ed.), 2002, The Triangle of Microfinance, IFPRI, Washington, DC.

APPENDIX-I

LIST OF THE MFIS SURVEYED IN ASSAM

Sl. No.	Accronyms of MFIs	Full Name of MFIs
1	PRDS	Pragati Rural Development Society
2	MZGPS	Morigaon Zila Gramya Puthibharal Sanstha
3	NCS	Nightingle Charitable Society
4	PROCHESTA	Prochesta
5	ASOMI	Asomi
6	GS	Grameen Sahara
7	RGVN	Rastriya Gramin Vikash Nidhi
8	RGVN NE	RGVN North East Microfinance Ltd.
9	CRD	Centre for Rural Development
10	AAMIVA	Association for Advancement of Micro Institution and Voluntary Action
11	ASC	Ajagar Social Circle
12	GSEDC	Gandhinagar Socio Economic Development
13	AGUP	Anchalik Gram Unnayan Parishad
14	Pancharatna	Pancharatna Gramya Bikash Kendra
15	GM	Gwudan Muga
16	WDS	Weavers Development Society
17	BJS	Bishnujyoti Janakalyan Samiti
18	GVM	Gramya Vikash Mancha
19	LSS	Lok Seva Samiti
20	AD	Asha Darshan
21	SATRA	Social Action for Appropriate Transformation and Advancement in Rural Areas
22	SDC	Sipajhar Diamond Club Community Centre
23	AGUS	Associated Gramya Unnayan Society
24	RENEISSANCE	Reneissance
25	MASK	Mahila Sakti Kendra
26	DASK	Doulung Ajon Samajik Kendra

27	JPYS	Jyoti Puthibharal & Yubak Sangha
28	DPYS	Donyi Polo Youth Society
29	ROAD	ROAD
30	RMI	Rainbow Microfinance Institution
31	MACC	Monacherra Athletic & Cultural Club
32	DC	Deshbandhu Club
33	SONALI	Sonali SHG Unnayan Samiti
34	MANDAL	Maandal