

# Gokhale Institute of Politics and Economics

(Deemed to be University) Pune - 411 004



Assessing Policy Interventions in Agribusiness and Allied Sector Credit versus Credit Plus Approach for Livelihood Promotion in Maharashtra

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### Foreword

Agricultural credit is a critical input for enhancing production and therefore stimulating growth in this sector. Recognizing the importance of credit which plays an important role in Indian agriculture, the government and Reserve Bank of India have played a vital role in creating a broad based institutional framework to ensure that adequate provision of credit is made to this sector. Hence over the decades, the share of informal credit is declining, while that of institutional credit is increasing. However, the informal segment has still survived due to its inherent strengths of close personal relations with farmers, flexibility and simple procedures which ease the delivery of credit to the resource poor farmers who are helpless and have dire need for credit.

The government has realized the need for extending adequate and timely supply of credit to the agricultural sector. However, farming is still a very risky economic activity in India and farmers who have borrowed institutional credit are often not in a position to repay their loans which paralyzes the smooth functioning of rural credit and also results in agrarian distress. It is therefore clear that although credit is a critical input for enhancing farm production, only providing credit to farmers does not take care of all factors responsible for crop failure and losses. Therefore, in the recent past, some new generation organizations in the non-government sectors have emerged which follow a 'credit plus' approach. The purpose of this approach is that besides providing credit to farmers, there is also need to provide him with extension services, access to technical-know-how, market information, etc. so that his resources are used efficiently. In view of changes taking place in the credit market, the need was felt to evaluate the relative strengths and weaknesses of traditional (only credit) market intervention policy, mostly pursued by government agencies visa-vis the emerging 'credit plus' approach, mostly followed by non-governmental organizations. In view of same, the Ministry of Agriculture, Government of India sponsored the study "Assessing Policy Intervention in Agribusiness and Allied Sector Credit versus Credit Plus Approach for Livelihood Promotion in Maharashtra". The study is based on primary data.

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January 23, 2013 Agro-Economic Research Centre Gokhale Institute of Politics and Economics (Deemed to be a University), Pune – 411 004 Rajas Parchure Officiating Director

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#### 1.1 Backdrop

India continues to be an agricultural economy in the beginning of the 21<sup>st</sup> century and as per 2011 census, about 68.8 percent of the population resides in rural areas, depending directly or indirectly up on agriculture for their livelihood. Agriculture is the mainstay of the Indian economy because of its high share in employment. The contribution of this sector to the gross domestic product (GDP) is however declining very rapidly and is presently about 14.5 percent (in 2010-11) and this sector is also showing deceleration in growth rates. Therefore, it is very important for this sector to achieve higher growth rates and also be an engine of growth, so that growth in other sectors and overall growth rate of the economy can be achieved.

Since independence, with the help of the institution of the Planning Commission and various policy measures, efforts have been made to promote the agricultural sector. The Green Revolution in the late 1960s and early 1970s signaled the beginning of a more dynamic agriculture which led to a clear shift from subsistence farming to market oriented production. Diversification and commercialization in agriculture have led to shift of cropping pattern from subsistence crops to cash crops. For these changes to have occurred and for agriculture to become more dynamic, institutional credit plays a very important role. Credit enables the farmer to make investment and control resources so that productivity and production in agriculture can increase.

Agricultural credit is a critical input for enhancing production and therefore stimulating growth in this sector. Recognizing the importance of credit which plays an important role in Indian agriculture, the government and Reserve Bank of India (RBI) have played a vital role in creating a broad based

institutional framework to ensure that adequate provision of credit is made to this sector. Hence over the decades, the share of informal credit is declining, while that of institutional credit is increasing. The informal intermediaries are mainly the moneylenders (traders, big farmers, commission agents, etc) who extend credit to farmers on personal relations at high rates of interest to which a non interest component is also added.

Since independence and over the years, the government is making concerted efforts to reduce the dependence on moneylenders and other informal sources for credit due to the high interest rates charged by them and other exploitative practices. However, the informal segment has still survived due to its inherent strengths of close personal relations with farmers, flexibility and simple procedures which ease the delivery of credit to the resource poor farmers who are helpless and have dire need for credit.

Agricultural credit in the formal sector in India is disbursed through a multi-agency network consisting of Commercial Banks, Regional Rural banks and a three tier Cooperative credit structure. The Kisan Credit Card (KCC) scheme was introduced in August 1998 for short and medium term loans to provide adequate and timely credit support from the banking system in a flexible and cost effective manner. The scheme has been extended since October 2006 for all kinds of loan requirements of borrowers of the State Co-operative Agriculture and Rural Development Banks (SCARDBs) under Kisan Credit Cards, i.e., short-term, medium and long term and a reasonable component of consumption credit within the overall limit sanctioned to the borrowers. The Agricultural credit policy essentially lays emphasis on augmenting credit flow at the ground level through credit planning, adoption of region-specific strategies, rationalization of lending policies and procedures and bringing down the cost of borrowing. Bank credit is available to farmers in the form of short-term credit for financing crop production programmes and in the form of medium/long term credit for financing capital investment in agriculture and allied activities like land development, including purchase of land, minor irrigation, farm

mechanization, dairy development, poultry, animal husbandry, fisheries, plantation and horticulture. Loans are also available for storage, processing and marketing of agricultural produce.

A comprehensive credit policy (*www.agricoop.nic.in*) was announced by the Government of India on 18<sup>th</sup> June, 2004, containing measures for doubling agricultural credit in the next three years and providing debt relief to farmers affected by natural calamities. The following are the highlights of the announcement:

- 1. Credit flow to agricultural sector should increase at the rate of 30 percent per year;
- 2. Debt restructuring in respect of farmers in distress and farmers in arrears providing for rescheduling of outstanding loans over a period of five years including moratorium of two years, thereby making all farmers eligible for fresh loans;
- 3. Special One-time settlement scheme for old and chronic loan accounts taken by farmers from private money lenders
- 4. Commercial farmers to finance at the rate of 100 farmers per branch, 50 lakh farmers to be financed by the banks in a year;
- 5. New investments in agriculture and allied activities at the rate of two to three projects per branch;
- 6. Refinement of Kisan Credit cards and fixation of scale of finance.

From the above, it can be observed that credit policy is making efforts to improve the delivery mechanism of credit and also make it more inclusive through various policy measures.

#### **1.2** Share of Formal and Informal Sources of credit :

In many developing countries, it has been found that the rural credit market is imperfect in nature. There are substantial variations in the availability of formal credit in rural and urban locations (Laha and Kuri, 2011). However, government has been making several attempts to spread its reach to all categories of farmers through spread of banking to rural areas. The informal segment still continues to play a role in meeting the requirements of the farmers and still has a presence in the credit market. While farmers need collateral while taking loans from formal sector, the informal sector may not insist on collateral but resort to coercive methods for recovery. The share of formal and informal segments in providing credit to farmers is indicated in Table 1.1.

It is clear from Table 1.1 that soon after independence; the cultivator households were almost entirely dependent upon non-institutional sources such as moneylenders for their credit requirements. However, with independence and the institution of Planning, formal sector lending began to gather momentum. Presently the share of institutional credit is 68.8 per cent while that of non-institutional is 29.7 percent which has rapidly declined over the years. However, despite the dominance of the formal institutions, their performance has had limited success with huge outstanding loans and overdues. Since agriculture in India is still largely rainfed, there are huge fluctuations in output which lead to price fluctuations. Due to integration with world economy, fall in output is not always accompanied by higher prices. Hence farmers loss of income is on both counts - low yield and low prices. These factors make agriculture very risky and hence reduce the repaying capacity of farmers leading them to be defaulters. They, therefore, become ineligible to access credit from formal sector and a vicious circle is created. Partly responsible is also the government, which comes out with populist measures such as loan/interest waiver, rescheduling of outstanding loans, etc which induce the farmer to become a willful defaulter. All these factors tend to choke up the formal rural credit delivery mechanism, leading to their unsatisfactory performance.

						<u> </u>	
Sources	1951	1961	1971	1981	1991	2002	2010
Non-Institutional	927	01 3	. 68.3	36.8	30.6	38.0	207
of which	52.7	71.5	00.5	20.0	30.0	50.9	
Money Lenders	69.7	49.2	36.1	16.1	17.5	26.8	21.9
Institutional	72	107	217	62.2	662	61 2	600
of which	7.5	10.7	51.7	05.4	00.5	01.5	00.0
Cooperative Soc./Banks	3.3	2.6	22.0	29.8	23.6	30.2	24.9
<b>Commercial Banks</b>	0.9	0.6	2.4	28.8	35.2	26.3	25.1
Unspecified	-	-	-	-	3.1	-	1.5
Total	100	100	100	100	100	100	100
Source: RBI (2000).							

Table 1.1: Relative Share of Borrowing of Cultivator Households from Different Sources

(nor cont)

By and large, it appears that although government has realized the need for extending credit to the agricultural sector, farming is still a very risky economic activity in India. Hence, farmers who have borrowed institutional credit are often not in a position to repay their loans which paralyzes the smooth functioning of rural credit and also results in agrarian distress. It is therefore clear that although credit is a critical input for enhancing farm production, only providing credit to farmers does not take care of all factors responsible for crop failure and losses. Therefore, in the recent past some new generation organizations in the non-government sectors have emerged which follow a 'credit plus' approach. The purpose of this approach is that besides providing credit to farmers, there is also need to provide him with extension services, access to technical-know-how, market information, etc. so that his resources are used efficiently. In view of changes taking place in the credit market, the need was felt to evaluate the relative strengths and weaknesses of traditional (only credit) market intervention policy, mostly pursued by government agencies vis-a-vis the emerging 'credit plus' approach, mostly followed by non-governmental organizations. This study entitled "Assessing Policy Intervention in Agri-business and Allied Sector Credit versus Credit Plus Approach for Livelihood Promotion" is therefore being conducted to bring about the differences between the two approached (i.e. efficiency, equity, sustainability properties, besides socio-economic impacts) not only in conceptual terms but also in terms of a rigorous empirical analysis based on primary and secondary data.

#### **1.3** Performance of Formal Sector Credit Institutions:

The genesis of institutional involvement in the sphere of agricultural credit can be traced back to the enactment of the Co-operative Societies Act in 1904 which aimed at organizing credit cooperatives. In 1912, the Co-operative Societies Act was enacted which permitted the registration of non-credit co-operative societies as well. Over the years, the co-operative societies had a three tier set up of short and medium term credit structure with State Co-operative Banks at the apex level to which were affiliated District Central Co-operative banks at the district level to which were affiliated Primary Agricultural Credit Societies at the village level.

The establishment of Reserve Bank of India (RBI) in 1935 was yet another step in institutionalizing rural credit. Agricultural finance was given great importance and a separate department was set up to render help to farmers. Besides encouraging the cooperatives to provide short term credit for agriculture, RBI established 'Agricultural Refinance Corporation' (renamed as Agricultural Refinance and Development Corporation in 1975) in 1963, as separate institution for providing long term finance to farmers. Refinance facilities were available from this Corporation for several agricultural activities such as minor irrigation, land reclamation, etc.

Another major step in providing impetus to farm finances was the nationalization of fourteen commercial banks in 1969. Prior to nationalization,

finance by commercial banks to agriculture was negligible. However, after social control of banks, providing adequate credit to the farm sector for development of agriculture and allied activities, with special reference to weaker sections assumed priority. Under the differential Rate of Interest scheme, the banks registered further progress for lending to priority sector. Also the Lead Bank Scheme made the banks an important instrument of local development in their respective district as the instrument of District Credit Plan was adopted.

Although nationalization of banks served as a catalyst in boosting rural credit, the problem still persisted as a large number of small and marginal farmers could not avail of the benefits of the banking system. Hence following the recommendations of the Narasimhan Working Group (1975), Regional Rural Banks (RRBs) were set up in 1975<sup>1</sup>. The major objective of the RRBs was to mobilize resources from the region and to deploy them within the same region. It was expected that these banks should provide atleast 50 percent of the lending to small and marginal farmers and other weaker sections. The number of RRBs is presently about 196 with over 14000 branches (84 as on January 1, 2010)<sup>2</sup>.

Despite the above mentioned developments in extending credit to the agricultural sector, there was still stress in the rural credit system and the need was felt for a separate management and policy making body and accordingly the National Bank for Agriculture and Rural Development (NABARD) was set up in 1982 with promotion of agricultural sector being its major objective. NABARD has taken over the entire undertaking of ARDC and the refinancing functions of

<sup>&</sup>lt;sup>1</sup>Regional Rural Banks (RRBs) were established in 1975 under the provisions of the Ordinance promulgated on the 26th September 1975 and the Regional Rural Banks Act, 1976 with a view to develop the rural economy and to create a supplementary channel to the 'Cooperative Credit Structure' with a view to enlarge institutional credit for the rural and agriculture sector.

<sup>&</sup>lt;sup>2</sup> The GoI initiated a process of structural consolidation of RRBs by amalgamating RRBs sponsored by the same bank within a State, with a view to provide better customer service by having better infrastructure, computerization, experienced work force, common publicity and marketing efforts etc. The amalgamated RRBs also benefit from larger area of operation, enhanced credit exposure limits for high value and diverse banking activities. As a result of the amalgamation, the number of the RRBs has been reduced from 196 to 82 as on 31 March 2011. The number of branches of RRBs increased to 16001 as on 31 March 2011 covering 620 districts throughout the country.

the RBI to commercial banks for long-term credit, state co-operatives and also RRBs. NABARD also plays an important role in providing micro-credit through Self Help Groups (SHGs).

With liberalization of the economy in 1991, a number of financial sector reforms were introduced. A number of committees/task forces which were constituted to recommend measures to strengthen the rural credit delivery mechanism observed that rural financial institutions are still characterized by several weaknesses and are in poor shape. Thus the financial sector reforms included various measures with respect to rural credit such as deregulation of interest rates of co-operatives and RRBs, deregulation of lending rates of commercial banks for loans above Rs. 2 lakhs, introduction of prudential accounting norms and provisioning requirements for all rural credit agencies, increased refinance support from RBI and capital contribution to NABARD, constitution of Rural Infrastructure Development Fund in NABARD for the purpose of infrastructure projects, introduction of Kisan Credit Cards, etc.

From the above, it can be observed that there have been major interventions by the government in extending credit to the agricultural sector and ensure that it reaches the small and marginal farmers by encouraging banking facilitiesto a large number of villages. However, although the geographical spread and quantum of agricultural credit have increased over the decades since independence, the rural financial institutions suffer from major weaknesses which have greatly affected the viability and sustainability of these institutions. The overall performance of PACS has not been very satisfactory and percentage of overdues to demand is about 30 percent. Other Rural Cooperative Banks and Commercial Banks also have overdues, because of which the financial health of these rural institutions is adversely affected. It was observed (Gulati and Bathala, 2002) that Rural Financial Institutions (RFIs) have failed to accumulate enough resource base, and are unable to mobilize speedy disbursement of credit among various classes of people and regions,

untimely delivery of credit and cumbersome procedures and formalities to transact credit.

In view of the above, the government appointed a number of high level rural credit committees, to suggest measures to overcome the weaknesses in the credit delivery mechanism of RFIs. Since indebtedness among farmers was a major problem which plagued the agricultural sector, the government also followed the policy of rescheduling/restructuring of outstanding loans, one time settlement including partial waiver of interest or loan to small and marginal farmers who were defaulters and also other subsidies were extended to farmers. The government also approved a rehabilitation package for identified 31 districts in four states of Andhra Pradesh, Karnataka, Kerala and Maharashtra which involved a sum of Rs 16978/- crores consisting of Rs 10,579 crore as subsidy/grants and Rs 6399/- crore as loan. Other initiatives include Kisan Credit Card Scheme which has emerged as an effective mode of credit in terms of timeliness, hassle-free operations and documentation. Further, as part of micro finance, NABARD launched a Self Help Group (SHG) linkage programme in 1992. This linkage programme aims to reach the unreached, improve the standard of living of the weaker sections and achieve high deposit, credit mobilization and recovery of loans. The programme initially launched on a pilot basis has now made fast progress with the number of SHGs being financed by banks showing rapid increase. It can thus be observed that the government has made huge efforts to improve delivery mechanism of credit to the agricultural sector. This has resulted in increase in credit flow to agriculture from the formal sector to about 69 percent.

#### **1.4 Informal Sector Credit :**

Despite formal sector credit to agricultural sector at a much lower interest rate gaining importance, these formal institutions are plagued by various problems such as huge overdues, because of which they have achieved only limited success in achieving their goals. An important reason for giving impetus

to rural credit institutions was to prevent cultivators from being exploited by moneylenders who were known to charge usurious rates of interest which was beyond the repaying capacity of the poor cultivators. The institutionalization of rural credit aimed at breaking the monopoly power of moneylenders through wide expansion of banking facilities in rural areas at lower rates of interest. However, although the relative share of non-institutional credit is observed to be declining over the years (see, Table 1.1), and while share of informal credit was 92.7 percent in 1951, it declined to 30.6 percent in 1991 and then again increased to 38.9 percent in 2002. However, in the last decade this share has again declined to 29.7 percent. The fact that remains is that despite strong measures and major reforms initiated by the government to destroy the role of informal sector to provide credit to the farm sector, till date a little less than one-third of borrowing of cultivator households is from non-institutional sources. Hence a large number of factors are responsible for farmers to still be at the mercy of moneylenders and other informal sources.

Some reasons responsible for the survival of the informal sector is that the farmer is often a defaulter with the formal sector and hence has to meet his unsatisfied demand from informal sources. Further, while only production and investment loans can be obtained from formal sector, informal sector also provides for consumption loans. Also formal agencies require collateral and have higher transaction cost, while the informal sector is more flexible. The informal sector thus continued to have presence in the rural credit market because of its inherent strength of flexibility, simple procedures with minimum transaction costs and close personal relations with borrowers.

### **1.5 Other Initiatives for providing rural credit :**

Since credit is a critical input for agriculture, farmers depend upon both formal and informal sources of credit for investment purposes. However, in the recent past, a set of semiformal financial institutions, and known as Microfinance institutions (MFIs) have emerged which are aware of the credit

needs of the rural sector. The main purpose of setting up MFIs is to provide financial services to disadvantaged groups who have been neglected from mainstream banking mainly due to reasons such as poverty, lack of education, and residing in remote, isolated areas. By and large, the microfinance sector in India is characterized by two broad approaches – Bank Self help Group (SHG) Linkage Programme and MFIs categorized into different forms based on their organization such as Mutually Aided Co-operative Societies, Non-banking Financial Companies and NGO- MFIs. The different types of MFI are registered under different legal acts. The SHGs comprise of 15 to 20 members which constitute a co-operative credit society and once linked to a bank may access a given multiple of the pooled savings for disbursement to its members. The SHGs have emerged as a form of 'social collateral' which substitutes other forms of collateral which is mandatory by banks. The uniqueness of microfinance through SHGs is that it is a partnership based approach and encouraged NGOs to undertake not only social engineering but also financial intermediation especially in areas where banking network was not satisfactory. The MFI sector which undertakes the task of financial intermediation is extremely polarized in terms of numbers and loan value.

From the above, it can be observed that all round efforts and initiatives have been taken by the government to ensure the availability of credit to all sections in rural areas. Besides formal and informal sector, a number of new strategies were implemented for larger outreach of credit.

#### **1.6** Minimalist Credit versus Credit Plus Approach :

The need for rural credit to boost the agricultural sector is well known. However, it may be noted that there are two different approaches with respect to the delivery mechanism. The first approach is the "minimalist" or "credit only" approach where only credit is provided with the assumption that it will be used by the beneficiary for economic activity without requiring any additional support while the other approach known as "maximalist" or "credit plus" approach provides in addition to credit other services such as capacity building, through various training programmes, access to markets, information, networking, etc. Several institutions in India have realized that only providing credit is not sufficient as farmers are in great need of extension services to make optimal use of their financial resources which can be converted to increased output. If credit disbursed to the farmer is not used properly, it may lead to a negative outcome. For example, if the farmer uses his credit to purchase spurious inputs, or does not use appropriate fertilizers or pesticides or does not have knowledge about ruling market prices, he may not get any benefit even if he has access to credit. It is in this context that credit plus approach has an important role to play so that farmer is able to realize maximum yield and sell his produce at best possible prices.

There are a number of financial intermediaries which have adopted the "credit plus" approach. There are multipurpose Primary Agricultural Credit Societies like *Krishak Seva Sahakari Sansthas* located in different regions of Maharashtra. While these societies provide short, medium and long-term loans to its members, they also follow the "credit plus" approach by providing various other services to its members. Inputs and services of agricultural machinery such as tractor, threshers, etc. are provided and the society also imparts extension services to its members. Marketing of the produce is also facilitated by the society.

Among the new generation MFIs are prominent ones like BASIX<sup>3</sup> whose main strategy is to provide a comprehensive set of livelihood promotion services which includes Financial Inclusion Services, Agricultural/Business Development Services and Institutional Development Services to rural poor households under one umbrella. The underlying rationale behind the Livelihood Triad strategy is that micro credit alone enables weaker sections in economically dynamic areas to become self-reliant. However, in backward regions, poor people in addition to microfinance need a whole range of

<sup>&</sup>lt;sup>3</sup> For details, see Annexure I.

Agricultural/Business development services such as productivity enhancement, risk mitigation, linkages with market, etc. Since it is not possible to deliver these services in a cost effective manner to individual households which are poor, it is necessary to organize them into groups or informal associations. The formation of such groups and making them function effectively requires institutional development services and hence BASIX adopted the Livelihood Triad strategy. This Livelihood Triad involves the following services:

Box 1.1: BASIX Livelihood Triad

Financial Inclusion services (FINS)	Agricultural / Business Development Services (Ag/BDS)	Institutional Development Services (IDS)
Saving: (Direct and as Business Correspondent)	Productivity enhancement through increase in yield or reduction in costs.	Individual level awareness, skill and entrepreneurship development, building solidarity and trust.
Credit: agricultural, allied and non-farm activities; loans for housing, water & sanitation, vocational training	Risk mitigation (other than insurance) – such as livestock vaccination	Formation of groups, federation, co-operatives, mutual benefits, etc., of producers.
Insurance for lives and livelihoods-health, crop, livestock, microenterprise assets	Local value addition through processing – such as cotton ginning or milk chilling	Accounting and management information systems, using IT
Money transfer, for migrant workers and micro pensions	Alternate Market linkages Input supply, output sales	Building collaborations to deliver a wide range of services
Warehouse receipts	Diversification from farm to allied and non- farm activity	Sector and policy work analysis and advocacy for changes / reforms.

Source:www.basixindia.com

Yet another example of credit plus approach is the SHG-Bank Linkage Programme. Under the SHG-bank linkage programme, NGOs and banks interact with the poor especially women, to form small homogenous groups. These groups collect small sums of money amongst themselves and are taught simple accounting methods to enable them to maintain their accounts. Although individually, it would be impossible for these poor to have savings to deposit in a bank account, the collective savings of all members in the group enable them to open a formal bank account in the name of the group. This serves as the first step in providing them with banking facilities. The pooled savings are then used to disburse small loans to members for meeting their emergency requirements. Since their immediate credit requirement is met, they can avoid borrowing at exorbitant rates of interest from moneylenders. They, thus, experience a sense of empowerment by belonging to a group. Gradually the bank also extends loans to them in multiples of their group savings. Bank loans enable the group to undertake income generating activities. This method of financial intermediation gathered momentum in 1990s and in 1992 NABARD launched the SHG-Bank Linkage programme and promoted the concept of SHG as a potent intervention tool as a part of its rural credit operations.

In India there are three types of SHG models:

- 1. Bank-SHG-Members: In this case, the bank itself acts as a self-help group promoting institution;
- Bank-Facilitating Agency-SHG-Members: In this model, facilitating agencies like NGOs, government agencies or other community based organizations form groups;
- 3. Bank-NGO-MFI-SHG-members: In this form of financial intermediation, NGOs act both as facilitators and microfinance intermediaries. They first form groups, nurture them and train them and then approach banks for bulk loans for lending to SHGs.

NABARD, Small Industrial Development Bank of India (SIDBI), Housing Urban Development Corporation (HUDC) and *Rashtriya Mahila Kosh* (RMK) are some of the institutions that operate as the wholesale financiers of microfinance. As "bulk financiers" they leverage funds from the government, market, donors and lenders for lending to NGOs. Reserve Bank of India and government lend support to SHG-bank linkage programme through policy formulation and regulation, while NABARD acts as a facilitator and a refinancing agency.

Besides the above, another form of credit plus approach is the formation of SHGs promoted by MFIs that focus on savings and credit and also provide training to its members. For example, *Chaitanya* is one of the pioneers of community based micro-finance institutions in India. It facilitated the formation of *Grameen Mahila Swayamsiddha Sangh*, the first federation of SHGs in Maharashtra, located in Khed taluka of Pune district. There are now fourteen federations in seven districts of Maharashtra. However, the SHG-bank-linkage model is more prominent in India.

From the above, it can be observed that there exists a wide spectrum of emerging models of SHG based institutions to meet the credit needs of the disadvantaged groups for whom provision of financial intermediation services is very costly and risky. This is because they have irregular income streams and expenditure patterns, are unable to provide collateral, suffer from inability to make productive use of loans which causes them to become defaulters by the banking system, etc. Micro finance, thus, helped to rescue them and emerged as a powerful instrument to empower the poor who were neglected by the mainstream banking industry, by providing not only credit but also adopting a "credit plus" approach. The organizations which participated in microfinance activities were non-profit organizations, private companies, financial institutional and registered banks. Different microfinance institutions are registered under different legislations.

#### **1.7** Objectives of the Study:

Given the above-stated background about status of credit in India as well as the emerging concept of credit plus approach, the board objectives of this research study are as follows:

- 1. To observe whether all segments of the rural economy interested in credit (including allied agricultural activities) are really getting access to credit, and whether credit is being efficiently delivered to them in right quantity, and at appropriate terms and conditions, which is affordable to them.
- 2. To ascertain whether the terms and conditions of credit are consistent with the prevailing norms of equality – i.e., whether government interventions and regulations are sound enough to get rid of imperfections in the market for credit.
- 3. To determine whether available credit is being complemented by necessary extension services either from government extension agencies or, directly from credit agencies so as to contribute to livelihood promotion of borrowers across farm and non- farm activities and sustainability of both borrowers and lenders.
- 4. To assess whether government policy of cheap and concessional credit including loan waivers are contributing to efficiency, equity and sustainability of credit for rural households- i.e., to what extent government policy of the last several years has contributed to the first three objectives of this study.
- 5. To suggest a road map in terms of policy measures and innovative schemes to remove the gaps in existing credit policy and regulations, so as to strengthen the first three objectives of credit.

#### **1.8 Organization of the Study:**

The study is divided into nine chapters. Chapter one, which is an introductory chapter presents share of formal and informal sources of credit, performance of formal sector credit institutions, informal sector credit, other initiatives for providing rural credit, minimalist credit versus credit plus approach and objectives of the study. The coverage, sampling design, description of study area and characteristics of sample borrowers are presented in Chapter II. Chapter III presents the potential and actual access across credit sources and across villages. The basic quantitative attributes of loans, dimensions behind interest rate calculations loan purpose, uses of loan collateral, terms and conditions for loan repayment, incidence of loan overdue and the reasons thereof, recourses generally available to borrowers in cases of non-willful default are presented in Chapter IV. Chapter V presents the estimates of borrower transaction costs. Chapter VI presents types and extent of interlinked transactions and 'Credit Plus' Approach. The probing extension services in the context of rural credit, importance of different sources of extension information, effectiveness of different types of extension services in agriculture/allied activities/ among borrowers are presented in Chapter VII. Agricultural Debt waiver and debt Relief Scheme along with findings from field survey are presented in Chapter VIII. The last chapter presents the summary, conclusions and recommendations of the study.

## Coverage, Sampling Design, Description of Study Area and Characteristics of Sample Borrowers

#### 2.1 Sampling Design:

As mentioned in earlier chapter, the present study attempts to analyze both borrower and lender behavior under alternative systems of credit. Thus, main focus of the study was on analysis of lenders' side data across selected Scheduled Commercial banks (SCB), selected RRBs, selected PACS, selected Multipurpose Cooperatives and Microfinance Institutions.

In view of the large numbers of farmers' suicide recorded in *Vidarbha*<sup>1</sup> Region of the Maharashtra State, suitable sample from the appropriate cluster [such that all forms of credit organizations – both formal (namely, scheduled commercial banks (SCBs), RRBs, primary agricultural credit societies (PACS) or multipurpose PACS, branches of district central cooperative banks (DCCBs)) and non-formal (namely, traditional money-lending organizations, and MFIs – whether promoted by government, NGO or NABARD as non-profit entities, or promoted by private bodies for profit-making (called NBFCs<sup>2</sup>)) are functioning ] were selected. In order to get the impact of cooperative structure, one village from Kolhapur district near Warana Cooperative was selected.

<sup>&</sup>lt;sup>1</sup> Vidarbha region of Maharashtra state consists of eleven districts, viz. Akola, Amravati, Yavatmal, Washim, Buldhana, Wardha, Nagpur, Chandrapur, Gadchiroli, Gondiya and Bhandara.

<sup>&</sup>lt;sup>2</sup> It is important to distinguish between two categories of NBFCs, in view of their emphasis on creditplus activities. Whereas BASIX seems to have a strong credit-plus bias, the other NBFC MFIs are mostly following 'minimalist credit' policy. So, in order to have a strong focus on credit versus credit-plus approaches, it is necessary to select villages where BASIX and multipurpose PACS are functioning, alongside SCBs/RRBs/PACS and non-BASIX type MFIs. Since only formal credit institutions (SCBs/RRBs/Coops) are entitled to offer benefits of loan waiver or relief, it is also necessary to ensure existence of these formal credit institutions within selected villages. These villages, moreover, belong to a common agro-climatic region within a state.

Given the fact that a village is likely to be catered by several credit institutions, a careful choice of villages was made. For example, while choosing a village mainly catered by SCBs/RRBs, it was ensured that these lending organizations have a major or at least significant share in that village. As other lending agencies are likely to be there in the same village, contestability across lenders is likely to get reflected, if sample households are suitably chosen. As MFIs constitute a very small share in the national context, the area within a state needs to be chosen such that MFIs are significantly present (with, say, at least 10% share) in the selected villages. Given rather low order of penetration of micro-finance institutions (MFIs) in the district as a whole, but presence of clusters of such organizations, Panhala taluka of Kolhapur district and Akot taluka of Akola district as a cluster of MFIs were chosen in the first place, before selecting village/s from that cluster such that all forms of credit organizations in those villages were taken together to test contestability across various lending organizations, as mentioned above.

One village from Panhala taluka of Kolhapur district and two villages from Akola taluka of Akola district were chosen with each having the dominant presence of at least one of the following sources of credit - namely, SCBs/RRBs, PACS, multipurpose PACS, and MFIs. This allow for assessment of the performance of the institutions providing only credit or credit plus services. Thus, total of three villages, i.e. Amboda and Chohotta bazaar from Akot Tahsil of Akola district and Baheriwadi, Panhal taluka of Kolhapur district was selected. Once 3 villages were selected, ensuring functioning of all types of formal and non-formal lending institutions, three different types of questionnaires for these villages were canvassed – (i) a village questionnaire to identify and record village level demographic, land use, infrastructure, and government (schematic) intervention parameters, which may have an impact on credit delivery and credit use; (ii) lender-level questionnaire to seek some

broad information from 2 or 3 major lending organizations<sup>3</sup> within each selected village on their business and experience on loan waiver/relief; and (iii) a questionnaire to perform complete enumeration of all village households<sup>4</sup> on the basis of some of their credit experiences both before March 2007 (the cutoff date for loan waiver/relief scheme) and after March 2008 (the announcement date for the above-mentioned scheme), so that a suitable stratified sample of borrower households together with suitable controls can be drawn for the last stage of data collection.

From each village, 50 sample farmer households from agriculture and allied activities were drawn. Thus, the study covered data from a maximum of 150 (50 x 3) households from 3 villages. While structured questionnaires were designed to extract some common quantitative information of each lending branch, utmost emphasis was placed on qualitative case analysis through interaction with the lending organizations. The various sources of credit were classified as formal, semiformal and informal. Formal sources are again categorized into two- formal 1, which includes scheduled government or private commercial banks and RRBs, and formal2 includes all types of cooperative banks-namely, PACS, multi-purpose PACS and their higher tier bodies. Again, semi-formal source has two components, the first referring to MFIs promoted by government /NABARD/NGOs, whereas the second refers to only those MFIs which are promoted by private NBFCs. Informal sources of credit are divided into two categories -the first includes only traditional moneylenders whereas the second includes all other informal lenders like friends, relatives, traders, merchants, grocery shop owners, etc.

<sup>&</sup>lt;sup>3</sup> Obviously, these questionnaires were canvassed to only formal sector credit institutions – SCBs, RRBs and Coops., though all of them did not respond quickly or did not respond at all. Given our understanding with BASIX, we could able to procure some information from local BASIX field offices. We have assured the organizations that all such information are to be preserved as confidential and not to be used for any purpose other than this research project of the Ministry of Agriculture.

<sup>&</sup>lt;sup>4</sup> If a village is too large in terms of number of households, some representative hamlets of that village (not exceeding 300 households) are used for complete enumeration. In that case, only those households covered under complete enumeration constitute the population from which the sample was drawn.

It was expected that the data collected would highlight the distinctive characteristics of households not availing credit, those starved of credit, those accessing only non-formal credit, and those getting formal credit with or without loan waiver/relief benefits, besides highlighting differential credit experiences of different borrower groups. Although one-point data may not be sufficient for impact assessment or for sustainability analysis in the true sense of these terms, nevertheless some preliminary or tentative findings can be highlighted for more rigorous testing in the future – preferably with help of a panel type data. The collected data was tabulated and analyzed in order to highlight the role of various exogenous parameters at household level, at village level, at lending institution level and also at broad policy level for the state as a whole.



Map 2.1: Location of the Study Area in Maharashtra State

#### 2.1 Broad Features of Study Villages:

The broad features of the study villages are presented in Table 2.1. It can be seen from the table that all the selected villages or village hamlets are medium sized one. However, there is considerable variation in distribution of landholdings across them. In all the selected village/village hamlets, dominance of small farmers could be noticed. The incidence of landless household is very high in Chohotta Bazar (Akot taluka, Dist Akola), followed by Amboda (Akot taluka, Dist Akola) and lowest was in Baheriwadi (Panhala taluka, Dist Kolhapur). The same pattern was also notice in case of incidence of large farmer households, i.e. it is highest in Chhohotta Bazar (18.8 per cent), followed by Amboda and lowest was in Baheriwadi. The wide variation in household across diverse operational landholdings categories in selected villages ensures an appropriate setting to study the impact of accessibility to credit on livelihood promotion.

Table 2.1: Distribution of Households (HH) by Landholding Status across Sample Villages

Sr.	Village name	Contestability among prominent credit Sources	No of Landless HH	No of small farmer HH	No of large farmer HH	Total
1	Amboda Dist: Akola	PACS, NBFC-MFI	32 (12.60)	189 (74.40)	33 (13.00)	254
2	Baheriwadi Dist: Kolhapur	MPACS, SCB	9 (9.68)	78 (83.87)	6 (6.45)	93
3	Chhohotta Bazar Dist: Akola	RRB, SCB	34 (13.60)	169 (67.60)	47 (18.80)	250

Note: Landless households: Nil landholding; small farmer households: > 0 to =< 2 ha; large farmer household: > 2 ha. MPAC= multipurpose PACS Source: Field Survey data.

The primary activity distribution of selected farmer households across sample villages is presented in Table 2.2. It can be seen from the table that farming is the primary activity for all the selected villages/village hamlets. As Chohotta Bazar is quite a big village and located on Akot Akola main road, the other income activity accounts significant share (26.40 per cent), i.e. more than one fourth of the household from Chohotta bazar have this activity. The allied activity is the less preferred may be due to low irrigation availability and fodder problem.

Village name	Farming	Allied	Other	Total
Amboda	235 (92.52)	3 (1.18)	16 (6.30)	254
Baheriwadi	73 (78.49)	3 (3.23)	17 (18.28)	93
Chohotta Bazar	165 (66.00)	19 (7.60)	66 (26.40)	250

Table 2.2: Primary Activity-wise Distribution of Households across Sample Villages

Note: Figures in parentheses represent % of households across various activities. Source: Field Survey data.

The educational level of farmer plays very important role in decision making and taking risk in farming. Literacy rates across the selected villages are presented in Table 2.3. It can be seen from the table that Amboda village has the highest literacy rate (80 per cent) followed by Chohotta Bazar (65 per cent) and Baheriwadi (60 per cent). Though Chohatta bazaar is relatively big village in term of area and population as compared to Amboda, low literacy rate was observed in selected households.

Table 2.3 Literacy Rates across Selected Villages

Sr No.	Village name	Literacy rate %
1	Amboda	80
2	Baheriwadi	60
3	Chohotta Bazar	65

Source: Field Survey data.

The caste and religious break-up of households across selected villages presented in Table 2.4 indicates that Amboda village of Akot tahsil of Akola district is dominated by hindu SC/ST/OBC lower/reserved community followed by Baheriwadi village (87 per cent). However, upper catse community dominance could be seen in Chohotta Bazar village of Akot tahsil, having 85 percent of households. The muslim community households are very less, ranges from lowest of 1 percent in Amboda to the highest of 12 percent in Baheriwadi. Surprisingly, hamlet enumerated from Chohotta Bazar shows dominance of upper caste group, however, literacy rate is low.

Table 2.4: Caste and Religious break-up of households Across Selected Villages

Sr	Villago namo	% of Hindu households		% of Minority	
No.	v mage name	Upper Caste	SC/ST/OBC	households	
1	Amboda	5	94	1	
2	Baheriwadi	1	87	12	
3	Chohotta Bazar	85	12	3	

Source: Field Survey data.

Table 2.5 presents the land use pattern across selected villages. It can be seen from the table that Amboda and Baheriwadi have more than 93 percent of land under agriculture, while same was 83 percent for Chohotta Bazar. The current and permanent pasture, land under cultivable waste ranges between 5 to 17 per cent across the selected villages.

Table 2.5: Broad Land Use Pattern across Selected Villages

Sr No.	Village name	% of agricultural land in use	% of current & permanent fallow land	% of common property land	% of land under cultivable waste
1	Amboda	96.20	0.00	0.00	3.80
2	Baheriwadi	93.48	1.52	2.02	2.98
3	Chohotta Bazar	83.33	0.00	3.97	12.70

Source: Field Survey data.
Irrigation is the most important element in the steady growth of the agricultural sector. It not only increases agricultural production but also minimizes the uncertainty due to unpredictable rainfall. The percentage distribution of agricultural land by irrigational status across selected villages is presented in Table 2.6. It can be seen from the table that incidence of irrigation which has a direct effect on off-take of agricultural finance varies quite a lot across the sample villages. In contrast to selected households of Amboda village which has about 74 percent agricultural land under irrigation, access to such facility is limited to less than 7 percent of cultivable land in Baheriwadi. However, in case of Chohotta Bazar, all the agricultural land of selected households in unirrigated /rainfed. Thus contrasting features of selected villages in terms of irrigation may likely to influence the access to credit, which is being dealt in the chapters, which follow.

Sr. No.	Village name	Under assured irrigation	Under non- assured irrigation	Under no irrigation (rainfed)
1	Amboda	73.74	14.36	11.90
2	Baheriwadi	6.92	37.73	55.35
3	Chohotta Bazar	0.00	0.00	100.00

Table 2.6 Percentage Distribution of Agricultural Land by Irrigational Status across Selected Villages

Source: Field Survey data.

The infrastructure position of the selected villages is presented in table 2.7. It can be seen from the table that most of the essential facilities are available in/near by the selected villages. After having discussed the broad features of the study villages, it is important to analyze the access to credit by rural households to various sources based on their past experiences as well as their actual experiences in 2009-10. The same is discussed in the next chapter.

# Table 2.7: Distance in Kilometers of Selected Infrastructure Facilities from the Selected Villages

Particulars	Amboda	Bahirewadi	Chohotta Bazar
Panchayat	0	0	0
Railway station	9	18	20
Bus route	2	0	0
Pucca road	0	1	0
Highway	55	11	25
Drinking water	0	23	0
PHC/ hospital	. 1	0	20
Medical store	0	1	0
Veterinary doctor	· 9	3	0
Agri Extension	9	1	· 0
Nearest town	9	1	. 25
Primary school	0	1	0
Secondary school	0.5	0	0
Girls' secondary school	0.5	3	0
Higher secondary school	0.5	· 1	0
ITI College	9	3	20
Post office	0.5	1 .	0
Telephone facility	0	0	0
Police station	9	0	0
Commercial bank	9	3	0
RRB branch	9	0	0
Cooperative	0.5	4	0
NBFC branch	9	17	20
MFI (govt.)	0	0	0
Agri-input retailer	0.5	0	0
Farm machinery provider	9	0	20
Farm machinery repair	0.5	23	0
APMC sub-yard	9	1	0
Regular market	0.5	3	0
Village haat	10	0	0
Fair price shop	2	0	10
Provision store	5	1	0
Petrol pump/ fuel	9	3	0.5
Cinema/theatre	0	0	0
Cable TV		0	0
Self Help Group		0	<u> </u>
Youth Club		0	U 0
rarmers club	U	U	U

Note: Zero indicates that the facility is available inside the village. Source: Field Survey data.

## Chapter 3

## Access to Sources of Credit

#### **3.1 Introduction:**

Access to credit is one of the two most important factors that affect the use of formal credit by the rural needy. The access to credit has three dimensions, namely, the infrastructures for supply of loan, physical access to the infrastructures and eligibility of individuals to borrow (Singh, 2009). In this chapter, an attempt is made to analyze, access to credit by rural households to various sources based on their past experiences as well as their actual experiences in 2009-10. As mentioned earlier, the various sources of credit are classified into three broad classes; formal, semi-formal and informal. Formal sources are again categorized into two- formal 1, which includes scheduled government or private commercial banks and RRBs, and formal 2 includes all types of cooperative banks-namely, PACS, multi-purpose PACS and their higher tier bodies. Again, semi-formal source has two components, the first referring to MFIs promoted by government/NABARD/NGOs, whereas the second refers to only those MFIs which are promoted by private NBFCs. Informal sources of credit are divided into two categories -the first includes only traditional moneylenders whereas the second includes all other informal lenders like friends, relatives, traders, merchants, grocery shop owners, etc.

The two main questions addressed to rural households in the sample villages (namely Amboda and Chohotta Bazar in Akot Tehsil of Akola district, and Baheriwadi in Panhala taluka of Kolhapur district) regarding the above stated sources of credit were – which sources of credit they can potentially access taking into consideration their past experiences and second is which sources they had actually accessed to obtain credit in 2009-10. The former is referred to as potential access, whereas the latter is referred to as actual access.

Both these concepts of access are again defined in gross and net terms. For example, if a household has potential access to scheduled government commercial banks, private commercial banks as well as RRBs, then the household is looked upon as having 3 fold accesses to formal 1 source in gross terms, though in net terms the access is only 1. Gross and net notions are applied to both potential and actual sources of credit.

In this chapter, we have firstly analyzed potential and actual access to credit across sources as well as across sample villages. The next section makes an attempt to relate access thus defined to various attributes of borrower households.

# **3.2 Potential and Actual Access across Credit Sources & Across Village Scenarios:**

The potential and actual access to credit of sample rural households, across all three villages, (i.e. n-150) is indicated in Table 3.1. Table 3.1 reports all the sample households' access in potential and actual terms (with distinction between gross and net access) in columns 2 and 3 of this table. Columns 4 and 5 indicate percentage importance of the various sources of credit considered in both potential and actual sense. The last two columns, i.e., column 7 and 8 display gross access figures as the ratio of the corresponding net access figures for the notion of potential and actual access respectively. These two columns therefore indicate whether or not the household has multiple accesses within the same credit source.

It can be observed from Table 3.1 that formal 2 is the most important source of credit both in potential and actual access. Formal 1 however ranks third in order of importance in terms of actual and potential access. However, formal 1 and formal 2 together account for 67.1 percent of actual access to credit and 59.8 percent of potential access. This indicates that despite various forms of credit and emerging new forms of microfinance, the formal sector plays the key role in access to credit in rural households. Maharashtra is one of the pioneering states in spearheading the cooperative movement and Kolhapur is considered as the home of the cooperative movement in Maharashtra, where the seeds of this movement were sown as early as 1912-13. It is therefore expected that formal 2 would emerge as the major source of actual and potential credit to rural household.

Table 3.1:	Indices	of	access	to	credit	of	all	sample	borrowers	across
sources dur	ing 2009	-1(	) (n=15)	0)						

Source	Access in	Access in	%	%	Actual	Gross	Gross
	potential	actual	Importan	Importanc	Access as	potential	actual
	sense in	sense in	ce of	e of	% of	access as	access as
	numbers	numbers	different	different	Potential	proportion	proportion
			potential	actual	Access	ofnet	of net
1			sources	sources		potential	actual
	ļ					access	access
1	2	3	4	5	6	7	8
Formal 1	32	20	14.9	12.0	62.5		
	(46)	(37)	(18.3)	(19.0)	(80.4)	1.44	1.85
Formal 2	96	92	44.9	55.1	95.83		
	(110)	(98)	(43.7)	(50.3)	(89.1)	1.15	1.07
Semi-	6	4	2.8	2.4	66.7		
formal 1	(8)	(4)	(3.2)	(2.1)	(50.0)	1.33	1
Semi-	16	5	7.6	3.0	31.3		
formal 2	(17)	(5)	(6.8)	(2.6)	(29.41)	1.06	1
Informal	8	4	3.8	2.4	50		
1	(8)	(4)	(3.2)	(2.1)	(50.0)	1	1
Informal	56	42	26.3	25.1	75		
2	(63)	(47)	(25)	(24.1)	(74.6)	1.13	1.12
Total	214	167	100	100	78.04		
	(252)	(195)	(100)	(100)	(77.4)	1.18	1.17

Source: Field Survey Data.

Informal 2 emerged as the second most important source of actual and potential credit to rural households and this share is much larger than informal 1. While share of informal 2 in actual access was 25.1 percent, that of in formal 1 was only 2.4 percent. A more or less similar trend was observed with respect to potential source of credit. This indicates that rural households prefer to borrow from relatives, shop owners, etc rather than depend upon moneylenders as a source of informal credit. The spread of the cooperative movement in Maharashtra also seems to have drastically undermined the importance of village moneylender. With respect to actual access to credit, semi-formal institutions seem to have played a negligible role. The share of semi-formal 1 is only 2.4 percent while that of semi formal 2 is 3 percent in terms of actual access. Semi-formal 2 has a share of 7.6 percent in terms of potential access while semi formal 1 has a share of 2.8 percent. This indicates that rural households are reluctant to tap semi formal institutions, although government is taking steps to promote such sources of credit to the weaker sections.

Cooperative credit is the most important source of credit and accordingly the conversion ratio between potential and actual access is highest for formal 2 (95.83 percent), followed by informal 2 (75 percent). It can be finally observed that across the entire sample of 150 sample households, there is an average of 1.17 units of loans across different sources. This figure is however highest in case of formal 1 which is 1.85.

After observing the importance of different sources of credit for the entire sample, we now look at the data village wise, to observe if the pattern varies over villages. This data is presented from table 3.2 A to 3.2 C.

Table 3.2A: I	indices of access to	credit sources of	of sample bor	rowers of Am	ıboda
during 2009-	·10 (n=50)				

Source	Access in	Access in	%	%	Actual	Gross	Gross
	potential	actual	Importance	Importanc	Access as %	potential	actual
	sense in	sense in	of different	e of	of Potential	access as	access
	numbers	numbers	potential	different	Access	proporti	as
			sources	actual		on of net	proport
				sources		potential	ion of
	(2)				(6)	access	net
(1)		(3)	(4)			(7)	actual
				(5)			access
							(8)
Formal 1	12(12)	12(23)	19.7(17.7)	20.7(31.9)	100(209)	1	1.92
Formal 2	32(32)	31(32)	52.5(51.6)	53.5(44.4)	96.9(100)	1	1.03
Semi-formal							
1	2(2)	2(2)	3.3(3.2)	3.4(2.8)	100(100)	1	1
Semi-formal							
2	1(1)	0(0)	1.6(1.6)	0(0)	0(0)	1	0
Informal 1	1(1)	1(1)	1.6(1.6)	1.7(1.4)	100(100)	1	1
Informal 2							
	13(15)	12(14)	21.3(24.2)	20.7(19.4)	92.3(93.3)	1.15	1.17
Total	61(63)	58(72)	100 (100)	100(100)	95.1(116.1)	1.03	1.24

Source: Field Survey data.

From Table 3.2 A, it can be observed that formal 2 emerges as the most important source of credit to sample rural households in Amboda village with a share of more than 50 percent in both actual and potential terms. While the share of formal 1 is relatively lower at 20.7 percent in terms of actual access, together with formal 2, the share is 74.2. This indicates that formal credit plays a dominant role in actual access to credit and meeting three-fourths of the credit access of sample households in Amboda village. Although cooperatives which belong to formal 2 category are the most important source of credit with a share which is more than double that of Scheduled Commercial banks/RRBs, formal 1 has provided highest number of loans per borrower which is 1.92 as against village sample average of 1.24.

Formal 2 is followed by informal 2, which indicates, that sample households often turn to friends and relatives for credit. The share of informal 2 in terms of actual access is 20.7 percent and the share of potential access is also more or less the same. Semi-formal 1 and 2 seem to play a negligible role in access to credit, although MFI are emerging as an important source of credit.

Table 3.2B:	Indices	of acce	ss to	credit	sources	of sample	borrowers	of				
Baheriwadi during 2009-10 (n=50)												

Source	Access	Access	%	%	Actual	Gross	Gross
	in	in actual	Importance	Importance	Access as	potential	actual
	potential	sense in	of different	of different	% of	access as	access as
	sense in	numbers	potential	actual	Potential	proportion	proportion
	numbers		sources	sources	Access	ofnet	of net
						potential	actual
· ·						access	access
Formal 1	12(25)	1(2)	12.1(18.9)	1.7(2.9)	8.3(8)	2.08	2.00
Formal 2	41(54)	38(44)	41.4(40.9)	63.3(63.8)	92.7(81.5)	1.32	1.16
Semiformal 1	4(6)	2(2)	4(4.6)	3.3(2.9)	50(33.3)	1.50	1.00
Semiformal 2	14(15)	5(5)	14.1(11.4)	8.3(7.3)	35.7(33.3)	1.07	1.00
Informal 1	4(4)	1(1)	4.1(3.3)	1.6(1.5)	25(25)	1.00	1.00
Informal 2	24(28)	13(15)	24.2(21.1)	21.7(21.8)	54.2(53.5)	1.17	1.15
Total	99(132)	60(69)	100(100)	100(100)	60.6(52.3)	1.33	1.15

Source: Field Survey Data.

In Table 3.2 B indices of access to credit sources of sample borrowers in Baheriwadi village in Panhala taluka of Kolhapur district. Baheriwadi also seems to follow the same pattern as Amboda village with formal 2 being the most dominant source of actual credit and having a share of 63.3 percent. With respect to potential source also, formal 2 was most important. Kolhapur is a leading district with respect to cooperative movement and hence cooperatives as a dominant source of credit are expected. However, the average number of loans per borrower was highest for formal 1 which was 2 as against the village average of 1.15.

Table 3.2C: Indices of access to credit sources of sample borrowers of Chohottabazar during 2009-10 (n=50)

			· · · · · · · · · · · · · · · · · · ·	1	· <del>····································</del>		
Source	Access	Access in	%	%	Actual	Gross	Gross
	in	actual	Importance	Importance	Access as	potential	actual
	potential	sense in	of different	of different	% of	access as	access as
	sense in	numbers	potential	actual Potential		proportion	proportion
	numbers		sources	sources	Access	ofnet	ofnet
			i			potential	actual
						access	access
Formal 1	8	7	17.0	15.2	87.5	· · · · ·	
	(8)	(12)	(16.3)	(22.2)	(150.0)	1	1.71
Formal 2	21	21	42.5	45.7	100.0		
	(21)	(22)	(42.9)	(40.7)	(110.0)	1	1.05
Semiformal 1	0	0	0	0	0		
	(0)	(0)	(0)	(0)	(0)	0	0
Semiformal 2	0	0	0	0	0		
	(0)	(0)	(0)	(0)	(0)	0	· 0
Informal 1	2	0	4.3	0	0		
	(2)	(0)	(4.1)	(0)	(0)	1	0
Informal 2	17	16	36.2	34.8	94.1		
	(18)	(18)	(36.7)	(33.3)	(100.0)	1.06	1.13
Total	48	46	100	100	97.9		
	(49)	(54)	(100)	(100)	(112.5)	1.02	1.17

Source: Field Survey Data.

Rural households surveyed in Baheriwadi village, next tapped informal 2 to meet their credit needs. The role of the moneylender, represented by informal 1 seems to be disappearing and the share of informal 1 is only 1.6 percent. The share of semi formal institutions in actual access is 11.6 percent and within semi formal, it is mainly semi formal 2 which is dominant. This indicates that first of all households seldom prefer such sources of finance and if they do access this source, it is mainly from semi formal 2 which refers to MFIs promoted by NBFCs.

In Table 3.2 C the findings with respect to sources of credit for Chohottabazar are presented. It can be observed from Table 3.2 C that formal 2 is the most important source of actual and potential credit, followed by informal 2 and then formal 1. Semi-formal 1 and 2 and informal 1 played no role as a source of potential or actual access to credit. It therefore appears that although MFIs are emerging as a source of credit, rural households in Chohottabazaar did not look upon them as a source of credit. Even money lenders were hardly considered to be a source of potential access and no borrower actually accessed loan from informal 1.

#### **3.3 Potential and actual Access related to selected borrower attributes:**

In this section, an attempt is made to relate different borrower attributes to the indices of access as discussed in the previous section. The various attributes of borrowing households considered are caste, religion, poverty status, agricultural landholding status, level of education and borrowing status. The indicators of attributes are presented separately from Table 3.3 to 3.7.

In Table 3.3 access of borrowers to credit classified by caste and religion are presented for the entire sample size of 150 rural households across the three villages. It can be observed from Table 3.3 that in terms of potential access, all upper caste had access to formal 2 followed by little more than half of them had access to informal 2 sources. About 44 percent of upper caste had potential access to formal 1. However, their potential access to other sources such as semi-formal 1, semi formal 2 and informal 1 was negligible. In terms of actual access, it is observed that 86 percent of upper caste resorted to formal 2 and hardly tapped other sources of credit. In formal 2, upper caste converted their potential access into actual access to the tune of 84.31 percent.

With respect to SC/ST/OBC, it appears that more than half of them, i.e 57 percent, had potential access to formal 2 and 33 percent had access to informal

2. Only 14 percent could tap formal 1 while 3 percent could tap other sources such as semi formal 1 and 2 and informal 1. For actual access also formal 2 was the main source followed by formal 1 and then informal 2. Their conversion ratio between potential and actual loan realization was very high for all sources except semi formal 2. Minority class seldom borrowed credit but in case of those who accessed credit depended upon formal 2 or informal 2.

Sources of credit		Potential			Actual		Actual access			
		access			access		as %	as % of potential access		
	Upper caste	SC/ST/ OBC	Minority	Upper caste	SC/ST/ OBC	Mino rity	Upper caste	SC/ST/ OBC	Minority	
Formal	22	19	5	5	32	0				
1	(47.9)	(41.3)	(10.9)	(13.5)	(86.5)	(0)	22.73	168.42	0	
Formal	50	53	6	43	51	4				
2	(45.9)	(48.6)	(5.5)	(43.9)	(52)	(4.1)	84.31	96.23	66.67	
Semi-	5	3	0	1	3	0				
formal 1	(62.50)	(37.5)	(0)	(25)	(75)	(0)	20	100	0	
Semi-	13	3	1	5	0	0				
formal 2	(76.5)	(17.7)	(5.8)	(100)	(0)	(0)	38.46	0	0	
Informal	4	3	1	1	3	0				
1	(50)	(37.5)	(12.5)	(25)	(75)	(0)	25	100	0	
Informal	29	31	3	17	29	1				
2	(46)	(49.2)	(4.8)	(36.2)	(61.7)	(2.1)	58.62	93.55	33.33	
All	50	93	7	50	93	.7	50	93		
	(33.33)	(62)	(4.67)	(33.33)	(62)	(4.67)	(33.33)	(62)	7(4.67)	

Table 3.3: Access of borrowers to credit classified by caste and religion

Note: Figures in parentheses indicate percentages of row total for columns (2) & (3) Source: Field Survey Data.

After observing caste, access to credit by poverty status is indicated in Table 3.4. It can be observed that out of the total sample size across three villages, 39 percent of borrowers were from BPL category while 61 percent belonged to APL category. It can be observed from Table 3.4 that BPL households had the potential to tap formal 2 and informal 2 better as compared to other sources of credit and the same is observed with respect to actual access. The APL households had maximum preference for formal 2, followed by informal 2 and then formal 1. Only 5 percent of them preferred informal 1. With respect to conversion of potential access to actual access, it was very high for formal 1 and 2 and also informal 2.

Source	Source Potential			tual	Actual access	
	acce	SS	acc	ess	as % of potential access	
	2009	-10	200	9-10		
	BPL APL		BPL	APL	BPL	APL
Formal 1	14(30.0)	32(70.0)	10(27.0)	27(73.0)	71.43	84.38
Formal 2	36(32.7)		32(32.7)	66(67.4)	88.24	89.19
Semi-formal 1	2(25.0)	6(75.0)	3(75.0)	1(25.0)	150	16.67
Semi-formal 2	6(35.3)	11(64.7)	1(20.0)	4(80.0)	16.67	36.36
Informal 1	3(37.5)	5(62.5)	2(50.0)	2(50.0)	66.67	40
Informal 2	23(36.5) 42(66.7)		18(38.3)	29(61.7)	78.26	73.81
All (n=150)						
	58(38.67)	92(61.33)	58(38.67)	92(61.33)	58(38.67)	92(61.33)

Table 3.4: Access of borrowers to credit classified by their poverty status

Source: Field Survey Data.

In Table 3.5 access of borrowers to credit classified by their agricultural landholding status is indicated across the entire sample size of 150 rural households of the three villages. It is observed from the sample size that 76 percent are small farmers while 15 percent are large farmers. About 9 percent from the sample were landless. It can be observed that out of total landless households, borrowing from informal 2 is the most preferred source. However, their conversion rate between potential and actual access is high with respect to formal 2, semi formal 1 and informal 2 sources.

Small farmers which dominate the sample size, preferred formal 2 as the most important source of credit for which the conversion ratio between potential and actual access is 86.81 percent. Informal 2 and formal 1 could also be tapped by the small farmers and were also accessed. Large farmers depended mainly on formal sources, never approached informal 1 and only one respondent felt that semi-formal could be a potential source of credit. The conversion ratio from potential to actual access was more than 100 percent for formal 1 and 2.

Source	Potential				Actual		Actual access		
		access			access		potential access		
	1	2009-10		i	2009-10				
	Landless	Small farmer	Large farmer	Landless	Small farmer	Large farmer	Landl ess	Small farmer	Large farmer
Formal 1	3(6.5)	33(71.8)	10(21.7)	0(0)	25(67.6)	12(32.4)	0	75.76	120
Formal 2	3(2.7)	91(82.7)	16(14.5)	2(2)	79(80.6)	17(17.4)	66.67	86.81	106.25
Semi- formal 1	1(12.5)	6(14)	1(1)	1(25)	2(50)	1(25)	100	33.33	100
Semi- formal 2	2(11.7)	14(82.4)	1(5.9)	0(0)	5(100)	0(0)	0	35.71	0
Informal 1	1(12.5)	7(87.5)	0(0)	0(0)	4(100)	0(0)	0	57.14	0
Informal 2	6(9.5)	51(81)	6(9.5)	6(12.8)	37(78.7)	4(8.5)	100	72.55	66.67
All (n- 150)	13 (8.7)	114 (76)	23 15.3)	13 (8.7)	114 (76)	23 (15.3)	13 (8.7)	114 (76)	23 (15.3)

Table 3.5: Access of borrowers to credit classified by their agricultural landholding status

Note: Figure in parentheses indicate percentages of row total. Source: Field Survey Data.

In Table 3.6 access of borrowers to credit classified by maximum level of education among adult household members is indicated across 150 households in the three selected villages. From the sample size, it can be observed that 54 percent of the sample rural households were educated, 30 percent were highly educated and 15 percent were literate. Only 2 percent of the sample households were illiterate. It can be observed from Table 3.6 that formal 2 was the main source of potential credit for illiterate households and also converted into actual access. The literate households depended more on informal 2, followed by formal 1 as the potential source of credit. About 76 percent of the educated class could tap formal 2 as a potential source of credit and actually accessed it as indicated by a conversion ratio of 86.9 percent. The highly educated also preferred formal 2 as a potential source with a conversion ratio of 94.3 percent.

1		2			3				4			
Source		Potenti	al access	;	Actual access			Actual access				
									as % of potential			
										access		
	2009-10				2009-10							
	IL	L	E	HE	IL	L	E	HE	IL	L	Е	HE
Formal	0	9	21	16	0	12	15	10				
1	(0)	(19.6)	(45.7)	(34.8)	(0)	(32.4)	(40.5)	(27)	0	133	71.4	62.5
Formal	3	11	61	35	3	9	53	33			· . •	
2	(2.7)	(10)	(55.5)	(31.8)	(3.1)	(9.2)	(54.1)	(33.7)	100	81.8	86.9	94.3
Semi-	0		5	3	0	0	4	0				
formal 1	(0)	0(0)	(62.5)	(37.50	(0)	(0)	(100)	(0)	0	0	80	0
Semi-	0	1	9	7	0	0	3	2				
formal 2	(0)	(5.9)	(52.9)	(41.2)	(0)	(0)	(60)	(40)	0	0	33.3	28.6
Informal	1	1	4	2	1	0	1	2				
1	(12.5)	(12.5)	(50)	(25)	(25)	(0)	(25)	(50)	100	0	25	100
Informal	0	12	32	19	0	10	26	11				
2	(0)	(19.1)	(50.8)	(30.16)	(0)	(21.3)	(55.3)	(23)	0	83.3	81.3	57.9
All (n=	3	22	80	45	3	22	80	45	3	22	80	45
150)	(2)	(14.7)	(53.3)	(30)	(2)	(14.7)	(53.3)	(30)	(2)	(14.7)	(53.3)	(30)

Table 3.6: Access of borrowers to credit classified by maximum level of education among adult household members

Note: Figure in parentheses indicate percentages of row total; IL- Illiterate; L- Literate= just literate, who knows the three R's; E- Educated=Above secondary; HE- Highly educated=Above graduation. Source: Field Survey

In Table 3.7, access of borrowers to credit classified by their borrowing status in 2007-08 across all three villages is indicated. The year 2007-08 is selected because the Union Finance Minister announced a complete waiver of all farm loans, that became overdue on December 31, 2007 and which remained unpaid till February 27, 2008 taken by three crore marginal and one crore small farmers. This waiver had to be implemented by all scheduled commercial banks, RRBs and co-operative credit institutions. The scheme covered entire waiver of "eligible amount" in case of small or marginal farmer, while one time settlement (OTS) in case of other farmers operating on land more than 2 hectares. In case of OTS, the farmer will be given a rebate of 25 percent of the "eligible amount" subject to the condition that the farmer pays 75 percent of the "eligible amount".

From Table 3.7, it can be observed that out of the total rural households in the sample, 43 percent of them enjoyed the benefits of loan waiver, while 20 percent had access to formal source but did not get the benefit of loan waiver. It was also observed that 7 percent of the sample size did not get loan, 13 percent did not apply for loan and 16 percent had access exclusively to informal source.

In case of those households who did not get loan (category 1), their potential access was mainly formal sources. With respect to those who did not apply for loan in 2007-08, they considered formal sources more as their potential source of credit and also converted it into actual credit. However, they access all sources of credit.

							-								
(1)		(2)				(3)				(4)					
Source	Potential					Actual			Actual access						
ļ			access	5				access			as percentage of potential				
			2009-1	.0			2009-10						access		
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
n= 150	11	20	65	30	24	11	20	65	30	24	11	20	65	30	24
Į	(7.3)	(13.3)	(43.3)	(20)	(16)	(7.3)	(13.3)	(43.3)	(20)	(16)	(7.3)	(13.3)	(43.3)	(20)	(16)
Formal	4	10	25	6	1	0	9	17	9	2					
1	(8.7)	(21.8)	(54.4)	(13.1)	(2.1)	(0)	(24.3)	(46)	(24.3)	(5.4)	0	90	68	150	200
Formal	4	15	65		2	0	14	60	22	2					
2	(3.6)	(13.4)	(59.1)	24(21.8)	(1.8)	(0)	(14.3)	(61.2)	(22.5)	(2)	0	93.33	92.31	91.67	100
Semi-	0	3	5		0	0	2	1	1	0					
formal 1	(0)	(37.5)	(62.5)	0(0)	(0)	(0)	(50)	(25)	(25)	(0)	0	66.67	20	0	0
Semi-	2	4	9	2	0		3	2	0	0					
formal 2	(11.8)	(23.5)	(52.9)	(11.8)	(0)	0(0)	(60)	(40)	(0)	(0)	0	75	22.22	0	0
Informal	2	1	4		1		1	3	0						
1	(25)	(12.5)	(50)	0(0)	(12.5)	0(0)	(25)	(75)	(0)	0(0)	0	100	_75	0	0
Informal	4		30	9	15	10	24	29	102	36	63	45	71	45	69
2	(6.4)	5(7.9)	(47.6)	(14.3)	(23.8)	(5)	(12)	(14)	(51)	(18)					

Table 3.7: Access of borrowers to credit classified by their borrowing status in 2007-08

With respect to category 3 households who accessed formal sources and enjoyed loan waiver, obviously formal sources, especially formal 2 was their potential source. They have converted potential into actual access with respect to formal sources and also informal 1 and 2. In case of those households who

Notes: Figure in parentheses indicate percentages of row total; 1 = Did not get loan, 2 = Did not apply for loan, 3 = Had access to formal source & enjoyed loan waiver benefit; 4 = Had access to formal source, but didn't get loan waiver benefit; 5 = Had access exclusively to informal source Source: Field Survey Data.

had access to formal source but did not enjoy loan waiver, formal 1 and informal 2 were the potential sources of credit. However, conversion of potential access to actual access was 150 percent for formal 1. It was also high (91.6 percent) for formal 2, followed by 45 percent for informal 2.

In case of the category who had to rely exclusively on informal sources, about 62 percent felt that they had to rely on relatives and friends for credit. Only 1 or 2 sample households felt that they had access to formal sources which they actually accessed.

Overall, it can be concluded from this chapter that, the cooperative banking sector has emerged as an important source of potential credit with a capacity to convert potential into actual provider of credit as compared to other sources. Commercial banks and RRBs have lower actual and potential access as compared to cooperative sector but have delivered more units of loan as compared to any other source. Informal 2 also emerged as an important source of credit which covers a host of lenders such as friends, relatives, local shopkeepers, etc. The dependence on moneylenders which have great traditional strength in providing credit to rural households seems to be diminishing and sample households barely resorted to them as a potential and actual source of credit.

Although MFIs promoted by government/NABARD/NGOs as well as those promoted by NBFCs are gaining popularity, and are looked upon as an important source of finance for the weaker sections, they did not emerge as an important actual or potential source for rural households in the sample. Relating household attributes to their experiences of loan access from several lending categories, it was observed that with respect to caste, the upper caste as well as SC/ST/OBC, mainly had potential access to formal 2 while minority class had very few borrowers. Looking at poverty status, it was observed that BPL borrowers mainly accessed formal 2, while in case of APL households, they accessed formal 2, followed by informal 2 and formal 1. Access to credit classified by landholding status indicated that landless households in the

sample mainly resorted to informal 2, while small farmers resorted to formal 2, followed by informal 2 and then formal 1. Large farmers mainly tapped formal sources. The access of borrowers to credit by maximum level of education revealed that that formal 2 was the main source of potential credit for illiterate households and also converted into actual access. The literate households depended more on informal 2, followed by formal 1 as the potential source of credit. The educated and highly educated mainly tapped formal 2, followed by formal 1.

With respect to borrowing status, it was observed that in case of those households who did not get loan (category 1), their potential access was mainly formal sources. With respect to those who did not apply for loan in 2007-08, they considered formal sources more as their potential source of credit and also converted it into actual credit. For category 3 households who accessed formal sources and enjoyed loan waiver, obviously formal sources, especially formal 2 was their potential source. They also converted potential into actual access with respect to formal sources and also informal 1 and 2. In case of those households who had access to formal source but did not enjoy loan waiver, formal 1 and informal 2 were the potential sources of credit.

After having discussed about the access to the credit, it is equally important to know the terms and conditions of loan payment and repayment. The next chapter presents the same.

# **Terms and Conditions of Rural Credit**

### 4.1 Backdrop

The provision of credit has increasingly been regarded as an important tool for raising the incomes of rural populations, mainly by mobilizing resources to more productive uses. As development takes place, one question that arises is the extent to which credit can be offered to the rural poor to facilitate their taking advantage of the developing agricultural and allied activities. The generation of self-employment in non-farm activities requires investment in working capital. However, at low levels of income, the accumulation of such capital may be difficult. Under such circumstances, increasing family income, can help the poor to accumulate their own capital and invest in employment-generating activities (Hossain, 1988).

The rural credit policy of the government essentially lays emphasis on augmenting credit flow to rural farm and non-farm borrowers, as well as providing them credit on more favorable terms through credit planning, adoption of region-specific strategies, rationalization of lending policies and procedures, and bringing down the cost of borrowing. Thus, credit being a package of services provided has multifarious attributes. It is not a standard package of services, and hence its attributes vary over time and space as per the demands of the borrower and supply interests of its lender. If rural credit has to be placed on a strong conceptual foundation for policy making, it is important to understand the variations in the multifarious attributes of credit, besides bringing out the stylized pattern therein. An attempt has been made in this chapter to analyse the terms and conditions of rural credit in selected areas.

This chapter is organized as follow. The next section highlights the basic quantitative attributes of loans across the sources. Section 3 brings out different attributers of interests rates observed in the rural context. Section 4 talks of loan purposes. The section 5 highlights the various types of collateral being used by borrowers to access loans, besides bringing out the incidence of loan cases where the borrowers' hold deposits with the loan sources. Section 6 describes the terms and conditions of loan repayment. Section 7 examines the extent of loan default together with their cited reasons. Section 8 describes the common recourse generally available to the borrowers in cases of non-willful default. The last section summarizes the findings besides concluding this chapter.

## 4.2 Basic Quantitative Attributes of Loans:

The basic quantitative attributes of loans across loan sources are presented in Table 4.1. It can be seen from the table that 167 loans have been availed by 150 selected sample households. Out of the total 167 loans availed, major share (55.09 per cent) is generated from cooperative sector followed by the informal-2 (25.15 per cent), i.e., other rural lending agencies like friends, relatives, traders, merchants, shopkeepers, etc. and formal-1 (11.98 per cent) like formal commercial banking sectors and RRBs. Semiformal sources (both SHGs promoted by the government/NABARD/NGOs as well as NBFC promoted MFIs) have meager share even after deliberate choice of village with the presence of an NBFC-MFI.

Though Informal-1 source (traditional rural money lenders) has provided very limited number of loans (i.e. 2.4 percent), it provides the highest amount of loan (28.07 per cent out of total) to the tune of Rs. 49250/- on an average, followed by formal-2 (more than Rs. 34900/- on average, share 19.91 per cent of total) and formal 1 (more than Rs. 27500/- on average, share 15.88 per cent in total). This sample includes borrowers of PACS, provider of short term loan as well as a strong urban cooperative bank which primarily concentrates on mid term loan. This may have reduced the necessity of borrowers to turn towards formal-1 for higher amount of loan. Thus, formal 1 and formal 2 accounts for more than 35 percent of total lending amount in selected area. Informal-2 (i.e., other rural lenders) and formal-2 (i.e., cooperatives), primarily because of the nature of their own activities (e.g., supplying inputs, groceries, medicines etc., or marketing of produce) as well as due to their proximity and closeness to borrower, provide a fairly large component of loan in kind. Formal 1 and semi formal 2 lenders are simply incapable of supplying loan in kind. Thus, only some sources because of the nature of their operations and locational advantages, have comparative advantages in supplying a part of the loan in kind, taking advantage of complementarities between credit and a few pertinent services the borrows needs for effective use of credit, a point which is sometimes lost sight of in policy discussion pertaining to credit.

Loan source	Loan	Kind	Duration	Range of
	amount in	component	in months	annual interest
	Rs	in %		rate (%)*
Formal-1(20)	27850.00	0.00	12.60	6.0-12.5
Formal-2 (92)	34920.65	14.00	13.05	3.0-11.0
Semi-formal1 (5)	26200.00	6.5	13.20	10.0-11.0
Semi-formal 2 (4)	18666.67	0.00	12.00	18.0-24.0
Informal-1 (4)	49250.00	0.00	15.75	24.0-50.0
Informal-2 (42)	18541.46	55.28	13.23	0.0-20.0

Table 4.1: Basic quantitative attributes of loans across loan sources

Notes: Figures in parentheses represent numbers of loan cases arising out of the sample households; \* it is range of rate of annual interest. Source: Field Survey Data.

In terms of average duration of loans, the situation is fairly comparable, though the informal-1 segment seems to have provided longest-duration loans on an average (15.75 months), longest duration for the highest amount of loan, followed by the informal 2 (13.23 months), semi-formal 1 (13.20 months), formal 2 (13.05 months), formal 1 (12.6 months) and the lowest duration of loans was recorded in case of semi-formal 2 (12 months).

The average rate of interest charged by the different sources together with their minimum and maximum values. Since the duration of loan varies across sectors, annual basis comparison can be made. However, this type of comparison may be quite misleading when an urgent loan given for short period of time (loan taken for a day or for some days). Thus, comparison made here is at best an imperfect one. It can be seen from the table that comparison of rate of interest between the semi formal 1 and informal 2 is somewhat comparable, though the rate is least for cooperatives, and second least for commercial banks and RRBs. As expected, the estimated annual figure is the highest for traditional moneylenders.

### 4.3 Dimensions behind Interest Rate Calculations

Table 4.2A present the loan cases classified on the basis of interest rate calculations and sources. The basis could be daily, monthly, yearly, for the total duration, or, simply unknown to the borrower.

Table 4.2A: Loan cases classified on the basis of interest rate calculations & sources

Loan sources	Couldn't say	Daily	Monthly	Annual	Total loan duration	Total loan cases
Eormal 1		0(0)	2(10)	19(00)	0(0)	20(100)
FOIMal-1			2(10)	10(90)		20(100)
Formal-2	2(2.16)	0(0)	7(7.60)	78(84.78)	5(5.43)	92(100)
Semiformal-1	0(0)	0(0)	2(40)	3(60)	0(0)	5(100)
Semiformal-2	0(0)	0(0)	3(75)	1(25)	0(0)	4(100)
Informal-1	0(0)	0(0)	3(75)	1(25)	0(0)	4(100)
Informal-2	4(9.53)	17(40.47)	2(4.76)	11(26.19)	8(19.05)	42(100)
Total	6(3.59)	17(10.17)	19(11.37)	112(67.06)	10(5.99)	167(100)

Note: Figures in parentheses represent row percentages. Source: Field Survey Data.

It can be seen from the table that the distribution of loans across various categories, in which annual basis forms the most dominant category (67.06 per cent), followed by monthly basis, daily basis, total loan duration and 'couldn't say' and with weights of 11.37 per cent, 10.17 per cent, 5.99 per cent and 3.59 per cent, respectively. The dominant basis of interest rate calculation is annual for both formal-1 and formal-2 sources (90 per cent and 84.78 per cent,

respectively). For another major source i.e., informal-2, 40.47 per cent of the loans have called for daily interest charges followed by annualized charges (26.19 per cent). Thus, in case of informal 2, the rate of interest estimate to be daily and yearly basis.

The modes of interest rate collection are presented in Table 4.2B. It can be seen from the table that among the 167 loan cases, as many as 13.77 per cent have zero interest rate, 54.49 per cent have interest charged on flat basis, and 33.53 per cent cases have interest charged on diminishing balance. In case of formal-1 sources, interest charged on diminishing balance is the dominant pattern (75 per cent), though some cases of flat interest charges (25 per cent) are also observed. In informal-2, the dominant pattern is zero interest (47.61 per cent), though there are quite a few cases of interest charging on flat and diminishing balance mode (35.71 per cent and 16.67 per cent, respectively). Charging merely zero interest rate may be a sign of good gesture by the neighbours in need.

Loan sources	Nil (zero)	On flat rate	On diminishing	Total loan	
			balance	cases	
Formal-1	0(0)	5(25)	15(75)	20(100)	
Formal-2	0(0)	29(31.52)	63(68.48)	92(100)	
Semiformal-1	0(0)	2(40)	3(60)	5(100)	
Semiformal-2	0(0)	2(50)	2(50)	4(100)	
Informal-1	0(0)	3(75)	1(25)	4(100)	
Informal-2	20(47.61)	15(35.71)	7(16.67)	42(100)	
All cases	23(13.77)	91(54.49)	56(33.53)	167(100)	

Table 4.2B: Modes of interest rate collection across loan sources

Note: Figures in parentheses represent row percentages. Source: Field Survey Data.

The incidence of upfront collection of interest and extent of incentives (through lower interest rate) for repayment on time/ earlier is presented in Table 4.2C. It can be seen from the table that incidence of upfront collection of interest is found to be highest among the informal 1. On the other hand, regarding the extent of use of incentives to induce loan repayment on/before time, formal-2 source has the highest record of 25 per cent, followed by formal-

1 (14 per cent) and informal-2 (13 per cent). Neither of the semiformal source nor the traditional money lenders uses this devise. Semiformal lenders could obviate the need for monetary incentive for maintaining a healthy account due to peer pressure. The traditional informal lenders due to their long term relationship as well as proximity to the borrowers could ensure timely recovery of dues without offering any discount.

Table 4.2C: Incidence of upfront collection of interest & extent of incentives (through lower interest rate) for repayment on time/earlier

Loan source	Incidence of upfront collection of interest (proportion)	Extent of incentives for loan repayment on/before time (proportion)
Formal-1(20)	0.15	0.14
Formal-2 (92)	0.07	0.25
Semi-formal1 (5)	0.06	0.00
Semi-formal 2 (4)	0.07	0.00
Informal-1 (4)	0.25	0.00
Informal-2 (42)	0.14	0.13

Note: Figures in parentheses represent numbers of loan cases arising out of the sample households. Source: Field Survey Data.

#### 4.4 Loan Purpose:

During the data collection, the borrowers were asked to reveal the main purpose for which loans were taken from different sources, though they may not be always using the loan for the stated purpose. Thus incidence of adverse usage of loans is not ruled out. The loans cases classified by reported purpose and sources are presented in Table 4.3.

It can be seen from the table 4.3 that among the three main purposes for which loans have been sourced, majority is for production purposes (76.05 per cent), to support consumption (20.36 per cent) and also for human capital investment (for example, for education, medical treatment and marriages) to the extent of 3.59 per cent. Formal sources and informal-2 (includes input dealers) evolve as the dominant players (100 per cent, 88.05 per cent and 50 per cent, respectively) in providing the loan for production purposes. Informal-2 is also the major source of supply of consumption loans. The highest

consumption loans source was Informal 1 (75.0 per cent) followed by semiformal 1 (60 per cent). As consumption loans are not generally supported by the formal sources of credit, it is only through adverse usage of production loans that consumption gets some support from the formal credit sources. The semiformal sources seem to have been supporting all three types of loans, though their major thrust is towards production loans, for understandable reasons. The flexibility as shown by semiformal and informal sources towards openly supporting computation loan is a point which is often lost sight of in providing adequate space to these sectors in our policy exercises.

Loan sources		Total loan		
	Production	cases		
Formal-1	20(100)	0(0)	0(0)	20(100)
Formal-2	81(88.05)	6(6.52)	5(5.43)	92(100)
Semiformal-1	2(40)	0(0)	3(60)	5(100)
Semiformal-2	2(50)	0(0)	2(50)	4(100)
Informal-1	1(25)	0(0)	3(75)	4(100)
Informal-2	21(50)	0(0)	21(50)	42(100)
All cases	127(76.05)	6(3.59)	34(20.36)	167(100)

Table 4.3: Loan cases classified by reported purpose & sources

Note: Figures in parentheses represent row percentages. Source: Field Survey Data.

#### 4.4 Uses of Loan Collateral:

Being inter-temporal transactions between two parties, credit almost invariably demands a token of trust from the borrower to the lender. This token of trust is referred to as security or collateral, which the borrower has to produce to get a loan. Whereas the formal credit sources have traditionally insisted on marketable collaterals, the informal sources are always found to create loans even against non-marketable or no-collateral. Therefore, it would be important to see the different types of collaterals being used by the rural lenders in the selected areas. The loan cases classified by collaterals used and sources are presented in Table 4.4A. It can be seen from the table that out of the 167 loan cases arising among the sample borrowers, in which the most important type of collateral used is mortgaging of farmland (37.12 per cent). Formal-2, informal-1 and informal-2 sources have a strong liking for this type of collateral, weightage of this collateral in their loan portfolio being 56.52 per cent, 50.00 per cent and 19.04 per cent, respectively.

Among the 167 loan cases arising among the sample borrowers, in 22.15 per cent cases, there is no security or collateral. Almost 60 per cent of the loans extended by informal-2 sources fall in this category. This source has also extended a considerable number of loans (23.80 per cent) under personal guarantee. These lenders, due to their nearness as well as intimate knowledge of the borrowers, could extend loan without taking any marketable collateral. Personal guarantee has evolved as one of the major source of collateral (i.e., 34.78 per cent) for formal-2 source.

Sources	No security	Personal guarantee	Group guarantee	Agreement to purchase inputs against loan	Pledge of labor sale in future	Pledge of output sale in future	Farm land mortgage	Livestock mortgage	Residential property mortgage	Physical assets mortgage	Total
	2	18	0	0	0	0	0	0	0	0	20
Formal-1	(10)	(90)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(100)
	8	32	0	0	0	0	52	0	0	0	92
Formal-2	(8.69)	(34.78)	(0)	(0)	_(0)	(0)	(56.52)	(0)	(0)	(0)	(100)
Semi-	2	3	0	0	0	0		0	0	0	5
formal-1	(40)	(60)	(0)	(0)	(0)	(0)	0(0)	(0)	(0)	(0)	(100)
Semi-	1	2	0	0	0	1		0	0	0	4
formal-2	(25)	(50)	(0)	(0)	(0)	(25)	0(0)	(0)	(0)	(0)	(100)
	2	0	0	0	0	0	2	0	0	0	4
Informal-1	(50)	(0)	(0)	(0)	(0)	(0)	(50)	(0)	(0)	(0)	(100)
	22	10	2	0	0	0	8	0	0	0	42
Informal-2	(52.38)	(23.80)	(4.76)	(0)	(0)	(0)	(19.04)	(0)	(0)	(0)	(100)
	37	65	18	0	0	1	62	0	0	0	167
Total	(22.15)	(38.92)	(10.77)	(0)	(0)	(0.59)	(37.12)	(0)	(0)	(0)	(100)

Table 4.4A: Loan cases classified by collaterals used and sources

Note: Figures in parentheses represent row percentages. Source: Field Survey Data. The incidence (proportion) of loan cases having deposits with lender classified by loan source is presented in table 4.4B. It can be seen from the table that formal and semi-informal sources are making use of borrower's deposits with them in building up their confidence to extend loans to such borrowers. The high proportion of loan cases with borrowers having deposit with semiformal-1 source highlights the ever rising importance of this channel as the poor SHG members becoming creditworthy through regular savings.

Table 4.4B: Incidence (proportion) of loan cases having deposits with lender classified by loan source

Loan sources	Proportion of loan cases with borrower having deposit with lender
Formal-1(20)	0.33
Formal-2 (92)	0.29
Semi-formal1 (5)	0.80
Semi-formal 2 (4)	0.29
Informal-1 (4)	0.00
Informal-2 (42)	0.00

Source: Field Survey Data.

### 4.4 Terms and Conditions for Loan Repayment:

The terms and conditions of loan repayment classified by sources are presented in table 4.5A. It can be seen from the table that semi-formal sources found to have provided 8.67 and 12 installments respectively. The highest installment in semi-formal sources is primarily due to monthly repayment schedule. While both the formal sources provide loans for a fairly large duration (for both the cases approximately 13 months), loan of formal-2 source is repaid in 50 per cent installments to that of its formal-1 counterpart. As coops provide loan for short term production loans whose repayment is primarily linked to harvest, they may need lesser installments and hence their repayment schedule is shorter.

Loan source	No. of repayment installments	Proportion of cases with lump sum repayment	Proportion of cases with holiday period allowed in repayment
	mistainnentes	oumropajmone	unon cu ni ropujinome
Formal-1(20)	7.28	0.40	0.00
Formal-2 (92)	3.69	0.79	0.03
	0.07	0.20	0.00
Semi-formal1 (5)	8.67	0.20	0.00
Semi-formal 2 (4)	12	0.07	0.00
Informal-1 (4)	2.67	0.25	0.25
Informal-2 (42)	2.10	0.49	0.11

Table 4.5A: Terms & conditions of loan repayment classified by sources

Note: Figures in parentheses represent numbers of loan cases arising out of the sample households. Source: Field Survey Data.

Although both informal sources are providing moderately long-duration loans (about 16 and 13 months, respectively), they seem to be in favor of lesser number of repayment installments (3 and 2, respectively). The highest incidence of lump sum repayment is observed in formal-2 source (79 per cent), followed by informal-2 (49 per cent). Regarding holiday period traditional rural money lenders are found to have provided maximum flexibility (25 per cent). Table 4.5B: Flexibility rankings in terms loan repayment of loan cases by sources

		As the rank	ting number gr	adually incr	eases flexibi	lity decreases	5
	Could						
Sources	Not say	1	2	3	4	5	Total
	0	1	3	4	2	10	20
Formal-1	(0)	(5)	(15)	(20)	(10)	(50)	(100)
	2	11	17	18	9	35	92
Formal-2	(2.17)	(11.95)	(18.47)	(19.56)	(9.78)	(38.04)	(100)
	0	2	0	3	0	0	5
Semiformal-1	(0)	(40)	(0)	(60)	(0)	(0)	(100)
	0	1	2	1	0	0	4
Semiformal-2	(0)	(25)	(50)	(25)	(0)	(0)	(100)
	0	0	0	2	1	1	4
Informal-1	(0)	(0)	(0)	(50)	(25)	(25)	(100)
	3	21	6	4	2	6	42
Informal-2	(7.14)	(50)	(14.28)	(9.52)	(4.76)	(14.28)	(100)
	5	36	28	32	14	52	167
Total	(2.99)	(21.56)	(16.76)	(19.16)	(8.38)	(31.14)	(100)

Note: Figures in parentheses represent row percentages. Source: Field Survey Data.

The flexibility rankings in terms of loan repayment of loan cases by sources are presented in table 4.5B. It can be seen from the table that the formal sources are somewhat tilted towards relatively rigid range. Both the semiformal sources seem to be somewhere in the middle in terms of flexibility ranking. While informal-1 is observed to be relatively rigid, informal-2 sources tends to relatively more flexible to its clients. This may be due to their intrinsic knowledge about the locality as well as proximity to the borrower which allows close supervision.

### 4.5 Incidence of Loan Overdue and the Reasons thereof:

Table 4.6A and 4.6 B presents the incidence of loan overdue across loan sources in the selected borrowers. Contrary to common belief, default rate is moderately high in informal-2 sector (14.29 per cent and 7.52 per cent, respectively, in terms of loans cases, & loan amount). Both formal sources are generally entrusted responsibility of making large number of small loans to their borrowers in the presence of various government schemes. As a result, it is no surprise that percentage of loan amount overdue in formal sectors is generally smaller (3.75 per cent and 4.55 per cent, respectively), as compared to percentage of loan overdue cases (10 per cent and 8.70 per cent, respectively).

Loan source	% of cases of loan overdue	% of loan amount overdue
Formal-1(20)	10.00	3.75
Formal-2 (92)	8.70	4.55
Semi-formal1 (5)	4.00	2.00
Semi-formal 2 (4)	2.50	5.8
Informal-1 (4)	0.00	0.00
Informal-2 (42)	14.29	7.52

Table 4.6A: Incidence of loan overdue across loan sources

Note: Figures in parentheses represent numbers of loan cases arising out of the sample households. Source: Field Survey Data.

The crop failure (45 per cent cases) followed by low profit/poor income (35 per cent cases) and adverse climatic conditions are two prominent reasons cited by the borrowers for default. Across the sources reason for default is distributed among these three cited reasons.

Sources	Couldn't say	Crop failure	Adverse climatic condition	Capacity failure/ daughter's marriage	Low profit/ poor income	Total number of default cases
Formal-1(20)	0	1	0	0	1	2
	(0)	(50)	(0)	(0)	(50)	(100)
Formal-2	0	3	0	0	5	8
(92)	(0)	(37.5)	(0)	(0)	(62.50)	(100)
Semi-formal1	0	1	1	0	0	2
(5)	(0)	(50)	(50)	(0)	(0)	(100)
Semi-formal	0	0	1	0	0	1
2 (4)	(0)	(0)	(100)	(0)	(0)	(100)
Informal-1	0	1	0	0	0	1
(4)	(0)	(100)	(0)	(0)	(0)	(100)
Informal-2	0	3	2	0	1	6
(42)	(0)	(50)	(33.33)	(0)	(16.67)	(100)
All cases(20)	0	9	4	0	7	20
	(0)	(45)	(20)	(0)	(35)	(100)

Table 4.6B: Loan overdue cases classified by cited reasons & source

Note: Figures in parentheses represent row percentages.

# 4.6 Recourses Generally Available to Borrowers in cases of Non-Willful Default:

The loan cases classified by source & recourses available to borrowers in cases of non-willful default are presented in Table 4.7. It can be seen from the table that the most prominent recourse cited is request for postponement of loan repayment (about 43 per cent), followed by request for postponement of interest repayment (about 37 per cent), requesting extra dose of credit (about 9 per cent) and allowing liquidation of asset (about another 5 per cent). In about 7 per cent of cases, the borrowers fail to provide any response. For formal-1 the prominent recourse is postponement of loan repayment, postponement of interest repayment and allowing extra dose.

Table 4.7: Loan cases classified by source & recourses available to borrowers in cases of non-willful default

Loan sources	Request postpone- ment of	Request postponemen t of interest	Request extra credit	Allow liquid- dation	Couldn't respond anything	Total
	loan repayment	repayment	dose	of asset	•	
Formal-1	3	10	3	0	4	20
	(15)	(50)	(15)	(0)	(20)	(100)
Formal-2	40	40	10	2	0	92
	(43.47)	(43.47)	(10.86)	(2.17)	(0)	(100)
Semiformal-1	1	2	0	0	2	5
	(20)	(40)	(0)	· (0)	(40)	(100)
Semiformal-2	2	1	0	0	1	4
	(50)	(25)	(0)	(0)	(25)	(100)
Informal-1	0	1	0	0	3	4
	(0)	(25)	(0)	(0)	(75)	(100)
Informal-2	15	17	2	6	2	42
	(35.71)	(40.47)	(4.76)	(14.28)	(4.76)	(100)
Total	61(36.52)	71(42.51)	15(8.98)	8(4.79)	12(7.18)	167 (100)

For semiformal-2 the prominent recourses are postponement of loan repayment, postponement of interest repayment, and allowing liquidation of asset in declining order of importance. This source also to certain extent allows extra credit dose. Formal-2 and informal-2 display the maximum order of flexibility or shock absorption power to help the borrowers in the face of unforeseen contingencies. While the former one is the village level people's institution, the later exercises next door neighborhood approach.

#### 4.7 Conclusion:

From the above discussion, it is observed that 167 loans have been availed by 150 sample households. Major share is generated from cooperative sector followed by informal-2 and formal-1. Semi-formal sources have meager share even after deliberate choice of village with the presence of an NBFC-MFI. Informal-1 source though has provided very limited number of loans provides the highest amount of loan followed by formal-2. The borrowers of PACS gets short term loan and mid-term loan. This may have reduced the necessity of borrowers to turn towards formal-1 for higher amount loan. Informal-2 and formal-2 primarily provide a fairly large component of loan in kind. In terms of average duration of loans, the situation is fairly comparable, though the informal-1 segment seems to have provided longest-duration loans on average, longest duration for highest amount of loan. Educated and highly educated borrowers have better access in potential as well as actual sense to both the formal sources as well as with informal-2.

It is observed that the most important type of collateral used is mortgaging of farmland. Formal-2, informal-1 and informal-2 sources have a strong liking for this type of collateral. However, in 22.15 per cent cases, there is no security or collateral. Almost two third of the loans extended by informal-2 sources fall in this category. This source has also extended a considerable number of loans under personal guarantee. These lenders, due to their nearness as well as intimate knowledge of the borrowers, could extend loan without taking any marketable collateral. Formal and semi-informal sources are making use of borrower's deposits with them in building up their confidence to extend loans to such borrowers. Although both informal sources are providing moderately long-duration loans, they seem to be in favor of lesser number of repayment installments. The highest incidence of lump sum repayment is observed in formal-2 source, followed by informal-2. Regarding holiday period traditional rural money lenders are found to have provided maximum flexibility. Formal sources are somewhat tilted towards relatively rigid range. Both the semiformal sources seem to be somewhere in the middle in terms of flexibility ranking.

While informal-1 is observed to be relatively rigid, informal-2 sources tends to relatively more flexible to its clients. This may be due to their intrinsic knowledge about the locality as well as proximity to the borrower which allows close supervision. Contrary to common belief, default rate is moderately high in informal-2 sector. Both formal sources are generally entrusted responsibility of making large number of small loans to their borrowers in the presence of various government schemes. As a result, it is no surprise that percentage of loan amount overdue in formal sectors is generally smaller, as compared to percentage of loan overdue cases.

Crop failures followed by low profit/poor income and adverse climate are two prominent reasons cited by the borrowers for default. Across the sources reason for default is distributed among these three cited reasons. The most prominent recourse cited is request for postponement of loan repayment, followed by request for postponement of interest repayment, requesting extra dose of credit and allowing liquidation of asset. In about 7 per cent of cases the borrowers fail to provide any response. For formal-1 the prominent recourses are postponement of loan repayment. For formal-2 the prominent recourses are postponement of loan repayment, postponement of interest repayment and allowing extra credit dose. For semiformal-2 the prominent recourses are postponement of loan repayment, postponement of interest repayment, and allowing liquidation of asset in declining order of importance. This source also to certain extent allows extra credit dose. Formal-2 and informal-2 display the maximum order of flexibility or shock absorption power to help the borrowers in the face of unforeseen contingencies. While the former one is the village level people's institution, the later exercises next door neighborhood approach.

Besides terms and conditions of loan, the transaction cost incurred by the borrower plays important role in credit access. Thus, next chapter presents the same.

# **Estimating Borrower Transaction Costs**

#### **5.1 Introduction:**

Agricultural credit is a critical input for enhancing production and therefore stimulating growth in this sector. Recognizing the importance of credit which plays an important role in Indian agriculture, the government and Reserve Bank of India have played a vital role in creating a broad based institutional framework to ensure that adequate provision of credit is made to this sector. As mentioned earlier, besides formal credit available to rural households, semi-formal institutions as well as traditional informal sources are also a source of credit. However, borrowers may have to incur transaction costs in the process of obtaining credit which may vary depending upon the credit institution from which he tries to access credit.

In a perfectly competitive economy, with full information available without any cost, there are no transaction costs and the buyer and seller do not have to incur any additional expenditure while making transactions. In real world however, perfect competition barely exists because of the following reasons, (i) individuals do not always have perfect information and there is cost involved in gathering and processing information, (ii) problem of moral hazard when parties involved in the transaction may not fulfill the commitment and they need to put special efforts for monitoring and enforcement, (iii) locking-in effect arising because of unforeseen contingencies, which are beyond the control of both parties involved in the transaction. This problem is more acute in case of credit which encompasses both willful and non-willful default by both parties. There may be willful default by the borrower who misuses the loan and is unable to repay or willful default by the lender who misuses the collateral. Non-willful default arises in the event non-payment by borrower due to unforeseen circumstances such as crop loss due to failure of monsoons, etc. Credit is also a service which makes it very vulnerable to adverse selection which leads to non-repayment of the borrowed sum. In order to deal with these issues, the borrower and lender must invest time, and money and resources to minimize the problems of adverse selection, and moral hazard.

Since it is not possible to obtain information on transaction costs from the institutions involved in providing finance, the focus of this chapter is on the transaction cost incurred by the borrower. Further, only the transaction costs which can be expressed in monetary terms are considered.

#### **5.2 Some Estimates of borrower transaction costs:**

In this section, an attempt is made to estimate some implicit and explicit costs borne by the borrower which can be expressed in monetary terms. The types of borrower transaction costs discussed and estimated are : costs incurred by the borrower in undertaking visits to the lender for obtaining loans, borrower's search cost in exploring alternative lenders before approaching the final lender, borrower's waiting cost between the two time periods of application for loan and its sanction, and again between sanction of loan and its disbursement and borrower's explicit transaction cost in terms of application, documentation and processing fees. These costs are added up when these can be expressed in monetary terms.

In Table 5.1, the transaction costs of the borrower for making visits to lenders across different sources of loans are indicated. It can be observed from Table 5.1 that the borrower has made maximum number of visits to informal 1 for loans which did not involve any travelling cost. This is possibly because the moneylender who belongs to informal 1 category was located nearby and hence the borrower did not have to incur any travelling cost. The wage lost in this case was Rs 37.50/- per visit which indicates that the borrower may be doing piece rate or some such work. The highest travelling cost per visit was incurred in case of loan from semi-formal 2 although the visits made were only 2. It is

possible that the distance of the SHG was such that it was time consuming and hence the borrower lost as much as Rs 200/- per visit. It also appears that the borrower earned a wage which was higher than daily wage rate which greatly increased his transaction cost. In case of loan from formal 1, the visits made were 2.63 and wage lost per day was Rs 125.26/- per visit. Perhaps, the borrower spends almost the whole day for the visit and hence lost his daily wage rate. In case of semi-formal 2 which include village level cooperatives such as PACS, the travelling cost is negligible of Rs 7.40/- per visit and wage lost may by that of half day work lost.

(1)	(2)	(3)	(4)	(5)
Loan sources	No. of	Travelling	Wage lost	Transaction cost on
	visits to	cost per	per visit	visits to final lender
	final	visit		as % of loan amount
	lender			
Formal-1 (20)	2.63	37.11	125.26	1.00
Formal-2(92)	2.41	7.40	43.47	0.41
Semiformal-1(5)	3.20	14.00	160.00	2.10
Semiformal-2(4)	2.00	50.00	200.00	3.00
Informal-1(4)	4.25	0.00	37.50	0.32
Informal-2(42)	2.00	25.92	55.04	0.96

Table 5.1: Borrower transaction cost (Rs) for loans across sources in undertaking visits to the final lender

*Note: Figures in parentheses represent # of loan cases. Source: Field Survey* 

The transaction cost on visits to final lender as percentage of loan amount, is lowest for money lenders (0.32) and highest for semi-formal 2 (3). In case of semi-formal 2, the number of loan cases is only 4 and borrowers have to learn how to minimize this transaction cost.

Overall, it appears that maximum number of loan cases were from formal-2 which accounts for 55 percent of loan cases. The number of visits made from this source was 2.41 and the wage lost per visit was Rs 43.47. The transaction cost on visits to final lenders as percentage of loan amount was 0.41 percent. Informal 2 constituted 25 percent of the loan cases and transaction cost on account of visit to final lender as percentage to loan amount was 0.96 percent.

Rural households who are always in need of credit often explore alternative sources of credit before approaching final lender. When the borrower puts more effort in terms of a particular alternative and also spends more days, it indicates that he may be having preference for that particular source. In Table 5.2 the number of alternatives explored, the days lost in exploring the alternatives and borrower's search cost is indicated.

It can be observed from Table 5.2 that highest number of days lost in approaching alternatives was for semi-formal 2 followed by informal 2. The least number of days lost in exploring alternatives was in case of formal 2 which also alongwith informal 1 had lowest borrower's search cost in exploring alternatives to final lender as percentage of loan amount. The borrower's search cost as percentage to loan amount was highest in case of semi-formal 2. However, there were negligible cases of loan taken from this source.

(1)	(2)	(3)	(4)	(5)
Loan sources	No. of	Days lost in	Days lost	Borrower search
	alternatives	exploring	per	cost in exploring
	explored	alternatives	alternative	alternatives to
			explored	final lender as %
			[(3)/(2)]	of loan amount
Formal-1 (20)	1.21	3.20	2.64	1.87
Formal-2(92)	0.42	2.25	5.36	0.32
Semiformal-1(5)	0.20	5.65	28.25	3.75
Semiformal-2(4)	1.00	8.5	8.50	11.38
Informal-1(4)	1.25	4.30	3.44	0.32
Informal-2(42)	0.78	7.20	9.23	3.14

Table 5.2: Borrower search cost in approaching alternative lenders before visiting final lender classified by final loan source

*Note: Figures in parentheses represent # of loan cases.* 

In Table 5.3, the gap between application and approval of loan in days and also gap between sanction and disbursement of loan in days is indicated. It can be observed that in terms of gap between application and approval of loan semi-formal 2 turns out to be most beneficial to the borrowers, while in case of formal institutions the gap seems to be largest of about 17 days.

(1)	(2)	(3)	(4)
Loan sources	Gap between	Gap between	Gap between
	application &	sanction &	application &
	approval of loan in	disbursement of	disbursement of loan
	days	loan in days	in days [(2) + (3)]
Formal-1 (20)	. 17.15	20.25	37.40
Formal-2(92)	17.66	7.75	25.41
Semiformal-1(5)	6.60	5.4	12.00
Semiformal-2(4)	4.67	4.3	8.97
Informal-1(4)	7.00	3.1	10.10
Informal-2(42)	8.43	2.3	10.73

Table 5.3: Borrower transaction costs in terms of waiting for loan sanction and loan disbursement classified by loan source

*Note: Figures in parentheses represent # of loan cases.* 

The gap between sanction and disbursement of loan is much higher in case of formal 1 as compared to other sources of credit. Infact there is huge gap even between formal 1 and formal 2 between sanction and disbursement of loans and formal 2 seems much more efficient than formal 1. Overall, it appears that the gap between application and disbursement of loans is 37.40 days which is far higher than any other source of credit. Semi-formal 2 takes minimum time to disburse the loan but there are negligible loan cases in this category and maximum loans are taken from formal 2 which takes 25.41 days to disburse loans from the date of application.

In Table 5.4, the expenses on loan application, documentation and processing is indicated. It can be observed that in terms of expenditure on loan application and documentation, semi-formal 2 and formal 1 are costliest. Semi-formal 2 has highest processing fee while it was zero or negligible in case of
informal sources. The higher expenditure on documentation may be towards registration for availing other services like soil testing, extension, which may have added in the same. It is obvious that informal sources will have negligible application and processing fees as the loan is given on personal relations. The total transaction cost as percentage of loan amount is highest in formal 1 and lowest in informal 1.

Table 5.4: Borrower transaction cost in terms of application, documentation and processing fees classified by loan source

(1)	(2)	(3)	(4)	(5)	(6)
Loan sources	Expendit	Expenditure	Whether	Processing	Total
	ure on	on	exemption	fee in Rs.	transaction cost
	loan	documentati	from		on application,
	applicatio	on in Rs.	documentati		documentation
	n		on fee		& processing
	in Rs.	4	allowed	( I	fees in as % of
			(0-1)		loan amount
Formal-1 (20)	110.00	282.50	0.10	10.00	1.41
Formal-2(92)	46.87	127.79	0.41	8.47	0.5
Semiformal-					
1(5)	21.00	107.00	0.20	42.00	0.06
Semiformal-					
2(4)	125.00	300.00	.0.09	100.00	2.81
Informal-1(4)	0.00	25.00	0.29	0.00	0.05
Informal-2(42)	19.00	38.44	0.77	0.99	0.30

Note: Figures in parentheses represent # of loan cases. Source ; Field Survey

In Table 5.5 the borrowers search costs plus transaction costs on visits to final lender as percentage of loan amount sanctioned is indicated. When all items of borrower transaction costs are put together, semi-formal 2 again turns out to be the most costly source of borrowing. However, only 2.3 percent of loans were taken from this source and the amount of loan taken was also one of the lowest. About 55 percent of loans were disbursed from cooperatives and borrower search cost alongwith transaction cost was 0.68 which was a little above that of formal 1. This clearly indicates that formal 2 had search and transaction costs almost as low as that of informal 1 which were the money

lenders which were local people and hence well known to borrowers. The traditional money lenders have evolved as a source which involves least transaction cost for borrowers although negligible loan cases are disbursed from this source.

Table 5.5: Borrower search and transaction cost in terms of application, documentation and processing fees classified by loan source

(1)	(2)	(3)	(4)
Loan sources	Average	Borrower search	Borrower search cost plus
	loan	cost plus	transaction cost on visits
	amount	transaction cost on	to final lender & on
	sanctioned	visits to final lender	payment of various fees as
	(Rs.)	as % of loan	% of loan amount
		amount sanctioned	sanctioned
Formal-1 (20)	27850.00	3.40	4.84
Formal-2(92)	34920.65	0.68	1.20
Semiformal-1(5)	26200.00	5.88	6.53
Semiformal-2(4)	18666.67	14.06	16.87
Informal-1(4)	49250.00	0.65	0.70
Informal-2(42)	18541.46	4.02	4.33

*Note: Figures in parentheses represent # of loan cases.* 

\* Total search Cost in column5 of Table 5.2 is determined by the following formula=>

(Wage loss + traveling Expenses) \* Days lost in exploring alternatives \* 100

Total Amount Loan Sanctioned

\* Transaction Cost in column5 of Table 5.1 is determined by the following formula=>

(Wage loss + traveling Expenses) \* No. of Visit \* 100

Total Amount Loan Sanctioned

\* Cost mentioned in column 6 of Table 5.4 is determined by following formula =>

Application Cost + Documentation Cost + Processing Fees \* 100

Total Amount Loan Sanctioned

Note: Formal-1: Commercial Banks and RRB, Formal-2: PACS, Semiformal: MFIs promoted by Govt. / NABARD; Semiformal-2: Private MFIs/ NBFCs, Informal-1: Money Lender, Informal-2: Grocery Friends/Relatives etc. Overall it can be observed that semi-formal 2 had highest borrower search cost plus transaction cost along with number of loan cases was negligible.

#### **6.1** Introduction

In this chapter, an attempt has been made to assess each loan contract of sample borrowers made during 2009-10 across various credit bases on its type (i.e. whether interlinked or non-linked in nature). Interlinked transaction is one where terms of trade in at least two markets are jointly determined (Basu, 1993). Several institutions from formal and semiformal credit sector in India is offering credit under interlinked arrangement by attempting to intervene in multiple markets simultaneously (along with credit), with varying scale, scope and degrees of success, which has been known as 'credit plus' approach.

The rural households are asked against each loan contract whether it was of interlinked nature or, not. Upon an affirmative answer, the respondents were asked whether they were charged any extra fees by the lender to offer the interlinked product, and if so, up to what extent. Respondents were also enquired about the problems faced by them while using the production loan (if any) and how have they handled the same as well as up to what extent they could manage the same. This is basically to identify the role of credit plus service provider in overcoming various risks like production risk, market risk, capacity failure, etc faced by individual borrowers.

#### 6.2 Types and Extent of Interlined Transactions:

The incidence of different types of interlinking across lending agencies is presented in Table 6.1. The extra market charges (percent) for interlinked service across credit sources are presented in Table 6.2. It can be seen from Table 6.1 that credit-insurance type of interlinking is prevalent among the transactions held with formal 1 and formal 2 sources and predominantly with Banks/RRBs and cooperatives who offer insurance service as a bundled deal with the basic credit product. This arrangement has turned out to be beneficial for clients as borrowers could avail insurance 1.60-2.00 per cent cheaper than the market price.

Input-credit type of interlinkage is observed in transactions with cooperatives, SHGs as well as input dealers. Service offered by cooperatives are 3.75 per cent cheaper than comparable market. Input dealers also offer at around 1.00 per cent cheaper rate, this may be to protect their market share. Credit-extension type of interlinkage is available with formal-2 as well as with input dealers. Though emergency service is available from coops, SHGs and village merchants, they are found to be costlier than comparable services.

Sources of Credit	Formal-1 (20)	Formal- 2 (92)	Semiformal- 1(5)	Semiformal- 2(4)	Informal- 1(4)	Informal- 2(42)
Insurance	0.25	0.23	0.00	0.00	0.00	0.00
Tenancy contact	0.00	0.00	0.00	0.00	0.00	0.00
Input purchase	0.00	0.14	0.40	0.00	0.00	0.07
Output sale	0.00	0.00	0.00	0.00	0.00	0.00
Labor sale	0.00	0.00	0.00	0.00	0.00	0.00
Extension service	0.00	0.03	0.00	0.00	0.00	0.03
Emergency service	0.00	0.07	0.40	0.00	0.00	0.07
Consumption inputs purchase	0.00	0.00	0.00	0.00	0.00	0.30

Table 6.1: Incidence of different types of interlinking across lending agencies

Notes: Formal-1: Commercial Banks and RRB, Formal-2: PACS, Semiformal: MFIs promoted by Govt. / NABARD; Semiformal-2: Private MFIs/ NBFCs, Informal-1: Money Lender, Informal-2: Grocery Friends/Relatives etc.

Source: Field Survey Data.

Sources of Credit/Charges	Formal-1	Formal-	Semiformal-	Semiformal-	Informal-	Informal-
		1 (0	1(0)			
Extra charge on		-1.60				
insurance	(5)	(22)	(0)	(0)	(0)	(0)
Extra charge on						
tenancy	(0)	(0)	(0)	(0)	(0)	(0)
Extra charge on		-3.75	-3.00			-0.83
Input price	(0)	(12)	(2)	(0)	(0)	(2)
Extra charge on						
output price	(0)	(0)	(0)	(0)	(0)	(0)
Extra charge on						
labor sale	(0)	(0)	(0)	(0)	(0)	(0)
Extra charge on	'	-1.00			·	-0.83
extension service	(0)	(3)	(0)	(0)	(0)	(1)
Extra charge on		2.33	2.00			1.00
emergency Service	(0)	(3)	(2)	(0)	(0)	(2)
Extra Charge on						10.5
consumption Goods	(0)	(0)	(0)	(0)	(0)	(12)

Table 6.2: Extra market charges (%) for interlinked service across credit sources

Note: Figures with negative sign indicate interlinking transaction is cheaper, whereas figures with positive sign indicate the opposite, as compared to the market rate. Source: Field Survey Data.

#### 6.2: 'Credit Plus' Approach:

The theoretical argument behind wider prevalence of interlinked transactions is the success of such general equilibrium approached in restoring optimality over the more partial equilibrium approach of focusing merely on credit market imperfections, as followed by majority of the formal banking system. Several institutions in India have been attempting to put this general equilibrium approach into practice by attempting to intervene in several markets simultaneously (along with credit), with varying scale, scope and degrees of success, which has popularly been known as 'credit plus' approach.

The problems encountered by borrowers in using loans for productive activities across sample villages are presented in Table 6.3. It can be seen from the table that production risk and complementary input price hike have evolved as the main problems faced by majority of the borrowers across villages. The production risk and complementary input price hike problems was mainly faced by the borrowers from the Amboda village, followed by Chohatta Bazar and Baheriwadi. The right quality of input and adverse climatic conditions evolved as another major problems faced by the majority of the borrowers across the villages. Sample borrowers from the Amboda and Chohatta Bazar villages faced the problems of right quality of inputs. Regarding adverse climatic condition, majority of the affected respondents are from Amboda village followed by Baherewadi.

Transportation problem was also one the major problems faced by the villages like Amboda and Chohatta Bazar. Adverse use of loan was also observed in some extent in all three selected villages.

# Table 6.3: Problems encountered by borrowers in using loans forProductive activities across sample villages

#### Panel A

	(2)	(3)					
	Right	Right	(4)	(5)	(6)	(7)	(8)
. (1)	Quality of	Quantity	Complementary	Production	Managerial	Capacity	Market
Village	input	ofinput	Input Price Hike	Risk	risk	Failure	Risk
Bahirewadi (28)	4(25.0)	6(75.0)	10(33.3)	8(24.2)	5(62.5)	1(100)	6(54.5)
Amboda (46)	6(37.5)	2(20.0)	12(40.0)	15(45.5)	2(25.0)	0(0)	5(45.5)
Chohotta bazaar (38)	6(37.5)	0(0)	8(26.7)	10(30.3 <u>)</u>	1(12.5)	0(0)	0(0.0)
Total	16 (100)	8 (100)	30 (100)	33(100)	8 (100)	1 (100)	11 (100)

#### Panel B

		(10)		(12)		(14)
	(9)	Lack of	(11)	Adverse	(13)	Adverse
	Storage	Processing	Transportation	Climatic	Natural	Use
Village	Problem	Facility	problem	Condition	Catastrophe	of Loan
Bahirewadi (28)	2(66.6)	0(0)	0(0)	5(41.7)	3(60.0)	2(33.3)
Amboda (46)	1(37.3)	0(0)	5(55.6)	7(58.3)	1(20.0)	1(16.7)
Chohotta bazaar (38)	0(0)	1(100)	4(44.4)	0(0.0)	1(20.0)	3(50.0)
Total	3(100)	1(100)	9 (100)	12(100)	5 (100)	6 (100)

Note: Figures in both panels indicate number of borrowers reporting such problems. Figures in parentheses indicate the column percentages. Source: Field Survey Data. The indicator regarding the extent to which borrowers have handled those problems mentioned in Table 6.3. It can be seen from the table that, on the average, the borrowers seem to have handled those problems to some extent and have realized marginal profit (with an average score of around 1.5). While the first problem is moderately handled by borrowers with the help of their cooperatives, they are apparently able to handle second problem to their satisfaction.

## Table 6.4: Indicator the extent to which borrowers have handled the problems mentioned in Table 6.3

#### Panel A

(1) Village	(2) HAND1	(3) HAND2	(4) HAND3	(5) HAND4	(6) HAND5	(7) HAND6
Bahirewadi	2.25(4)	2.16(6)	1.8(10)	2(8)	1.5(5) <sup>-</sup>	1(1)
Amboda	2.3(6)	2(2)	1.2(12)	1(15)	1(2)	(0)
Chohotta bazar	1.3(6)	(0)	1.4(8)	0.7(10)	1(1)	(0)

Panel B

Village	(8) HAND7	(9) HAND8	(10) HAND9	(11) HAND10	(12) HAND11	(13) HAND12	(14) HAND13
Bahirewadi	1.6(6)	2(2)	(0)	(0)	1.4(5)	1.3(3)	2(3)
Amboda	0.8(5)	1(1)	(0)	1.4(5)	0.714(7)	1(1)	1(1)
Chohotta bazar	1.6(0)	(0)	1(1)	1(4)	.(0)	1(1)	3(3)

Notes: Respondents have assigned scores varying from 0 to 3, indicating the extent to which the problem has been handed. 0: not handled at all, leading to maximum loss, 1: leading to moderate loss, 2: handled partially, leading to only moderate profit, 3: handled fully and anticipated profit has been realized. Figures in parentheses indicate the number of respondents facing corresponding problem as mentioned in Table 6.3.

Table 6.5 provided a cumulative picture of various problems being faced by sample selected borrowers respondents (among the total of 150 sample households) while using production loan, besides indicating how they handled those problems. This would help us to assess the importance of 'Credit plus' provider in the borrower's production activity. It is evident from Table 6.5 that individual effort evolves as the single most important way to handle the range of problems faced while utilizing the production loan. Help from neighbours emerges as second best resort available to the borrowers. Support from 'credit plus' provider is found to be helpful in only 23 cases (i.e., 15.3%).

In the process of availing a loan, a borrower often chooses between an interlinked and non-interlinked transaction. In case of interlinked transaction, the terms of trade in at least two markets are simultaneously determined. The traditional argument behind such interlinked is lenders' exercise of monopoly power over the vulnerable poor borrowers, while a more modern institutional approach highlights the lower transaction cost benefit derived by both lenders and borrowers through interlinked dealings as against non-linked transactions. While majority of lenders from formal sector credit follow a minimalist credit approach, few new generation semiformal institutions (i.e. MFIs) as well as multipurpose cooperative societies are offering credit as well as some complementary services, i.e. a multimarket intervention popularly known as 'credit plus' approach. In these circumstances, the present study has attempted to identify the nature and extent of interlinked transactions across lenders and up to what extent 'credit plus' approach has been successful to fill in the lacuna, if any, left out its minimalist counterpart.

Table 6.5: Indicator of Different Types of Problems normally faced by the borrowers while using loans in productive activities and how they handled those problems

Problems Tume	(1)	(2)	(3)	(4)	(5)
Fibblenis Type	Through	By Credit	Help From	Heln from Covt	Drivate Third
	Individual Effort	Plus Support	Neighborhood	Extension Service	Party
		in ouppoint			intervention
Right Quality of input	2(12.5)	2(12.5)	10(62.5)	1(6.25)	1(6.25)
<b>Right Quantity of input</b>	1(12.5)	3(37.5)	2(250	0	2(25)
Complementary Input	11(36.7)	3(10)	7(23.3)	1(3.3)	5(16.7)
Price Hike					
Production Risk	13(39.4)	4(12.1)	6(18.1)	2(6.1)	4(12.1)
Managerial risk	3(60)	2(40)	0	0	0
Capacity Failure	1(100.0)	2(66.7)	0	0	0
Market Risk	4(25)	1(6.3)	7(43.8)	1(6.3)	3(18.8)
Storage Problem	2(40)	2(40)	1(20)	0	0
Lack of Processing	2(66.7)	1(33.3)	0	0	0
Facility					
Transportation problem	3(33.3)	0	5(55.6)	0	0
Adverse Climatic	2(16.7)	1(8.3)	1(8.3)	1(8.3)	2(16.7)
Condition			<u>.</u>		
Natural Catastrophe	2(40)	1(20)	1(20)	1(20)	0
Adverse Use of Loan	2(20)	1(40)	0	1(20)	1(20)
Total	48 (32.0)	23(15.3)	40(26.7)	8(5.3)	18(12.0)

Note: Figures outside parentheses indicate numbers of cases, while those in parentheses indicate row percentages except for column 9 which represents column % of borrowers not facing this problem. Source: Field Survey Data.

Table 6.5: Indicator of Different Types of Problems normally faced by the borrowers while using loans in productive activities and how they handled those problems

Problems Type	(6)	(7)	(8)	(9)
	Support	Formal	Number of	Number of
	From NGO/	Insurance	Borrowers Faced	Borrowers did
	Voluntary		Problem	not Face
	Organization	· · · · · · · · · · · · · · · · · · ·		Problem
Right Quality of input	0	0	16 (100)	134 (89.33)
Right Quantity of input	0	0	8 (100)	142 (94.67)
Complementary Input Price Hike	3(10)	0	30 (100)	120 (80.00)
Production Risk	2(6.1)	2(6.1)	33 (100)	117 (78.00)
Managerial risk	0	0	5 (100)	145 (96.67)
Capacity Failure	0	0	3 (100)	147 (98.00)
Market Risk	0	0	16 (100)	134 (89.33)
Storage Problem	0	0	5 (100)	145 (96.67)
Lack of Processing Facility	0	0	3 (100)	147 (98.00)
Transportation problem	1(11.1)	0	9 (100)	141 (94.00)
Adverse Climatic Condition	3 (25)	2(16.7)	12 (100)	138 (92.00)
Natural Catastrophe	0	0	5 (100)	145 (96.67)
Adverse Use of Loan	0	0	5 (100)	145 (96.67)
Total	9(6.0)	4(2.6)	150 (100.0)	

Note: Figures outside parentheses indicate numbers of cases, while those in parentheses indicate row percentages except for column 9 which represents column % of borrowers not facing this problem. Source: Field Survey Data.

From the above discussion, it can be conclude that credit-insurance type of interlinking is prevalent among the transactions held with formal and semiformal sources and predominantly with Banks/RRBs and coops who offer insurance service as a bundled deal with the basic credit product. This arrangement has turned out to be beneficial for clients as borrowers could avail insurance 1.60-2.00 per cent cheaper than the market price. Input-credit type of interlinkage is observed in transactions with coops, SHGs as well as input dealers. Service offered by coops are 3.75 per cent cheaper than comparable market. Input dealers also offer at around 1.00 per cent cheaper rate, this may be to protect their market share. Credit-extension type of interlinkage is available with formal-2 as well as with input dealers. Though emergency service is available from coops, SHGs and village merchants, they are found to be costlier than comparable services. Production risk and complementary input price hike have evolved as the main problems faced by majority of the borrowers across villages. On the average, the borrowers seem to have handled those problems to some extent and have realized marginal profit (with an average score of around 1.5). Individual effort evolves as the single most important way to handle the range of problems faced while utilizing the production loan. Help from neighbors emerges as second best resort available to the borrowers. Support from 'credit plus' provider is found to be helpful in only 23 cases (i.e., 15.3 per cent).

As extension services plays important role in delivery of rural credit, an attempt has been made in next chapter to study the various dimensions of extension services and their effectiveness.

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### Chapter 7

### Probing Extension Services in the Context of Rural Credit

#### 7.1 Introduction:

Extension services play an important role in delivery of rural credit especially because any credit transaction has three fold problems of (i) adverse selection, (ii) moral hazard, (iii) locking-in-effect from the view point of both parties. The first problem arises before credit is offered while the other two problems arise afterwards. Since a credit contract cannot stand alone, an act of trust either in the form of acceptable collateral or a credit worthy project must be submitted by the borrower for lender's scrutiny and verification in order to gain confidence of the lender. Since credit is not a transaction at a point of time but over a relatively long period of time, verification and possible corrections in the credit sponsored projects must take place over time. It is at this point of time that extension services along with monitoring play an important role.

By and large, an extension agency can perform the task of extension and monitoring at an insignificant marginal cost and also-help to resolve the problem of adverse selection. If a good extension service also puts a check on the opportunistic behavior of the borrower, it can also minimize the problem of moral hazard. Thus extension has the potential to resolve problems which cause market failures and market imperfections. It is against this background that an attempt is made in this chapter to examine various dimensions of extension services and their effectiveness in the judgment of sample borrowers.

# 7.2 Borrower's familiarity and average annual expenses on official extension services on agriculture, veterinary and fisheries:

Panel A and B of Table 7.1 describe the borrower's familiarity with official extension service in the form of an index varying between 0 and 3, besides reporting borrower's annual expenditure on extension and follow up actions. Panel A reports these figures for all observations, whereas Panel B reports these figures for only those borrowers who have incurred positive expenditure in utilizing extension services. Three types of extension services are considered- those related to agriculture, veterinary and fishery.

## Table 7.1: Familiarity with official extension service and approximateannual expenditure thereon across activities

Activity type	Index of familiarity in agriculture (0-3)	Annual expenditure (Rs) on extension in agriculture	Index of familiarity in veterinary (0-3)	Annual expenditure (Rs) on extension in veterinary	Index of familiarity in fisheries (0-3)	Annual expenditure in Rs. on extension in fisheries
Agriculture (137)	0.81 (81.54)	591.97 (193.81)	0.51 (161.17)	257.0 (254.95)	0(0)	0(0)
Animal husbandry (94)	0.80 (87.50)	563.82 (203.73)	0.67 (131.99)	353.29 (216.25)	0(0)	0(0)
Fisheries (0)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)

Panel A: Averages for all observations engaged in relevant activities

Panel B: Averages for observations incurring positive annual expenditure

		Approx annual		Approx		
	Extent of	(Rs)	Extent of	annual (Rs)	Extent of	Approx annual
	familiarity	expenditure	familiarity	expenditure	familiarity	(Rs)expenditu
Activity type	(Agriculture)	(Agriculture)	(Veterinary)	(Veterinary)	(Fishery)	re (Fishery)
Agriculture	1.29	1398.28	0.48	239.65		
(58)	(40.99)	(100.97)	(170.20)	(214.86)	0(0)	0(0)
Animal						
husbandry	1	731.57	1.65	843.68		
(42)	(86.99)	(168.76)	(32.21)	(121.02)	0(0)	0(0)
Fisheries	0				· · · · · · · · · · · · · · · · · · ·	
(0)	(0)	0(0)	0(0)	0(0)	0(0)	0(0)

Note: Figures in parentheses represent number of observations for the first column and the value of CV for other columns, respectively, for the first and other columns in both panels of this table.

Source: Field Survey Data.

It can be observed from Panel A of table 7.1 that out of all sample households (150), as many as 137 have expressed interest in agriculture, whereas 94 in animal husbandry, while no rural households in the sample expressed interest in fisheries. This indicates that fisheries were not an important economic activity for sample borrowers. Also, these interest groups are not mutually exclusive and the picture changes when we observe only those borrowers who have actually incurred positive annual expenditure. Panel B of Table 7.1, indicates that number of borrowers incurring positive expenditure on extension services in these three fields, comes down rapidly from 137 to 58 for agriculture and from 94 to 42 for animal husbandry. Thus, it appears that large number of borrowers look upon extension as a free service and is reluctant to incur expenses in procuring extension services and follow up action. This indicates that value of official extension services is too low in the minds of sample borrowers due to poor delivery from government and also due to lack of awareness. The index of familiarity in agriculture which was 0.81 (Panel A) increases to 1.29 for those incurring positive expenditure (Panel B) while the corresponding index increases from 0.80 to 1 in case of Animal Husbandry. The average annual expenditure on extension by these interest groups who incur positive expenditure also increases significantly by 2.4 times for agriculture and 1.3 times for Animal Husbandry. There is however high degree of variability in reported figures in Panel A and B as can be observed from the high value of coefficient of variation.

#### 7.3 Importance of different sources of Extension Information:

Extension is available to farmers from various sources and hence in this section, an attempt is made to observe the importance that borrowers attach to various sources of extension available to them. Importance of various extension information sources is represented by average value of a binary variable (0 or 1) depending upon whether a borrower makes use of a particular source or not. The average value of these binary variables are reported in Tables 7.2A, 7.2B

and 7.2C on three important attributes namely – borrower's operational holding size, their extent of familiarity to important village personnel and their savings and insurance status respectively.

When size of holding is taken as an attribute, it is observed that across all size of holdings, highest importance is given to Extension bulletins (0.75), followed by Farmer's club (0.60) and then Television (0.54). It can also be observed that large farmers attached more importance to various sources of extension services than other groups. For example, the importance of production guidelines and farmer's club was 0.65 and 0.78 for large farmers while average was only 0.37 and 0.60 respectively.

With respect to familiarity to important village personnel and savings and insurance status being considered as attributes, it again appears that Extension bulletins were most important (0.75), followed by Farmer's club (0.60) and then television (0.54) in each case. Those sample households which had both savings and insurance status attached much more importance to several sources of extension as compared to others.

Table 7.2A: Importance of different sources of extension information related to size of operational holding of sample households

				Indice	s of impo	rtance (0-1	) by sour	се		
Operational land- holding class of households	News papers	Extension bulletins	News-letters /magazines	<b>Production</b> <b>guidelines</b>	Personal letters from extension agents	Opinion leaders/ progressive farmers	Neighbors /friends /relatives	Farmers' club	Radio	Television
Landless (13)	0.23	0.69	0.31	0.23	0.00	0.00	0.15	0.46	0.15	0.62
Small (114)	0.33	0.74	0.49	0.32	0.10	0.21	0.47	0.58	0.33	0.52
Large (23)	0.13	0.83	0.61	0.65	0.26	0.13	0.43	0.78	0.26	0.61
Overall (150)	0.29	0.75	0.49	0.37	0.11	0.18	0.44	0.60	0.31	0.54

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

#### Table 7.2B: Importance of different sources of extension information related to extent of familiarity to important village personnel of sample households

		Indices of importance (0-1) by source												
Extent of familiarity of households	News papers	Extension bulletins	Newsletters /magazines	Production guidelines	Personal letters from extension agents	Opinion leaders/progres sive farmers	Neighbors /friends /relatives	Farmers' club	Radio	Television				
Nil (53)	0.02	0.68	0.28	0.21	0.00	0.04	0.11	0.64	0.09	0.30				
Moderate(0)	0	00	0	0	0	0	0	0	0	0				
High(97)	0.44	0.78	0.61	0.45	0.18	0.26	0.62	0.58	0.42	0.67				
Overall(150)	0.29	0.75	0.49	0.37	0.11	0.18	0.44	0.60	0.31	0.54				

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

# Table 7.2C: Importance of different sources of extension information related to savings and insurance status of sample households

		Indices of importance (0-1) by source													
Savings And insurance status of sample households	News papers	Extension bulletins	Newsletters/magazines	<b>Production guidelines</b>	Personal letters from extension agents	Opinion leaders/progressive farmers	Neighbors /friends /relatives	Farmers' club	Radio	Television					
Nil (46)	0.20	0.72	0.37	0.20	0.04	0.17	0.46	0.63	0.15	0.28					
Only savings (30)	0.43	0.57	0.50	0.30	0.00	0.20	0.47	0.53	0.30	0.60					
Only insurance	0.07	0.40	0.00	0.04	0.22	0.22	0.26	0.45	0.10	0.41					
(22) Roth	0.27	0.68	0.32	0.36	0.23	0.23	0.30	0.45	0.18	0.41					
(52)	0.31	0.90	0.67	0.56	0.19	0.15	0.44	0.67	0.50	0.79					
Overall (150)	0.29	0.75	0.49	0.37	0.11	0.18	0.44	<b>0.60</b>	0.31	0.54					

Note: Figures in parentheses represent number of observations Source; Field Survey Source: Field Survey Data.

#### 7.4 Effectiveness of different types of Extension services in agriculture :

In this section, an attempt is made to observe the effectiveness of different types of extension services in agriculture. This effectiveness is also measured as a proportion of borrower households having benefitted from a particular form of extension service.

In Table 7.3A effectiveness of different types of extension services across the three sample villages of Amboda, Bahirewadi and Chohotta bazar is indicated. It can be observed that by and large across all villages there have been improved extension services except in a few cases. For example, the fertilizer application was weak in case of Bahirewadi and Chohottabazar and also in case of disease and parasite control.

Village	Introduction to new/improved /high yielding crop variety	Improved agronomic practices	Fertilizer application	Soil & water conservation	Insect control & pesticide application	Awareness about machinery use	Disease and parasite control	Post-harvest technology
Amboda (46)	0.83	0.52	0.91	0.63	0.83	0.54	0.78	0.52
Bahirewadi (49)	0.53	0.76	0.23	0.65	0.55	0.60	0.24	0.47
Chohotta bazar (42)	0.62	0.86	0.12	0.74	0.55	0.50	0.10	0.50

Table 7.3A: Effectiveness of different types of extension service inagriculture across sample villages

Note: Figures in parentheses represent number of observations. Source: Field Survey Data.

In Tables 7.3 B, 7.3 C and 7.3 D, the effectiveness of extension services related to different attributes – operational holding status of sample households, extent of familiarity to important village personnel and status of holding of agricultural equipment is indicated. It can be observed from

Table 7.3B that by and large farmers have benefitted from extension services, except large farmers in case of disease and pest control and fertilizer application.

Table 7.3 C reveals that effectiveness of extension services were poor in case of improved agronomic practice, soil and water conservation awareness about machinery, disease and parasite control and also post harvest technology for sample households not having familiarity with village personnel. In case of those households who had high familiarity, they benefitted a lot incase of introduction of HYVs, fertilizer application, soil and water conservation, insect control and pesticide application and disease and parasite control. However, service was weak with respect to improved agronomic practice, awareness about machinery and post harvest technology.

Table 7.3 D which explains the effectiveness of extension services with respect to status of holding of agricultural equipment reveals that those households which were well equipped, benefitted from all extension services, although that from soil and water conservation was relatively weak. In case of household which were less equipped, they did not benefit much from awareness about machinery and post-harvest technology. Surprisingly those households who did not hold agricultural equipment did benefit from different types of extension services.

Table 7.3 E reveals the effectiveness of different types of extension services with respect to maximum educational status of adult males in sample households. Illiterate households did not benefit at all from improved agronomic practices, insect and pesticide application, awareness about machinery use, disease and parasite control. In case of highly educated the benefit was above average for all extension services considered. Overall, the performance was above average except for fertilizer application and disease and pest control.

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### Table 7.3B: Effectiveness of different types of extension service in agriculture related to operational holding status of sample households

	Effectiven	ess indices	s (0-1) by	types of	extensio	n servic	e in agri	culture
Operational holding status of sample households	Introduction to new/improved /high yielding crop variety	Improved agronomic practices	Fertilizer application	Soil & water conservation	Insect control & pesticide application	Awareness about machinery use	Disease and parasite control	Post-harvest technology
Small (114)	0.67	0.70	0.44	0.64	0.61	0.53	0.40	0.49
Large (23)	0.61	0.74	0.35	0.83	0.78	0.65	0.26	0.52
overall (137)	0.66	0.71	0.43	0.67	0.64	0.55	0.38	0.50

Note: Figures in parentheses represent number of observation Source: Field Survey Data.

### Table 7.3C: Effectiveness of different types of extension service in agriculture related to extent of familiarity to important village personnel of sample households

•	Effectivene	Effectiveness indices (0-1) by types of extension service in agriculture											
	Enectivenes	ss maice	s (0-1) by	types of e	xtension	service	in agri	culture					
Extent of familiarity of households	Introduction to new/improved /high yielding crop variety	Improved agronomic practices	Fertilizer application	Soil & water conservation	Insect control & pesticide application	Awareness about machinery use	Disease and parasite control	Post-harvest technology					
Nil (46)	0.44	0.06	0.43	0.31	0.50	0.20	0.20	0.20					
Moderate(0)													
High(91)	0.80	0.25	0.80	0.60	0.70	0.20	0.54	0.30					
overall (137)	0.66	0.71	0.43	0.67	0.64	0.55	0.38	0.50					

Note: Figures in parentheses represent number of observation Source: Field Survey Data.

### Table 7.3D: Effectiveness of different types of extension service in agriculture related to status of holding of agricultural equipment of sample households

	Effectiver	Effectiveness indices (0-1) by types of extension service in agriculture										
Status of holding of agricultural equipment of sample households	Introduction to new/improved /high yielding crop variety	Improved agronomic practices	Fertilizer application	Soil & water conservation	Insect control & pesticide application	Awareness about machinery use	Disease and parasite control	Post-harvest technology				
Nil (126)	0.65	0.71	0.41	0.69	0.63	0.55	0.35	0.50				
Less equipped (4)	0.50	0.50	0.75	0.50	0.75	0.25	0.75	0.25				
Well equipped (7)	0.86	0.86	0.57	0.43	0.71	0.71	0.71	0.57				
overall (137)	0.66	0.71	0.43	0.67	0.64	0.55	0.38	0.50				

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

## Table 7.3E: Effectiveness of different types of extension service in agriculture related to maximum educational status of adult males in sample households

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	Effectiven	Effectiveness indices (0-1) by types of extension service in agriculture										
Educational status	Introduction to new/improved /high yielding crop variety	Improved agronomic practices	Fertilizer application	Soil & water conservation	Insect control & pesticide application	Awareness about machinery use	Disease and parasite control	Post-harvest technology				
Illiterate (3)	0.67	0.00	0.33	0.67	0.00	0.00	0.00	0.33				
Literate (21)	0.29	0.76	0.14	0.62	0.48	0.35	0.14	0.33				
Up to SSC (74)	0.69	0.73	0.41	0.64	0.66	0.61	0.38	0.50				
above SSC (39)	0.79	0.69	0.62	0.77	0.74	0.59	0.54	0.59				
overall (137)	0.66	0.71	0.43	0.67	0.64	0.55	0.38	0.50				

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

# 7.5 Effectiveness of different types of extension services in allied activities:

The effectiveness of different types of extension services in allied agricultural activities among sample households is discussed in Table 7.4 A, 7.4 B, 7.4 C. The different types of allied activities considered in this context are cattle/sheep/goat/poultry production, animal vaccination, deworming, health check up, pregnancy check up, artificial insemination, external parasite spray, use of Azolla/silage/mineral mix in animal feed and fishery, poultry, duckery, sericulture. It may be mentioned that proportion of borrower households interested in allied activities who have used different forms of extension services is only a crude measure of effectiveness of index.

It can be observed from Table 7.4 A that while some of the above mentioned extension services were effective in all the sample villages, there were some extension services which were not effective. For example, in Bahirewadi and Chohottabazar, deworming, external parasite spray, duckery were hardly effective. In case of Amboda, vaccination was below average in terms of effectiveness.

The effectiveness of different types of extension service in allied agricultural activities related to maximum educational status of adult males can be observed in Table 7.4 B. It is revealed as expected that in households where adult males are SSC and above SSC educated that extension services are effective. There is hardly any effectiveness of extension services for illiterate households.

In Table 7.4 C the effectiveness of different types of extension services in allied agricultural activities related to familiarity status of adult males of sample households is indicated. The effectiveness of extension services is also poor in case where familiarity status of adult males is very weak and shows significant improvement in most of the services when status is good.

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### Table 7.4A: Effectiveness of different types of extension service in allied agricultural activities across sample villages

and the second s												
Village	Cattle/Sheep//Goat/Poultry production	Vaccination	. De-worming	Health checkup	Pregnancy checkup	Artificial insemination	External parasite spray	Use of Azolla/Silage//Mineral mix	Fishery	Poultry	Duckery	Sericulture
Amboda (38)	0.79	0.45	0.84	0.50	0.79	0.53	0.82	0.50	0.79	0.45	0.84	0.50
Bahirewadi												
(31)	0.58	0.77	0.23	0.74	0.58	0.63	0.26	0.55	0.58	0.77	0.23	0.74
Chohotta-	0.56	0.84	0.12	0.68	0.56	0.52	0.08	0.48	0.56	0.84	0.12	0.68
bazar												
(25)		Į								<b></b>		
0.35	0.42	0.40	0.39	0.42	0.43	0.41	0.35	0.11	0.02	0.00	0.01	0.35

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

## Table 7.4B: Effectiveness of different types of extension service in allied agricultural activities related to maximum educational status of adult males in sample households

	Effect	iveness	s indice	es (0-1	) by ty	pes of	extens	ion serv	ice in a	llied a	gricult	ure
Educational status	Cattle/Sheep/Goat/ Poultry production	Vaccination	De-worming	Health checkup	Pregnancy checkup	Artificial insemination	External parasite spray	Use of Azolla/Silage /Mineral mix	Fishery	Poultry	Duckery	Sericulture
Illiterate(2)	0.50	0.00	0.00	0.50	0.00	0.00	0.00	0.50	0.50	0.00	0.00	0.50
Literate (12)	0.33	0.83	0.08	0.67	0.58	0.45	0.17	0.42	0.33	0.83	0.08	0.67
SSC (50)	0.66	0.66	0.47	0.60	0.68	0.60	0.42	0.50	0.66	0.66	0.47	0.60
Above SSC(30)	0.80	0.63	0.60	0.67	0.70	0.57	0.60	0.57	0.80	0.63	0.60	0.67

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

### Table 7.4C: Effectiveness of different types of extension service in allied agricultural activities related to Familiarity status of adult males in sample households

Familiarity	Cattle/Sheep /Goat/Poultry production	Vaccination	De-worming	Health checkup	Pregnancy Checkup	Artificial insemination	External parasite spray	Use of Azolla /Silage/Mineral mix	Fishery	Poultry	Duckery	Social participation
Very Weak(28)	0.39	0.64	0.11	0.46	0.32	0.36	0.14	0.29	0.39	0.64	0.11	0.46
Medium (0)					-							
Good (66)	0.77	0.67	0.60	0.70	0.80	0.65	0.56	0.61	0.77	0.67	0.60	0.70

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

## 7.6 Effectiveness of Extension Services on group formation among borrowers:

The formation of self help groups among borrowers facilitates borrowers who have been deprived of credit to become more credit worthy. Accordingly the sample borrowers have been addressed by questions about use of different types of services by such groups. The questions relate to group formation, creation of norms of behavior, leadership development, knowledge of book keeping, help in SHG bank-link and organization of federation of SHGs. This is discussed from Table 7.5 A to 7.5 E.

It can be observed from Table 7.5 A that in Bahirewadi and Chhotta bazar, effectiveness for most extension services was negligible. With respect to operational holding status of sample households (Table 7.5 B), by and large, the extension services were much below average or weak. In case of effectiveness of extension services with respect to extent of local level familiarity of sample households (Table 7.5C), it was observed to be very weak for households having nil local level familiarity and below average for households having high familiarity. In case of education status (Table 7.5 D), the effectiveness was zero for illiterate households in case of formation of SHGs, creation of norms of behavior, leadership development and knowledge of book keeping. For, literate, educated and highly educated, the effectiveness of extension services was weak or below average. Again the effectiveness was observed to be below average or weak with respect to savings and insurance status of sample borrowers.

Table 7.5A: Effectiveness of different types of extension services on group (SHG, PG, [LG] formation in households across sample villages.

	Effective	Effectiveness indices (0-1) by types of extension service in allied agriculture										
Village name	Formation	Creation of		Knowledge	Help in SHC-	Link with						
	of self-help groups	of behavior	Leadership development	of book- keeping	Bank link	higher tier/Fed						
Amboda(50)	0.74	0.42	0.48	0.38	0.62	0.28						
Bahirewadi(50)	0.00	0.24	0.12	0.10	0.08	0.27						
Chohotta bazar(50)	0.00	0.24	0.08	0.08	0.08	0.32						
Overall (150)	0.25	0.30	0.23	0.19	0.26	0.29						

Note: Figures in parentheses indicate the number of observations Source: Field Survey Data.

### Table 7.5B: Effectiveness of different types of extension services on group (SHG, PG, JLG) formation with respect to operational holding status of sample households.

	Effectiveness indices (0-1) by types of extension service in allied agriculture										
Operational landholding class	Formation of self-help groups	Creation of norms of behavior	Leadership developmen t	Knowledg e of book- keeping	Help in SHG- Bank link	Link with higher tier/Fe d					
Landless (13)	0.23	0.31	0.31	0.31	0.38	0.31					
Small (114)	0.29	0.29	0.25	0.18	0.30	0.27					
Large (23)	0.09	0.35	0.09	0.13	0.00	0.35					
Overall (150)	0.25	0.30	0.23	0.19	0.26	0.29					

Note: Figures in parentheses indicate the number of observations Source: Field Survey Data.

### Table 7.5C: Effectiveness of different types of extension services on group (SHG, PG, JLG) formation with respect to extent of local level familiarity of sample households.

Extent of	Effectiv	veness indic	es (0-1) by type agricult	es of extension ture	1 service	in allied
familiarity of households	Formation of self-help groups	Creation of norms of behavior	Leadership development	Knowledge of book- keeping	Help in SHG- Bank link	Link with higher tier/Fed
Nil (53)	0.02	0.11	0.09	0.08	0.09	0.09
Moderate(0)						
High(97)	0.37	0.40	0.30	0.25	0.35	0.40

Note: Figures in parentheses indicate the number of observations Source: Field Survey Data.

### Table 7.5D: Effectiveness of different types of extension services on group (SHG, PG, JLG) formation with respect to educational status of sample households.

	Effectiv	veness indio	ces (0-1) by typ agricu	es of extensio lture	on servio	ce in allied
Educational status of households	Formation of self-help groups	Creation of norms of behavior	Leadership development	Knowledge of book- keeping	Help in SHG- Bank link	Link with higher tier/Fed
Illiterate (3)	0.00	0.00	0.00	0.00	0.33	0.33
Literate (22)	0.05	0.18	0.09	0.09	0.09	0.23
Educated (80)	0.25	0.31	0.21	0.15	0.26	0.33
Highly educated (45)	0.36	0.36	0.33	0.31	0.33	0.24

Note: Figures in parentheses indicate the number of observations Source: Field Survey Data.

### Table 7.5E: Effectiveness of different types of extension services on group (SHG, PG, JLG) formation with respect to savings & insurance status of sample households.

Savings and	Effectiveness indices (0-1) by types of extension service in allied agriculture									
insurance status of sample households	Formation of self-help groups	Creation of norms of behavior	Leadership development	Knowledge of book- keeping	Help in SHG- Bank link	Link with higher tier/Fed				
Nil (46)	0.18	0.28	0.17	0.11	0.20	0.24				
Only savings (30)	0.40	0.33	0.37	0.23	0.43	0.33				
Only insurance (22)	0.14	0.23	0.09	0.09	0.09	0.09				
Both (52)	0.27	0.33	0.25	0.27	0.29	0.38				

*Note: Figures in parentheses indicate the number of observations.* Source: Field Survey Data.

#### 7.7 Effectiveness of general extension services among borrowers:

Individual demand and supply of credit may be influenced by general extension services. Hence from Table 7.6 A to 7.6 D several extension activities considered such creating as general awareness, are promoting cleanliness/sanitation, imparting knowledge on efficient use of fuel, creating awareness about input use, value addition and output marketing, building up better customer relations, display of product output, storage, repair and maintenance, works, contingent services and community improvement programmes. The effectiveness of such services is indicated from Tables 7.6 A to 7.6 D.

	E	ffectiv	eness	indices	s (0-1)	by types	of exte	nsion s	ervice i	n allied	agricultu	ire
Village name	are-ness camp	unliness/sanitation	cient fuel use	illigence in input use	wledge of value addition	keting intelligence	moting customer relation	play of output/ product	weldge of storage/ rodents/ t	wledge of repair/ ntenance	tingent advisory service	amunity improvement gram
	Awa	Clea	Effi	Inte	Kno	Mar	Pro	Disj	Kno	Kno mai	Con	Con
Amboda				<u> </u>								
(50)	0.52	0.9	0.84	0.8	0.38	0.6	0.42	0.36	0.52	0.44	0.22	0.28
Bahirewadi (50)	0.06	0.27	0.67	0.59	0.57	0.27	0.35	0.06	0.31	0.49	0.22	0.35
Chohotta bazar(50)	0.08	0.16	0.56	0.56	0.32	0.14	0.3	0.06	0.18	0.3	0.18	0.16

Table 7.6A: Effectiveness of general types of extension services across villages

Note: Figures in parentheses represent number of observations Source: Field Survey Data.

From Table 7.6 A, it can be observed that Chhotta bazar showed relatively poor effectiveness for most types of services as compared to Amboda and Bahirewadi. However in most types of services the effectiveness in Amboda and Bahirewadi was also unsatisfactory. With respect to operational holding status (Table 7.6 B), the effectiveness was observed to be below average except in case of efficient use of fuel and input use. Otherwise overall, all other

services were below average. Familiarity to important village personnel and with respect to maximum male educational status of sample households (Table 7.6 C and Table 7.6 D) did not seem to improve effectiveness to general types of extension services which was below average, except with respect to efficient fuel use and intelligence in input use as was observed in the previous table.

Table 7.6B: Effectiveness of general types of extension services with respect to operational holding status of sample households.

		Eff	ectivene	ss indice:	s (0-1) by	types of	extensi	on servio	e in allie	l agricul	ture	•
Operational landholding class	Aware-ness camp	Cleanliness/sanitation	Efficient fuel use	Intelligence in input use	Knowledge of value addition	Marketing intelligence	Promoting customer relation	Display of output/ product	Knowledge of storage/ rodents/ pest	Knowledge of repair/ maintenance	Contingent advisory service	Community improvement program
Landless ()	0.23	0.46	0.54	0.38	0.15	0.08	0.08	0.00	0.00	0.08	0.08	0.08
Small ()	0.23	0.45	0.69	0.66	0.45	0.37	0.36	0.17	0.39	0.43	0.19	0.28
Large ()	0.17	0.39	0.78	0.74	0.43	0.30	0.48	0.22	0.26	0.48	0.35	0.26
Overall (150)	0.22	0.44	0.69	0.65	0.42	0.34	0.36	0.16	0.34	0.41	0.21	0.26

*Note: Figures in parentheses represent number of observations* Source: Field Survey Data.

## Table 7.6C: Effectiveness of general types of extension services with respect to extent of familiarity to important village/local personnel.

		Eff	ectivene	s <mark>s i</mark> ndice	s (0-1) t	y types	ofextensi	ion servic	e in allie	d agricu	lture	
Extent of familiarity of households	Aware-ness camp	Cleanliness/sanitation	Efficient fuel use	Intelligence in input use	Knowledge of value addition	Marketing intelligence	Promoting customer relation	Display of output/ product	Knowledge of storage/ rodents/ pest	Knowledge of repair/ maintenance	Contingent advisory service	Community improvement program
Nil (53)	0.08	0.19	0.48	0.35	0.19	0.04	0.08	0.02	0.04	0.21	0.13	0.19
Moderate									_			
High(97)	0.30	0.58	0.80	0.81	0.55	0.49	0.51	0.24	0.49	0.52	0.25	0.30
Overall (150)	0.22	0.44	0.69	0.65	0.42	0.34	0.36	0.16	0.34	0.41	0.21	0.26

Source: Field Survey Data.

### Table 7.6D: Effectiveness of general types of extension services with respect to maximum male educational status of sample households

		Effecti	veness i	ndices	(0-1) by ty	pes of e	xtensio	n service	in allied	agricult	ure	
Maximum male education status	Aware-ness camp	Cleanliness/sanitation	Efficient fuel use	Intelligence in input use	Knowledge of value addition	Marketing intelligence	Promoting customer relation	Display of output/ product	Knowledge of storage/ rodents/ pest	Knowledge of repair/ maintenance	Contingent advisory service	Community improvement program
Illiterate (3)	0.00	0.33	0.33	0.67	0.67	0.00	0.67	0.00	0.67	0.67	0.00	0.00
Literate (22)	0.05	0.05	0.36	0.32	0.27	0.18	0.27	0.05	0.18	0.23	0.09	0.23
Educated (80)	0.19	0.44	0.78	0.71	0.48	0.35	0.35	0.17	0.35	0.47	0.24	0.30
Highly educated (45)	0.38	0.64	0.71	0.71	0.38	0.40	0.38	0.22	0.36	0.38	0.22	0.22
Overall (150)	0.22	0.44	0.69	0.65	0.42	0.34	0.36	0.16	0.34	0.41	0.21	0.26

Source: Field Survey Data.

Overall, from panel A, it is observed that out of all sample households (150), as many as 137 have expressed interest in agriculture, whereas 94 in animal husbandry, and none in fisheries. But these interest groups are not mutually exclusive. But while concentrating on borrowers incurring positive expenditure on extension services in these three fields, the size of the interest groups come down rapidly from 137 to 58 for agriculture and from 94 to 42 for animal husbandry. Large numbers of borrowers look up on extension as a free service. Within all relevant borrower groups, the indices of familiarity with government official extension services in agriculture and veterinary are 0.81 and 0.80. The average annual expenditure incurred by these two prime groups are, respectively, Rs.592 and Rs.353.

When size of holding is taken as an attribute, it is observed that across all size of holdings, highest importance is given to Extension bulletins (0.75), followed by Farmer's club (0.60) and then Television (0.54). It can also be observed that large farmers attached more importance to various sources of

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extension services than other groups. For example, the importance of production guidelines and farmer's club was 0.65 and 0.78 for large farmers while average was only 0.37 and 0.60 respectively.

It is observed that by and large across all villages there have been improved extension services except in a few cases. For example, the fertilizer application was weak in case of Bahirewadi and Chohottabazar and also in case of disease and parasite control. It is revealed as expected that in households where adult males are SSC and above SSC educated that extension services are effective. There is hardly any effectiveness of extension services for illiterate households. Effectiveness for most extension services was negligible in Bahirewadi and Chhotta bazar villages. With respect to operational holding status of sample households, by and large, the extension services were much below average or weak. In case of effectiveness of extension services with respect to extent of local level familiarity of sample households, it was observed to be very weak for households having nil local level familiarity and below average for households having high familiarity. In case of education status, the effectiveness was zero for illiterate households in case of formation of SHGs, creation of norms of behavior, leadership development and knowledge of book keeping. For, literate, educated and highly educated, the effectiveness of extension services was weak or below average. Again the effectiveness was observed to be below average or weak with respect to savings and insurance status of sample borrowers. Chohotta bazar showed relatively poor effectiveness for most types of services as compared to Amboda and Bahirewadi. However in most types of services the effectiveness in Amboda and Bahirewadi was also unsatisfactory. With respect to operational holding status, the effectiveness was observed to be below average except in case of efficient use of fuel and input use. Otherwise overall, all other services were below average.

After having discussed about the extension services, it is important to know its effectiveness and impact of benefit. Therefore, in order to know how effective the scheme was, to unlease the burden of the target group, an attempt has been made in next chapter to examine who benefited from this scheme and the nature of access to formal credit of the same beneficiaries, besides comparing characteristics of the beneficiaries vis-à-vis non-beneficiaries.

### **Agricultural Debt Waiver and Debt Relief Scheme**

#### 8.1 Introduction:

Indian agriculture is currently passing through a period of severe crisis. Although certain features of the crisis such as deceleration in growth rates, declining share of agriculture in Gross Domestic Product (GDP) and falling public investment in agriculture, started manifesting themselves in certain parts of India during the late 1980s, the crisis assumed a serious dimension since the middle of the 1990s. One of the tragic manifestations of the crisis is the large number of suicides committed by the farmers in some parts of India (GOI, 2007). In fact so alarming was the problem, that it attracted nationwide attention and generated frantic debates in the union and state legislatures. The spiraling of suicides in the past decade or so is clearly a symptom of agrarian distress and impoverished condition of farmers. Suicides were mainly concentrated in Karnataka, Andhra Pradesh, Kerala and Maharashtra<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Concerned with farmers' suicides in some parts of the country, the Hon'ble Prime Minister of India, after visiting some parts of the Vidarbha region in Maharashtra, announced a rehabilitation package on July 1, 2006 to mitigate the distress of farmers in the identified districts. On 29th of September, 2006, Union Cabinet approved the rehabilitation package for 31 identified districts in the State of Andhra Pradesh, Karnataka, Kerala and Maharashtra, called as "Prime Minister's Rehabilitation Package for the Farmers in Suicide Prone Districts of Andhra Pradesh (16 districts), Karnataka (6 districts), Kerala (3 districts) and Maharashtra (6 districts)". The rehabilitation package involves total amount of Rs.16978.69/- crores consisting of Rs.10,579.43/- crores as subsidy/grants and Rs. 6399.26 crores as loan. The implementation period of Prime Minister's (PM's) package was fixed for 3 years and included both immediate and medium term measures. The rehabilitation package aims at maintaining sustainable and viable farming and livelihood support system through debt relief to farmers, complete institutional credit coverage, crop-centric approach to agriculture, assured irrigation facilities, effective watershed management, better extension and farming support services and subsidiary income opportunities through horticulture, livestock, dairying, fisheries and other subsidiary activities. The credit related measures include three sub schemes, viz. debt relief to the farmers (reschedulement of loans), interest waiver and credit flow. Under this scheme, the overdue loans of the farmers as on July 1, 2006 were rescheduled over a period of 3 to 5 years with a one year moratorium. The entire interest on overdue loans to farmers as on July 1, 2006 was waived and all the farmers had

Considering the facts like low profitability in agriculture and high risk due to adverse climatic condition, asymmetric information, unnoticeable factors causing volatile price for agri-products, Government of India introduced a loan waiver scheme to get vulnerable farmers out of their indebtedness. In the Union Budget 2008-09, the then finance Minister announced a Debt Waiver and Debt Relief Scheme for farmers. It was stipulated that the scheme would cover agricultural loan reaching to small and marginal farmers through RRBs, Schedules Commercial Bank (SCB) and Cooperative Credit Institutions. The number of beneficiaries was initially estimated at nearly 30 million small and marginal farmers and 10 million other farmers with an estimated cost of Rs. 60000 crore. Later the beneficiaries turned out to be a figure of 37 million of small and marginal farmers and 5.97 million of other category farmers. The cost also increased to Rs. 71680 crore.

In order to know how effective the scheme was, to unlease the burden of the target group, an attempt has been made in the chapter to examine who benefited from this scheme and the nature of access to formal credit of the same beneficiaries, besides comparing characteristics of the beneficiaries vis-à-vis non-beneficiaries. Out of the total 150 sample households selected for the study, 65 households are found to have enjoyed the benefit of loan waiver scheme.

#### 8.1 Overview of Scheme:

The eligibility for debt waiver or debt relief, as the case may be, comprised of (a) in case of short-term production loan, the amount of such loan (together with applicable interest), and (b) in the case of an investment loan, the installments of such loan that are overdue (together with applicable interest on such installments), if the loan was (i) disbursed up to March 31, 2007 and overdue as on December 31, 2007 and remaining unpaid until February 29, 2008; (ii) restructured and rescheduled by banks in 2004 and in 2006 through

no past interest burden as on that date. Thus, they were immediately eligible for fresh loan from the banking system. Also adequate credit flow for fresh need was made available by the banks.

special packages announced by the Central Government, whether overdue or not; and (iii) restructures and rescheduled in the normal course up to March 31, 2007 as per applicable RBI guidelines<sup>2</sup> on account of natural calamities, whether it became overdue or not.

The scheme implied full waiver of 'eligible amount' in case of small and marginal farmers, while it involved only, one time settlement (OTS) in case of 'other farmers;, where the farmer would be given a rebate of 25 per cent of the 'eligible amount' subject to the condition that the farmer pays the balance of 75 per cent of the 'eligible amount'. In case of a farmer who has obtained investment credit for allied activities with the principal loan amount not exceeding Rs. 50000, he would be classified as 'small and marginal farmer; and, where the principal amount exceeded Rs. 50000, he would be classified as 'other farmer', irrespective of the size of his land holding, in either case.

At the initial stage, the loan relief scheme was enthusiastically welcomed on the basis of government endeavor towards unleashing the accumulated debt of the peasant communities. Later, however, the scheme invited criticism on several ground. Rath (2008) in this regard argued that the debt waiver and debt relief scheme would adversely hurt the functioning of cooperatives by discouraging farmers to maintain good financial behavior. EPW Research Foundation (2008) raised a pertinent question whether this scheme was conducive to sponsoring and strengthening a vigorous rural financial structure, where asymmetric bargaining strength existed and also where bank executives are known to withdraw lending at the smallest signal of loan recoveries. Based on the assumption that small and marginal farmers are always out of the formal credit sources, Dev (2008) felt that the scheme was not encouraging, and skewed towards irrigated and big farmers.

#### 8.3 Finding of the Study:

The distinctive characteristics across borrowers who benefited from loan waiver scheme are presented in Table 8.1. The table presents the comparison of

<sup>&</sup>lt;sup>2</sup> For details, see Annexure II.

household characteristics of the receipts of loan waiver with non-receipts of the same scheme and households with access to formal loan 2009-10, household with access to any loan in 2009-10, and all 150 sample households. The household characteristics which are examined across rows are caste and religion, poverty status, farmer type, education status, farm implement holding status, household asset holding status and familiarity with locally important personnel (in panels A to G, respectively). The percentages of row totals are indicated in brackets in each cell. A comparison of these percentage figures across columns thus indicate whether or not the receipt of loan waiver have distinctive characteristics in terms of these attributes, as compared to the other borrower group displayed in other columns of this table.

Table 8.1A: Distinctive Characteristics across borro	owers benefited	from loan
waiver scheme		

Household	Recipients	Non-	Households	Households	All Sample
characteristics	ofloan	recipients	with access to	with access	Households
	waiver	ofloan	formal loan in	to any loan	
		waiver	2009-10	in 2009-10	
	(Total- 65)	(Total- 30)	(Total-109)	(Total-128)	(Total=150)
A. Caste & Religion					
1. Upper Cast	22(33.85)	11(36.67)	40(36.7)	45(35)	50(33.3)
2. SC/ST/OBC	38(58.46)	19(63.33)	65(59.6)	78(61)	93(62)
3. Religious minority	5(7.69)	0(0.00)	4(3.7)	5(4)	7(4.7)
B. Poverty status					
1. BPL	18(27.69)	11(36.7)	34(31.2)	47(36.7)	58(38.7)
2. APL	47(72.31)	19(63.3)	75(68.8)	81(63.3)	92(61.3)
C. Farmer Type					
1. Landless	0(0)	2(6.7)	2(1.8)	9(7)	13(8.7)
2. Small	53(81.54)	24(80)	87(79.8)	98(76.6)	114(76)
3. Large	12(18.46)	4(13.3)	20(18.4)	21(16.4)	23(15.3)
D. Education Status					
1. Illiterate	2(3.08)	1(3.3)	3(2.8)	3(2.3)	3(2)
2. Literate	9(13.85)	1(3.3)	15(13.8)	19(14.8)	22(14.6)
3. Educated	36(55.38)	19(63.3)	58(53.2)	69(53.9)	80(53.3)
4. Highly Educated	18(27.69)	9(30)	33(30.28)	37(28.9)	45(30)

Note: Figure in parentheses are column percentages under every section of characteristics Source: Field Survey Data.

It can be seen from the table 8.1 A that although SC/ST/OBC categories are dominant among recipients of loan waiver (about 59 per cent), scheme of 2007-08, there was found be considerable proportion of upper caste clients (34 per cent) among these beneficiaries. In terms of poverty status, APL categories are more dominant (about 72 per cent), and there is also a bias in favor of this category among beneficiaries. Among size groups of farmers, small farmers are most dominant (about 82 per cent); there is also a bias in favor of this group among recipients of loan waiver. In terms of educational status, there is a bias towards educated (about 55 per cent) and highly educated (about 28 per cent) category.

Household	Recipients of	Non-recipients	Households with	Households	All
characteristics	loan waiver	of loan waiver	access to formal	with access to	Sample
	(Total- 48)	(Total- 200)	loan in	any loan in	Households
			2009-10	2009-10	(Total=150)
		·	(Total- 208 )	(Total- 302)	
E. Farm Implement Hol	ding				
1. Nil	57(87.69)	29(96.7)	99(90.8)	118(92.2)	139(92.7)
2. Less Equipped	4(6.15)	0(0)	4(3.7)	4(3.1)	4(2.7)
3. Highly Equipped	4(6.15)	1(3.3)	6(5.5)	6(4.7)	7(4.6)
F. Household Asset Ho	lding	**			•
1. Nil	2(3.08)	3(10)	1(0.9)	2(1.6)	5(3.3)
2. Less	7(10.77)	17(56.7)	12(11)	15(11.7)	17(11.3)
3. Moderate	36(55.38)	10(33.3)	61(56)	73(57)	83(55.3)
4. Good	20(30.77)	0(0)	35(32.1)	38(29.7)	45(30)
G. Familiarity with Loca	al Important pe	rsonnel			
1. Nil	18(27.69)	10(33.3)	33(30.3)	44(34.4)	53(35.3)
2. Moderate	0(0)	0(0)	0(0)	0(0)	0(0)
3. Good	47(72.31)	20(66.7).3)	76(69.7)	84(65.6)	97(64.7)

Table 8.1B: Distinctive Characteristics across borrowers benefited loan waiver scheme.

Note: Figure in parentheses are column percentages under every section of characteristics Source: Field Survey Data.

It can be seen from Table 8.1 B that among farm implement holding status of loan waiver beneficiaries, households holding no implements are the most dominant (about 56 per cent) and there is also a bias in favor of this category among beneficiaries. Within different household asset holding groups, those without any household asset seem to have been under-represented and those with moderate to good asset holding seem to have been over-represented. In terms of familiarity with important local level personnel, it is the group with good familiarity with locally important personnel that was the most dominant category (about 72 per cent). Thus, in terms of various observable borrower characteristics, one can say that the loan waiver scheme is tilted towards households from upper caste, APL category, with higher education as well as those with good degree of familiarity with locally important personnel. It is also true that there is some bias in favor small land holding groups, farmers without any implement and moderate household asset holding.

The frequency of distribution of loan waiver beneficiaries across different sources of formal credit during 2007-08 and 2008-09 is presented in Table 8.2. It can be seen from the table that 65 out of 150 sample borrowers got the benefit of this scheme during 2007-08, of which 82 per cent could access formal loan sources in 2008-09<sup>3</sup>. While all the beneficiaries had sourced loan from commercial banks during 2007-08, a meager 10 per cent of them could again access loan from same source. Obviously this does not speak highly about the loan waiver scheme as providing better access to the same sources in future. About 74 per cent of the beneficiaries after denial of loan from same commercial bank shifted to cooperative institutions in the next year.

Table	8.2:	Frequency	of	Distribution	of	Loan	Waiver	beneficiaries	across
Differe	ent Sc	ources of For	ma	l Credit durin	g 20	007-08	3 and 200	)8-09	

Sources of Credit	2007-08	2008-09
Commercial Bank	65(100)	5(9.43)
RRB	0(0.0)	0(0.0)
PACS	0(0.0)	31(58.5)
Multi Purpose PACS	0(0.0)	17(32.08)
Sub- total	65	53

<sup>&</sup>lt;sup>3</sup> As mentioned earlier, "Prime Minister's Rehabilitation Package for the Farmers in Suicide Prone Districts of Maharashtra (6 districts) also had credit component which includes debt relief to the farmers (reschedulement of loans), interest waiver and credit flow. Under this scheme, the overdue loans of the farmers as on July 1, 2006 were rescheduled over a period of 3 to 5 years with a one year moratorium. The entire interest on overdue loans to farmers as on July 1, 2006 was waived and all the farmers had no past interest burden as on that date. Thus, they were immediately eligible for fresh loan from the banking system. As on March 31, 2007, principal sum of Rs. 1418.48 crore of agricultural loans to about 9.38 lakh farmers from six districts has been rescheduled. Also the interest amount of Rs. 837.5 crore on above mentioned principal amount was waived. Private Bank has given loan waiver of total Rs. 4.48 Crore.
The borrower side information on loan waiver scheme across land holding groups are presented in Table 8.3. It can be seen from this table that accumulated debts of large farmers are much higher than that of small farmers. Small farmers have also repaid a part of their principal amount of loan, thus their accumulated debt amount stands around 61 per cent of the loan amount. Large farmers, on the other hand, are found to be facing a debt burden at 66 per cent of the borrowed amount. For small farmers, though in absolute terms expenditure in availing the benefit is less, the transaction cost as percentage of benefit received is marginally higher than large farmers. This is due to lower amount of benefit received by small farmer group.

Table 8.3: Borrower Side Information on Loan Waiver Scheme across Land Holding Groups

Land	Accumulated Debt up to march 31,2007	Principal Loan Amount	Interest charged	Number of Trips made to avail the benefits	Amount Benefit	Benefit as % of Debt	Expenditure to avail the benefit	Expenditure as % of benefit	Gap between announcement and disbursement of benefit amount
Landless (0)	-	-	-	-	-	-	-	-	-
Small farmer (53)	14420.47	21880.57	7.58	2.33	13449.30	93.27	82.65	0.61	4.42
Large farmer (12)	39377.00	41125.00	7.25	1.32	27310.33	69.36	150.00	0.55	3.61

Source: Field Survey Data.

Our finding in this chapter indicate that although SC/ST/OBC categories are dominant among recipients of loan waiver scheme of 2007-08, there is found to be considerable proportion of upper caste clients among these beneficiaries. APL categories are more dominant and there is also a bias in favor of this category among beneficiaries. Accumulated debts of large farmers are much higher than that of small farmers. Small farmers have also repaid a part of their principal amount of loan, thus their accumulated debt amount stands around 61 per cent of the loan amount. Large farmers, on the other hand, are found to be facing a debt burden at 66 per cent of the borrowed amount. For small farmers, though in absolute terms expenditure in availing the benefit is less, the transaction cost as percentage of benefit received is marginally higher than large farmers. This is due to lower amount of benefit received by small farmer group.

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## **Chapter 9**

# **Summary and Conclusions**

### 9.1 Introduction:

Agriculture is the mainstay of the Indian economy because of its high share in employment. The contribution of this sector to the gross domestic product (GDP) is however declining very rapidly and is presently about 14.5 percent (in 2010-11). Further this sector is also showing deceleration in growth rates. Therefore, it is very important for this sector to achieve higher growth rates and also be an engine of growth, so that growth in other sectors and overall growth rate of the economy can be achieved. Since independence, with the help of the institution of the Planning Commission and various policy measures, efforts have been made to promote the agricultural sector. The Green Revolution in the late 1960s and early 1970s signaled the beginning of a more dynamic agriculture which led to a clear shift from subsistence farming to market oriented production. Diversification and commercialization in agriculture have shifted the cropping pattern from subsistence crops to cash crops. For these changes to have occurred and for agriculture to become more dynamic, institutional credit plays a very important role. Credit enables the farmer to make investment and control resources so that productivity and production in agriculture can increase.

Recognizing the importance of credit which plays an important role in Indian agriculture, the government and Reserve Bank of India have played a vital role in creating a broad based institutional framework to ensure that adequate provision of credit is made to this sector. Hence over the decades, the share of informal credit is declining, while that of institutional credit is increasing. The informal intermediaries are mainly the moneylenders (traders,

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big farmers, commission agents, etc) who extend credit to farmers on personal relations at high rates of interest to which a non interest component is also added. Though, the government is making concerted efforts to reduce the dependence on moneylenders and other informal sources for credit, still the informal, segment has survived due to its inherent strength of close personal relations with farmers, flexibility and simple procedures which ease the delivery of credit to the resource poor farmers who are helpless and have dire need for credit.

Commercial Banks, three tier Cooperative credit structure and regional rural banks are the major agencies which farmers depend upon to access institutional agricultural credit. The Kisan Credit Card scheme was introduced in August 1998 for short and medium term loans to provide adequate and timely credit support from the banking system in a flexible and cost effective manner. The scheme has been extended since October 2006 for all kinds of loan requirements of borrowers of the State Co-operative Agriculture and Rural Development Banks (SCARDBs) under Kisan Credit Cards, i.e., short-term, medium and long term and a reasonable component of consumption credit within the overall limit sanctioned to the borrowers. The Agricultural credit policy essentially lays emphasis on augmenting credit flow at the ground level through credit planning, adoption of region-specific strategies, rationalization of lending policies and procedures and bringing down the cost of borrowing. Bank credit is available to farmers in the form of short-term credit for financing crop production programmes and in the form of medium/long term credit for financing capital investment in agriculture and allied activities like land development, including purchase of land, minor irrigation, farm mechanization, dairy development, poultry, animal husbandry, fisheries, plantation and horticulture. Loans are also available for storage, processing and marketing of agricultural produce.

## Minimalist Credit versus Credit Plus Approach:

The need for rural credit to boost the agricultural sector is well known. However, it may be noted that there are two different approaches with respect to the delivery mechanism. The first approach is the "minimalist" or "credit only" approach where only credit is provided with the assumption that it will be used by the beneficiary for economic activity without requiring any additional support while the other approach known as "maximalist" or "credit plus" approach provides in addition to credit other services such as capacity building, through various training programmes, access to markets, information, networking, etc. Several institutions in India have realized that only providing credit is not sufficient as farmers are in great need of extension services to make optimal use of their financial resources which can be converted to increased output. If credit disbursed to the farmer is not used properly, it may lead to a negative outcome. For example, if the farmer uses his credit to purchase spurious inputs, or does not use appropriate fertilizers or pesticides or does not have knowledge about ruling market prices, he may not get any benefit even if he has access to credit. It is in this context that credit plus approach has an important role to play so that the farmer is able to realize maximum yield and sell his produce at best possible prices.

There are a number of financial intermediaries which have adopted the "credit plus" approach. There are multipurpose Primary Agricultural Credit Societies like *Krishak Seva Sahakari Sansthas* located in different regions of Maharashtra. While these societies provide short, medium and long-term loans to its members, they also follow the "credit plus" approach by providing various other services to its members. Inputs and services of agricultural machinery such as tractor, threshers, etc are provided and the society also imparts extension services to its members. Marketing of the produce is also facilitated by the society. Among the new generation MFIs are prominent ones like BASIX whose main strategy is to provide a comprehensive set of livelihood promotion services which includes Financial Inclusion Services, Agricultural/Business Development Services and Institutional Development Services to rural poor households under one umbrella. The underlying rationale behind the Livelihood Triad strategy is that micro credit alone enables weaker sections in economically dynamic areas to become self-reliant. However, in backward regions, poor people in addition to microfinance, need a whole range of Agricultural/ Business development services such as productivity enhancement, risk mitigation, linkages with market, etc. Since it is not possible to deliver these services in a cost effective manner to individual households which are poor, it is necessary to organize them into groups or informal associations. The formation of such groups and making them function effectively requires institutional development services and hence BASIX adopted the Livelihood Triad strategy.

Yet another example of credit plus approach is the SHG-Bank Linkage Programme. Under the SHG-bank linkage programme, NGOs and banks interact with the poor especially women, to form small homogenous groups. These groups collect small sums of money amongst themselves and are taught simple accounting methods to enable them to maintain their accounts. Although individually it would be impossible for these poor to have savings to deposit in a bank account, the collective savings of all members in the group enable them to open a formal bank account in the name of the group. This serves as the first step in providing them with banking facilities. The pooled savings are then used to disburse small loans to members for meeting their emergency requirements. Since their immediate credit requirement is met, they can avoid borrowing at exorbitant rates of interest from moneylenders. They thus experience a sense of empowerment by belonging to a group. Gradually the bank also extends loans to them in multiples of their group savings. Bank loans enable the group to undertake income generating activities. This method of financial intermediation gathered momentum in 1990s and in 1992 NABARD launched the SHG-Bank Linkage programme and promoted the concept of SHG as a potent intervention tool as a part of its rural credit operations. NABARD, Small Industrial

Development Bank of India (SIDBI), Housing Urban Development Corporation (HUDC) and *Rashtriya Mahila Kosh* (RMK) are some of the institutions that operate as the wholesale financiers of microfinance. As "bulk financiers" they leverage funds from the government, market, donors and lenders for lending to NGOs. Reserve Bank of India and government lend support to SHG-bank linkage programme through policy formulation and regulation, while NABARD acts as a facilitator and a refinancing agency.

Besides the above, another form of credit plus approach is the formation of SHGs promoted by MFIs that focus on savings and credit and also provide training to its members. For example, *Chaitanya* is one of the pioneers of community based micro-finance institutions in India. It facilitated the formation of Grameen Mahila Swayamsiddha Sangh, the first federation of SHGs in Maharashtra, located in Khed taluka of Pune district. There are now fourteen federations in seven districts of Maharashtra. However, the SHG- bank-linkage model is more prominent in India.

From the above, it can be observed that there exists a wide spectrum of emerging models of SHG based institutions to meet the credit needs of the disadvantaged groups for whom provision of financial intermediation services is very costly and risky. This is because they have irregular income streams and expenditure patterns, are unable to provide collateral, suffer from inability to make productive use of loans which causes them to become defaulters by the banking system, etc. Micro finance thus helped to rescue them and emerged as a powerful instrument to empower the poor who were neglected by the mainstream banking industry, by providing not only credit but also adopting a "credit plus" approach. The organizations which participated in microfinance activities were non-profit organizations, private companies, financial institutional and registered banks. Different microfinance institutions are registered under different legislations.

## 9.2 Objectives:

The board objectives of this research study are as follows:

- 1. To observe whether all segments of the rural economy interested in credit (including allied agricultural activities) are really getting access to credit, and whether credit is being efficiently delivered to them in right quantity, and at appropriate terms and conditions, which is affordable to them.
- 2. To ascertain whether the terms and conditions of credit are consistent with the prevailing norms of equality – i.e., whether government interventions and regulations are sound enough to get rid of imperfections in the market for credit.
- 3. To determine whether available credit is being complemented by necessary extension services either from government extension agencies or, directly from credit agencies so as to contribute to livelihood promotion of borrowers across farm and non- farm activities and sustainability of both borrowers and lenders.
- 4. To assess whether government policy of cheap and concessional credit including loan waivers are contributing to efficiency, equity and sustainability of credit for rural households- i.e., to what extent government policy of the last several years has contributed to the first three objectives of this study.
- 5. To suggest a road map in terms of policy measures and innovative schemes to remove the gaps in existing credit policy and regulations, so as to strengthen the first three objectives of credit.

### 9.3 Conceptual Framework:

As credit involves exchange of future endowments with current resources, it necessitates trust between the two negotiating parties to lock a deal. Given high information asymmetry between lender and his prospective borrowers, lenders usually ask for marketable collateral to bridge the gap in mutual trust (if any). Commercial banks inclusive of RRBs, due to high transaction cost involved in gathering information as well as monitoring the action of a large number of scattered borrowers, heavily rely on collateral backed project financing. This keeps resource scarce sections of rural community, who are in dearth of collateral acceptable to formal financial channel but in pressing need of financing their consumption needs, outside the domain of formal financial channel. Since the market for credit is very much prone to the problems of market failure due to adverse selection (of both borrower and lender), moral hazard (i.e. willful or induced default) and hold up problem (i.e. non-willful default due to multiple risks beyond control of either the borrower or the lender), it is pertinent to examine whether and to what extent the process of credit delivery and credit repayment conforms to the safeguards against the various reasons for market failure, and whether government regulation and interventions have helped overcome these problems.

Efficiency' of credit delivery mechanism means not only availability of credit in right quantity, but also its availability in right quality i.e., available at the right time and with minimum response time depending upon the loan purpose. Credit must also be available to the borrower at appropriate terms and conditions, which he can afford. Terms and conditions of credit cover a whole spectrum of price and price like parameters such as interest rate, the mode of interest charging, repayment schedule, borrowers' transaction cost, borrowers' collateral demanded, flexibility in repayment of credit etc. In fact, the terms and conditions of credit must also cover the lenders' cost of credit including various risks confronted and subsumed by the lender. No organization of credit can survive unless it earns at least a normal rate of profit from its credit operations.

On the issue of equitable distribution of benefits of credit, the pertinent question is whether the gains of credit i.e., borrower's surplus and lender's surplus (in the language of market economics) are fairly distributed between the two sides. Similarly a sustainable credit system needs to be commercially viable; in the long run, for both the sides of a loan.

## 9.4 Study Methodology, Sampling and Coverage

Against above stated theoretical issues, the present study attempts to analyze both borrower and lender behavior under alternative systems of credit. Thus, the main focus of the study was on analysis of lenders' side data across selected Scheduled Commercial banks (SCB), selected RRBs, selected PACS, selected Multipurpose Cooperatives and Microfinance Institutions.

In view of the large numbers of farmers' suicide recorded in Vidarbha Region of Maharashtra State, suitable sample from the appropriate cluster [such that all forms of credit organizations – both formal (namely, scheduled commercial banks (SCBs), RRBs, primary agricultural credit societies (PACS) or multipurpose PACS, branches of district central cooperative banks (DCCBs)) and non-formal (namely, traditional money-lending organizations, and MFIs – whether promoted by government, NGO or NABARD as non-profit entities, or promoted by private bodies for profit-making (called NBFCs)) are functioning ] were selected. In order to get the impact of cooperative structure, one village from Kolhapur district near Warana Cooperative was selected.

Given the fact that a village is likely to be catered by several credit institutions, we must be careful in choice of villages. For example, while choosing a village mainly catered by SCBs/RRBs, we need to ensure that these lending organizations have a major or at least significant share in that village. As other lending agencies are likely to be there in the same village, contestability across lenders is likely to get reflected, if sample households are suitably chosen. As MFIs constitute a very small share in the national context, the area within a state was chosen such that MFIs were significantly present (with, say, at least 10 per cent share) in the selected villages. Given rather low order of penetration of micro-finance institutions (MFIs) in the district as a whole, but presence of clusters of such organizations, Panhala taluka of Kolhapur district and Akot taluka of Akola district as a cluster of MFIs were chosen in the first place, before selecting village/s from that cluster such that all forms of credit organizations in those villages were taken together to test contestability across various lending organizations, as mentioned above.

One village from Panhala taluka of Kolhapur district and two villages from Akot taluka of Akola district were chosen with each having the dominant presence of at least one of the following sources of credit - namely, SCBs/RRBs, PACS, multipurpose PACS, and MFIs. This allow for assessment of the performance of the institutions providing only credit or credit plus services. Thus, total of three villages, i.e. Amboda and Chohatta bazaar from Akot Tahsil of Akola district and Baheriwadi, Panhal taluka of Kolhapur district was selected. Once 3 villages were selected, ensuring functioning of all types of formal and non-formal lending institutions, three different types of questionnaires for these villages were canvassed – (i) a village questionnaire to identify and record village level demographic, land use, infrastructure, and government (schematic) intervention parameters, which may have an impact on credit delivery and credit use; (ii) lender-level questionnaire to seek some broad information from 2 or 3 major lending organizations within each selected village on their business and experience on loan waiver/relief; and (iii) a questionnaire to perform complete enumeration of all village households on the basis of some of their credit experiences both before March 2007 (the cut-off date for loan waiver/relief scheme) and after March 2008 (the announcement date for the above-mentioned scheme).

From each village, 50 sample farmer households from agriculture and allied activities were drawn. Thus, the study covered data from a maximum of 150 (50 x 3) households from 3 villages. While structured questionnaires was designed to extract some common quantitative information of each lending branch, utmost emphasis was placed on qualitative case analysis through interaction with the lending organizations.

It was expected that the collected data expected would highlight the distinctive characteristics of households not availing credit, those starved of credit, those accessing only non-formal credit, and those getting formal credit with or without loan waiver/relief benefits, besides highlighting differential credit experiences of different borrower groups. Although one-point may not entirely serve the purpose of impact assessment or for sustainability analysis in the true sense of these terms, nevertheless some preliminary or tentative findings were highlighted for more rigorous testing in the future – preferably with help of a panel type data. The collected data was tabulated and analyzed in order to to highlight the role of various exogenous parameters at household level, at village level, at lending institution level and also at broad policy level for the country as a whole.

#### **9.5 Study Findings:**

## 9.5.1 Access to Credit:

• The potential and actual access to credit of sample rural households indicates that the formal-2 has the highest importance as source of credit-in both potential and actual sense. Informal 2 has got the second highest importance, and formal 1 has lower order of importance. However, both semi-formal 1 and semi-formal 2 captures very lower order of importance. Formal credit sector has overall 67.1 per cent weightage in terms of actual access, whereas 5.4 per cent and 27.5 per cent weightage goes to semi-formal and informal source of credit, respectively.

- The result highlights the role of formal-2 which includes the cooperatives in augmenting credit in sample villages in Maharashtra. Leveraging on the cooperative principle, the source has evolved as a successful player in preventing its members from turning to traditional informal source i.e, village money lender. Similarly, the conversion ratio between potential and actual access is highest for formal-2 (95.83 per cent) followed by informal-2 (75 per cent). The entire sample of 150 households has on average 1.17 units of loan across sectors with the exception of formal-1 which has advanced 1.85 unit of loan per borrower. This supports the criticism of concentric lending to a few by SCBs/RRBs.
- Formal-2 emerges as most important source of credit to the villagers of Amboda followed by informal-2. Formal-2 has more than 50 per cent share in both potential as well as actual sense. Though SCBs/RRBs stand at a far distant position as compared to their cooperative counterpart with around 21 per cent market share, they emerge as forerunner in conversion from potential to actual access. Formal-2 has also provided highest unit of loan per borrower which is 1.92 as against village sample average of 1.24.
- In village Baheriwadi also formal-2 emerges as the most dominant player with 63.3 per cent market share followed\_by\_informal-2\_with 21.7 per cent market share. Surprisingly, even though the urban cooperative bank runs a departmental store at a close proximity to the village, it still has a considerable share of local merchants offering credit service. Formal-1 captures a mere 1.7 per cent. This may be primarily due to the presence of an urban cooperative bank with fulfilling long term credit need of the villagers, while short term need is been met by PACS.
- Though in all the sample villages formal-2 has the highest share in access, in Chohottobazar it is the lowest with 45.7 per cent market share with a close competition from informal-2. In terms of potential access, upper caste Hindu Households seem to have performed better only in three

sources-namely, formal-1, formal-2 and informal-2 and had better access to all sources of credit except both semiformal sources and informal-1(traditional moneylenders). However, in terms of actual access, they seem to have performed better only in two sources – namely, formal 2 and informal 2. In formal 2, they have managed to convert their potential access into actual access to the order of 84.31 per cent.

- The SC/ST/OBC category of borrowers seems to have managed in terms of potential access for formal-2 followed by informal-1. However, in terms of actual access, they have enjoyed access with formal-1, formal-2 and informal-2. Their conversion ratio between potential and actual loan realization is very high for all sources except for informal-1. There are very few borrowers from minority class.
- APL borrowers seem to have better potential as well as actual access with respect to formal-2 and informal-2. Their conversion ratio between potential and actual access to credit is above 50.0 per cent for all sources except for semi-formal 2. The APL households enjoy better access in potential as well as actual terms with respect to both formal sources and informal 2. For all these three sources their conversion ratio between potential to actual access is also high (i.e, more than 70.0 per cent).
- The landless households enjoy some edge in terms of potential as well as actual access only with respect to informal 2 sources. However, their conversion rate between potential and actual access is high (i.e., higher than 60 per cent) with respect to formal-2, semi-formal 1 and informal 2 sectors.
- The small farmer category of borrowers seems to have comparative advantages in accessing credit from both the formal sources and informal-2. All the three sources have high conversion rate between potential and actual access (i.e., higher than 60 per cent).

- Large farming households seem to have comparative advantage in terms of potential as well as actual access for both formal sources which also have more than 100 per cent conversion ratio.
- Educated and highly educated borrowers have better access in potential as well as actual sense to both the formal sources as well as with informal-2. Access of literate borrowers is also limited to three sources.
   'All these three sources have high conversion ratio.

Table 9.1:	Access t	co credit of	f all samp	le borrowers	across sources

Source	Access in	Access in	% importance	% Importance	Actual
	potential	actual	of different	of different	Access as %
	sense in	' sense in	potential	actual sources	of Potential
	numbers	numbers	sources		Access
Formal 1	32	20	14.9	12.0	62.5
	(46)	(37)	(18.3)	(19.0)	(80.4)
Formal 2	96	92	44.9	55.1	95.83
	(110)	(98)	(43.7)	(50.3)	(89.1)
Semi-formal 1	6	4	2.8	2.4	66.7
	(8)	(4)	(3.2)	(2.1)	(50.0)
Semi-formal 2	16	5	7.6	3.0	31.3
	(17)	(5)	(6.8)	(2.6)	(29.41)
Informal 1	8	4	3.8	2.4	50
	(8)	(4)	(3.2)	(2.1)	(50.0)
Informal 2	56	42	26.3	25.1	75
	(63)	(47)	(25)	(24.1)	(74.6)
Total	214	167	100	100	78.04
	(252)	(195)	(100)	(100)	(77.4)

Source: Field Survey

## 9.5.2 Terms and conditions of rural credit

- It is observed that total 167 loans have been availed by 150 sample households. Major share (55.09 per cent) is generated from cooperative sector. Other major sources are informal-2 (25.15 per cent) and formal-1 (11.98 per cent). Semiformal sources have meager share even after deliberate choice of village with the presence of an NBFC-MFI.
- Informal-1 source though has provided very limited number of loans provides the highest amount of loan followed by formal-2. This sample includes borrowers of PACS, provider of short term loan as well as a

strong urban cooperative bank which primarily concentrates on mid term loan. This may have reduced the necessity of borrowers to turn towards formal-1 for a higher amount of loan. Informal-2 (i.e., other rural lenders) and formal-2 (i.e., cooperatives), primarily because of the nature of their own activities (e.g., supplying inputs, groceries, medicines etc., or marketing of produce) as well as due to their proximity and closeness to the borrower, provide a fairly large component of loan in kind.

Loan source	Loan amount in Rs	Kind component in %	Duration in months	Range of annual interest rate (%)*
Formal-1(20)	27850.00	0.00	12.60	6.0-12.5
Formal-2 (92)	34920.65	14.00	13.05	3.0-11.0
Semi-formal1 (5)	26200.00	6.5	13.20	10.0-11.0
Semi-formal 2 (4)	18666.67	0.00	12.00	18.0-24.0
Informal-1 (4)	49250.00	0.00	15.75	24.0-50.0
Informal-2 (42)	18541.46	55.28	13.23	0.0-20.0

Table 9.2: Basic quantitative attributes of loans across loan sources

Notes: Figures in parentheses represent numbers of loan cases arising out of the sample households; \* it is range, which can be diminishing balance rate Source: Field Survey Data.

In terms of average duration of loans, the situation is fairly comparable, though the informal-1 segment seems to have provided longest-duration loans on an average (15.75 months). The distribution of loans across various categories, reveals that annual basis forms the most dominant category (67.06 per cent), followed by monthly basis, daily basis, total loan duration and 'couldn't say' and with weights of 11.37 per cent, 10.17 per cent, 5.99 per cent and 3.59 per cent, respectively. The dominant basis of interest rate calculation is annual for both formal-1 and formal-2 sources (90 per cent and 84.78 per cent, respectively). For another major source i.e, informal-2, 40.47 per cent of the loans has called for daily interest charges followed by annualized charges (26.19 per cent).

- Among the 167 loan cases, as many as 13.77 per cent have zero interest rate, 54.49 per cent have interest charged on flat basis, and 33.53 per cent cases have interest charged on diminishing balance. In case of formal-1 sources, interest charged on diminishing balance is the dominant pattern (75 per cent), though some cases of flat interest charges (25 per cent) are also observed. In informal-2, the dominant pattern is zero interest (47.61 per cent), though there are a few cases of interest charging on flat and diminishing balance mode (35.71 per cent and 16.67 per cent, respectively). Charging merely zero interest rate is possibly a sign of good gesture by the neighbours or relatives in need.
- Incidence of upfront collection of interest is found to be highest among semi-formal-2 lenders (67 per cent) followed by semi-formal 1 and informal 1 (60 per cent and 25 per cent, respectively). On the other hand, regarding the extent of use of incentives to induce loan repayment on/before time, formal-2 source has the highest record of 25 per cent, followed by formal-1 (14 per cent) and informal-2 (13 per cent). Neither of the semiformal source nor the traditional money lenders uses this devise. Semiformal lenders could obviate the need for monetary incentive for maintaining a healthy account due to peer pressure. The traditional informal lenders due to their long term relationship as well as proximity to the borrowers normally ensured timely recovery of dues without offering any discount.
- Among the three main purposes for which loans have been sourced, majority is for production purposes (76.05 per cent). Formal sources and informal-2 (includes input dealers) evolve as the dominant players (100 per cent, 88.05 per cent & 50 per cent, respectively) in this segment. Informal-2 is the major source of supply of consumption loans.
- The most important type of collateral used is mortgaging of farmland (37.12 per cent). Formal-2, informal-1 and informal-2 sources have a strong liking for this type of collateral and weightage of this collateral in

their loan portfolio was 56.52 per cent, 50.00 per cent and 19.04 per cent, respectively. Among the 167 loan cases arising among the sample borrowers, in 22.15 per cent cases, there is no security or collateral. Almost 60 per cent of the loans extended by informal-2 sources fall in this category. This source has also extended a considerable number of loans (23.80 per cent) under personal guarantee. These lenders, due to their nearness as well as intimate knowledge of the borrowers, could extend loan without taking any marketable collateral. Personal guarantee has evolved as one of the major source of collateral (i.e., 34.78 per cent) for formal-2 source.

- Formal and semi-informal sources are making use of borrower's deposits with them in building up their confidence to extend loans to such borrowers. The high proportion of loan cases with borrowers having deposit with semiformal-1 source are highlights the increasing importance of this channel as the poor SHG members becoming creditworthy through regular savings.
- Semiformal sources are found to have provided 8.67 and 12 installments of repayment respectively. The highest installment in semiformal sources is primarily due to monthly repayment schedule. While both the formal sources provide loans for a fairly large duration (for both the cases approximately 13 months), loan of formal-2 source is repaid in 50 per cent installments to that its formal-1 counterpart. As cooperatives provide loan for short term production loans whose repayment is primarily linked to harvest, they may need lesser installments, their repayment schedule is shorter. Although both informal sources are providing moderately long-duration loans (about 16 and 13 months, respectively), they seem to be in favor of lesser number of repayment installments (3 and 2, respectively).
- The highest incidence of lump sum repayment is observed in formal-2 source (79 per cent), followed by informal-2 (49 per cent). Regarding

holiday period traditional rural money lenders are found to have provided maximum flexibility (25 per cent). Formal sources are somewhat tilted towards relatively rigid range.

- Both the semiformal sources seem to be somewhere in the middle in terms of flexibility ranking. While informal-1 is observed to be relatively rigid, informal-2 sources tends to relatively more flexible to its clients. This may be due to their intrinsic knowledge about the locality as well as proximity to the borrower which allows close supervision.
- Contrary to common belief, default rate is moderately high in informal-2 sector (14.29 per cent and 7.52 per cent, respectively, in terms of loans cases, & loan amount).
- Both formal sources are generally entrusted with the responsibility of making large number of small loans to their borrowers in the presence of various government schemes.
- Crop failure (45 per cent cases) followed by low profit/poor income (35 per cent cases) and adverse weather are two prominent reasons cited by the borrowers for default. Across the sources, the reason for default is distributed among these three cited reasons. The most prominent recourse cited is request for postponement of loan repayment (about 43 per cent), followed by request for postponement of interest repayment (about 37 per cent), requesting extra dose of credit (about 9 per cent) and allowing liquidation of asset (about another 5 per cent). In about 7 per cent of cases the borrowers fail to provide any response.
- For formal-1 the prominent recourses are postponement of loan repayment. For formal-2 the prominent recourses are postponement of loan repayment, postponement of interest repayment and allowing extra credit dose. For semiformal-2 the prominent recourses are postponement of loan repayment, postponement of interest repayment, and allowing liquidation of asset in declining order of importance. This source also to certain extent allows extra credit dose. Formal-2 and

informal-2 display the maximum order of flexibility or shock absorption power to help the borrowers in the face of unforeseen contingencies. While the former one is the village level people's institution, the later exercises next door neighborhood approach.

## 9.5.3 Estimating Transaction Cost

- 4

- Contrary to the popular belief, borrower has paid the maximum number of visits to traditional money lenders (4.25). But when we express travelling cost and wage loss of borrower as percentage of the sanctioned loan amount, this figure turns out to be the lowest one. The second best alternative in terms of opportunity cost is formal-2 which includes village level cooperatives thus minimizing the travelling cost as well as wage loss. The next cheaper alternative was other rural lenders in absolute as well as in percentage of the sanctioned loan amount
- Semiformal sources as well as formal-1 turned out to be a costlier for the borrowers in terms of transaction cost (absolute terms as well as in percentage of the sanctioned loan amount). When, the borrower puts more effort in terms of number of alternatives explored and number of days lost therein, it may be looked upon as the importance he attaches to that particular kind of loan, on the one hand, and as the borrower's keenness to avoid the final source of credit, on the other.

Loan sources	No. of visits	Travelling	Wage lost	Transaction cost on
	to final	cost per	per visit	visits to final lender
	lender	visit		as % of loan amount
Formal-1 (20)	2.63	37.11	125.26	1.00
Formal-2(92)	2.41	7.40	43.47	0.41
Semiformal-1(5)	3.20	14.00	160.00	2.10
Semiformal-2(4)	2.00	50.00	200.00	3.00
Informal-1(4)	4.25	0.00	37.50	0.32
Informal-2(42)	2.00	25.92	55.04	0.96

 Table 9.3: Transaction cost for loans across sources

Note: Figures in parentheses represent # of loan cases. Source: Field Survey Data.

- Formal-2 and informal-1 turn out to be at the lower end of the spectrum with semiformal-2 at the highest end followed by semiformal 1. In terms of gap between application & disbursement of loan in days semiformal-2 turns out to be the most beneficial to the clients. The figure is maximum for SCBs/RRBs (37.40 days) followed by the cooperatives (25.41 days). This makes both these source the least choice in case of emergency.
- In terms of application fee SCB/RRBs as well as NBFCs are the costliest. The same pattern is observed in case of expenditure on documentation. Processing fee is the largest for semi-formal 2 and lowest (0) for informal-1 sector.
- In terms of overall transaction cost of this kind as percentage of loan amount, semi-formal 2 turns out to be the costliest, followed by formal 1. Here again, because the loan size is relatively large for formal sector sources, semi-formal loan turn out to be much costlier as compared to formal sector loans. Semi-formal 2 again turns out to be the costliest source of borrowing with 16.87 per cent transaction cost, followed by semiformal-1(6.53 per cent) and formal-1 (4.81 per cent). Cooperatives have a much lower figure giving its a comparative edge over others. Traditional money lenders have evolved as source with involving least transaction cost from borrowers' point of view.

Loan sources	Expenditure on loan application in Rs.	Expenditure on documentatio n in Rs.	Whether exemption from documentation fee allowed (0-1)	Processing fee in Rs.	Total transaction cost on application, documentation & processing fees in as % of loan amount
Formal-1 (20)	110.00	282.50	0.10	10.00	1.41
Formal-2(92)	46.87	127.79	0.41	8.47	0.5
Semiformal-1(5)	21.00	107.00	0.20	42.00	0.06
Semiformal-2(4)	125.00	300.00	0.09	100.00	2.81
Informal-1(4)	0.00	25.00	0.29	0.00	0.05
Informal-2(42)	19.00	38.44	0.77	0.99	0.30

Table 9.4: Transaction cost in terms of application, documentation & processing fees classified by loan source

Note: Figures in parentheses represent # of loan cases. Source ; Field Survey Data.

## 9.5.4 Inter-linkage and Credit Plus

- Interlinking is prevalent among the transactions held with formal and semi-formal sources and predominantly with Banks/RRBs and coops. This arrangement has turned out to be beneficial for clients as borrowers could avail insurance 1.60-2.00 per cent cheaper than the market price.
- Input-credit type of interlinkage is observed in transactions with cooperatives, SHGs as well as input dealers. Service offered by cooperatives are 3.75 per cent cheaper than comparable market. Input dealers also offer at around 1.00 per cent cheaper rate, perhaps to protect their market share.
- Credit-extension type of inter-linkage is available with formal-2 as well as with input dealers. Though emergency service is available from cooperatives, SHGs and village merchants were they found to be costlier than comparable services.
- Production risk and complementary input price hike have evolved as the main problems faced by majority of the borrowers across villages. On the average, the borrowers seem to have handled those problems to some extent and have realized marginal profit (with an average score of around 1.5). Individual effort evolves as the single most important way to handle the range of problems faced while utilizing the production loan. Help from neighbors emerges as second best resort available to the borrowers. Support from 'credit plus' provider is found to be helpful in only 23 cases (i.e., 15.3 per cent).

Sources of Credit	Formal-1 (20)	Formal- 2 (92)	Semiformal- 1(5)	Semiformal- 2(4)	Informal- 1(4)	Informal- 2(42)
Insurance	• 0.25	0.23	0.00	0.00	0.00	0.00
Tenancy contact	0.00	0.00	0.00	0.00	0.00	0.00
Input purchase	0.00	0.14	0.40	0.00	0.00	0.07
Output sale	0.00	0.00	0.00	0.00	0.00	0.00
Labor sale	0.00	0.00	0.00	0.00	0.00	0.00
Extension service	0.00	0.03	0.00	0.00	0.00	0.03
Emergency service	0.00	0.07	0.40	0.00	0.00	0.07
Consumption inputs purchase	0.00	0.00	0.00	0.00	0.00	0.30

## Table 9.5: Incidence of different types of interlinking across lending agencies

Notes: Formal-1: Commercial Banks and RRB, Formal-2: PACS, Semiformal: MFIs promoted by Govt. / NABARD; Semiformal-2: Private MFIs/ NBFCs, Informal-1: Money Lender, Informal-2: Grocery Friends/Relatives etc.

Table 9.6: Extra market charges (%) for interlinked service across credit sources

Sources of Credit/Charges	Formal-1 (20)	Formal- 2 (92)	Semiformal-	Semiformal- 2(4)	Informal- 1(4)	Informal- 2(42)
Extra charge on insurance	-2 (5)	-1.60 (22)		 (0)	  (0)	 (0)
Extra charge on						
tenancy	(0)	(0)	(0)	(0)	(0)	(0)
Extra charge on		-3.75	-3.00			-0.83
Input price	(0)	(12)	(2)	(0)	(0)	(2)
Extra charge on						
output price	(0)	(0)	(0)	(0)	(0)	(0)
Extra charge on						
labor sale	(0)	(0)	(0)	(0)	(0)	(0)
Extra charge on						
extension		-1.00				-0.83
service	(0)	(3)	(0)	(0)	(0)	(1)
Extra charge on						
emergency		2.33	2.00			1.00
Service	(0)	(3)	(2)	(0)	(0)	(2)
Extra Charge on						
consumption						10.5
Goods	(0)	(0)	(0)	(0)	(0)	(12)

Note: Figures with negative sign indicate interlinking transaction is cheaper, whereas figures with positive sign indicate the opposite, as compared to the market rate.

## 9.5.5 Extension service in the context of rural credit

- It is observed that out of all sample households (150), as many as 137 have expressed interest in agriculture, whereas 94 in animal husbandry, and none in fisheries. But these interest groups are not mutually exclusive. But while concentrating on borrowers incurring positive expenditure on extension services in these three fields, the size of the interest groups come down rapidly from 137 to 58 for agriculture and from 94 to 42 for animal husbandry. Large number of borrowers look up on extension as a free service.
- Within all relevant borrower groups, the indices of familiarity with government official extension services in agriculture and veterinary are 0.81 and 0.80. The average annual expenditure incurred by these three prime groups are, respectively, Rs.592 and Rs.353. Both familiarity indices and annual expenditure figures are far lower for other groups (e.g., for an agriculturist for veterinary or fishery).
- The same things also holds true in panel B, which reports average figures for borrowers incurring positive expenditure on official extension services in these two fields. The familiarity indices shoot up to 1.29 and 1.67, respectively, for interest groups of borrowers engaged in agriculture and animal husbandry.
- The average annual expenditure on extension by these two groups also rise significantly from Rs.592 to Rs.1398 for agriculturist borrowers and from Rs.353 to Rs.844 for borrowers with major interest in animal husbandry. There is however high degree of variability in reported figures in these two panels, as can be seen from the high values of cv (reported in parentheses).

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Table 9.7: Familiarity with official extension service and approximate annual expenditure thereon across activities

	Agriculture	Animal husbandry	Fisheries
Activity type	(137)	(94)	(0)
Index of familiarity in			
agriculture (0-3)	0.81 (81.54)	0.80 (87.50)	0(0)
Annual expenditure (Rs) on			
extension in agriculture	591.97 (193.81)	563.82 (203.73)	0(0)
Index of familiarity in veterinary			
(0-3)	0.51 (161.17)	0.67 (131.99)	0(0)
Annual expenditure (Rs) on			
extension in veterinary	257.0 (254.95)	353.29 (216.25)	0(0)
Index of familiarity in fisheries			
(0-3)	0(0)	0(0)	0(0)
Annual expenditure in Rs. on			
extension in fisheries	0(0)	0(0)	0(0)

Panel A: Averages for all observations engaged in relevant activities

## Panel B: Averages for observations incurring positive annual expenditure

Activity type	Agriculture (58)	Animal husbandry(42)	Fisheries (0)
Extent of familiarity (Agriculture)	1.29 (40.99)	1.0 (86.99)	0 (0)
Approx annual (Rs) expenditure (Agriculture)	1398.28 (100.97)	731.57 (168.76)	0 (0) ·
Extent of familiarity (Veterinary)	0.48 (170.20)	1.65 (32.21)	0 (0)
Approx annual (Rs) expenditure (Veterinary)	239.65 (214.86)	843.68 (121.02)	0 (0)
Extent of familiarity (Fishery)	0(0)	0(0)	0 (0)
Approx annual (Rs)expenditure (Fishery)	0(0)	0(0)	0 (0)

Note: Figures in parentheses represent number of observations for the first column and the value of CV for other columns, respectively, for the first and other columns in both panels of this table.

## 9.5.6 Debt Waiver Scheme

- Although SC/ST/OBC categories are dominant among recipients of loan waiver (about 69 per cent) scheme of 2007-08, there were found to be considerable proportion of upper caste clients (34 per cent) among these beneficiaries. In terms of poverty status, APL categories are more dominant (about 72 per cent), and there is also a bias in favor of this category among beneficiaries.
- Among size groups of farmers, small farmers are most dominant (about 82 per cent); there is also a bias in favor of this group among recipients of loan waiver. In terms of educational status, there is a bias towards educated (about 55 per cent) and highly educated (about 28 per cent) category.
- Among farm implement holding status of loan waiver beneficiaries, households holding no implements are the most dominant (about 56 per cent) and there is also a bias in favor of this category among beneficiaries.
- Within different household asset holding groups, those without any household asset seem to have been under-represented and those with moderate to good asset holding seem to have been over-represented.
- In terms of familiarity with important local level personnel, it is the group with good familiarity with locally important personnel to be is the most dominant category (about 72 per cent). Thus, in terms of various observable borrower characteristics, one can say that the loan waiver scheme is tilted towards households from upper caste, APL category, with higher education as well as those with good degree of familiarity with locally important personnel. It is also true that there is some bias in favor of small land holding groups, farmers without any implement and moderate household asset holding.
- It is seen that 65 out of 150 sample borrowers got the benefit of this scheme during 2007-08, of which 82 per cent could access formal loan

sources in 2008-09. While all the beneficiaries had sourced loan from commercial banks during 2007-08, a meager 10 per cent of them could again access loan from the same source. Obviously this does not speak highly about the loan waiver scheme as providing better access to the same sources in future. About 74 per cent of the beneficiaries after denial of loan from the same commercial bank shifted to cooperative institutions in the next year.

- Accumulated debts of large farmers are much higher than that of small farmers. Small farmers have also repaid a part of their principal amount of loan, thus their accumulated debt amount stands around 61 per cent of the loan amount. Large farmers, on the other hand, are found to be facing a debt burden at 66 per cent of the borrowed amount.
- For small farmers, though in absolute terms expenditure in availing the benefit is less, the transaction cost as percentage of benefit received is marginally higher than large farmers. This is due to lower amount of benefit received by small farmer group.

## **9.6 Policy Implications:**

The study brings us to the following policy implications:

1. It was observed from the study that cooperatives which refer to formal 2 is the most important source of credit both in potential and actual access. This indicates that despite various forms of credit and emerging new forms of microfinance, the cooperative sector plays a key role in access to credit in rural households. Maharashtra is one of the pioneering states in spearheading the cooperative movement and Kolhapur is considered as the home of the cooperative movement in Maharashtra, where the seeds of this movement were sown as early as 1912-13. However, the present data show that by and large PACS in Maharashtra are not functioning efficiently and percentage of overdues to outstanding in 2007 was 35.7

percent. Primary data revealed that crop failure and high input prices was the cause of overdues. It is therefore necessary to strengthen the agricultural sector so that yield levels can be increased. Akola district where field survey was conducted suffers from low irrigation facilities, and lack of protective irrigation is a major threat to low production. If farmers realize higher yields, it will augment their income and thus they will not become defaulters which will promote the financial health of cooperative societies. These societies also have a credit plus approach and our sample revealed that 14 percent of loan was provided in the form of inputs. If these cooperative societies increase their credit plus approach and provide more inputs and extension services to farmers, it will go a long way to strengthen the cooperative credit structure and also maintain their viability. The cooperative movement in Maharashtra has played a major role in the socio economic development of the state and hence the cooperative societies must be rehabilitated so as to serve the purpose for which they have been formed.

2. Although Commercial banks and RRBs are an important source of credit, in our sample it was observed that farmers preferred the cooperative societies. The overall picture for Maharashtra revealed that out of total credit, 47 percent is provided by commercial banks, 2.6 percent by RRBs and 50 percent by cooperatives (NABARD, 2007). Thus overall commercial banks are playing a major role in providing credit. However, the share of RRBs is negligible. Our sample borrowers avoided credit from commercial banks due to distance of the bank from their village and high travelling cost. Hence better communication facilities will enable farmers to access credit from formal 2. However, formal 2 does not have a credit plus approach. Commercial banks must therefore consider adopting a policy of credit plus.

- 3. Indian agriculture is characterized mainly by marginal and small farmers. These farmers are reluctant to borrow from formal sources such as banks as they find it difficult to repay timely, and also have to incur transaction costs. Micro finance which is gaining popularity as a source of credit can come to the rescue of the marginalized group due to the nature of their operations. They have a credit plus approach and have the capacity to empower the poorest of poor. However, in our survey, it was observed that there were negligible cases when sample households approached semi formal institutions for loan. It is therefore necessary to popularize these institutions in Maharashtra, so that self help groups can be formed and with the help of NGOs or NABARD, more marginal and small households who are deprived of formal credit can take advantage and improve their earning capacity.
- 4. Despite concerted efforts made by RBI and other government institutions to strengthen formal credit since last six decades or so, informal credit such as money lenders, friends and relatives still play a role in satisfying the need for finance. The reasons are clear: loans can be obtained for consumption needs, no processing is involved and close\_personal relations provide flexibility to terms and conditions. The Maharashtra state government allows private money lenders who obtain license from Commissioner of Co-operation to disburse loans. At present there are about 9000 licensed private money lenders and 1.45 lakh cultivators who have borrowed from them in Maharashtra. Our survey however, revealed that farmers preferred to borrow from relatives and other informal 2 sources rather than approach moneylenders. Therefore till date the legacy of informal sources of credit persist. This again therefore leads us to conclude that policy must be addressed on a war footing to the "credit plus approach" which will play a major role in strengthening agriculture.

While credit does provide access to inputs, it is credit plus which will enable the farmer to reap the benefits from credit as he gets appropriate extension services and quality inputs alongwith credit. If credit plus is popularized the farmer will be able to reap higher yields, augment production, increase income and thus be able to repay his loans. He will therefore not be a defaulter and thus a vicious circle will not be created, but rather credit institutions will become viable. The need for loan waivers and other such schemes will not arise which again will help to maintain fiscal stability in the country.

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#### **1.** Evolution of BASIX:

The idea of microfinance is not a new concept; it has been realized at different times in different parts of the world. The microfinance activities were initially carried out Latin America and South Asia, however the most famous case was initiated in Bangladesh in 1976 when Muhammad Yunus started his Grameen Bank which is presently the biggest microfinance institution in the world. There are more than ten million microfinance borrowers only in Bangladesh engaged in more than one million small enterprises and other professions. Now the idea has been spread across the world with similar models to countries from Africa, Eastern Europe, Asia and even to developed countries like England and United States.

Founded in Gujarat in 1974, Self Employed Women's Association (SEWA), the first microfinance institution in India is an ideal model for community owned sustainable financial service delivery. Afterwards various other institutions incorporated mostly as Society, Trust, Cooperative or NBFC started delivering microfinance products. The lending activities through joint liability system were first introduced in Andhra Pradesh and other South Indian states National Bank for Agriculture and Rural Development (NABARD) also launched a SHG scheme in 1992 as a pilot project in microfinance. In 1996 Reserve Bank of India (RBI) officially accepted the SHGs as mainstream activity of banks under priority sector lending. The Government of India recognized the role of microfinance for financial inclusion of the rural people and mentioned about it in Union Budget 1999

BASIX was established in 1996 by Vijay Mahajan, a strong believer of the "New Economy." Vijay has once mentioned that he believes "the unshaken belief in the power of the market is a thing of the past. There is now a lot more questioning about the untrammelled power of the market to solve most problems." He attributed the reason to the failure of the market to address growth and social justice even at the developed countries. In one recent interview with NDTV he has mentioned that in USA 55 million people do not have account and another 50 million do not have proper accounts; so total 105 million which is half of adult population of USA, the capital of free market economy, does not have access to formal financial system.

Unlike most of the other microfinance institutions, it was incorporated with RBI as an NBFC and not as a society or trust or Section 25 company. From its very initiation it did not depend on grant money for its operation and mobilized commercial flow capital. The economic reform and liberalization of Indian economy also holds importance for development of BASIX as an NBFC. BASIX always believed that microfinance institutions can operate in a sustainable manner without depending on grant or subsidy. It brought several new innovations in the sector; it was determined to change the inherent credit indiscipline of the borrowers that had crippled the system for years by schemes such as loan waiver, subsidy etc.

#### **1.** Subsidiaries of BASIX:

The holding group BHARTIYA Samruddhi Investments and Consulting Services Ltd. Or BASICS (commonly known as BASIX) was established in 1996 with the objective of promoting livelihood for rural poor. Initially it set up two arms; Bhartiya Samruddhi Finance Ltd, a micro-finance institution, in 1997 and Krishna Bhima Samruddhi Local Area Bank Ltd, a not for profit company providing technical services, in 1999. The BASIX group controls the following five subsidiary companies:

- a) Bhartiya Samruddhi Finance Ltd. (BSFL): BSFL (also known as Samruddhi), the flagship company of the BASIX group was incorporated with Reserve Bank of India (RBI) as an NBFC under the Companies Act, 1956. Other than providing micro-credit, BSFL also provides Agricultural & Business Development Services and Institutional Development Services to its customers. BASIX' initial holding of 100% in the BSFL was reduced to 49.5% in 2001 with equity investment from other stakeholders such as International Finance Corporation- Washington, Shorebank- Chicago, Hivos- Triodos Fund- Netherlands, the ICICI Bank and HDFC Limited.
- b) Krishna Bhima Samruddhi Local Area Bank Ltd. (KBSLAB): In several of his speeches including the one at Microfinance India Award 2009, Vijay Mahajan the founder of BASIX also emphasized on mobilization of deposits and formation of cooperative banks and mentioned SEWA as the ideal example of it. KBSLAB (also known as Samruddhi Bank) was formed for this purpose; it was granted license by Reserve Bank of India in 1999, to carry on banking business as a local area bank in three backward districts; Raichur & Gulbarga in Karnataka and Mahboobnagar in Andhra Pradesh. The restriction of operation limited to three adjacent districts was a regulation from RBI. The Bank started its operations in February, 2001. Samruddhi Bank is a wholly owned subsidiary S which has invested Rs. 50 million in the bank. KBSLAB was formed to mobilize rural savings and make them available for investment in area of operation of the LAB. It also lowered the cost of funds and the effective interest rates in the above-mentioned three districts.
- c) Indian Grameen Services (IGS): IGS which was set up in 1987 is a not-for-profit company, registered under the Section 25 of the Companies Act. IGS is engaged in research, development and livelihood training, basically the activities which the BFSL is not supposed to do. During initial years, IGS focused on identifying and developing livelihoods, then on provision of technical assistance and support services, and finally on providing marketing support. However, from 2001-onwards, IGS shifted its focus on two areas, first, institution build up, including other companies of the BASIX group, various development organizations and community based organizations (CBOs); and second, knowledge building on livelihood promotion and carry out action research in both financial and non-financial sectors. It also started a fund called LAMP (Livelihood and Microfinance Promotion Fund) in 2001 to promote microfinance and livelihood initiatives and community based organisations.
- d) The Livelihood School: The Livelihood School is a livelihood promotion institution which was started by BASIX group on 2004. The two core activities of the school are

knowledge building about principles & methods of livelihood promotion and knowledge dissemination to various livelihood development practitioners & agencies. The difference of livelihood school with AGS is that while the latter is welcome to buy fixed assets and earn income from that, the former being a school is not supposed to do that following IT and Legal regulations.

e) Sarvodaya Nano Finance Ltd. (Sarvodaya): Sarvodaya is an NBFC registered with RBI. Sarvodaya is owned by women's Self-Help Groups, and managed by BASIX.

#### 2. Distinctive features:

From its very initiation BASIX has always tried to change the rules of the game and become a path-breaker in the sector. One important point to mention here is that, the reason for BASIX' several new innovations, was its perseverance to innovate. As Dr. Sankar Datta, Head-Livelihood School puts it "BASIX has been able to produce 50 innovations in the sector; however there are probably 1000 failures without which these 50 would not have been possible." It had the financial resources to experiment through trial & error and it exercised that capacity. The following sections will depict some of the distinctive features of BASIX.

#### a) External Factors:

- **2.1 Incorporation:** The fact that BASIX is different than the other microfinance institutions was clear from its very incorporation with the RBI. The flagship company BFSL was the only microfinance institution in India at that time to be registered with RBI as an NBFC; while all others were registered as public societies. It was an amalgamation of for profit entities (BFSL & KBSLAB) with not-for-profit entities (IGS).
- **2.2 Sources of funds:** While all other microfinance institutions were at the outset mostly dependant on grants from different sources, BASIX was voluntarily seeking loans and not grants from its very beginning. It acquired loans from various national and international sources such as Sir Ratan Tata Trust, The Ford Foundation, Swiss Agency for Development Cooperation etc. One striking point which should be remembered is that all the above payments from these organizations were their first ever contribution as loan to any microfinance institution. In 2003, ICICI provided Rs. 4 crore crop loan to BASIX which was also hitherto unprecedented in India.
- **2.3 Procedures:** BASIX changed some of the established norms of the MF sector to get rid of the age old problems and ensure smooth & speedy operation. It followed a detailed documentation process in case of first time borrowers; however, the process for the repeat borrowers is simple and could be completed within a short span of time. It used IT system comprehensively to streamline the loan monitoring process which also reduced the cost of supervision. The repayment schedule was built keeping in mind the irregular income of the rural borrowers with higher moratorium for some borrowers whose income takes time to generate for the first time.
- **2.4 Risk Mitigation Techniques:** There are two types of repayment defaults; wilful and unintentional. BASIX wanted to minimize both the defaults by changing the repayment habits of the rural borrowers. Loan waiver schemes by central and state governments over the years had changed the repayment norms in India and establishing a standard was foremost important to ensure goo repayment practices. The repayment rate of BASIX is more than 98% which is very high in the industry.
- Wilful Defaults: BASIX diminished wilful defaults by establishing regular visits by its CSAs (Customer Service Agent) and ensuring social collaterals through JLCs (Joint Liability Group) and peer assessments. The concept of JLC was adopted from the Bank for Agriculture and Agricultural Cooperatives (BAAC), Thailand.
- Unintentional Defaults: To minimize unintentional defaults, BASIX used various measures which are described below,

**Support Services:** BASIX provided many value additive services like agri consultancy services, insurance of the assets, regular check-up of the animals etc. It tied up with other service providers to ensure these services to their borrowers at nominal cost. These activities are described in details in the next section.

*Loan through intermediaries:* Indirect loans through input suppliers or product buyers were provided which also reduced the cost of operation.

**Portfolio Management:** As de-risking measures it kept limits for providing loans to farm and non-farm sectors; there was ceiling for extending loans to farm sector which is riskier and there was a floor for giving loans to non-farm sector which is regular and less risky.

## b) Internal Stakeholders:

**Recruitment and incentive system:** One major reason for BASIX' success is its recruitment process and performance of its manpower at the bottom level. In spite of rapid growth in many states, BASIX follows a thorough recruitment process which is different from the normally hasty process of some of the other MF institutions for recruitment at the bottom level. The lowest organizational component, Unit Office (UO) comprises one Unit Head (UH) supported by some Field Executives (FX) and Transaction Assistants (TA). There are some Customer Service Agents (CSA) who works under each FX.

BASIX recruits people who have knowledge about rural India and good academic background for the post of FX and UHs. Normally persons with MBA degree or degree in the fields like agriculture, veterinary science, dairy technology etc are recruited. After initial screening of the applicants, final selection is done at the Head Office or at the State Head Offices. CSAs are also recruited with inputs from HO.

The employee remuneration has two components; fixed part and the incentive which is variable. The incentive of the UH and FXs is linked to the performance of the individual and also to the performance of the branch they work in. However, CSAs are not directly on the payroll of the company and receive only incentives based on their own performance. However, all the employees including the CSA are highly motivated and always consider themselves as an integral part of the BASIX system.

#### 3. Credit Plus Activities:

The key idea behind BASIX "Credit Plus" approach is that the livelihood promotion is not just about presenting credit to the poor people; it's also about providing credit in right time and right amount, providing support services and market linkages integrated with technical assistance to make the borrowers equipped to utilize the loan benefits in a sustainable manner. BASIX provides many such services to its borrowers or arrange third parties to provide those services. • TASS: BASIX has been trying to promote sustainable livelihoods by providing credit and Technical Assistance and Support Services (TASS) in an integrated manner in collaboration with the existing institutions. The following example will demonstrate one of many examples of how other assisting services in addition to credit have been able to make turn-around for individuals and communities.

Mahabubnagar district in Andhra Pradesh had high population of people especially women engaged in Dairy as low rainfall and small landholdings had made farming difficult in the district.

Andhra Pradesh Dairy Development Cooperative Federation (APDDCF) formed six Milk Chilling Plants (MCPs) in Mehbubnagar district in 1980s out of which three MCPs away from the state capital Hyderabad were not functioning in 1997. Though the capacity of each MCP was 10,000 litres/ day, the average milk procurement by them was only 1290 litres/ day which was much less than the breakeven volume 6000 litres/ day. There were many other problems including nonexistence of cooperatives, lack of credit facilities, absence of fattesting, adulteration, uneven milk production, spoilage etc. Animals were not getting proper food, care and vaccination. Unable to bear the heavy loss, in 1997, APDDCF was planning to close the MCPs.

Some improvement was initiated by the APDDCF manager Mr. Prem Kumar who was appointed in early 1998. He started organizing training for the milkmen, established new milk routes and nine milk producers' cooperatives. Following these, the productivity saw an increase of about 95% with improved quality, reduced adulteration and 80% less spoilage. However, even this improved scenario was not enough to support the dairy industry.

In 1999, BASIX completed a survey after having discussion with Mr. Prem Kumar and decided to extend its support to the milk producers. BASIX provided loans to the MCP recommended borrowers; New India Assurance was employed to provide animal insurance and MCPs started giving TASS to farmers. BASIX disbursed loan of more than Rs. 60 lacs to 15 milk cooperatives and 500 plus farmers. BASIX helped the MCP to procure required infrastructure like fat testing & weighing machines, computers and electronic payment system; and develop integrated software.

As a result, milk production was enhanced to 6400 litres/day in 2001, was an increase of nearly 400% to the 1997 period; operational cost was also lowered significantly. A comparative study between villages which received credit and TASS fully or partially with others which did not receive them reveals following interesting facts,

Villages received	Increase in milk productivity
No TASS, No Credit	30%
No TASS, Only Credit	34%
Only TASS, No Credit	117%
Both TASS and Credit	183%

The above statistics clearly shows that both credit and technical services are required for development of the sector. The synergy between BASIX, milk-farmers & farmers' communities and other sub-sectoral agencies provided the necessary infrastructural support and technical assistance for sustainable development of the sector.

#### IPM Intervention in the Cotton Subsector

The cotton farming in India suffers from the low productivity and high cost. The sector is highly labour intensive in nature which prompted BASIX to enter the subsector which could provide a substantial livelihood opportunity especially for dryland areas. BASIX observed that the major problems with the cotton subsector is unnecessary usage of high volume of pesticides which not only raise the input cost (pesticide contributes to 40% of the input costs for a non-irrigated farm) but also is a major threat to the land and ecology. On the basis of initial study id decided to get involved in the sector through Integrated Pest Management (IPM).

It started the pilot project for the cotton subsector in the Adilabad district of Andhra Pradesh in 2001. It went to the field and talked to the farmers individually to make them realize the concept of IPM and convince them to participate in the process change. BASIX used technical experts to educate the farmers and finally some of them agreed to accept the pilot. Credit facility was also provided to the participants along with technical assistance; however, in the initial phase existing BASIX borrowers were not made a part of the project. The project was extremely successful; the pesticide usage was reduced to 35% in the first year and then to 15% of the earlier usage. The intervention increased the earnings of the participating farmers by more than 100%. However, the middlemen who were earning profits at the cost of the farmers by charging higher pesticide costs and buying back the produce at a lower price raised stiff resistance.

The following year BASIX took up another village Koutla-B which is inhabited by large and influential cotton farmers. It formed a MACS (Mutually Aided Cooperative Societies) so that the farmers can avail bulk discounts for purchasing inputs and put collective efforts for marketing their products. The MACS also opened an input store for selling high quality input at market price and to supply the pesticides immediately in case of a pest attack. The store had Rs. 58 lakhs turnover after the end of first year of operation whereas the original estimate was only Rs. lakhs. Their customers include the farmers from the other villages also. The MACS members were able to gather higher selling price from the local commission agents.

Over the next few years many other developments took place in the subsector. The agents or middlemen had slashed their rates by more than halves. The major agri-input sellers awarded dealer status to the MACS store with proper margins; the major portion of the profit was passed on to the villagers. BASIX gave training to the MACS member on inventory management and accounts handling and also a computer system.

The success of the MACS at Koutla-B encouraged formation of over 20 cotton farmers' cooperatives over the next five years. This case also illustrates how BASIX successfully used the subsector approach for economic development of the members.

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• Weather Insurance: The conventional system of crop insurance was complex in nature and it was difficult & time consuming procedure for farmers to obtain the money in case of crop failure. The process is heavily subsidized and the insurer i.e. the government also losses money. The conventional system is unsuccessful to gauge the merit of the claims and fails to distinguish between the reasons for crop failure i.e. between natural causes like poor rainfall, pest attack etc and poor workmanship; in case of latter the farmers are not eligible to receive compensation.

BASIX understood that the joint liability concept would be difficult to implement here as in case of crop failure due to farmers negligence, the group members will find it difficult to directly blame the negligent farmer. So BASIX launched a new crop insurance system jointly with ICICI-Lombard which is based on weakly rainfall (with reference to last 30 years rainfall data in the region) where the farmers are eligible to receive money if the weakly rainfall is not within the normal limits i.e. between 12 mm and 48 mm. The process in simple as the rainfall data is easily available from the Meteorological Department. Farmers are happy because they get their dues quickly and the premiums are also not subsidized. However, the same service could not be extended to crop failure due to pest attacks for lack of data availability from third parties.

• Agriculture Business Development Services: Along with weather insurance which addresses the production risk, it is also required to reduce market risk and develop better agricultural practices. With thess aim in mind, BAIX launched the Agriculture Business Development Services (AgBDS) service for its borrowers which on one hand provide technical assistance for better yield and on another, tries to provide market risk solutions to ensure reasonable price for the inputs and minimum price for the produces. AgBDS which is a fee-based service, presently serve more than 50,000 subscribers.

## 4. Field Trip to BASIX' Nalgonda Branch Office:

Our visit to BASIX headquarters at Hyderabad and field trip to Nalgonda district to interview some BASIX borrowers was extremely enriching. Two of the many superb stories are mentioned below which captures our experience to some extent:

#### 5. Controversy over credit vs. credit plus approach:

BASIX thinks that the core of microfinance programmes is much higher than mere distribution of money. BASIX, which is a leading proponent of credit plus approach, believes that greater collaborations between various institutions like insurance agencies, banks, technical service providers, input providers etc and microfinance institutions are sine-qua-non to achieve its aim of livelihood promotion rather than stand-alone microcredit approach. It tries to encourage and cultivate community-based initiatives where poor people develop communities which are interlinked to other existing institutions in order to provide essential input and output linkages. It encourages its borrowers to avail other related services like insurance, training and competency development, advisory services etc.

However, there are many other microfinance institutions which think alternatively. They believe that the role of microfinance is limited to extending credits to poor people and the microfinance institutions should concentrate only on that. The diversification of their role in too many other activities would reduce their core competence which is providing credit.

How BASIX has extended a supporting hand to the poor and helped them overcome their financial problems was witnessed in the inspiring story of Mrs. Andaloo who lives in a small village under Nalgonda district. After the untimely death of her husband she was left with only a small Kirana shop to support her three sons. The scanty income from the shop was not enough for running the family and providing education to her sons. Andaloo, a 7th standard pass out was unable to pursue any other profession since she had to work as the homemaker also. The only way out of the problem was to refurbish her small shop to increase income from it. At that crucial juncture BASIX came forward to help her; it provided a loan of Rs. 10,000 in 2006 to renovate and expand the shop. She took two subsequent loans from BASIX for the same purpose. The loan from BASIX has helped her to expand and modernize the shop and increase her income. Now all three of her sons are studying and she is satisfied with their progress. She dreams that two of her sons will become engineers; one has already joined the engineering college and another hotel management. She now wants her sons to get married now and leave peaceful life.

Credit plus Approach: The advocates of credit plus approach argue that other facilitating services are required as lack of credit is not the only problem for the poor; there are many other such as dearth of technical knowledge, skill, institutional linkages etc. Unless such services are provided to them, they will not be able to come out of the poverty trap. The credit plus services reduce risk for the borrowers; so they are naturally attracted more towards this. The risk of default for the microfinance institution is lower for two reasons: firstly because the chance of adverse selection is less as the credit plus institutions hold more information about their borrower and secondly, because the borrowers are more likely to generate expected income from their activities and pay back the dues in time. There is also a reduction in the operational cost for the lender because of using other cost effective delivery channels like loan through input/output providers etc. The credit plus model is sustainable, as it reduces the transaction costs by using cost-effective delivery channels like loan disbursal through input/output providers etc and lowers the operational costs by offering multiple services from a single channel. In addition, borrowers not only gains physical assets which is the primary purpose of the loan, but also acquire intangible assets like self-esteem, social acceptance, technical prowess etc which comes with the credit plus activities and skill building.

**Conventional Approach:** The supporters of the conventional microfinance approach (also called minimalist approach) believe otherwise. Their notion is that the microfinance institutions are expert in providing credit and they should only focus on that. The diversification into credit plus activities will not only cause them lose their focus but also increase the operating cost for the requirement of additional manpower and the need to train them for capacity building; without competent staff it will be impossible to carry on credit plus activities. They argue that the conventional approach is uncomplicated to pursue and much easier to attain scalability; it could be offered to large beneficiaries in a shorter span of time. Also it would be necessary before launching a innovative model to carry out researches which may not be successful always. It's difficult for an institution using private funds to show such losses in their accounts. There is difficulty in buying assets for a school like BASIX livelihood

school and earning profit out of that which in case of BASIX has been taken care of by the IGS. BASIX has various subsidiary companies to deal with these problems; which though have similar goal of livelihood promotion, are engaged in different set of activities. For a company which is no having so many different subsidiaries, it's difficult to involve in such diverse activities.

The contradiction between the credit plus and the conventional approaches is not bad for the microfinance industry and its intended beneficiaries as long as they continue to serve their basic objectives. Also it is difficult to compare the two approaches because of lack of data obtained through primary surveys and scarcity of published literature.

#### 6. Future Challenges:

The problem that could upset the structure and functioning of BASIX in future is the physical disintegration of its subsidiaries which were earlier situated under one roof. Through Finance Bill, 2008 government has tried to separate the non-profit organization from the profit organization for the fact that many profit making organization have been making profit under the disguise of non-profit ones; there is use of public fund for making private profit. One recent article "Commercialisation of Microfinance in India: A Discussion on the Emperor's Apparel" by Prof. M. S. Sriram also severely criticizes this tendency of some MF institutions'. It would be difficult for BASIX to continue work with all its components in an integrated manner. The IGS and the Livelihood School have already been physically distanced from the other components of the BASIX. However there is a possibility that this move may hamper the smooth exchange of information and sharing of knowledge between the sister concerns; the synergy which is so required for the success of BASIX may get jeopardized. As Sankar Datta puts it, "BASIX should be considered as a comprehensive whole with all its subsidiaries, because all of them are engaged to fulfil the BASIX vision which is to promote large number of livelihood for poor people." Unnecessary government regulation may stifle a system which otherwise has been functioning well to provide credit to poor people and generate livelihoods. The regulator is required to monitor the sector and bring it back to track in case of any deviation or noncompliance to rules; however it should not stifle the system by overburdening the regulatory processes.

Vijay Mahajan in one of his interviews has also stressed the need to have a self regulating mechanism for enforcing code of conduct for the microfinance institutions. A self regulating body in line of MFIN (Microfinance Institutions' Network) of which Vijay Mahajan is the president could be useful for self regulation. This group can work towards making the microfinance sector transparent and less exploitative. However, without a formal directive and absence of punitive measures the body may not be much helpful. Another point is till date some of the microfinance institutions have not joined the group; they are also not bound by any regulation to be a part of the group. So the responsibility of following the group guidelines does not lie with them.

Another challenge that BASIX has to face is the grooming of next generation leaders who will take the baton from the legendary Vijay Mahajan. It needs to recruit people who not only have boundless talent but also similar mindset to continue the great work that BASIX has been pursuing over the years.

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Annexure II

#### RBI/2007-2008/331

#### UBD.PCB.Cir.No. 43/13.05.000/07-08

May 23, 2008

The Chief Executive Officers of All Primary(Urban) Co-operative Banks

Dear Sir/Madam,

#### Union Budget – 2008-09 – Agricultural Debt Waiver and Debt Relief Scheme, 2008 -UCBs

As you are aware, the Hon'ble Finance Minister, in his Budget Speech (paragraph 73) for 2008-09 has announced a debt waiver and debt relief Scheme for farmers, for implementation by all scheduled commercial banks, RRBs and co-operative credit institutions.

2. The detailed Scheme notified by the Government of India along with necessary explanations is enclosed. The urban co-operative banks may take necessary action towards implementation of the Scheme at the earliest. The implementation of the Debt Waiver and Debt Relief Scheme should be completed by **June 30, 2008**.

3. Further communication in respect of this Scheme would follow.

Yours faithfully,

(Uma Shankar)

**Chief General Manager** 

## **AGRICULTURAL DEBT WAIVER AND DEBT RELIEF SCHEME, 2008**

# 1. Introduction

1.1. The Finance Minister, in his Budget Speech for 2008-2009, announced a Debt Waiver and Debt Relief Scheme for farmers.

1.2. Guidelines for implementation of the Scheme are given below.

## 2. Scope

2.1 The Scheme will cover direct agricultural loans extended to 'marginal and small farmers' and 'other farmers' by Scheduled Commercial Banks, Regional Rural Banks, Cooperative Credit Institutions (including Urban Cooperative Banks) and Local Area Banks (hereinafter referred to compendiously as "lending institutions") as indicated in the Guidelines.

2.2 The Scheme shall come into force with immediate effect.

## 3. Definitions

3.1. 'Direct Agricultural Loans' means Short Term Production Loans and Investment Loans provided directly to farmers for agricultural purposes. This would also include such loans provided directly to groups of individual farmers (for example Self Help Groups and Joint Liability Groups), provided banks maintain disaggregated data of the loan extended to each farmer belonging to that group.

3.2. 'Short Term Production Loan' means a loan given in connection with the raising of crops which is to be repaid within 18 months. It will include working capital loan, not exceeding Rs. 1 lakh, for traditional and non-traditional plantations and horticulture.

## 3.3. 'Investment Loan' means

(a) investment credit for direct agricultural activities extended for meeting outlays relating to the replacement and maintenance of wasting assets and for capital investment designed to increase the output from the land, e.g. deepening of wells, sinking of new wells, installation of pump sets, purchase of tractor / pair of bullocks, land development and term loan for traditional and non-traditional plantations and horticulture; and

(b) investment credit for allied activities extended for acquiring assets in respect of activities allied to agriculture e.g. dairy, poultry farming, goatery, sheep rearing, piggery, fisheries, bee-keeping, green houses and biogas. 3.4. 'Cooperative Credit Institution' means a cooperative society that

i) provides short-term crop loans to farmers and is eligible for interest subvention from the Central Government; or

ii) carries on banking activities regulated or supervised by RBI or NABARD; or

iii) is part of the Short-Term Cooperative Credit Structure or Long-Term Cooperative Credit Structure in a State or Union Territory.

3.5. 'Marginal Farmer' means a farmer cultivating (as owner or tenant or share cropper) agricultural land up to 1 hectare (2.5 acres).

3.6. 'Small Farmer' means a farmer cultivating (as owner or tenant or share cropper) agricultural land of more than 1 hectare and up to 2 hectares (5 acres).

3.7. 'Other Farmer' means a farmer cultivating (as owner or tenant or share cropper) agricultural land of more than 2 hectares (more than 5 acres).

## Explanation:

1. The classification of eligible farmers as per the above landholding criteria under the Scheme would be based on the total extent of land owned by the farmer either singly or as joint holder (in the case of an owner-farmer) or the total extent of land cultivated by the farmer (as tenant or share cropper), at the time of sanction of the loan, irrespective of any subsequent changes in ownership or possession.

2. In the case of borrowing by more than one farmer by pooling-their landholdings, the size of the largest landholding in the pool shall be the basis for the purpose of classification of all farmers in that pool as 'marginal farmer' or 'small farmer' or 'other farmer'.

3. In the case of a farmer who has obtained investment credit for allied activities where the principal loan amount does not exceed Rs.50,000, he would be classified as "small and marginal farmer" and, where the principal amount exceeds Rs.50,000, he would be classified as 'other farmer', irrespective in both cases of the size of the land holding, if any.

4. Direct agricultural loan taken under a Kisan Credit Card would also be covered under this Scheme subject to these Guidelines.

5. A short-term production loan and an investment loan taken by a farmer shall be counted as two distinct loans and the Scheme will apply to the two loans separately. Likewise, in the case of a farmer who has taken two investment loans for two separate purposes, the two loans shall be counted as two distinct loans and the Scheme will apply to the two loans separately.

## 4. Eligible amount

4.1 The amount eligible for debt waiver or debt relief, as the case may be (hereinafter referred to as the 'eligible amount'), shall comprise of:

(a) in the case of a short-term production loan, the amount of such loan (together with applicable interest):

(i) disbursed up to March 31, 2007 and overdue as on December 31, 2007 and remaining unpaid until February 29, 2008;

(ii) restructured and rescheduled by banks in 2004 and in 2006 through the special

packages announced by the Central Government, whether overdue or not; and

(iii) restructured and rescheduled in the normal course up to March 31, 2007 as per applicable RBI guidelines on account of natural calamities, whether overdue or not.

(b) in the case of an investment loan, the installments of such loan that are over due (together with applicable interest on such installments) if the loan was:

(i) disbursed up to March 31, 2007 and overdue as on December 31, 2007 and remaining unpaid until February 29, 2008;

(ii) restructured and rescheduled by banks in 2004 and in 2006 through the special

packages announced by the Central Government; and

(iii) restructured and rescheduled in the normal course up to March 31, 2007 as per applicable RBI guidelines on account of natural calamities.

*Explanation:* In the case of an investment loan disbursed up to March 31, 2007 and classified as non-performing asset or suit filed account, only the installments that were overdue as on December 31, 2007 shall be the eligible amount.

4.2. The following loans shall not be included in the eligible amount:

(a) advances against pledge or hypothecation of agricultural produce other than standing crop; and

(b) agricultural finance to corporates, partnership firms, societies other than cooperative credit institutions (referred to in para 3.4), and any similar institution.

4.3 Nothing contained in this Scheme shall apply to any loan disbursed by a lending institution prior to March 31, 1997.

# 5. Debt Waiver

5.1. In the case of a small or marginal farmer, the entire 'eligible amount' shall be waived.

# 6. Debt Relief

6.1. In the case of 'other farmers', there will be a one-time settlement (OTS) Scheme under which the farmer will be given a rebate of 25 per cent of the 'eligible amount' subject to the condition that the farmer pays the balance of 75 per cent of the 'eligible amount';

Provided that in the case of revenue districts listed in **Annex-I**, 'other farmers' will be given OTS rebate of 25 per cent of the 'eligible amount' or Rs.20,000, whichever is higher, subject to the condition that the farmer pays the balance\_of\_the\_'eligible amount'.

# 7. Implementation

7.1. Every branch of a scheduled commercial bank, regional rural bank, cooperative credit institution, urban cooperative bank and local area bank covered under this Scheme shall prepare two lists, one consisting of 'small and marginal farmers' who are eligible for debt waiver and the second consisting of 'other farmers' who are eligible for debt relief under this Scheme. The lists shall include particulars of the landholding, the eligible amount and the amount of debt waiver or debt relief proposed to be granted in each case. The lists shall be displayed on the notice board of the branch of the bank/society on or before June 30, 2008.

7.2. A farmer classified as 'small farmer' or 'marginal farmer' will be eligible for fresh agricultural loans upon the eligible amount being waived.

7.3. A farmer classified as 'other farmer' eligible for OTS relief shall give an undertaking agreeing to pay his share (that is eligible amount minus the amount of OTS relief) in not more than three instalments and the first two instalments shall be for an amount not less than one-third of his share. The last dates of payment in the case of three instalments will be September 30, 008; March 31, 2009 and June 30, 2009.

7.4. The undertaking shall be in such form as may be prescribed by RBI/NABARD.

7.5. The amount of OTS relief (i.e. the Central Government's share) will be credited to the account of the 'other farmer' upon the farmer paying his share in full.

7.6. In the case of a short-term production loan, the 'other farmer' will be eligible for fresh short-term production loan upon paying one-third of his share.

7.7. In the case of an investment loan (for direct agricultural activities or allied activities), the 'other farmer' will be eligible for fresh investment loan upon paying his share in full.

7.8. Reserve Bank of India shall be the nodal agency for the implementation of the Scheme in respect of scheduled commercial banks, urban cooperative banks and local area banks. NABARD shall be the nodal agency in respect of regional rural banks and cooperative credit institutions.

# 8. Interest and other charges

8.1. The lending institutions shall not charge any interest on the 'eligible amount' for any period after February 29, 2008. However, in the case of an 'other farmer' who defaults in paying his share of the eligible amount on or before June 30, 2009 and becomes ineligible for OTS relief, the bank may charge interest for the period after June 30, 2009.

8.2. Instalments of investment credit which fall overdue after 31.12.2007 shall be recovered by the lending institutions along with the applicable interest. Lending institutions may, however, in appropriate cases, reschedule these instalments in accordance with the normal policy of the lending institution concerned.

8.3. Notwithstanding anything contained in this Scheme, the amount of interest that a lending institution may claim as reimbursement from the Central Government under this Scheme shall not, in any case, exceed the principal amount of the loan.

8.4. Ministry of Finance will issue supplemental instructions to the lending institutions in respect of all incidental and ancillary matters including instructions on interest and other charges that shall not be claimed by the lending institutions from the farmer or the Central Government.

# 9. Certificate of debt waiver or debt relief

9.1. In the case of small and marginal farmers, upon waiver of the eligible amount, the lending institution shall issue a certificate to the effect that the loan has been waived and specifically mention the eligible amount that has been waived.

9.2. In the case of 'other farmers', upon granting OTS relief, the lending institution shall issue a certificate to the effect that the loan account has been settled to the satisfaction of the lending institution and specifically mention the eligible amount, the amount paid by the farmer as his share and the amount of OTS relief.

9.3. The certificate shall be in such form as may be prescribed by RBI/NABARD and upon issuing the certificate the lending institution shall take an acknowledgement from the farmer.

# 10. Obligations of the lending institutions

10.1 Every lending institution shall be responsible for the correctness and integrity of the lists of farmers eligible under this Scheme and the particulars of the debt waiver or debt relief in respect of each farmer.

Every document maintained, every list prepared and every certificate issued by a lending institution for the purposes of this Scheme shall bear the signature and designation of an authorised officer of the lending institution.

10.2 Every lending institution shall appoint one or more Grievance Redressal Officers for each State (having regard to the number of branches in that State). The name and address of the Grievance Redressal Officer concerned shall be displayed in each branch of the lending institution. The Grievance Redressal Officer shall have the authority to receive representations from aggrieved farmers and pass appropriate orders thereon. The order of the Grievance Redressal Officer shall be final.

10.3 Any farmer who is aggrieved on the ground that his name has not been included in either of the two lists referred to in paragraph 7.1 or on the ground that his name has been included in the wrong list or on the ground that the relief granted to him has been calculated wrongly, may make a representation through the branch from which he received the loan or directly to the Grievance Redressal Officer of the lending institution concerned and every such representation shall be disposed of within 30 days of receipt thereof.

# 11. Audit

The books of account of every lending institution that has granted debt waiver or debt relief under this Scheme (including the books of accounts maintained at the branches) shall be subject to an audit in accordance with the procedure that may be prescribed by RBI/NABARD. The audit may be conducted by concurrent auditors, statutory auditors or special auditors as may be directed by RBI/NABARD. The Central Government, if it is satisfied that it is necessary to do so, may direct a special audit in the case of any lending institution or one or more branches of such lending institution.

# 12. Publicity

12.1. A copy of this Scheme in English and in the official language or languages of the State/Union Territory shall be displayed in each branch of every lending institution covered under this Scheme.

12.2. A copy of this Scheme will be available on the websites of the Ministry of Finance, Department of Financial Services; RBI; and NABARD.

# **13. Interpretation and power to remove difficulties**

13.1. If any doubt arises on the interpretation of any paragraph of this Scheme or any instructions issued there under, the Central Government shall resolve the doubt and the decision of the Central Government shall be final.

13.2. If any difficulty arises in giving effect to the provisions of the Scheme or any instructions issued thereunder, the Central Government may by order do anything which appears to it to be necessary or expedient for the purposes of removing the difficulty.

# 14. Monitoring

There shall be constituted a National Level Monitoring Committee consisting of

(i) Secretary, Department of Financial Services, Ministry of Finance – Chairperson

(ii) Secretary, Department of Agriculture and Cooperation, Ministry of Agriculture

(iii) Deputy Governor, Reserve Bank of India;

(iv) Chairman, NABARD;

(v) Chairman and Managing Director of two public sector banks;

(vi) Chairman of two Regional Rural Banks; and

Managing Director of two State Level Cooperative Banks to monitor the implementation of the NScheme. (Annex 1 (to the Guidelines)

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STATE	SL NO.	DIST	RICTS covered under DPAP, DDP
511112		and P	MS's Relief Package
ANDHRA PRADESH	1	1.	Adilabad
	2	2.	Chittoor
	3	3.	Cuddapah
	4	4.	Khammam
	5	5.	Kurnool
	6	6.	Medak
	7	7.	Mehaboobnagar
	8	8.	Nalgonda
	9	9.	Prakasam
	10	10.	Rangareddy
	11	11.	Srikakulam
	12	12.	Anantpur
	13	13.	Warangal
	14	14.	Guntur
	15	15.	Karimnagar
	16	16.	Nellur
	17	17.	Nizamabad
BIHAR	18	1.	Bhabhua
	19	2.	Jamui
	20	3.	Madhubani
	21	4.	Nawadah
	22	5.	Rohtas
	23	6.	Sitamarhi
CHHATISGARH	24	1.	Bastar
	25	2.	Bilaspur
	26	3.	Dantewara
	27	4.	Durg
	28	5.	Janjgir-Champa
	29	6.	Kabridham
	30	7.	Korba
	31	8.	Rajnandgaon
GUJARAT	32	1.	Ahmedabad
	33	2.	Amreli
	34	3.	Bharuch
	35	4.	Bhavnagar
	36	5.	Dahod
	37	6.	Dang
	38	7.	Junagadh
	39	8.	Narmada

Revenue Districts covering DPAP, DDP areas and PM's Special Relief Package Districts

9.

Navasari

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	41	10.	Panch Mahals
	42	11.	Porbandar .
	43	12.	Sabarkantha
	44	13.	Vadodara
	45	14.	Valsad
	46	15	Banaskantha
	47	16	Jampagar
	48	17	Kutchchh
	40	18	Patan
	50	10.	Paikot
	50	20	Najkol Surondranagar
	51	20.	Surenuranagai
HARYANA	52	1.	Bhiwani
· · · · · · · · · · · · · · · · · · ·	53	2.	Fatehabad
	54	3.	Hissar
	55	4.	Jhahhar
	56	5.	Mohindergarh
	57	6.	Rewari
	58	7.	Sirsa
HIMACHAL PRADESH	59	1.	Bilaspur
	60	2.	Solan
	61	3.	Una
	62	4.	Kinnaur
	63	5.	Lahaul and Spiti
TAMMILO VACUNAID	64		Doda
JAMMU & KASHMIK	04		Doua
	65	2.	Danampur
	66	3.	
	67	4.	Kishtwar
	68	5.	Reasi
	69	6.	Kargil
	70	7.	Leh
JHARKHAND	71	1.	Bokaro
	72	2.	Chatra
	73	3.	Deoghar
	74	4.	Dhanbad
	75	5.	Dumka
	76	6.	Garhwa
	77	7.	Godda
	78	8.	Hazaribagh
	79	9.	Iamtara
	80	10	Koderma
	81	11	Latehar
	82	12	Pakur
	83	12	Palaman
		13.	i alallau Sababgani
	04	14.	Saneoganj

86       2.       Belgaum         87       3.       Bidar         88       4.       Chamaraja Nagar         89       5.       Chickmaglur         90       6.       Chitradurga         91       7.       Davanagere         92       8.       Dharwad         93       9.       Gadag         94       10.       Gulbarga         95       11.       Hassan         96       12.       Haveri         97       13.       Kolar         98       14.       Mysore         99       15.       Tumkur         100       16.       Kodagu         101       17.       Shimoga         102       18.       Bagalkote         103       19.       Bellary         104       20.       Bijapur         105       21.       Davanagere         106       22.       Koppal         107       23.       Raichur         MADHYA PRADESH       111       1.         112       2.       Betul </th <th>KARNATAKA</th> <th>85</th> <th>1.</th> <th>Bangalore Rural</th>	KARNATAKA	85	1.	Bangalore Rural
87     3.     Bidar       88     4.     Chamaraja Nagar       89     5.     Chickmaglur       90     6.     Chitradurga       91     7.     Davanagere       92     8.     Dharwad       93     9.     Gadag       94     10.     Gubarga       95     11.     Hassan       96     12.     Haveri       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       108     1.     Wayanad       109     2.     Palakkad       110     3.     Kasaragod       110     3.     Barwani       112     2. <th></th> <th>86</th> <th>2.</th> <th>Belgaum</th>		86	2.	Belgaum
88     4.     Chamaraja Nagar       89     5.     Chickmaglur       90     6.     Chiradurga       91     7.     Davanagere       92     8.     Dharwad       93     9.     Gadag       94     10.     Gulbarga       95     11.     Hassan       96     12.     Haveri       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shinoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       MADHYA PRADESH     111     1.       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6		87	3.	Bidar
89     5.     Chickmaglur       90     6.     Chitradurga       91     7.     Davanagere       92     8.     Dharwad       93     9.     Gadag       94     10.     Gulbarga       95     11.     Hassan       96     12.     Haveri       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       MADHYA PRADESH     111     1.       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Darmoh       116     6.     Dewas       117     7.		88	4	Chamaraja Nagar
Bit Strandborn     Sector Strandborn       90     6.       91     7.       92     8.       93     9.       94     10.       95     11.       96     12.       97     13.       98     14.       97     13.       98     14.       97     13.       98     14.       97     13.       98     14.       97     13.       98     14.       99     15.       100     16.       Kolar     98       101     17.       102     18.       Bagalkote     103       103     19.       Bellary     104       105     21.       Davanagere     106       106     22.       Koppal     107       107     23.       Raichur     111       113     3.       Bhind     114       114     4.		89	5	Chickmaglur
MADHYA PRADESH     111     1     Barwanagere       91     7.     Davanagere       92     8.     Dharwad       93     9.     Gadag       94     10.     Gulbarga       95     11.     Hassan       96     12.     Haveri       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       MADHYA PRADESH     111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar		90	6	Chitradurga
92     8.     Dharwad       93     9.     Gadag       94     10.     Guibarga       95     11.     Hassan       96     12.     Haveri       97     13.     Kolar       98     14.     Mysore       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellaryu       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA     108     1.     Wayanad       109     2.     Palakkad     110       3.     Kasaragod     111     1.     Barwani       112     2.     Betul     113     3.       113     3.     Bhind     114     4.     Chhindwara       115 <t< th=""><th></th><th>91</th><th>7</th><th>Davanagere</th></t<>		91	7	Davanagere
93     9.     Gadag       94     10.     Gulbarga       95     11.     Hassan       96     12.     Haveri       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shinoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       MADHYA PRADESH       111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabalpur	2	92	у. 8	Dharwad
Ample State     94     10. Gulbarga       95     11. Hassan       96     12. Haveri       97     13. Kolar       98     14. Mysore       99     15. Tumkur       100     16. Kodagu       101     17. Shimoga       102     18. Bagalkote       103     19. Bellary       104     20. Bijapur       105     21. Davanagere       106     22. Koppal       107     23. Raichur       KERALA     108     1. Wayanad       109     2. Palakkad       110     3. Kasaragod       MADHYA PRADESH     111     1. Barwani       112     2. Betul       113     3. Bhind       114     4. Chhindwara       115     5. Damoh       116     6. Dewas       117     7. Dhar       118     8. Guna       119     9. Jabalpur       120     10. Jhabua       121     11. Khandwa       122     12. Khargaon       123     13. Panna       124		93	9	Gadag
95     10.     Hassan       96     12.     Haveri       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       MADHYA PRADESH       111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon		94	10	Gulbarga
36     12.     Haveri       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA     108     1.     Wayanad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH     111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua		95	11.	Hassan
70     12.     Rivert       97     13.     Kolar       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA     108     1.     Wayanad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH     111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua		96	12	Haveri
97     15.     Notal       98     14.     Mysore       99     15.     Tumkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA     108     1.     Wayanad       109     2.     Palakkad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH     111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua <t< th=""><th></th><th>97</th><th>12.</th><th>Kolar</th></t<>		97	12.	Kolar
99     15.     Tunkur       99     15.     Tunkur       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA       108     1.     Wayanad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH       111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khargaon       1		08	13.	Musore
<b>NO</b> 15.     Funkti       100     16.     Kodagu       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA       108     1.     Wayanad       109     2.     Palakkad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH       111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khargaon       <		00	15	Tumbur
100     10.     10.     17.     Shimoga       101     17.     Shimoga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA     108     1.     Wayanad       109     2.     Palakkad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH       111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon		100	15.	Kodagu
101     17.     Shinloga       102     18.     Bagalkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA       108     1.     Wayanad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH     111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		100	10.	Shimoga
102     16.     bagarkote       103     19.     Bellary       104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA     108     1.     Wayanad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH     111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khardaon       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		101	17.	Bagalliota
103     19. benary       104     20. Bijapur       105     21. Davanagere       106     22. Koppal       107     23. Raichur       KERALA       108     1. Wayanad       109     2. Palakkad       110     3. Kasaragod       MADHYA PRADESH     111     1. Barwani       112     2. Betul       113     3. Bhind       114     4. Chhindwara       115     5. Damoh       116     6. Dewas       117     7. Dhar       118     8. Guna       119     9. Jabalpur       120     10. Jhabua       121     11. Khandwa       122     12. Khargaon       123     13. Panna       124     14. Raisen       125     15. Rajgarh		102	10.	Dagaikute
104     20.     Bijapur       105     21.     Davanagere       106     22.     Koppal       107     23.     Raichur       KERALA       108     1.     Wayanad       109     2.     Palakkad       109     2.     Palakkad       110     3.     Kasaragod       MADHYA PRADESH       111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		103	19.	
10521.Davanagere10622.Koppal10723.RaichurKERALA1081.Wayanad1092.Palakkad1103.KasaragodMADHYA PRADESH1111.Barwani1122.Betul1133.Bhind1144.Chhindwara1155.Damoh1166.Dewas1177.Dhar1188.Guna1199.Jabalpur12010.Jhabua12111.Khargaon12313.Panna12414.Raisen12515.Rajgarh			20.	Bijapur
10622.Köppai10723.RaichurKERALA1081.Wayanad1092.Palakkad1103.KasaragodMADHYA PRADESH1111.Barwani1122.Betul1133.Bhind1144.Chhindwara1155.Damoh1166.Dewas1177.Dhar1188.Guna1199.Jabalpur12010.Jhabua12111.Khargaon12313.Panna12414.Raisen12515.Rajgarh		105	21.	Davanagere
KERALA10723.RaichurKERALA1081.Wayanad1092.Palakkad1103.KasaragodMADHYA PRADESH1111.Barwani1122.Betul1133.Bhind1144.Chhindwara1155.Damoh1166.Dewas1177.Dhar1188.Guna1199.Jabalpur12010.Jhabua12111.Khargaon12313.Panna12414.Raisen12515.Rajgarh		106	22.	корра
KERALA1081.Wayanad1092.Palakkad1103.KasaragodMADHYA PRADESH1111.Barwani1122.Betul1133.Bhind1144.Chhindwara1155.Damoh1166.Dewas1177.Dhar1188.Guna1199.Jabalpur12010.Jhabua12111.Khargaon12313.Panna12414.Raisen12515.Rajgarh		107	23.	Raichur
KERALA1081.Wayanad1092.Palakkad1103.KasaragodMADHYA PRADESH1111.Barwani1122.Betul1133.Bhind1144.Chhindwara1155.Damoh1166.Dewas1177.Dhar1188.Guna1199.Jabalpur12010.Jhabua12111.Khargaon12313.Panna12414.Raisen12515.Rajgarh				
1092.Palakkad1103.KasaragodMADHYA PRADESH1111.Barwani1122.Betul1133.Bhind1144.Chhindwara1155.Damoh1166.Dewas1177.Dhar1188.Guna1199.Jabalpur12010.Jhabua12111.Khandwa12212.Khargaon12313.Panna12414.Raisen12515.Rajgarh	KERALA	108	1.	Wayanad
110     3. Kasaragod       MADHYA PRADESH     111     1. Barwani       112     2. Betul       113     3. Bhind       114     4. Chhindwara       115     5. Damoh       116     6. Dewas       117     7. Dhar       118     8. Guna       119     9. Jabalpur       120     10. Jhabua       121     11. Khandwa       122     12. Khargaon       123     13. Panna       124     14. Raisen       125     15. Rajgarh		109	2.	Palakkad
MADHYA PRADESH1111.Barwani1122.Betul1133.Bhind1144.Chhindwara1155.Damoh1166.Dewas1177.Dhar1188.Guna1199.Jabalpur12010.Jhabua12111.Khandwa12313.Panna12414.Raisen12515.Rajgarh		110	3.	Kasaragod
MADHYA PRADESH     111     1.     Barwani       112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh				
112     2.     Betul       113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh	MADHYA PRADESH		1.	Barwani
113     3.     Bhind       114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		112	2.	Betul
114     4.     Chhindwara       115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		113	3.	Bhind
115     5.     Damoh       116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		114	4.	Chhindwara
116     6.     Dewas       117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		115	5.	Damoh
117     7.     Dhar       118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		116	6.	Dewas
118     8.     Guna       119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		117	7.	Dhar
119     9.     Jabalpur       120     10.     Jhabua       121     11.     Khandwa       122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		118	8.	Guna
120     10. Jhabua       121     11. Khandwa       122     12. Khargaon       123     13. Panna       124     14. Raisen       125     15. Rajgarh		119	9.	Jabalpur
121     11. Khandwa       122     12. Khargaon       123     13. Panna       124     14. Raisen       125     15. Rajgarh		120	10.	Jhabua
122     12.     Khargaon       123     13.     Panna       124     14.     Raisen       125     15.     Rajgarh		121	11.	Khandwa
123       13.       Panna         124       14.       Raisen         125       15.       Rajgarh		122	12.	Khargaon
124       14.       Raisen         125       15.       Rajgarh		123	13.	Panna
125 15. Rajgarh		124	14.	Raisen
		125	15.	Rajgarh
<b>126</b> 16. Ratlam		126	16.	Ratlam
<b>127 17</b> . Rewa		127	17.	Rewa
<b>128</b> 18 Shahdol		128	18	Shahdol
129 19 Shaianur		129	19	Shajapur
130 20 Shiyouri		130	20	Shivpuri

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	131	21.	Sidhi
	132	22	Seoni
	133	23	Umaria
	134	23.	Ashok Nagar
	137	24.	
	133	25.	Апарраг
MAHARASHTRA	136	1.	Ahmednagar
<b>N</b>	137	2.	Akola
	138	3.	Amravati
	139	4.	Aurangabad
	140	5.	Beed
	141	6.	Buldhana
	142	7.	Chandrapur
	143	8.	Dhule
	144	9.	Gadchiroli
	145	10.	Hingoli
	146	11.	Jalgaon
	147	12.	Jalna
	148	13.	Latur
	149	14.	Nagpur
	150	15.	Nanded
	151	16.	Nandurbar
	152	17.	Nashik
	153	18.	Oshmanabad
	154	19.	Parbhani
	155	20.	Pune
	156	21.	Sangli
	157	22.	Satara
	158	23.	Solapur
	159	24.	Washim
	160	25.	Yavatmal
	161	26.	Wardha
ORISSA	162	1.	Bargarh
	163	2.	Bolangir
	164	3.	Boudh
	165	4.	Dhenkanal
	166	5.	Kalahandi
	167	6.	Nuapada
	168	<sup>•</sup> 7.	Sonepur
	169	8.	Phulbani
RAJASTHAN	170	1.	Ajmer
	171	2.	Banswara
	172	3.	Baran
	173	4.	Bharatpur
	174	5.	Dungarpur
	175	6.	Jhalawar

176     7.     Karauli       177     8.     Kota       178     9.     Sawai Madhopur       178     9.     Sawai Madhopur       178     9.     Sawai Madhopur       178     9.     Sawai Madhopur       179     10.     Tonk       180     11.     Udaipur       181     12.     Barmer       182     13.     Bikaner       183     14.     Churu       184     15.     Hanuman Garh       185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197		· · · · ·	_	** ),
177     8.     Kota       178     9.     Sawai Madhopur       179     10.     Tonk       180     11.     Udaipur       180     11.     Udaipur       181     12.     Barmer       182     13.     Bikaner       183     14.     Churu       184     15.     Hanuman Garh       185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6. <td< th=""><th></th><th>176</th><th>7.</th><th>Karauli</th></td<>		176	7.	Karauli
178     9.     Sawai Madhopur       179     10.     Tonk       180     11.     Udaipur       181     12.     Barmer       182     13.     Bikaner       183     14.     Churu       184     15.     Hanuman Garh       185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7     Perambalur		177	8.	Kota
179     10.     Tonk       180     11.     Udaipur       181     12.     Barmer       182     13.     Bikaner       182     13.     Bikaner       183     14.     Churu       184     15.     Hanuman Garh       185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7.     Perambalur		178	9.	Sawai Madhopur
180     11.     Udaipur       181     12.     Barmer       182     13.     Bikaner       182     13.     Bikaner       183     14.     Churu       184     15.     Hanuman Garh       185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7     Perambalur		179	10.	Tonk
181     12.     Barmer       182     13.     Bikaner       183     14.     Churu       184     15.     Hanuman Garh       185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7     Perambalur		180	11.	Udaipur
182     13.     Bikaner       183     14.     Churu       184     15.     Hanuman Garh       185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7     Perambalur		181	12.	Barmer
183     14. Churu       184     15. Hanuman Garh       185     16. Jaipur       186     17. Jaiselmer       187     18. Jallore       188     19. Jhunjhunu       189     20. Jodhpur       190     21. Nagaur       191     22. Pali       192     23. Rajsamand       193     24. Sikar       194     25. Sirohi       TAMILNADU       195     1. Coimbatore       197     3. Dindigul       198     4. Karur       199     5. Krishnagiri       200     6. Namakkal       201     7. Perambalur		182	13.	Bikaner
184     15. Hanuman Garh       185     16. Jaipur       186     17. Jaiselmer       187     18. Jallore       188     19. Jhunjhunu       189     20. Jodhpur       190     21. Nagaur       191     22. Pali       192     23. Rajsamand       193     24. Sikar       194     25. Sirohi       TAMILNADU       195     1. Coimbatore       196     2. Dharmapuri       197     3. Dindigul       198     4. Karur       199     5. Krishnagiri       200     6. Namakkal       201     7. Perambalur		183	14.	Churu
185     16.     Jaipur       186     17.     Jaiselmer       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7.     Perambalur		184	15.	Hanuman Garh
186     17.     Jaiselmer       186     17.     Jaiselmer       187     18.     Jallore       187     18.     Jallore       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7     Perambalur		185	16.	laipur
187     18. Jallore       187     18. Jallore       188     19. Jhunjhunu       189     20. Jodhpur       190     21. Nagaur       191     22. Pali       192     23. Rajsamand       193     24. Sikar       194     25. Sirohi       TAMILNADU       195     1. Coimbatore       196     2. Dharmapuri       197     3. Dindigul       198     4. Karur       199     5. Krishnagiri       200     6. Namakkal       201     7. Perambalur		186	17.	Jaiselmer
188     19.     Jhunjhunu       188     19.     Jhunjhunu       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.     Coimbatore       196     2.     Dharmapuri       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7.     Perambalur		187	18	Iallore
189     20.     Jodhpur       189     20.     Jodhpur       190     21.     Nagaur       191     22.     Pali       192     23.     Rajsamand       193     24.     Sikar       194     25.     Sirohi       TAMILNADU       195     1.       Coimbatore     196       197     3.     Dindigul       198     4.     Karur       199     5.     Krishnagiri       200     6.     Namakkal       201     7.     Perambalur		188	19	Ihunihunu
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TAMILNADU1951.Coimbatore1962.Dharmapuri1973.Dindigul1984.Karur1995.Krishnagiri2006.Namakkal2017.Perambalur		107		
1962.Dharmapuri1973.Dindigul1984.Karur1995.Krishnagiri2006.Namakkal2017.Perambalur	TAMILNADU	195	1.	Coimbatore
1973.Dindigul1984.Karur1995.Krishnagiri2006.Namakkal2017.Perambalur		196	2.	Dharmapuri
1984.Karur1995.Krishnagiri2006.Namakkal2017.Perambalur		197	3.	Dindigul
1995.Krishnagiri2006.Namakkal2017.Perambalur		198	4.	Karur
2006.Namakkal2017.Perambalur		199	5.	Krishnagiri
201 7. Perambalur		200	6.	Namakkal
		201	7.	Perambalur
<b>202</b> 8. Pudukottai		202	8.	Pudukottai
<b>203</b> 9. Ramanathapuram		203	9.	Ramanathapuram
<b>204</b> 10. Salem		204	10.	Salem
205 11. Sivaganga		205	11.	Sivaganga
206 12 Tiruchiranalli		206	12	Tiruchiranalli
207 13 Tirunelveli		207	13	Tirunelveli
207 13. In unciven 208 14. Tiruyannamalai		208	1 <i>1</i> .	Tiruvannamalai
200 17. In uvalmamalar 200 15 Thathulaudi		200	15. 15	Thothykydi
<b>207 15.</b> Intutukuut <b>210 16</b> Voltorro		207	15.	Vallaro
		210	17	Venue
<b>211 17.</b> virudunagar		411	1/.	viruuunagar
		242	1	
UTTAK PRADESH 212 1. Allahabad	UI IAK PKADESH	212	1.	Allanabad
<b>213 2.</b> Bahraich		213	2.	Bahraich
<b>214 3.</b> Balrampur		214	3.	Balrampur
<b>215 4.</b> Banda		215	4.	Banda
<b>216</b> 5. Chitrakoot		216	5.	Chitrakoot
<b>217</b> 6. Hamirpur		217	6.	Hamirpur
<b>218 7.</b> Jalaun		218	7.	Jalaun
<b>219</b> 8. Ihansi		219	8.	Jhansi
<b>220</b> 9. Lakhimpur Kheri			~	
<b>221</b> 10. Lalitpur		220	9.	Laknimpur Kneri

	222	11.	Mahoba
	223	12.	Mirzapur
	224	13.	Shravasti
	225	14.	Sitapur
	226	15.	Sonbhadra
UTTRAKHAND	227	1.	Almora
•	228	2.	Bageswar
	229	3.	Chamoli
	230	4.	Champavat,
	231	5.	Pauri Garhwal
	232	6.	Pithoragarh,
	233	7.	Tehri Garhwal
WEST BENGAL	234	1.	Bankura
	235	2.	Birbhum
	236	3.	Medinapur West
	237	4.	Purulia
Total No. of districts		237 I	Districts

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# Annexure III

Comments received from **Prof. Samar K. Datta**, Centre for Management in Agriculture, Indian Institute of Management, Ahmedabad on draft report on 'Assessing Policy Interventions in Agribusiness and Allied Sector Credit versus Credit Plus Approach for Livelihood Promotion in Maharashtra'.

## 1. Title of the draft report examined:

"Assessing Policy Interventions in Agribusiness and Allied Sector Credit versus Credit Plus Approach for Livelihood Promotion in Maharashtra"

2. Date of despatch of the draft report:

March 28, 2012

3. Date of receipt of the comments:

January 22, 2013

## 4. Comments on the study:

At the outset I must compliment Prof. Sangeeta Shroff et al for taking the courage to undertake this study at a belated stage for the state of Maharashtra following on the same study design of mine under the same title which I had undertaken for some other states. AER Centre, Pune was never a part of this study when the Ministry launched this all India coordinated study under my guidance. Of course, several other AER Centres were part of this study, but one after another they avoided their responsibilities on one plea or the other. In this context, AER Centre, Pune is an exception which agreed to the request of mine as well as the Ministry at a later stage and did deliver the output.

From our side we not only provided the study design and the questionnaire, but also the completed tables for this study, after the collected and cleaned data was sent to us. I wish they could complete the report much earlier. However, during my visit to Gokhale Institute in the second half of March 2012, Prof. Kalamkar had made a presentation before me, to which I had provided my comments and suggestions to finalize the report. But somehow they decided to call it a draft report and sent it to me again for my comments. At our end, given our busy schedule for at least some of us, we are extremely constrained to find time to go back to the same thing again. As a result, if a bus is missed, it is merely impossible for us to catch the same bus again in the near future. It seems that Prof. Shroff had to chase us, but all that I can do at this stage is to regret my inability to send comments in writing after what I had already delivered orally during March 2012. Just because she has placed it for further comments, I would like to draw the authors' attention to three things. First, in the final report we have submitted, we have got rid of the distinction between potential access and actual access, as it was giving rise to some confusion, although no referee had asked us to do the same. We referred to potential access as one based on past experiences and actual as based on data for 2009-10. The latter was often found to be less than the former. It may be due to blacklisting of some customers for failure to repay loans in the past, but it is hard to explain with non-formal segments. If they can suitably explain, they can retain the distinction, or else they too can drop it. Second, the distinction between gross and net access needs clarification at least in a footnote. It may reflect not merely multiple accesses to the same source, but also availability of several sources under the broad categories of formal, semi-formal and informal within a particular geographical area. So, in the context of the controversy over credit versus credit plus approach, it must be clearly mentioned that traditional banking is fond of credit alone approach and delivery of credit only to credit-worthy customers, so that they don't have to worry about other complementary inputs. However, some micro-finance organizations like BASIX and recently some formal sector banks, too, are realizing the need for arranging complementary services through third party arrangements. This is broadly what is known as credit plus. Interlinked credit between the same borrower and the lender across several contracts is only provided by traditional informal lenders and multipurpose cooperative societies. This must be clearly mentioned. Since some of these good multi-purpose PACS takes care of all credit-related risks of the borrower, they never provide insurance as a bundled package as claimed on top of page no. 118. This needs correction.

Otherwise, it is a good report and deserves publication in Ministry's in-house journal, if not elsewhere.

# Annexure IV

Action taken by the authors based on the comments received from the Coordinator of the study.

• All the comments made by the Coordinator of the study have been addressed at the appropriate places in the report.

S. S. Kalamkar Sangeeta Shroff

February 2013.





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