Agricultural Finance by Microfinance Institutions

Problems and the Way Forward

Paper by

Vijay Mahajan, BASIX
NV Ramana, BASIX

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1 Introduction

1.1 Agriculture and Agriculture Finance in India

Agriculture contributed to 23 percent of the India’s GDP in the year 2003 which is a large fraction of GDP by world standards. Agriculture is a primary livelihood for a major portion of households in India. Roughly 60 percent of India’s households, or about 600 million people depend on agriculture for their livelihood. Dependence on agriculture for livelihood in rural India is even higher. 76.1% of rural workforce depends on agriculture. One more dimension of the problem is ensuring sustainability of large number of households depending on agriculture with average land holding size less than two hectares. The National Sample Survey data on land holding distribution for 1992-93 indicates that 74.1 percent of the households had a land holding less than two hectares.

Agriculture Finance can be broadly classified into:

i) Crop loan

ii) Term loan for land and water resources development, mechanisation of agriculture and crop diversification such as plantation, horticulture.

iii) Post harvest investment on storage, trading, processing and transport.

Over the last three decades farming has become capital intensive. The use of inputs and cost of inputs have increased. The share of purchased inputs (fertilisers, pesticides, electricity, diesel and irrigation) increased from 39 percent in 1970-71 to 87 percent in 1995-96. Hence, farmer’s credit needs and dependency on formal and informal credit agencies has increased.

The Reserve Bank of India and the Government of India have made conscious efforts to provide financial services to the rural families. Nationalisation of 27 commercial banks, establishment of 197 Regional Rural Banks and the concern to revive cooperative credit structure are indicators of the Governments’ intension to provide financial services the farming and non farming families in the rural areas. More than 150,000 rural credit outlets were established and the population serviced per rural credit outlet is 5000 per branch, a comfortably manageable level.

But the commercial banks, Regional Rural Banks and cooperative credit institutions have encountered serious problems of low or negative net margins, high level of overdues (from 20-50%, depending on region and year) leading to 10-20% non-performing assets accumulating on the bank’s books. They are neither able to meet the growing credit needs nor the quality of financial services now being provided by them is satisfactory. Hence it appears that micro finance institutions (MFIs) can step in to meet the increasing demand for rural credit. But, it is not easy. Agriculture is risky due to uncertainty of rainfall, with more than 70 percent farmers still engaged in rain fed farming and fluctuations in market prices. Moreover, MFIs have limited experience in financing agriculture. Finally, simply financing is not adequate and a range of support services are needed.
1.2 Agricultural Lending by MFIs - Problems

The present lending of MFIs is mainly aimed at landless households and the loans are largely given for petty trading and small livestock production. Very rarely are MFIs engaged in lending for agriculture and when they do, it is confined to loans for crop production to marginal and small farmers. Loans are virtually never given by MFIs for long term investments on developing land, water, power and post harvesting infrastructure are to some extent made by the banks with Government and other development agencies.

MFIs do not normally do agricultural lending for the following reasons:

- The high presence of nationalised commercial banks, regional rural banks and credit cooperatives, all of which are owned or controlled by the government, has led to a situation where there is no institutional space for MFIs in agricultural lending.

- The government control also translates into quotas, with banks mandated to lend a minimum of 16 percent of their total advances to agriculture. It also leads to artificially low interest rates (currently 9 percent per annum, or about 200 basis points above lending rates to AAA corporations), without any consideration of cost of funds, operating costs and risk. MFIs cannot sustain themselves at these rates.

- Poverty (read landless) focus is one of the causes. Most MFIs were established to extend credit to the poor and in rural areas, the poorer households are landless households. This then becomes a criterion for selection of borrowers and it automatically precludes farmers. For example, all Grameen Bank replicators use the criterion that if a household own more than 0.5 acres (0.2 hectare) of land, it cannot become a member.

- Seasonality is another important reason for MFIs not giving crop loans. Since the farmers all need money at nearly the same time for sowing the crop, it places peak demand on MFIs which they are not able to mobilise.

- Lumpy repayments are another reason. MFIs are generally accustomed to making loans with weekly or monthly repayment schedules. In agricultural loans, since repayment is not possible till the crop is harvested and sold, the common method of collecting weekly or monthly repayment does not work for

- High co-variant risk due to weather and pest attacks is another reason. A failure in rainfall, unseasonal rains, cyclones, hailstorms, high temperature spells, and likewise, pest attacks, affect crops adversely and impact all the farmers in a region. Since MFIs work in geographically compact areas, they can be severely affected by the high co-variant risk that crop loan borrowers face.

- Lack of familiarity is another important reason and this becomes a chicken and egg problem for most MFIs to get into agricultural lending.
2 One way forward - BASIX experience in agricultural lending

BASIX has been doing agricultural lending since inception in 1996. This was based on our critique of existing MFIs – both the Grameen Bank and the Unit Desa system of the Bank Rakyat Indonesia (BRI), both of which, despite working exclusively in rural areas, did not do any agricultural lending at that time. Most of their loans were petty trading, agro-processing and small livestock rearing. In contrast, the Bank for Agriculture and Agricultural Cooperatives (BAAC), Thailand exclusively did agricultural lending but no lending to non-farm activities. Based on these studies, BASIX founders came to the conclusion that as agriculture is the predominant livelihood in rural India, any MFI working in rural areas must do agricultural lending, though not exclusively. Thus from the very first year, BASIX developed suitable financial products and distribution channels for extending agricultural loans to farmers.

Considerable headway has been done in respect of crop loan, loan for allied activities and micro enterprises in rural areas. BASIX had a customer base of 113,663 with cumulative 153,137 loans as on 31 March 2004. The cumulative disbursement was INR 2258 Million (Euro 40 Million) with loan outstanding of INR 587 Million. It operated in 36 districts in 6 states and covered 7827 villages. The performing assets are 95.4 percent. Nearly 50% of BASIX portfolio was in farm loans, of which 25% is crop, 20% is livestock and 5% is agri long-term for things like irrigation equipment and bore wells.

2.2 BASIX Lending through Joint Liability Groups (JLGs)

BASIX extensively uses Joint Liability Groups (JLGs) of rural producers to mutually guarantee each other's loans. This method uses the principle of mutual guarantee by a group of borrowers for each other’s loans. Bank for Agriculture and Agricultural Cooperatives (BAAC), Thailand uses this method extensively. BASIX introduced this concept in India. Under this method:

Five to six individual borrowers are asked to form into a group. The group is formed by their mutual choice. The promoting institution does not participate in the group formation. Unlike the Grameen or SHG method, where the groups meet regularly, with significant emphasis on the group processes, in this method the groups meet only when required. Apart from guaranteeing the loans to each other, and thereby introducing peer monitoring, there are no other significant group processes involved.

The group members are of a similar socio-economic profile with not more than two family members. All the members of the group mutually guarantee the loans given to the other members of the group and remain jointly and severally responsible for the repayment of all the loans. Loans are given to individual borrowers. Loan amounts to different members of a JLG can vary. BASIX collects a cash security equal to 10 percent of the loan amount of each borrower, from all the individual borrowers. This amount is returned to the individual borrowers only when all of them have paid back the amounts due. Repeat loan is not sanctioned unless all five of them repay their earlier loan.
The following are the main reasons behind promotion of JLG concept.

- **Ensure self-appraisal of loan proposals**: JLG makes all the members appraise each other’s loan proposals and deny loans to those who are not creditworthy and also reduce the amount in case some farmers have made proposals which the others think they may not be able to make good use of, before recommending to BASIX for loan.

- **Ensure proper utilization of loans availed from BASIX**: Since all the members have taken the responsibility for repayments, the members tend to see that every member uses the loan as proposed. Information about diversion comes to BASIX from many channels and corrective action can be taken early so that the recovery takes place in a smooth manner.

- **Group liability and peer pressure**: All the group members take responsibility jointly or and severally against each loan extended to group members. Since all the members are involved in the similar activity and likely to have cash flows during the same period, the recovery of loans becomes smooth. JLG with members coming from the same family are not effective in exerting pressure. The joint liability is a substitute for co-obligation or collateral.

- **Ensures common benefits to members**: Since members form in to informal groups there is a possibility that they derive benefits like sharing experiences, procuring materials in a bulk quantity at lower price, market the produce in bulk to get benefits in terms of transportation and price. BASIX can also facilitate technical assistance to members of JLG in an effective manner.

- **Less transaction cost**: In JLG approach, the transaction cost to the company and borrowers is less, as compared to pure individual lending.

As on March 31, 2004, BASIX has established over 6000 JLGs including 2500 for crop loans and 3500 for non-farm loans. The crop loan product is designed for repayment of principal in one or two lump sum instalments, typically four weeks after the harvest is expected. This gives the farmers time to market their produce.

BASIX has maintained high portfolio quality of the agricultural loans. The on-time repayment rate varies from as high as 100 percent in some years and branches to as low as 85 percent in others. The higher numbers are recorded in good rainfall years and in branches where the rainfall is over 800-1000 mm and more uniformly distributed. The lower numbers are recorded in drought years and in branches located in severe drought prone districts such as the Rayalseema region of southern Andhra Pradesh (AP). Even in these areas, farmers repay their overdue loans during the following year, when they get a good crop. Thus the long term loan loss is less than 3 percent. This is mainly contributed by regions which have witnessed rain failure for three successive years, such as Anantapur in AP. In some cases, the defaults were also caused by incorrect selection of JLG members and over-financing, compared to what the farmers could use, leading to diversion. Despite this, the overall experience of 97 percent repayment for agricultural loans is unmatched by any formal financial institution in India.
2.3 Lending through intermediaries

BASIX experimented with agricultural lending through various kinds of intermediaries such as commission agents (commodity brokers), input dealers and seed production organizers.

BASIX tried lending through commodity trade intermediaries known as ahratiyas or commission agents in the Raichur district in Karnataka. This place has a very large mandi (agricultural produce market) and over 150 commission agents compete with each other fiercely for the farmers’ business. These ahratiyas do not normally buy or sell on their account, but rather aggregate the produce of a large number of farmers to fulfil the demand from large buyers, typically agro-processing companies. They tend to develop long-term relationships with farmers, and often extend them loans at the sowing season for inputs and general expenses. These loans are extended at an interest rate of between 2 to 3 percent per month or 24-36 percent per annum. However, if a farmer repays within four to five months, no interest is charged.

The farmers in turn bring the produce to the same ahratiya from whom they have taken a loan, to market the produce. The ahratiyas can officially charge 2 percent commission to the farmer, in addition to chargers for unloading, loading, weighing, storage, etc. An ahratiya normally deals with between 400 to 1200 farmers. To extend its outreach to a larger number of farmers, BASIX routed credit through commission agents. BASIX gave bulk loans of between INR 100,000 to 1 million to the ahratiyas at 21 percent and they were contracted to on-lend to small and marginal farmers among their customers, at 24 percent, with the average loan size being INR 3,000 to 5000. The ahratiyas were supposed to give a list of farmers to whom they extend the loan so that BASIX staff could check it in the field.

The arrangement was extended beyond Raichur to other mandis as well. However, it was found that in other mandis, the number of ahratiyas was much less and they were collusive rather than competitive. Moreover, even in Raichur, it was found through surveys of the ultimate borrowers, that the ahratiyas were charging them interest rates higher than the mandated 24 percent, and depending on the ahratiyas’ relationship and risk perception, they were charging anywhere from 24 to 36 percent. Further, many of the ahratiyas started defaulting on BASIX loans, and though these were secured through collateral, due to the cumbersome legal processes in India, it was not possible to get repayments easily. BASIX experimented with this channel from 1996 to 1999. The High Level Committee on Agriculture appointed by the Reserve Bank of India and NABARD carried out studies on this and the RBI issued a directive to commercial banks that this methodology may be tried in appropriate places.

Lending to input dealers such as seed, fertiliser and pesticide companies is not a new idea and BASIX tried it with a number of parties, with good results. However, it was not easy to keep track of the ultimate borrowers and monitor whether the BASIX loan went to the target group of small and marginal farmers or to bigger farmers. The monitoring costs are high and the dealers also tend to default when they get hit by lower repayments from farmers, as in drought year.
2.4 Lending in collaboration with agri-business companies

BASIX also experimented agricultural lending in collaboration with agri-business companies of various kinds:

- input suppliers such as seed, fertiliser and pesticide companies and their distributors;
- hybrid seed producing companies and their seed production organisers and
- agro-processing companies – oilseeds, cotton, spices etc.

These companies all have different reasons for collaboration with a credit institution like BASIX. Input suppliers can increase their sales and market share by extending credit. BASIX extended bulk loans of Rs 100,000 to 500,000 to distributors of companies such as Novartis, for on-lending to small farmers in kind. The repayment was made by the distributors to BASIX about six weeks after the crop harvest by which time they would recover from the farmers.

Seed production companies can extend their production because seed multiplication is mainly done by marginal farmers who are always short of credit and cannot wait till seeds are processed and certified, for payment. This had led to the emergence of an intermediary called the “seed production organiser” who is an agri-businessman working with 200 to 4000 marginal farmers. BASIX extended credit to the seed production organisers for on-lending to marginal farmers. The repayment was guaranteed by the seed company (such as Unilever’s Indian subsidiary HLL).

In case of agro-processing companies, the examples of collaboration were with ITC Agrotech, who had established a very large capacity sunflower processing plant but were short of produce. Thus if farmers in the neighbouring areas were extended credit to grow sunflower and ITC assured a buy-back at a remunerative price, farmers would benefit as well the company. BASIX provide loans to over 1200 farmers in this collaboration for a period of three years between 1996 and 1998. Later, the company stopped the plant because of cheaper imports of alternative edible oils. BASIX also worked with NFCL for cotton and chilly farmers and with Sarpan Agro for paprika. However, in all cases, the arrangements were unstable as the agri-business companies faced ups and downs in their end-markets.

2.5 Long-term agricultural lending experience

BASIX experimented with loans for longer term purposes such as development of water resources such as borewells, stream/river side lift irrigation schemes comprising pumps and pipelines. These loans are typically in the range of Rs 25,000 to 50,000 per farmer and often are given to a group of 3 to 20 farmers, thus the total amount can be as high as INR 1 million in some cases. These loans are repayable over three to four years and are repaid in two harvest season instalments. (Typically in India, at least two crops are grown when irrigation is available.) BASIX continues to do agricultural long-term loans, to the extent of about 5-10 percent of its portfolio and is seeking to expand this proportion as longer-term funds become available to it.
3 New Initiatives planned by BASIX

3.1 Crop Insurance

After five years of microfinance experience, BASIX carried out a detailed impact assessment study and found that credit was a very incomplete offering. As many as one-quarter of the borrowers reported no significant increase in incomes over a three year period and another quarter of the borrowers actually saw a decline, mainly due to drought. Thus BASIX felt the need to offer crop insurance as a supplement to credit, to protect the incomes of its farmer customers.

As mentioned already, rainfall failure is a major risk factor in agricultural lending. While India has had a number of crop insurance schemes, these have not been working very well. The claims are far higher than premia collected and the government has spent over Euro 500 million in the last ten years in subsidising premium payments and settling claims. In spite of this, farmers are not happy with the scheme due to delays in claim settlement and the use of rather large areas for the purpose of declaring drought.

BASIX, in collaboration with the World Bank/IFC Technical assistance group and the ICICI Lombard Insurance Co, designed and launched India’s first weather insurance pilot project in the month of July 2003 through our Bank. The scheme was based on the rainfall and crop yield data available with the district authorities for the last 30 years. A relationship was established between the rainfall and output for groundnut and castor crop, based on the available data. The payouts are decided on the deviation of rainfall from the predetermined level of rainfall. The risk was borne by ICICI Lombard, whereas BASIX carried out the customer education and marketing, premium collection and claim settlement.

During the financial year 2003-04, BASIX sold around 230 individual farmer policies for small, medium and large groundnut and castor farmers for an insurance coverage of INR 3.2 million. The premium for the insurance coverage was INR 96,000. Settlement of claims was quickly and out of the two crops, groundnut farmers received claims. Accordingly claims were settled to 154 farmers amounting to Rs.42,000. Claims were paid for shortfall and excessive rainfall. The pilot was repeated in 2004-05 and results are awaited. In the meanwhile, the experiment attracted a lot of attention and a number of other pilots were attempted in 2004-05, with a total coverage of over 18,000 farmers.

Another form of crop insurance pioneered by BASIX in 2004-05 was a insurance of a crop loan portfolio. Here the company paid INR 750,000 worth of premium to insure its crop loan portfolio of Rs 17 million in three of its branches, with diversified rainfall patterns. This insurance was designed by the World Bank team, the cover offered by ICICI Lombard and was re-insured by Swiss Re, in a first deal of its kind in the world. As rain was good in this year in the insured areas, there were no claims.
The importance of weather based farmer level or MFI portfolio level crop insurance is that it transfers credit risk to insurance risk and since the latter is diversifiable, across various agro-climatic zones in a large country like India, the overall risk gets reduced. The way for ward for MFIs in agricultural finance has to be to offer a joint product, a crop loan and a weather insurance, the risk for the latter being borne by an insurance company which is in a position to diversify the risk across a number of regions. This takes away the problem of high co-variant risk from crop lending.

3.2 Mitigating Price Risk

One of the major problems face by farmers is the fluctuations of prices. Often, when the crop is good, they get low prices and thus are not able to get full benefit. BASIX is planning to experiment with new financial products like warehouse receipts, to enable farmers to store their produce rather than sell it at a distress price. The warehouse receipt would enable a farmer to get a substantial advance, say 75 percent of his produce value, without selling it and then wait till he decides to sell at a price that he finds good. BASIX is going to experiment on this product with the ICICI Bank in Gulbarga district.

For farmers to benefit from better prices in distant markets, they have to be able aggregate their small lots. BASIX is planning to work with farmers’ cooperatives for aggregating the produce of small farmers and link them with distant commodity markets using the price dissemination network of the National Commodities and Derivatives Exchange (NCDEX).

3.3 Agricultural/ Business Development Services (Ag/BDS)

Based on its impact assessment studies, BASIX also decided to introduce other services for its crop loan borrowers - productivity enhancement and market linkages. After building a good crop credit customer base of 30 to 50 engaged in a common crop in a village, the BASIX field staff interact with the farmers to identify issues requiring attention. For example, in cotton, the issue of high cost of pesticide inputs with diminishing effects was identified. The farmers were not able to control pests despite spraying a variety of pesticides. BASIX conducted action research over two years using Integrated Pest Management techniques and came up with a package which has drastically reduced pesticide use and its associated costs.

The second problem identified was the low prices offered by commission agents in the local markets as compared to major markets. BASIX introduced outside buyers such as Super Spinning Mills, Coimbatore to this area and after they began procuring cotton, the prices have gone up. BASIX now offers these services – of integrated pest management and market linkage to farmers and earns a small fee for it. Apart from generating more income for the farmers, it reduces the credit risk for BASIX. Similar action research has been done in respect of other sectors such as groundnut, soybean, vegetables and pulses. The company is providing these services to over 12000 customers in the cotton, groundnut, soybean, vegetable and pulses.
3.3 Institutional Development Services

As it is not viable to offer productivity enhancement and market linkage services to one crop loan borrower at a time, it is important to bring them together in groups. Initially these groups are in formal and eventually they tend to get registered as farmers’ associations or mutually aided cooperative societies. BASIX has helped establish a number of these and works with others which pre-existed, to build their capacity. BASIX offers a whole range of services to farmers’ groups, all the way from how to conduct meetings and keep minutes, how to involve everybody in decision making, to how to deal with input suppliers and produce buyers and get favourable terms for the farmers, how to keep accounts of group purchases and sales and how to manage the cooperative. These services are collectively called ‘institutional development services’. These services sometimes come in advance of any credit being provided, particularly where the cooperatives pre-exist. Here, the deep interactions with the cooperative members during institutional development gives valuable information and enables the credit team to assess the risk in lending to the group/cooperative. Were the cooperative is found to be credit worthy, BASIX has lent as much as Rs 3 million for on-lending by the cooperative to its members. As this method reduced BASIX transaction costs, the loans are offered at a lower rate of 12 percent pa. There is a synergy between ID services and crop credit

4 Conclusions

- Agriculture being the major livelihood in rural areas in developing countries, MFIs have to get into agricultural financing in a bigger way. This is all the more true as the banking system is not able to adequately reach farmers and the cooperative credit system in a lot of countries is nearly defunct.
- For MFIs to be successful in agricultural financing, to be through MFIs, requires a change in the approach of MFIs. MFIs will have to learn to design new financial products and get accustomed to repayments at harvest time, not weekly or monthly. They will have to learn to experiment with new channels such as farmers’ groups, input suppliers and output buyers. They will have to devise methods of risk mitigation such as weather based crop insurance and the use of commodity derivatives
- MFIs will have to take a credit plus approach. In order to ensure recovery of loans MFIs need to facilitate the farmers in increasing their productivity and reduce the risks. MFIs will have to encourage local value addition through lending to agro-processing enterprises, many of which may not be “micro”.
- MFIs will have to learn to enhance the farmers’ capability to get better price for their produce by suing new products such as warehouse receipts and commodity derivatives.
- Both of the above require organising farmers into groups/coops and a well designed institutional development support service. Organising community based institutions to take this responsibility for their members and capacity building of the institutions engaged in livelihood promotion become inevitable.

Only if MFIs can acquire the capability to offer these products/services should they get into agricultural financing. But if they do, a huge business opportunity awaits them.