CHAPTER IX

SUMMARY OF FINDINGS, CONCLUSIONS AND SUGGESTIONS

Analysis of data related to investment and credit flow to the agricultural sector in the state compiled from secondary sources and also from the primary data collected from the field study in the Central Brahmaputra Valley region of the state, has brought to fore some important and interesting findings. These findings are briefly summarized in the next section so as to facilitate inference of main conclusions of the study reported in the subsequent section.

9.1. FINDINGS FROM ANALYSIS OF SECONDARY DATA

1. As a proportion of agricultural NSDP, public investment in agriculture in Assam has declined since mid 1980s. The proportion was 3.18% in 1987-88 and it came down to 1.35% in 1999-2000 in the state.

2. There is very little data available on private investment in agriculture in Assam. The figures on private investment are not available continuously but whatever is available indicates that it was quite low in comparison to the other states and the all India average in the 1990s. The per hectare fixed capital formation in agriculture (Rs/ha of net sown area) for Assam was 40 in 1981-82 and 26 in 1991-92 while the national average was 89 during 1981-82 and 126 in 1991-92.
3. Investment in irrigation forms a major portion of investment in agriculture in the state. Public investment in irrigation, specially the part deployed through the department of irrigation, has remained more or less stagnant in absolute terms at current prices for the decade 1987-88 to 1997-98. But, as proportion of agricultural NSDP, public investment in irrigation has decreased from 3.15% in 1987-88 to 1.61% in 1997-98 and to 1.25% in 2000-2001.

4. There was a step up in private investment in irrigation supported by institutional funding in the 1980s when Shallow tube wells (STWs) and Lower lift points (LLPs) were installed through Assam Minor Industries Development Corporation (ASMIDC). But this trend was not continued and this investment flow petered away in a few years time because of weak implementation and poor recovery. The process was revived in the late 1990s with the initiative of the government to install privately owned STW based irrigation, supported by World Bank and NABARD under RIDF (Rural Infrastructure Development Fund). The total investment made in installation of STWs and LLPs in 1999-2000 was Rs.25.86 crores, of which Rs.17.24 crores was public investment and Rs.8.62 crores was private investment. In 2000-2001, the total investment made in installation of STWs and LLPs was Rs.13.99 crores, out of which Rs.9.33 crores was public investment while Rs.4.66 crores was private investment.

5. One major factor responsible for low level of private investment in agriculture is that the flow of institutional credit in the state decreased in contrast to the steady increase at the all-India level. The figures show
that there has been a sudden step-up in the credit disbursed to agriculture in the late 1990s. However, this apparent increase in credit flow to agriculture is somewhat misleading as a more detailed break-up of the figures revealed that this was caused mainly due to credit flow to the plantation sector, mainly to the small tea growers, rather than to usual agriculture.

9.2. FINDINGS FROM ANALYSIS OF FIELD LEVEL DATA

9.2.1. Determinants of Farm Investment

Along with access to institutional credit, general economic condition of the farm-household and farm size have been found to be significant determinants of farm investment by sample farmers. As expected, access to institutional credit has been found to strongly and positively influence farm investment per hectare.

Similarly, farm-households with higher general economic condition, distinguished by their house type, have been found to invest at a higher rate per hectare.

However, farm investment per hectare has been found to be negatively related to farm size implying that given other factors, investment per hectare tends to be higher in smaller farms.
As for the components of overall investment, the investment in farm mechanization was found to be significantly and positively influenced by access to institutional credit as well as availability of irrigation. Access to institutional credit also came out to be a significant factor in determining investments in land improvements and storage structures. Even in case of investments on bullocks, access to institutional credit has a positive impact.

9.2.2. Farm Operational Expenditure and Institutional Credit

The significant determinants of operational expenditure per hectare has been found to be general economic condition and area irrigated in the sample farms. Higher the proportion of area irrigated, higher is the operational expenditure per hectare. This is not surprising as availability of irrigation opens up the possibility of more intensive use of various farm inputs leading to increase in farm expenditure per hectare. Similarly, better economic condition of the farm-households also enables farmers to take up higher level of operational expenditures.

It is interesting to note that access to institutional credit has not been found to be a significant factor in determination of operational expenditure per hectare in sample farms. This shows little role of credit institutions in meeting the working capital requirements of the farms. Thus, unlike access to institutional credit being a significant determinant of investment capability of the farms, their operational expenditures do not seem to be constrained by the lendings of financial institutions.

So, the working capital requirements of farmers are by and large met from internal sources or from non-institutional sources.
9.2.3. Relevance of Institutional Credit in the Use of Improved Practices

The most significant determinant of the use of the three improved farming practices i.e. HYV seeds, fertilizers and multiple cropping, has been found to be irrigation coverage in the farm-households.

In case of use of HYV seeds, besides irrigation, tenancy has been found to be a significant determinant and the impact of the tenancy factor is found to be negative. Since use of HYV seeds leads to increase in the operating costs of the farmer, and as tenancy generally involves sharing of produce without proportionate sharing of costs, the tenant farmer's incentives are adversely affected for use of HYV seeds.

Though this finding is contrary to a priori theoretical argument, the insights from the field study provides an explanation for this result. In the sample, it was noticed that many farmers who are unable to use the HYV seed technology package due to lack of access to irrigation and/or financial resources, nonetheless go for double cropping using traditional varieties. The inability to use the HYV seed fertilizer package keeps productivity levels in these farms low. Hence, to meet their family consumption needs, they are forced to increase their cropping intensity. This explanation is in conformity with another related finding that tenancy, which has a negative impact on use of HYV seeds, has been found to have a positive relation with cropping intensity. This explanation is in conformity with another related finding that tenancy, which has a negative impact on use of HYV seeds, has been found to have a positive relation with cropping intensity.
Apparently, access to institutional credit is not important for the use of this improved package. But it will be misleading to conclude that the lack of insufficient credit flow does not constrain use of such productivity increasing inputs and practices by farmers. As already mentioned, use of all the three practices is significantly conditional upon availability of irrigation. Since access to credit enhances farm investment in general and investment in machinery and equipment to install and utilize irrigation in particular, access to credit creates favorable conditions for use of better farming practices. In other words, institutional credit flow through the linkage of irrigation capacity can play an important role in the spread of productivity raising inputs and practices.

9.2.4. Access to Credit across different Categories of Farm-households

The sample survey of the farmers show that the majority (58.46%) of farms are in the small size category i.e., having land holding size below 2 hectares. But the borrowers profile shows that the majority borrowers from institutional sources have land holding size above 2 hectares. The analysis of the branch level data of banks in the sample area also shows that credit has gone mainly to the medium sized farmer with land holdings between 2-5 hectares. These facts clearly show that small farmers have less access to institutional credit than medium or large farmers.

9.2.5. Factors behind Insufficient flow of Institutional Credit to Agriculture

Analysis of data collected from the sample bank branches shows that the main factor behind the slowdown in the credit flow to agriculture is willful default by borrowers.
The case studies of the borrowers however reveal that the default by borrowers has been induced by factors mentioned below:

- Corruption and other transaction costs which raises the cost of credit and reduces ability to repay.
- The problem is more acute in case of directed lending. In case of such loans given under directed credit schemes, various anomalies occur at the block level itself where the beneficiaries are selected. In the selection process, preference is often based on receipt of bribes by the dealing government officials at the block office.
- Bank officials who have taken bribes to sanction and disburse loans lose moral authority to enforce repayment. Farmer’s awareness of this fact acts as an incentive to default.
- The government’s loan waiver policy of 1990 has created expectation of similar waiving in the future and created disinterest for repayment.

Thus a vicious circle exists where corruption and high transaction costs leads to a decrease in ability and incentive to repay. This leads to default which affects a fall in the credit deployed by the financial institutions. This in turn leads to adverse impact on farm investment leading to restraints on the use of productivity raising practices by farmers.

But, nevertheless, the scope for a virtuous circle also exists as was observed in one of the locations of the field study where high level of agricultural performance has been helped by higher level of investment taken up by the farmer, which was facilitated by greater deployment of credit by financial institutions. In that location, accessibility of financial institutional credit is better than other blocks and the percentage of institutional borrowers to total
borrowers is as high as 90%. Farmers there in turn have been able to achieve a higher level of agricultural performance than by their counterparts in the other blocks taken in the study. This has enabled timely repayment of credit and in turn enabled better recycling of credit by the financial institutions in the area.

9.3. CONCLUSIONS

The micro level field study clearly shows that the levels of investment in farms is significantly determined by access to institutional credit. Higher farm investment has been found to facilitate greater use of productivity increasing practices such as HYV seeds, fertilizers and multiple cropping. Better farming operations in turn results in achievement of high levels of agricultural performance. These findings clearly establish the critical role of institutional credit in promoting agricultural growth. In short, the field study clearly showed that availability of institutional credit enabled farmers to step up their production activities by enhancing their ability to take up the necessary farm investment.

However, the macro level picture showed that the flow of institutional credit to agriculture proper in Assam has been low compared to the other states and the country as a whole. This insufficient credit flow must have limited the overall farm investment in Assam by restraining the ability of large majority of farmers to take up such investments. Thus, the combination of the above macro level picture and the micro level insights validates the main hypothesis of the study that the inadequate participation by the credit institutions has been a major constraint on the agricultural growth in Assam.
The field study findings also show that farmers by and large are not dependent on institutional finance for meeting the working capital requirements on the farm. They are able to meet such expenditure from their own resources. Access to institutional credit has not been found to be a significant determinant in operational expenditure undertaken by farm-households. Thus, these micro level findings validates the supplementary hypothesis that the role of institutional finance is more crucial for promoting investments on fixed capital in the agricultural sector than in meeting the operational farm expenses of the farmer.

9.4. SUGGESTIONS

Since financial institutions in the state have not been able to adequately cater to the investment needs of the agricultural sector, some changes need to be brought about to correct the present credit scenario. The immediate need is to step up the credit flow in the state. One major factor identified for hampering the credit flow is default by the farmers which restricts proper recycling of credit in the rural areas. Default by farmers has been mainly due to corruption and other transactions costs incurred while availing the loan which makes farmers unwilling to repay. This is more true in case of loans advanced under directed credit programmes like IRDP (Integrated Rural Development Programme), etc. which are routed through the state machinery at the block level. Anomalies occur in the selection process of borrowers and this is a major factor influencing non repayment. Moreover, these schemes carry a subsidy component which can actually sap the personal initiative of the farmers to raise productivity levels on their farms. There is in fact a vicious circle wherein loans which are actually meant to remove poverty and increase agricultural
productivity in the rural areas are routed through in such a manner that they only end up in creating an atmosphere in which the rural financial institutions are symbolized as government bodies for doling out free money. This in turn adversely affects the recovery climate as borrowers of such credit have no inclination to repay.

It can only be hoped that with the implementation of the Panchayat system in the state, the role of DRDA (District Rural Development Authority) in the selection of beneficiaries in case of directed lending by banks will be reduced. This will to a very large extent decrease some of the discrepancies in the credit supply system. It is therefore imperative that financial institutions should take a relook at their modus operandi. Financial institutions should put more stress on creating more awareness, bringing about attitudinal changes amongst present and prospective borrowers.

More flexibility, with some amount of professionalism akin to the businesslike dealings of the rural moneylender who ensures that he is repaid in time, coupled with a more customer oriented approach keeping the needs of the rural agriculturist and his needs in mind and selection of borrowers by the financial institutions themselves in case of directed credit programmes, is required. In this context, the comments of Sri. R.V. Gupta, Former Deputy Governor, Reserve Bank of India (RBI) is very significant, “There is a need for a review of the policy relating to directed credit. There are a few options:

- To scrap directed credit and to have RBI refinance policies which give banks an incentive to lend to certain sectors.
- To accept the suggestion made by the first Narasimham Committee and to prescribe only 10% for the core sector.
• To continue with the present arrangement, but to leave the judgment on selection of the borrower to the bank. This is particularly important in regard to subsidy linked schemes as there is clear evidence, particularly in agricultural lending that loans given by banks on their own judgements have a very high record of repayment as against low recoveries in subsidy linked programmes.

Rural financial institutions specially the RRBs could be modelled on the lines of 'Bank Rakyat, Indonesia' or BRI, Indonesia. In 'Bank Rakyat', the rural economy of Indonesia has progressed through harnessing of local manpower in the rural branches. This has made the beneficiary-lender relationship conducive for effective recovery. Besides this, there are other factors like incentives per recovery, branch rewards, etc which have made this bank a success story.

Changes in line with what has been successfully implemented in countries like Indonesia, etc. have already been stressed in various committees set up to identify loopholes and suggest modifications in the present credit delivery system of the country. The 'R.V. Gupta committee' (RBI, 1997) which was set up in December 1997 suggested measures for improving the delivery systems and simplification of procedures for agricultural credit. Some of the important measures suggested for agricultural credit were:

"a) Delegation of adequate powers to the branch managers to enable disposal of 90% of loan applications at the branch level including modification of the powers at the branch level.

b) Disbursing of all loans for agricultural purposes in cash which will facilitate dealer choice to borrowers and foster an environment of trust."
c) Evolving an appropriate mechanism to monitor recovery performance in respect of agricultural loans, particularly in regard to old and sticky loans.

d) Ensuring that the officials of the internal inspection team visit villages covered by each branch and meet farmers to discuss their problems during the course of their inspections so as to obtain a feedback on the quality of interaction which the branch officials have at the ground level.

In this context, it is necessary to mention about another constraint hampering the effective credit flow in the rural areas. This flaw in the credit supply mechanism is the budgetary approach adopted by the financial institutions. In this approach, sector-wise budgets are prepared at the apex level which are to be implemented at the branch level. These budgets do not normally conform to the credit demand at the micro level. Therefore, necessary changes need to be brought about which could perhaps ensure that individual bank branches are empowered to disburse credit in tune with the ground level credit requirements of their respective areas.

These type of changes in the present institutional framework needs to be implemented to step up the credit flow to this sector. Such changes will no doubt bring in the necessary investment to increase agricultural productivity in the state but these reforms will not benefit the small farmer who will be left out in the whole reform process. Therefore, it is necessary to try out alternative credit mechanisms which have been found to be workable and where the needs of the small farmer is also adhered to.
One such alternative could be the micro credit institutions. Micro credit programmes have proved to be an effective tool in freeing people from poverty and have helped to increase their participation in the economic process of society and in promoting growth with greater equity. Commercial banks are reluctant to lend to the poor largely because of the lack of collateral and high transaction costs. A study by the International Fund for Agricultural Development (IFAD) has confirmed that complicated loan procedures and paperwork, combined with a lack of accounting experience, limit poor people's access to formal sources of credit. Other reports cite the fact that commercial lenders in rural areas prefer to deal mainly with large-scale farmers.

The recent prominence given to micro credit owes much to the success of a relatively few microcredit programmes and their increasing scale. The Grameen Bank of Bangladesh (Yunus, 1996), the most prominent of the successes, now reaches over 2 million people, with cumulative lending of about $2.1 billion. Progress has also been recorded in several transition economies, mixed in some cases. These schemes are characterized by relatively small loans, a few hundred dollars at most. The repayment period is relatively short, about a year or so. Women are a major beneficiary of their activities, and the destination of the funds primarily includes agriculture, distribution, trading, small craft and processing industries. The administrative structure is generally light and the entire process is participatory in nature.

Some studies show that there are limits to the use of credit as an instrument for poverty eradication, including difficulties in identifying the poor and targeting credit to reach the poorest of the poor. Added to this is the fact that many people, especially the poorest of the poor, are usually not in a position to
undertake an economic activity, partly because they lack business skills and even the motivation for business (CGAP, 1997).

In addition, the administrative structures governing these institutions are commonly either fragile or rudimentary, and often involve large transaction costs. A study by the Organisation for Economic Cooperation and Development (OECD), for example, found that many specialized agricultural institutions were not designed to serve as financial intermediaries. The success of financial intermediation at any time depends significantly on how efficiently the transaction is completed. If the transaction costs, combined with high interest rates, require that the operation in question generate profit margins of the order of 30 to 50 per cent, it is not clear that this would be economically beneficial. It is not surprising that in many microlending operations, trading activity - with quick turnover and large profit margins - dominates.

There is now considerable consensus that lending to the poor can succeed provided it is accompanied by other services, especially training, information and access to land. An OECD study, for example, emphasized that credit needs to be supplemented with access to land and appropriate technology.

Microlending has progressed to the greatest extent in the Asian region. An innovative approach which has been used successfully by Grameen Bank's credit-delivery system is "peer-group monitoring" to reduce lending risk, although some studies have suggested that the reason for the Grameen Bank's high repayment rates is also partly due to the practice of weekly public meetings - at which attendance is compulsory - for the repayment of loan installments and the collection of savings. It is reported that the meetings reinforce a culture of discipline, routine repayments and staff accountability.
Another alternative, (very much in line with the concept of group dynamics in micro credit) where micro lending could help farmers gain access to credit along with other inputs individually or as a group is the Field Management Committee or FMC. FMCs are bodies which facilitate social action and public co-operation amongst farmers in organisation of drainage, irrigation and inputs in collaboration with agriculture department. The National Bank for Agriculture and Rural Development (NABARD) has experimented with FMCs, using them as a conduit for credit to farmers. In the first stage, banks were persuaded in the districts of Morigaon, Nagaon and Barpeta to finance crop loans to two FMCs in each district. The recovery percentage of such loans was very good, around 80%-90%. This was later expanded to almost all districts in the state. Though there have been some cases of willful defaulting, even then with some close monitoring, this programme could be made more successful.

Another instrument in the credit delivery system which could ensure better recovery and recycling of funds could be the Farmers clubs. NABARD has experimented with a programme, 'Vikas Volunteer Vahini', under which farmers clubs are formed consisting of a group of dedicated volunteers chosen from amongst good borrowers with impeccable record of good utilization of bank loans and its timely repayment. Through these clubs, VVV helps in creating a climate in the villages favorable to loan utilization leading to better productivity, higher production, better recycling of fund and thereby creating an environment for securing development through credit. NABARD has taken the lead with active involvement of commercial banks, co-operative banks, RRBs, State Govt. agencies, NGOs, etc. There are 91 farmers clubs functioning in the state of Assam covering all the districts. They have helped in branch recovery efforts, in deposit mobilization, in awareness generation, in increasing
the credit flow, etc. This programme has to gain more momentum with regard to the involvement of all agencies concerned.

The above mechanisms though workable may not be very successful as seen from recent reports which indicate that there have been cases of willful defaulting of loans advanced through FMCs which has caused a decline in the recovery rate. Since these systems are thrust upon from above, they may lack spontaneity and the real spirit with which these mechanisms were evolved may not be sustainable. Hence, there is every possibility that they may gradually become self-defeating. Therefore, utmost care should be taken to ensure that the essence of such systems is not lost and they are able to function as proper conduit for agricultural credit in the rural areas by meeting the needs of the small and large farmers alike. This will enable farmers in the state to raise productivity levels on their farms.